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Specifications, descriptions and illustrative material contained herein were as accurate as known at the time this publication was approved for printing.

SUN Hydraulics Limited reserves the right to discontinue models at any time, or change prices, specifications or designs without notice or incurring obligation.

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The Sandwich Catalogue

SUN offers the broadest and most comprehensive range of sandwich products in the ISO 03 to ISO 08 interface sizes of any manufacturer. All sandwiches are available in a choice of materials; aluminium for 210 bar operation and SG iron for 350 bar operation. Many sandwich products are also available in both standard and high capacity versions.

The SUN Hydraulics Sandwich Catalogue contains more than 300 pages of ISO 03, 05, 07, and 08 sandwich bodies, side-ported and rear-ported subplates, and one- to five-station bar manifolds. Sandwiches are available with single cavities, dual cavities, and multiple cavity variants to make unique circuit elements for mounting under standard directional control valves.

Products are catalogued by ISO/CETOP interface pattern and function, with ISO 03 bodies appearing first, followed by ISO 05, ISO 05 with x and y ports (European and U.S.), ISO 07, and ISO 08 bodies. Within each ISO interface pattern, products are catalogued by function.

Because SUN's ISO 03 sandwich bodies are designed for multi-functional use, you will see the same three letter model code appear in different functional areas. To achieve multi-functional usage, SUN ISO 03 sandwiches do not conform to the ISO standard stacking height. See page 12.003 in the Technical Tip Section for a more detailed explanation of ISO 03 sandwiches.

Technical Tips

The Technical Tip section, starting on page 12.003, provides detailed information on SUN sandwich products. The material presented in this section explains how to order and orient SUN sandwiches in a stack, and when and how to order seal plates. There is also information for ordering studkits for ISO 03 and 05 sandwiches.

Sandwich Locator (See Figure 1)

The Sandwich Body Locator on pages 12.007 through 12.024 is the easiest way to locate a specific sandwich product in this catalogue. The Locator groups products by function and presents the sandwich model code and stacking height, cavity configuration, and page number for every sandwich, subplate, and bar manifold in this catalogue. Most sandwich model codes are preceded by a typical cartridge model code to present a full valve assembly.

On the left side of each locator page is a pictorial description of a sandwich stack. The P, T, A, and B ports (with appropriate symbols) at the bottom of the page are connected with simulated lines to a directional valve (no centre configuration shown) at the top of the page. The functional schematic renderings shown between the directional valve and P, T, A, and B ports realistically describe how a specific sandwich will function in a stack.

Once a function is selected, available sandwich bodies are listed across the page under the five different ISO/CETOP interface patterns. Simply note the model code for the sandwich you have selected and turn to the referenced page to see detailed information on that product.

Figure 1 Sandwich Locator

ISO/CETOP SANDWICH BODY LOCATOR
ALUMINIUM AND SG IRON
All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridge. In the sixth position of the full model code, the customer must specify the pressure range.

Five different ISO Interface Patterns

Function Description

Function Symbol

Locator Tab

Sequence Valves

Stacking Height

Cavity Configuration

Cartridge Model Code

Sandwich Body Model Code

Page Location of Body in Sandwich Catalogue

Function	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
In To P	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.035	7-2A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.035	7-2A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.162	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.254	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.314
In To A Reverse FF Check	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.035	7-2A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.163	7-2A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.163	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.255	7-17A ESFC-LN-EBUM 445 ESFC-LN-EBUM 445 Pg. 12.315

Figure 2 Sandwich Data Page

ISO 08 SANDWICH BODIES

Aluminium rated to 210 bar and SG Iron rated to 350 bar.
See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page viii.

FUNCTION

Metric Out T

Function Symbol

Function Description

Flow Control Valves

Ø -114.0 -rings (Ø -121.0 -rings)

T-100 Cavity Locating Shoulder Depth 1.5

Metric 1st Angle Projection Symbol

Sandwich Body Model Code

ALUMINIUM		SG IRON	
Mod. Code	Und. P/In	Mod. Code	Und. P/In
IBT		IBT/S	

FUNCTION

Metric Out T (High Capacity)

Cartridge Function Symbol

Flow Control Valves

Ø -114.0 -rings (Ø -121.0 -rings)

T-100 Cavity Locating Shoulder Depth 0.8

Cartridge Table showing Typical Cartridges used with Bodies on this page

ALUMINIUM		SG IRON	
Mod. Code	Und. P/In	Mod. Code	Und. P/In
IBU		IBU/S	

08 FLOW CONTROL

TYPICAL NEEDLE VALVE CARTRIDGE			
Symbol	Description	Symbol	Description
	Fully Adjustable Needle Valve NE%C Page 513		Fixed Orifice, Pressure-Compensated Flow Control FX%A Page 521
	Fully Adjustable Needle Valve with Reverse Free Flow Check NC%B Page 517		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check FC%B Page 523
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow NC%G Page 519		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check FD%G Page 525

Page Location of Cartridge in Cartridge Catalogue

UV Standard Body Catalogue ISBN 978-0-12-350123-8 12.350

►►► Sandwich Data Pages (See Figure 2)

Each sandwich data page presents information in a similar fashion. The function symbol(s) shown on the left part of the page replicate the same description found in the Locator, including the text description. To the right of the symbols, a complete physical description of the sandwich body is presented, including the cavity location and locating shoulder depth. (When the locating shoulder depth is subtracted from the maximum control extension dimension on a cartridge, you are able to calculate the stick-out length for the cartridge.) Convenient tabs on the outer margin of each page denote the ISO interface size and sandwich function for quick reference.

Under the physical sandwich description is a chart providing the sandwich model codes for both aluminium and SG iron versions, and port types and sizes if there are ports in the body. ISO standard interface dimensions can be found on page 14.13 of the catalogue.

At the bottom of most sandwich data pages is a box titled "Typical Cartridges used with Bodies shown above". This box contains cartridge model codes, cartridge function symbols and descriptive text for cartridges used with the sandwiches on a specific page. The key to matching cartridges to sandwich bodies is the SUN cavity. Anytime the cavity configuration of a cartridge matches the cavity configuration of a body, you are guaranteed a physical fit.

Most sandwich data pages show two sandwich bodies with identical cavities. However, sometimes the two bodies will have different cavities, especially in the case where a standard and high capacity sandwich body are shown on

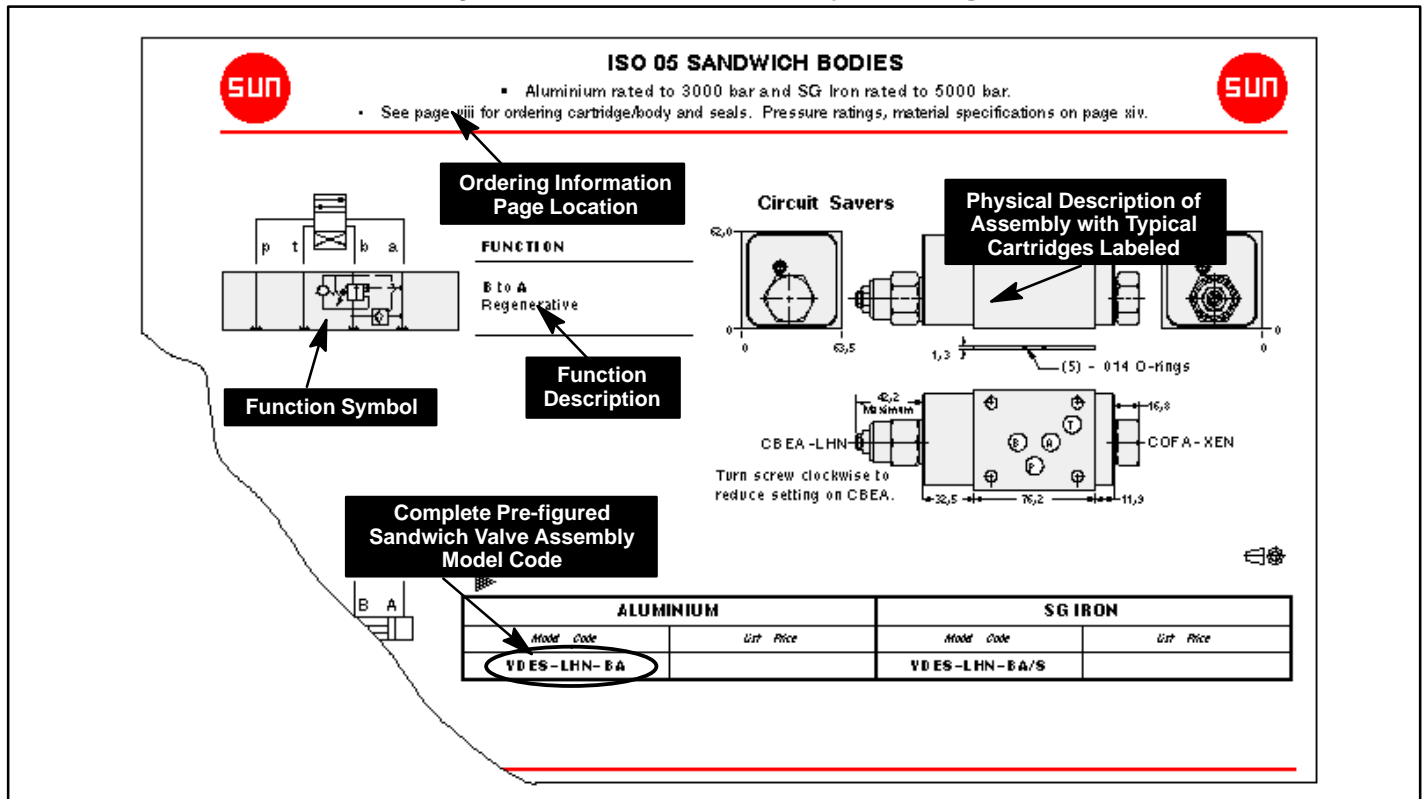
the same page. (To achieve a high capacity sandwich version, SUN often uses the next size larger cartridge.) On these pages, cartridge model codes are shown with an asterisk in the third position. To complete the model code, select the cartridge model that has the identical cavity as the sandwich being used.

SUN Sandwich Valve Assemblies (See Figure 3)

Some sandwich bodies are offered as complete, pre-configured valve assemblies. Sandwich Valve Assemblies typically include at least two different cartridges in the assembly and are designated by a nine-position model code. These product data pages do not include a listing of typical cartridges used as they are complete circuit elements. The cartridges used in the assembly are described with complete model codes in the physical description of the assembly. If you need to change a control or adjustment range on cartridges, please contact your SUN distributor *before* making the change.

Some sandwich valve assemblies include a solenoid valve. The model codes listed on these pages are incomplete, with an * in the eighth position of the model code. To complete the model code, the solenoid connector/voltage option must be selected from page 14.16 at the back of the catalogue or page 50 of SUN's Price List. Once the appropriate option is selected, insert the option code in place of the * and add the option price to the assembly List Price. Please note that all solenoid operated valve assemblies are limited to 210 bar operation.

Figure 3 Sandwich Assembly Data Page






General Information Section

All SUN catalogues contain a general information section for customer reference. This section includes:


- A charted listing, by function, of direct motor mount bodies for Danfoss, Eaton, and Staffa motors.
- Cavity drawings for all SUN cavities in the catalogue with model codes for cavity tooling.
- ISO standard interface dimensions with selected directional valve manufacturers' model codes.

- A listing of field service kits for SUN cartridges.
- Orifice size pressure drop curves to be used when applying flow controls.
- A listing of solenoid connector and voltage options.
- A complete model code alphabetical index for all products in all SUN catalogues. The model code index is organized by Cartridge, Cartridge Accessories, Body (Line Mount and Sandwich), Parts, and Valve Assembly Packages.

Figure 4 (Top to bottom) SUN Cavity Drawing page, ISO/CETOP standard interface page and solenoid connector and voltage options page.

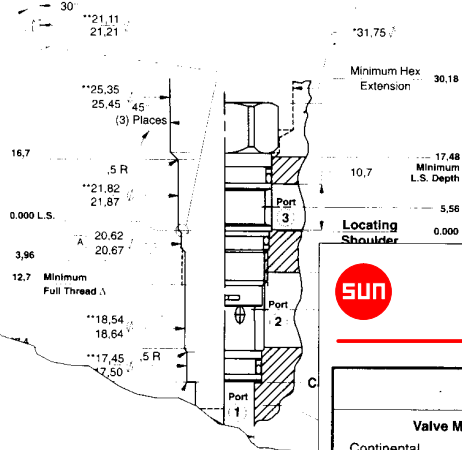


CARTRIDGE CAVITIES AND CAVITY TOOLS
See Sun Price List for Tooling Prices.



3 Port SUN Cavity Series 1, T-11A

****ΔM20 x 1.5-6H Thread**



Socket Wrench Clearance Diameter

Socket Clearance: 31.75 0 mm.*

Recommended Maximum L.S. Depth without Socket Clearance: 23.82.

Minimum Centreline-to-Edge Distance: 15.09.


Minimum Centreline-to-Centreline Distance: 26.97.

Sockets


Deep thin wall hex sockets are the preferred tools to use when installing SUN cartridges are readily available from Snap-On Tools Corporation. (See Chart)

Dimension Tolerances
(unless otherwise specified)

± 0,05 [A] **



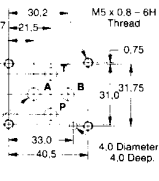
SOLENOID VALVE INTERFACES



ISO 03/NFPA D03

Valve Models

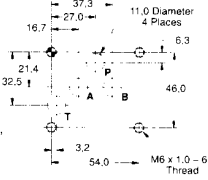
Continental	VSSM, ED03M
Delta	Series 4000
Denison	A-3D01, D2D02-35
Double A	Q* -3
Parker Hannifin	D1VW
Racine	FD4
Rexroth	WE6, 4WRA6
Rivett	65** -03
Rucker/Yuken	DSGR-01, DG4V, SSG01, NG6



ISO 05/NFPA D05

Valve Models

Continental	VS12M, ED05M
Denison	DID04, 3D02, A-D2D04
Double A	Q* -5
Parker Hannifin	D3W
Racine	FD4
Rexroth	WE8, WE10
Rivett	65** -02
Rucker/Yuken	DSG-03
Vickers	DG4S4
Nachi	SSG03, E10, E20
Racine-Bosch	NG10




Electrical Connections for Solenoid Operated

Below is a listing of current optional electrical connections for solenoid operated valve assemblies in the catalog utilize the Waterman solenoid, current operating pressures are limited.

The letter codes listed below are required to complete the model code and pricing of all SUN operated valve assemblies. (See Model Code Explanation in the front of this catalogue.)


WIRE LEADS



18 Gage
0,6 metres Long

J - 12 V DC-24" Leads
K - 24 V DC-24" Leads


CONDUIT



1/2" NPTF
18 Gage
0,6 metres Long

N - 115 V 50/60hz-Conduit
O - 230 V 50/60hz-Conduit

ISO/DIN



DIN 43650
Plug Face

S - 12 V DC ISO/DIN
T - 24 V DC ISO/DIN
M - 115 V 50/60hz ISO/DIN
N - 230 V 50/60hz ISO/DIN

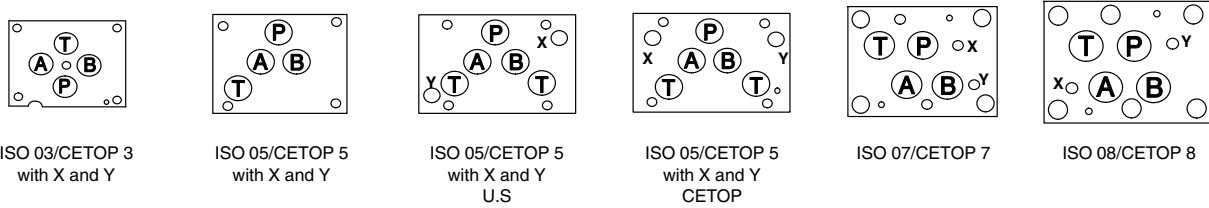
UK Sandwich Body Catalogue 12/94 #999-906-101
CD #999-901-105 Rev. 01-JAN-95

vi



Sandwich Body Technical Tips and Locator

SUN offers sandwich and subplate mounted bodies for most of its cartridge functions. These mounting configurations are complete circuit elements that mount under directional control valves. Similar to other SUN mounting configurations, the sandwich and subplate bodies are available in aluminum and ductile iron material. The sandwich and subplate bodies are available in five different interface patterns as shown below



Mounting of ISO 03 Sandwiches

SUN's ISO 03 sandwich bodies are designed for multi-functional use to permit maximum circuit flexibility. Due to this versatility, the ISO 03 sandwich bodies do not have a counterbore for installing O-ring seals. Instead, SUN uses a special seal plate with a raised "NIB" and a locating "NOTCH". SUN bodies incorporate oversize, symmetrical mounting holes to allow the bodies to be rotated about the "NIB" axis and the longitudinal axis as shown in *Figure 1*.

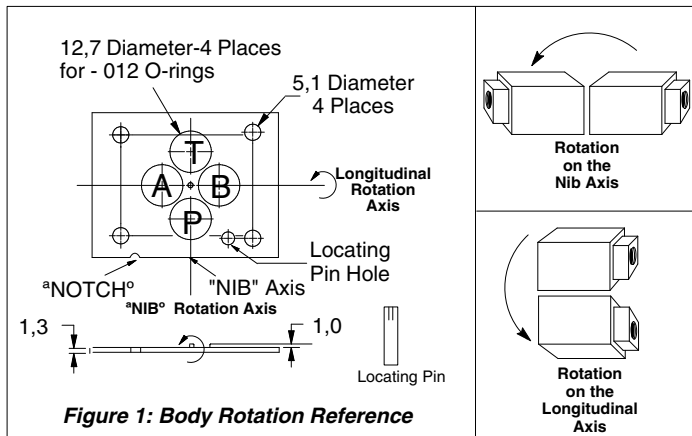


Figure 1: Body Rotation Reference

Rotation about the "NIB" axis enables the "A" and "B" port connections to be interchanged and rotation about the longitudinal axis enables the "P" and "T" ports to be interchanged.

All SUN seal plates are manufactured to current industry standards regarding port and mounting bolt locations. Each SUN D03 sandwich body is supplied with a "NIB" locating hole which is drilled on each mounting face to position the body in the correct relationship to the ports and mounting holes. To further ensure that all bodies are located properly, all ISO 03 sandwich bodies are stamped with an arrow (or arrows) to show the relationship to the notch in the seal plate (see *Figure 2*). Multi-function bodies are "NOTCH" stamped for all possible mounting positions and all positions should be carefully inspected to be sure the intended function is correctly installed.

ISO 03 Sandwich Bodies stamped with numbers to orient body for desired function

The function symbols on the data pages for Sun's ISO 03 sandwich bodies are shown with numbers (1,2,3,4) in the upper right and lower left hand corners. These numbers

correspond to numbers stamped on the face of the bodies and designate the functionality of the product. Because many of these bodies can be used for different functions, the bodies are stamped to help the user orient the body for the function desired.

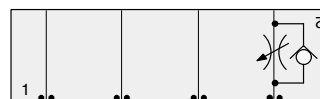
Some bodies can be mounted in four different orientations, as shown in Figure 1A on the facing page. The example below shows GBA on page 12.061. As demonstrated by the function symbols, this single body can be used to achieve four different functions: Meter-in A, Meter-out A, Meter-in B, and Meter-out B. The body drawing only indicates the Meter-out B and Meter-in A orientations because only one face of the body is shown. The Meter-out A and Meter-in B functions are shown in the symbols with the numbers 3 and 4, which correspond to the numbers stamped on the opposite face of the body.

Rotation Example for ISO 03 bodies using subplate GBA (page 12.061).

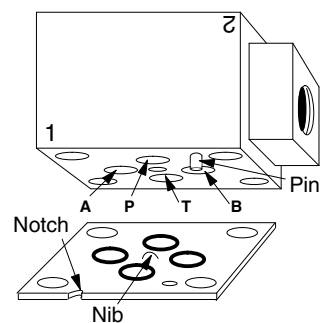
STEP 1

Begin with body view showing stamped number 1 in lower left corner. Note the location of P, T, A, and B ports and the position of the cavity. This position places the P port of the sandwich nearest to the viewer. The sandwich is now oriented for the meter-out B function.

Meter-out B Function



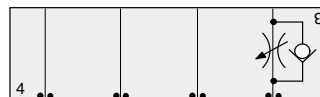
Note that the numbers on the function symbol for GBA correspond to the numbers stamped on the body.



STEP 2

Rotate the sandwich on the longitudinal axis to orient body for meter-in B function.

Meter-in B Function



Note that the numbers on the function symbol for GBA correspond to the numbers stamped on the body.

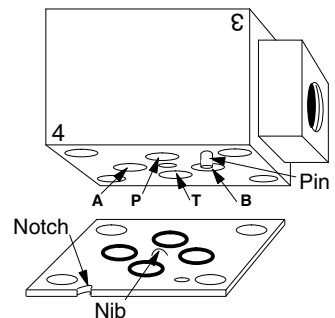
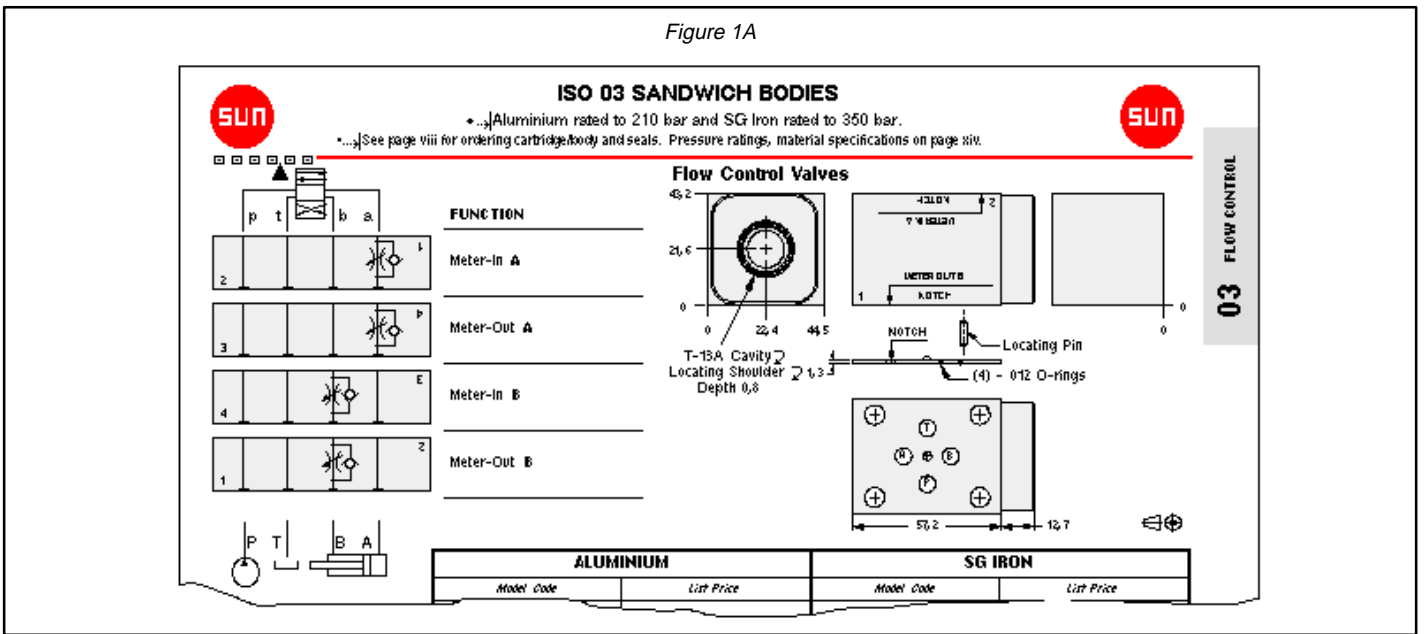


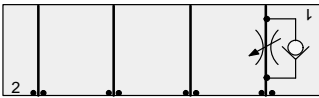
Figure 1A



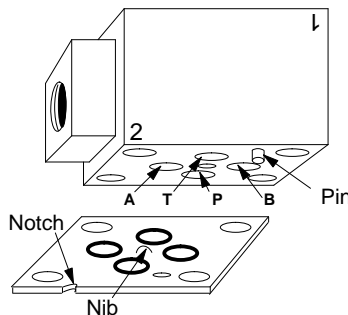
STEP 3

Rotate the sandwich on the **nib axis** to orient body for meter-in A function.

Meter-in A Function



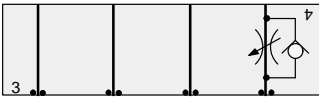
Note that the numbers on the function symbol for GBA correspond to the numbers stamped on the body.



STEP 4

Rotate the sandwich on the **longitudinal axis** to orient body for meter-out A function.

Meter-out A Function



Note that the numbers on the function symbol for GBA correspond to the numbers stamped on the body.

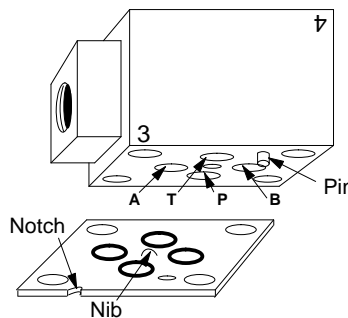
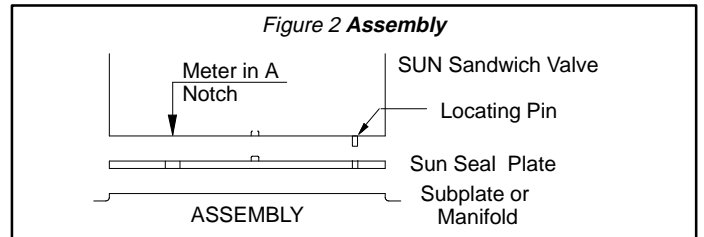


Figure 2 Assembly



NOTE: In every installation, the seal plate nib must be oriented toward the directional control valve and away from the subplate or manifold. All locating "NIBS" in the sandwich valve stack must point in the same direction.

- After determining the correct alignment of the sandwich body to the seal plate, lift the body and plate together, turn the assembly over and locate the correct hole in which to press the locating pin. The locating pin is shipped separately. Press the pin, serrated end first, into the body until it stops. The pin must protrude below the seal plate to positively align with the mounting surface. If a valve stack requires disassembly at anytime, the pin should not be removed. It will simplify the reassembly of the valve stack.
- After all the body alignments have been determined and all pins installed, assemble the valve stack in the required functional order. Make sure all the O-rings are properly positioned. Install the directional control valve on top of the stack and tighten the stud nuts alternately to the proper torque of 55-60 Nm.

Assembly of ISO 03 Sandwiches

- Place the SUN seal plate, with the "NIB" facing upward, in the proper position to correctly align the mounting holes and fluid ports. At this time, the "NOTCH" in the seal plate must be adjacent to the "P" port of the valve interface. See Figure 1.
- Position the SUN sandwich body so that the control "NOTCH" arrow for the required function points to the "NOTCH" in the seal plate. See Figure 2.
- Move the sandwich body as required to engage the "NIB" on the seal plate with the clearance hole in the body.

Mounting ISO 05 Sandwich Bodies

SUN ISO 05 sandwich bodies are available for many mounting configurations. The standard ISO 05/NFPA D05 is offered with two methods of sealing the fluid interface. The sealing method depends on the ability of the body to be rotated about its axis. Sandwich bodies that can be rotated will use a SUN seal plate supplied with the body. Non-rotating bodies will have counterbores machined into the body sealing surface for O-ring placement. The ISO 05 sandwich body can only



TECHNICAL TIPS SANDWICH BODIES



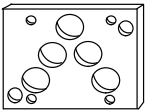
See Sun Price List for Sealkit and Studkit Prices.

be rotated about the “NIB” axis referred to in the ISO 03 sandwich section. There is no “NIB” on the ISO 05 subplate, it is used only for axis reference. Longitudinal axis rotation is not possible due to the lack of symmetry of the fluid ports.

Mounting ISO 05 X,Y Sandwich Bodies

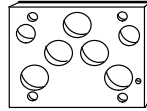
SUN ISO 05 X, Y sandwich bodies are furnished with pilot and drain connections. Due to the differences in the European and U.S. seal plates, none are supplied with these bodies. They must be ordered separately to correctly match the other valve bodies in the stack. See the chart below for various product brands and part number information.

U.S for use with		European (CETOP) for use with	
Double A Parker-Hannifin Racine Dynex Rivett Snap-Tite	Q*-02 D31W FD4-**HS-02 6600-O2H DG02	Rexroth Bosch	WEH 10



Kit #990-120-009

- Includes:
- 1 – 911-008 seal plate
 - 5 – 500-001-014 Buna-N O-rings
 - 2 – 500-001-010 Buna-N O-rings



Kit #990-120-012

- Includes:
- 1 – 991-009 seal plate
 - 5 – 500-001-014 Buna-N O-rings
 - 2 – 500-001-012 Buna-N O-rings

1. Verify that the correct seal plates have been selected (if required) and position the sandwich body so that the fluid ports are correctly aligned and the correct port (A or B) is being controlled.
2. After determining the proper alignment of all the sandwich bodies, assemble the valve stack in the required functional order. Make sure all the O-rings are properly positioned. Install the directional valve and tighten the studnuts alternately to the proper torque of 140-150 Nm.

ISO/CETOP Sandwich Body Locator

- The stack height listed includes the seal plate thickness if applicable.
- All 03 size sandwich bodies include a seal plate.
- 05 size sandwich bodies use either a seal plate (included with the body) or counterbores.
- 05 X and Y size sandwich bodies require that you order the appropriate seal plate.
- 07 size sandwich bodies use either a seal plate (included with the body) or counterbores.
- 08 size sandwich bodies use a counterbore. Seal plates are not required.
- Some Y*** sandwich body part numbers are incomplete in the Locator. Refer to the data page for complete ordering information
- 05 X and Y bodies can be used as 05 bodies. Order ISO 05 Buna-N seal plate Kit #990-111-007.

Studkits for ISO 03 and ISO 05 Sandwich Bodies

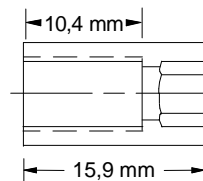
To simplify the installation of ISO 03 and ISO 05 sandwiches, SUN offers uncut (can be cut to length in the field) or precut studkits in both inch and metric standard threaded rod. Once the rods are installed in a subplate or manifold, they act as a guide in assembling the sandwich body stack. After the directional control valve is assembled on top of a stack, SUN studnuts are used to retain the assembled stack.

The inch and metric studrods are both made of high tensile, fully threaded ASTM-A-193 Grade B material with the following mechanical properties:

- 8780 Kg/cm² minimum tensile strength.
- 7380 Kg/cm² minimum yield point.
- 26-32 Rc hardness.

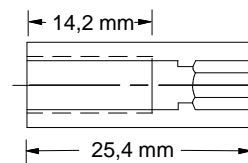
The studnuts are special hex socket nuts with the following features:

- An outside diameter equivalent to a standard socket head cap screw.
- Full thread engagement as shown below.
- Mechanical stop between the internal hex and the thread to prevent the hex wrench from being pushed out of its socket.



Internal Hex Size
5/32" U.S.
4 mm metric

**10-24 (Part #350005) and
M5 (Part #350009) Studnuts**



Internal Hex Size
3/16" U.S.
5 mm metric

**1/4-20 (Part #350004) and
M6 (Part #350008) Studnuts**

ISO 03 Studkits (recommended torque – 55-60 Nm)

Inch Standards

(4) 10-24 Studnuts and (4) approximately 178 mm long 10-24 studrods

Kit # 992011

(4) 10-24 Studnuts and (4) approximately 305 mm long 10-24 studrods

Kit # 992012

(50)10-24 Studnuts and (10) approximately 914 mm long 10-24 studrods

Kit # 992013

(50) 10–24 Studnuts only

Kit # 992550

(4) 10–24 Studnuts and (4) 10–24 studrods cut to customer specified length ($\pm 1,5\text{mm}$)

Kit # 992650

Metric Standards

(4) M5 Studnuts and (4) approximately 178mm long M5 studrods

Kit # 992111

(4) M5 Studnuts and (4) approximately 305mm long M5 studrods

Kit # 992112

(50) M5 Studnuts and (10) approximately 914mm long M5 Studrods

Kit # 992113

(50) M5 Studnuts only

Kit # 992750

(4) M5 Studnuts and (4) M5 studrods cut to customer specified length ($\pm 1,5\text{mm}$)

Kit # 992850

**ISO 05 Studkits
(recommended torque – 140-150 Nm)**

Inch Standards

(4) 1/4–20 Studnuts and (4) approximately 178mm long 1/4–20 studrods

Kit # 992001

(4) 1/4–20 Studnuts and (4) approximately 305mm long 1/4–20 studrods

Kit # 992002

(50) 1/4–20 Studnuts and (10) approximately 914mm long 1/4–20 studrods

Kit # 992500

(50) 1/4–20 Studnuts only

Kit # 992500

(4) 1/4–20 Studnuts and (4) 1/4–20 studrods cut to customer specified length ($\pm 1,5\text{mm}$)

Kit # 992600

Metric Standards

(4) M6 Studnuts and (4) approximately 178mm long M6 studrods

Kit # 992101

(4) M6 Studnuts and (4) approximately 305mm long M6 studrods

Kit # 992102

(50) M6 Studnuts and (10) approximately 914mm long M6 Studrods

Kit # 992103

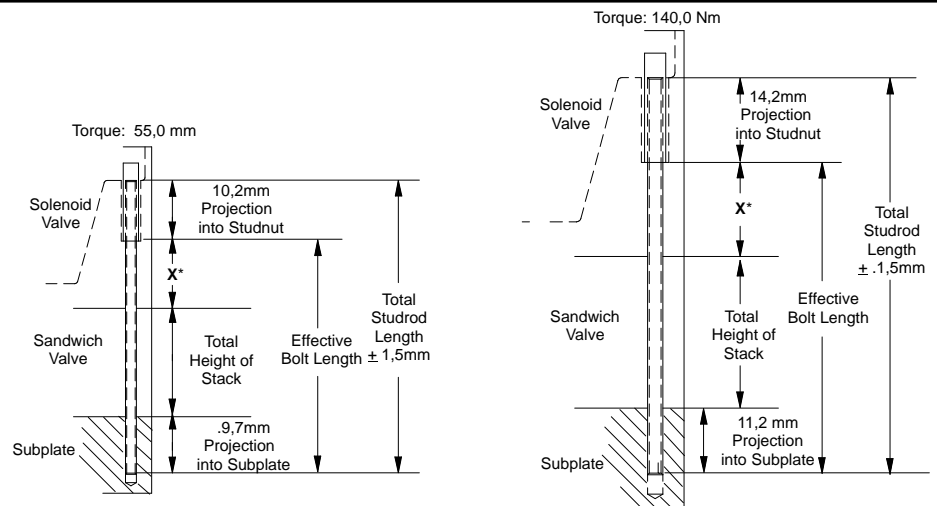
(50) M6 Studnuts only

Kit # 992700

(4) M6 Studnuts and (4) M6 studrods cut to customer specified length ($\pm 1,5\text{mm}$)

Kit # 992800

STUDROD LENGTH DETERMINATION CHART



	ISO 03			ISO 05 and ISO 05 X,Y		
	Model	"X" mm*	"X" inches*	Model	"X" mm*	"X" inches*
Continental	EP03M	15,9	.625	VS12M	33,3	1.31
Continental	VS5M	15,9	.625	EP05M	33,3	1.31
Double A (Vickers)	Q*-3	39,6	1.56	Q*-5	26,7	1.05
Parker-Hannifin	D1VW	38,1	1.50	D3W	48,5	1.91
Racine Bosch	.25NG6	22,1	.87	1/4"	35,1	1.38
Rexroth	4WRA6	32,0	1.26	4WE10,	30,0	1.18
				4WEH10	35,1	1.38
Dynex/Rivett	6500 Series 03	11,2	.44	6500-02	9,7	.38
Vickers/40	DG4V	39,6	1.56	DG4S4	26,7	1.05
Vickers/60	DG4V	21,1	.83	DG4V5	30,0	1.18
Nachi 1	SSG01	36,6	1.44	SSG03,E10,E20	60,5	2.38

* The X dimension was accurate as of the publication date of this catalogue. Verify in the applicable manufacturers literature.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8						
Relief Valves															
					Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	
P to T							T-10A RPEC-L*N-CBE/M 49,3 RPEC-L*N-CBE/T 49,3 Pg. 12.093		T-3A RPGC-L*N-CKP/M 49,8 RPGC-L*N-CKP/T 49,8 Pg. 12.245		T-3A RPGC-L*N-CDP/M 49,3 RPGC-L*N-CDP/T 49,3 Pg. 12.305				
P to T (High Capacity)					T-10A RPEC-L*N-FBP/M 44,5 RPEC-L*N-FBP/T 44,5 Pg. 12.025		T-3A RPGC-L*N-CBP 49,3 RPGC-L*N-CBP/S 49,3 Pg. 12.093		T-3A RPGC-L*N-CJP/M 50,5 RPGC-L*N-CJP/T 50,5 Pg. 12.173		T-16A RPIC-L*N-CDO/M 87,4 RPIC-L*N-CDO/T 87,4 Pg. 12.305				
P to T Externally Vented					T-11A RVCA-L*N-EBC/M 44,5 RVCA-L*N-EBC/T 44,5 Pg. 12.026		T-2A RVEA-L*N-BBC/M 62,0 RVEA-L*N-BBC/T 62,0 Pg. 12.094		T-2A RVEA-L*N-BJC/M 63,2 RVEA-L*N-BJC/T 63,2 Pg. 12.174		T-17A RVGA-L*N-CKQ/M 69,6 RVGA-L*N-CKQ/T 69,6 Pg. 12.246		T-17A RVGA-L*N-HBV/M 87,4 RVGA-L*N-HBV/T 87,4 Pg. 12.306		
P to T N.O. Solenoid Vented					T-10A YRCA-L*N-A 44,5 YRCA-L*N-A/S* 44,5 Pg. 12.027		T-10A YREO-L*N-A 62,0 YREO-L*N-A/S 62,0 Pg. 12.095				T-3A YRFI-L*N-B/M 69,6 YRFI-L*N-B/T 69,6 Pg. 12.247		T-3A YRHI-L*N-A/M 87,4 YRHI-L*N-A/T 87,4 Pg. 12.307		
P to T N.C. Solenoid Vented					T-10A YRCP-L*N-A 44,5 YRCP-L*N-A/S 44,5 Pg. 12.027		T-10A YREP-L*N-A 62,0 YREP-L*N-A/S 62,0 Pg. 12.095				T-3A YRFJ-L*N-B/M 69,6 YRFJ-L*N-B/T 69,6 Pg. 12.247		T-3A YRHJ-L*N-A/M 87,4 YRHJ-L*N-A/T 87,4 Pg. 12.307		
Out of T											T-16A RPIC-L*N-DKT 69,6 RPIC-L*N-DKT/S 69,6 Pg. 12.248		T-16A RPIC-L*N-IBT 87,4 RPIC-L*N-IBT/S 87,4 Pg. 12.308		
Out of T (High Capacity)					T-10A RPEC-L*N-FBT/M 44,5 RPEC-L*N-FBT/T 44,5 Pg. 12.028		T-3A RPGC-L*N-CBT 49,3 RPGC-L*N-CBT/S 49,3 Pg. 12.096				T-18A RPKC-L*N-DKV 88,6 RPKC-L*N-DKV/S 88,6 Pg. 12.248		T-18A RPKC-L*N-IBV 87,4 RPKC-L*N-IBV/S 87,4 Pg. 12.308		
A to T							T-10A RPEC-L*N-CBF/M 49,3 RPEC-L*N-CBF/T 49,3 Pg. 12.097				T-3A RPGC-L*N-CKA/M 49,8 RPGC-L*N-CKA/T 49,8 Pg. 12.249		T-3A RPGC-L*N-CDA/M 49,3 RPGC-L*N-CDA/T 49,3 Pg. 12.309		
A to T (High Capacity)					T-10A RPEC-L*N-FBA/M 44,5 RPEC-L*N-FBA/T 44,5 Pg. 12.029		T-3A RPGC-L*N-CBA 49,3 RPGC-L*N-CBA/S 49,3 Pg. 12.097		T-3A RPGC-L*N-CJA/M 50,5 RPGC-L*N-CJA/T 50,5 Pg. 12.175			T-16A RPIC-L*N-CDC/M 87,4 RPIC-L*N-CDC/T 87,4 Pg. 12.309			
A to T FF Check T to B					T-10A RPEC-L*N-FB2 44,5 RPEC-L*N-FB2/S 44,5 Pg. 12.030		T-3A RPGC-L*N-CB2 49,3 RPGC-L*N-CB2/S 49,3 Pg. 12.098		T-3A RPGC-L*N-CJ2 63,2 RPGC-L*N-CJ2/S 63,2 Pg. 12.176		T-3A RPGC-L*N-CKJ 49,8 RPGC-L*N-CKJ/S 49,8 Pg. 12.250				
A to B							T-10A RPEC-L*N-CBH/M 37,8 RPEC-L*N-CBH/T 37,8 Pg. 12.099								
A to B (High Capacity)					T-10A RPEC-L*N-FBC/M 44,5 RPEC-L*N-FBC/T 44,5 Pg. 12.031		T-3A RPGC-L*N-CBC 37,1 RPGC-L*N-CBC/S 37,1 Pg. 12.099		T-3A RPGC-L*N-CJC/M 50,5 RPGC-L*N-CJC/T 50,5 Pg. 12.177						
A to T Externally Vented					T-11A RVCA-L*N-EBI/M 44,5 RVCA-L*N-EBI/T 44,5 Pg. 12.032		T-2A RVEA-L*N-BBD/M 62,0 RVEA-L*N-BBD/T 62,0 Pg. 12.100					T-17A RVGA-L*N-HBE/M 87,4 RVGA-L*N-HBE/T 87,4 Pg. 12.310			
A to T N.O. Solenoid Vented							T-10A YREU-L*N-A 63,2 YREU-L*N-A/S 63,2 Pg. 12.101								
A to T N.C. Solenoid Vented							T-10A YRET-L*N-A 63,2 YRET-L*N-A/S 63,2 Pg. 12.101								

Continued on next page.



**Seal plate must be ordered separately. European and U.S. X and Y available.

* Incomplete model number. See catalogue page for order information.

† These bodies do not have a gauge port.

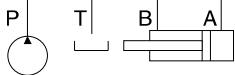
ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8					
Relief Valves (Continued)														
					Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
A and B to T						† T-10A RPEC-L*N-CBD 36,6 RPEC-L*N-CBD/S 36,6 Pg. 12.102								
A and B to T (High Capacity)					† T-10A RPEC-L*N-FBX 44,5 RPEC-L*N-FBX/S 44,5 Pg. 12.033	† T-3A RPGC-L*N-CBX 36,6 RPGC-L*N-CBX/S 36,6 Pg. 12.102	† T-3A RPGC-L*N-CJX 37,8 RPGC-L*N-CJX/S 37,8 Pg. 12.178	† T-3A RPGC-L*N-CKX 69,6 RPGC-L*N-CKX/S 69,6 Pg. 12.251	† T-16A RPIC-L*N-CDZ 87,4 RPIC-L*N-CDZ/S 87,4 Pg. 12.311					
A to B and B to A (Cross-Port)						† T-10A RPEC-L*N-CBI 62,0 RPEC-L*N-CBI/S 62,0 Pg. 12.103	† T-10A RPEC-L*N-CJY 63,2 RPEC-L*N-CJY/S 63,2 Pg. 12.179	† T-10A RPEC-L*N-CKY 49,8 RPEC-L*N-CKY/S 49,8 Pg. 12.252	† T-3A RPGC-L*N-CDY 49,3 RPGC-L*N-CDY/S 49,3 Pg. 12.312					
A to B and B to A (High Capacity) (Cross-Port)					† T-10A RPEC-L*N-FBY 44,5 RPEC-L*N-FBY/S 44,5 Pg. 12.034	† T-3A RPGC-L*N-CBY 62,0 RPGC-L*N-CBY/S 62,0 Pg. 12.103			† T-16A RPIC-L*N-CDW 87,4 RPIC-L*N-CDW/S 87,4 Pg. 12.312					
B to T						T-10A RPEC-L*N-CBG/M 49,3 RPEC-L*N-CBG/T 49,3 Pg. 12.104	T-3A RPGC-L*N-CKB/M 49,8 RPGC-L*N-CKB/T 49,8 Pg. 12.253	T-3A RPGC-L*N-CDB/M 49,3 RPGC-L*N-CDB/T 49,3 Pg. 12.313						
B to T (High Capacity)					T-10A RPEC-L*N-FBA/M 44,5 RPEC-L*N-FBA/T 44,5 Pg. 12.029	† T-3A RPGC-L*N-CBB 49,3 RPGC-L*N-CBB/S 49,3 Pg. 12.104	T-3A RPGC-L*N-CJB/M 50,5 RPGC-L*N-CJB/T 50,5 Pg. 12.180		† T-16A RPIC-L*N-CDD/M 87,4 RPIC-L*N-CDD/T 87,4 Pg. 12.313					
B to T (FF Check to T to A)					† T-10A RPEC-L*N-FB2 44,5 RPEC-L*N-FB2/S 44,5 Pg. 12.030									
B to A						T-10A RPEC-L*N-CBH/M 37,8 RPEC-L*N-CBH/T 37,8 Pg. 12.099								
B to A (High Capacity)					T-10A RPEC-L*N-FBC/M 44,5 RPEC-L*N-FBC/T 44,5 Pg. 12.031	† T-3A RPGC-L*N-CBC 37,1 RPGC-L*N-CBC/S 37,1 Pg. 12.099	T-3A RPGC-L*N-CJC/M 50,5 RPGC-L*N-CJC/T 50,5 Pg. 12.177							
B to T Externally Vented					† T-11A RVCA-L*N-EBI/M 44,5 RVCA-L*N-EBI/T 44,5 Pg. 12.032	† T-2A RVEA-L*N-BBE/M 62,0 RVEA-L*N-BBE/T 62,0 Pg. 12.100			† T-17A RVGA-L*N-HBF/M 87,4 RVGA-L*N-HBF/T 87,4 Pg. 12.310					
B to T N.O. Solenoid Vented							† YREU-LAN-*A 63,2 YREU-LAN-*A/S 63,2 Pg. 12.101							
B to T N.C. Solenoid Vented							† YRET-LAN-*A 63,2 YRET-LAN-*A/S 63,2 Pg. 12.101							



**Seal plate must be ordered separately. European and U.S. X and Y available.

* Incomplete model number. See catalogue page for order information.

† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON

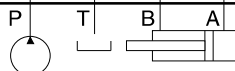


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Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p t b a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Sequence Valves						
	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
In to P	T-11A RSDC-L*N-EBW/M 44,5 RSDC-L*N-EBW/T 44,5 Pg. 12.035	T-2A RSFC-L*N-BB/M 62,0 RSFC-L*N-BB/W/T 62,0 Pg. 12.105	T-2A RSFC-L*N-BJW/M 63,2 RSFC-L*N-BJW/T 63,2 Pg. 12.182	T-17A RSHC-L*N-BKW/M 69,6 RSHC-L*N-BKW/T 69,6 Pg. 12.254	T-17A RSHC-L*N-HBW/M 87,4 RSHC-L*N-HBW/T 87,4 Pg. 12.314	
In to A Reverse FF Check	† T-11A RSDC-L*N-EB4 44,5 RSDC-L*N-EB4/S 44,5 Pg. 12.036	† T-2A RSFC-L*N-BB4 63,2 RSFC-L*N-BB4/S 63,2 Pg. 12.106	† T-2A RSFC-L*N-BJ4 63,2 RSFC-L*N-BJ4/S 63,2 Pg. 12.183	† T-17A RSHC-L*N-BK6 69,6 RSHC-L*N-BK4/S 69,6 Pg. 12.255	† T-17A RSHC-L*N-HB4/T 87,4 RSHC-L*N-HB4/T 87,4 Pg. 12.315	
Out of A Reverse FF Check	† T-11A RSDC-L*N-EB5 44,5 RSDC-L*N-EB5/S 44,5 Pg. 12.036	† T-2A RSFC-L*N-BB5 63,2 RSFC-L*N-BB5/S 63,2 Pg. 12.106	† T-2A RSFC-L*N-BJ5 63,2 RSFC-L*N-BJ5/S 63,2 Pg. 12.183	† T-17A RSHC-L*N-BK6/S 69,6 RSHC-L*N-BK6/S 69,6 Pg. 12.255	† T-17A RSHC-L*N-HB6/T 87,4 RSHC-L*N-HB6/T 87,4 Pg. 12.315	
In to B Reverse FF Check	† T-11A RSDC-L*N-EB5/S 44,5 RSDC-L*N-EB4/S 44,5 Pg. 12.036	† T-2A RSFC-L*N-BB5/S 63,2 RSFC-L*N-BB4/S 63,2 Pg. 12.106	† T-2A RSFC-L*N-BJ5/S 63,2 RSFC-L*N-BJ4/S 63,2 Pg. 12.183	† T-17A RSHC-L*N-BK5/S 69,6 RSHC-L*N-BK7/S 69,6 Pg. 12.256	† T-17A RSHC-L*N-HB5/T 87,4 RSHC-L*N-HB7/T 87,4 Pg. 12.316	
Out of B Reverse FF Check	† T-11A RSDC-L*N-EB4/S 44,5 RSDC-L*N-EB4/S 44,5 Pg. 12.036	† T-2A RSFC-L*N-BB4/S 63,2 RSFC-L*N-BB4/S 63,2 Pg. 12.106	† T-2A RSFC-L*N-BJ4/S 63,2 RSFC-L*N-BJ4/S 63,2 Pg. 12.183	† T-17A RSHC-L*N-BK7/S 69,6 RSHC-L*N-BK7/S 69,6 Pg. 12.256	† T-17A RSHC-L*N-HB7/M 87,4 RSHC-L*N-HB7/T 87,4 Pg. 12.316	
Reducing Valves						
	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
On P Drained to T	T-11A PBDB-L*N-EBP/M 44,5 PBDB-L*N-EBP/T 44,5 Pg. 12.037	T-2A PBFB-L*N-BBP/M 62,0 PBFB-L*N-BBP/T 62,0 Pg. 12.107	T-2A PBFB-L*N-BJP/M 63,2 PBFB-L*N-BJP/T 63,2 Pg. 12.184	T-17A PBHB-L*N-BKP/M 69,6 PBHB-L*N-BKP/T 69,6 Pg. 12.257	T-17A PBHB-L*N-HBP/M 87,4 PBHB-L*N-HBP/T 87,4 Pg. 12.317	
On P Drained to T (High Capacity)		T-17A PBHB-L*N-WCC/M 100,0 PBHB-L*N-WCC/T 100,0 NOT CATALOGUED			T-19A PBJB-L*N-HBO/M 87,4 PBJB-L*N-HBO/T 87,4 Pg. 12.317	
On P Drained Externally	† T-11A PBDB-L*N-EBQ/M 44,5 PBDB-L*N-EBQ/T 44,5 Pg. 12.038	T-2A PBFB-L*N-BBQ/M 63,2 PBFB-L*N-BBQ/T 63,2 Pg. 12.108		T-17A PBHB-L*N-BKQ/M 69,6 PBHB-L*N-BKQ/T 69,6 Pg. 12.258	T-19A PBJB-L*N-HBQ/M 87,4 PBJB-L*N-HBQ/T 87,4 Pg. 12.318	
On A Drained to B	T-11A PBDB-L*N-EBA/M 44,5 PBDB-L*N-EBA/T 44,5 Pg. 12.039	T-2A PBFB-L*N-BBA/M 49,3 PBFB-L*N-BBA/T 49,3 Pg. 12.109	T-2A PBFB-L*N-BJA/M 63,2 PBFB-L*N-BJA/T 63,2 Pg. 12.185	T-17A PBHB-L*N-BKA 69,6 PBHB-L*N-BKA/S 69,6 Pg. 12.259	† T-17A PBHB-L*N-HBL 87,4 PBHB-L*N-HBL/S 87,4 Pg. 12.319	
On A Drained to B (High Capacity)					† T-19A PBJB-L*N-HBA 87,4 PBJB-L*N-HBA/S 87,4 Pg. 12.319	
On A Drained Externally	† T-11A PBDB-L*N-EBD/M 44,5 PBDB-L*N-EBD/T 44,5 Pg. 12.040	† T-2A PBFB-L*N-BBF/M 63,2 PBFB-L*N-BBF/T 63,2 Pg. 12.110		† T-17A PBHB-L*N-BKC/M 69,6 PBHB-L*N-BKC/T 69,6 Pg. 12.260	† T-17A PBHB-L*N-HBG/M 87,4 PBHB-L*N-HBG/T 87,4 NOT CATALOGUED	
On A Drain to T Reverse FF Check	† T-11A PBDB-L*N-EB2 44,5 PBDB-L*N-EB2/S 44,5 Pg. 12.041	† T-2A PBFB-L*N-BB2 63,2 PBFB-L*N-BB2/S 63,2 Pg. 12.111	† T-2A PBFB-L*N-BJ2 63,2 PBFB-L*N-BJ2/S 63,2 Pg. 12.186	† T-17A PBHB-L*N-BK2 69,6 PBHB-L*N-BK2/S 69,6 Pg. 12.261	† T-17A PBHB-L*N-HBK/M 87,4 PBHB-L*N-HBK/T 87,4 Pg. 12.320	
On B Drained to A	T-11A PBDB-L*N-EBA/M 44,5 PBDB-L*N-EBA/T 44,5 Pg. 12.039	T-2A PBFB-L*N-BBB/M 49,3 PBFB-L*N-BBB/T 49,3 Pg. 12.112	T-2A PBFB-L*N-BJB/M 63,2 PBFB-L*N-BJB/T 63,2 Pg. 12.187	† T-17A PBHB-L*N-BKB 69,6 PBHB-L*N-BKB/S 69,6 Pg. 12.262	† T-17A PBHB-L*N-HBM 87,4 PBHB-L*N-HBM/S 87,4 Pg. 12.321	
On B Drained to A (High Capacity)					† T-19A PBJB-L*N-HBB 87,4 PBJB-L*N-HBB/S 87,4 Pg. 12.321	

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† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Reducing Valves (Continued)									
On B Drained Externally					Cartridge Body: T-11A Stack Height: 44,5 PBDB-L*N-EBD/M 44,5 PBDB-L*N-EBD/T 44,5 Pg. 12.040	Cartridge Body: T-2A Stack Height: 63,2 PBFB-L*N-BBG/M 63,2 PBFB-L*N-BBG/T 63,2 Pg. 12.110			
On B Drain to T Reverse FF Check					† T-11A PBDB-L*N-EB3 44,5 PBDB-L*N-EB3/S 44,5 Pg. 12.041	† T-2A PBFB-L*N-BB3 63,2 PBFB-L*N-BB3/S 63,2 Pg. 12.111	† T-2A PBFB-L*N-BJ3 63,2 PBFB-L*N-BJ3/S 63,2 Pg. 12.186	† T-17A PBHB-L*N-BKJ 69,6 PBHB-L*N-BKJ/S 69,6 Pg. 12.261	† T-17A PBHB-L*N-HBJ/M 87,4 PBHB-L*N-HBJ/T 87,4 Pg. 12.320
On A and B Drains to Opposite Port					† T-11A PBDB-L*N-EBY 44,5 PBDB-L*N-EBY/S 44,5 Pg. 12.042	† T-2A PBFB-L*N-BBY 49,3 PBFB-L*N-BBY/S 49,3 Pg. 12.113	† T-2A PBFB-L*N-BJY 63,2 PBFB-L*N-BJY/S 63,2 Pg. 12.188	† T-17A PBHB-L*N-BKY 69,6 PBHB-L*N-BKY/S 69,6 Pg. 12.263	† T-17A PBHB-L*N-HBN 87,4 PBHB-L*N-HBN/S 87,4 Pg. 12.322
On A and B Drains to Opposite Port (High Capacity)									† T-19A PBJB-L*N-HBY 87,4 PBJB-L*N-HBY/S 87,4 Pg. 12.322
On A and B Drains to T Reverse FF Check					† T-11A PBDB-L*N-EB9 63,2 PBDB-L*N-EB9/S 63,2 NOT CATALOGUED	† T-2A PBFB-L*N-BB9 75,9 PBFB-L*N-BB9/S 75,9 NOT CATALOGUED	† T-2A PBFB-L*N-BJ9 75,9 PBFB-L*N-BJ9/S 75,9 NOT CATALOGUED		
Reducing/Relieving Valves									
On P Tank to T Drained to T					† T-11A PPDB-L*N-EBP/M 44,5 PPDB-L*N-EBP/T 44,5 Pg. 12.043	† T-2A PPFB-L*N-BBP/M 62,0 PPFB-L*N-BBP/T 62,0 Pg. 12.114	† T-2A PPFB-L*N-BJP/M 63,2 PPFB-L*N-BJP/T 63,2 Pg. 12.189	† T-17A PPHB-L*N-BKP/M 69,6 PPHB-L*N-BKP/T 69,6 Pg. 12.264	† T-17A PPHB-L*N-HBP/M 87,4 PPHB-L*N-HBP/T 87,4 Pg. 12.323
On P Tank to T Drained to T (High Capacity)						† T-17A PPHB-L*N-WCC/M 100,0 PPHB-L*N-WCC/T 100,0 Pg. 12.114			† T-19A PPJB-L*N-HBO/M 87,4 PPJB-L*N-HBO/T 87,4 Pg. 12.323
On P Tank to T Vented Externally					† T-21A PVDB-L*N-MBP/M 44,5 PVDB-L*N-MBP/T 44,5 Pg. 12.044	† T-22A PVFB-L*N-NBP/M 63,2 PVFB-L*N-NBP/T 63,2 Pg. 12.115	† T-22A PVFB-L*N-NJP/M 63,2 PVFB-L*N-NJP/T 63,2 Pg. 12.190		† T-23A PVHB-L*N-NBP/M 87,4 PVHB-L*N-NBP/T 87,4 Pg. 12.324
On P Tank to T Drained Externally					† T-21A PVDA-L*N-MBP/M 44,5 PVDA-L*N-MBP/T 44,5 Pg. 12.044	† T-22A PVFA-L*N-NBP/M 63,2 PVFA-L*N-NBP/T 63,2 Pg. 12.115	† T-22A PVFA-L*N-NJP/M 63,2 PVFA-L*N-NJP/T 63,2 Pg. 12.190		† T-23A PVHA-L*N-NBP/M 87,4 PVHA-L*N-NBP/T 87,4 Pg. 12.324
On P Tank to T N.O. Solenoid on Drain					† YPCG-LAN-*A 44,5 YPCG-LAN-*A/S 44,5 NOT CATALOGUED	† YPDG-LAN-*A 63,2 YPDG-LAN-*A/S 63,2 Pg. 12.116			
On P Tank to T N.C. Solenoid on Drain					† YPCH-LAN-*A 44,5 YPCH-LAN-*A/S 44,5 NOT CATALOGUED	† YPDH-LAN-*A 63,2 YPDH-LAN-*A/S 63,2 Pg. 12.116			
On A Tank to B Drained to B					† T-11A PPDB-L*N-EBA/M 44,5 PPDB-L*N-EBA/T 44,5 Pg. 12.045	† T-2A PPFB-L*N-BBA/M 49,3 PPFB-L*N-BBA/T 49,3 Pg. 12.117	† T-2A PPFB-L*N-BJA/M 63,2 PPFB-L*N-BJA/T 63,2 Pg. 12.191	† T-17A PPHB-L*N-BKA 69,6 PPHB-L*N-BKA/S 69,6 Pg. 12.265	† T-17A PPHB-L*N-HBL 87,4 PPHB-L*N-HBL/S 87,4 Pg. 12.325
On A Tank to B Drained to B (High Capacity)									† T-19A PPJB-L*N-HBA 87,4 PPJB-L*N-HBA/S 87,4 Pg. 12.325
On A Tank to T Drained to T Reverse FF Check					† T-11A PPDB-L*N-EB2 44,5 PPDB-L*N-EB2/S 44,5 Pg. 12.046	† T-2A PPFB-L*N-BB2 63,2 PPFB-L*N-BB2/S 63,2 Pg. 12.118	† T-2A PPFB-L*N-BJ2 63,2 PPFB-L*N-BJ2/S 63,2 Pg. 12.192	† T-17A PPHB-L*N-BK2 69,6 PPHB-L*N-BK2/S 69,6 Pg. 12.266	† T-17A PPHB-L*N-HBK/M 87,4 PPHB-L*N-HBK/T 87,4 Pg. 12.326

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† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



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Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p t b a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8

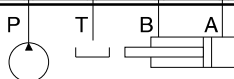
Reducing/Relieving Valves (Continued)

	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
On A tank to T Vented Externally Reverse FF Check	† T-21A PVDB-L*N-MB2/M 62.0 PVDB-L*N-MB2/T 62.0 NOT CATALOGUED	62.0	† T-22A PVFB-L*N-NB2/M 75.9 PVFB-L*N-NB2/T 75.9 Pg. 12.119	75.9	† T-22A PVFB-L*N-NJ2/M 75.9 PVFB-L*N-NJ2/T 75.9 Pg. 12.193	75.9				
On A tank to T Drained Externally Reverse FF Check	† T-21A PVDA-L*N-MB2/M 62.0 PVDA-L*N-MB2/T 62.0 NOT CATALOGUED	62.0	† T-22A PVFA-L*N-NB2/M 75.9 PVFA-L*N-NB2/T 75.9 Pg. 12.119	75.9	† T-22A PVFA-L*N-NJ2/M 75.9 PVFA-L*N-NJ2/T 75.9 Pg. 12.193	75.9				
On B Tank to A Drained to A	T-11A PPDB-L*N-EBA/M 44.5 PPDB-L*N-EBA/T 44.5 Pg. 12.045	44.5	T-2A PPFB-L*N-BB3/M 49.3 PPFB-L*N-BB3/T 49.3 Pg. 12.120	49.3	T-2A PPFB-L*N-BJ3/M 63.2 PPFB-L*N-BJ3/T 63.2 Pg. 12.194	63.2	† T-17A PPHB-L*N-BKB 69.6 PPHB-L*N-BKB/S 69.6 Pg. 12.267		† T-17A PPHB-L*N-HBM 87.4 PPHB-L*N-HBM/S 87.4 Pg. 12.327	87.4
On B Tank to A Drained to A (High Capacity)									† T-19A PPJB-L*N-HBB 87.4 PPJB-L*N-HBB/S 87.4 Pg. 12.327	87.4
On B Tank to T Drained to T Reverse FF Check	† T-11A PPDB-L*N-EB3 44.5 PPDB-L*N-EB3/S 44.5 Pg. 12.046	44.5	† T-2A PPFB-L*N-BB3 63.2 PPFB-L*N-BB3/S 63.2 Pg. 12.118	63.2	† T-2A PPFB-L*N-BJ3 63.2 PPFB-L*N-BJ3/S 63.2 Pg. 12.192	63.2	† T-17A PPHB-L*N-BKJ 69.6 PPHB-L*N-BKJ/S 69.6 Pg. 12.266		† T-17A PPHB-L*N-HBJ/M 87.4 PPHB-L*N-HBJ/T 87.4 Pg. 12.326	87.4
On B Tank to T Vented Externally Reverse FF Check	† T-21A PVDB-L*N-MB3/M 62.0 PVDB-L*N-MB3/T 62.0 NOT CATALOGUED	62.0	† T-22A PVFB-L*N-NB3/M 75.9 PVFB-L*N-NB3/T 75.9 Pg. 12.119	75.9	† T-22A PVFB-L*N-NJ3/M 75.9 PVFB-L*N-NJ3/T 75.9 Pg. 12.193	75.9				
On B Tank to T Drained Externally Reverse FF Check	† T-21A PVDA-L*N-MB3/M 62.0 PVDA-L*N-MB3/T 62.0 NOT CATALOGUED	62.0	† T-22A PVFA-L*N-NB3/M 75.9 PVFA-L*N-NB3/T 75.9 Pg. 12.119	75.9	† T-22A PVFA-L*N-NJ3/M 75.9 PVFA-L*N-NJ3/T 75.9 Pg. 12.193	75.9				
On A and B Tanks and Drains to Opposite Port	† T-11A PPDB-L*N-EBY 44.5 PPDB-L*N-EBY/S 44.5 Pg. 12.047	44.5	† T-2A PPFB-L*N-BBY 49.3 PPFB-L*N-BBY/S 49.3 Pg. 12.121	49.3	† T-2A PPFB-L*N-BJY 63.2 PPFB-L*N-BJY/S 63.2 Pg. 12.195	63.2	† T-17A PPHB-L*N-BKY 69.6 PPHB-L*N-BKY/S 69.6 Pg. 12.268		† T-17A PPHB-L*N-HBN 87.4 PPHB-L*N-HBN/S 87.4 Pg. 12.328	87.4
On A and B Tanks and Drains to Opposite Port (High Capacity)									† T-19A PPJB-L*N-HBY 87.4 PPJB-L*N-HBY/S 87.4 Pg. 12.328	87.4
On A and B Tanks and Drains to T Reverse FF Check	† T-11A PPDB-L*N-EB9 63.2 PPDB-L*N-EB9/S 63.2 NOT CATALOGUED	63.2	† T-2A PPFB-L*N-BB9 75.9 PPFB-L*N-BB9/S 75.9 NOT CATALOGUED	75.9	† T-2A PPFB-L*N-BJ9 75.9 PPFB-L*N-BJ9/S 75.9 NOT CATALOGUED	75.9				

Counterbalance Valves

	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
On A Pilot from B	T-11A CBCA-LHN-EBA/M 44.5 CBCA-LHN-EBA/T 44.5 Pg. 12.048	44.5	T-2A CBEA-LHN-BBA/M 49.3 CBEA-LHN-BBA/T 49.3 Pg. 12.122	49.3	T-2A CBEA-LHN-BJA/M 63.2 CBEA-LHN-BJA/T 63.2 Pg. 12.196	63.2	† T-17A CBGA-LHN-BKA 69.6 CBGA-LHN-BKA/S 69.6 Pg. 12.269		† T-17A CBGA-LHN-HBL 87.4 CBGA-LHN-HBL/S 87.4 Pg. 12.329	87.4
On A Pilot from B (High Capacity)									† T-19A CBIA-LHN-HBA 87.4 CBIA-LHN-HBA/S 87.4 Pg. 12.329	87.4
On A Pilot from B Vent to T	† T-21A CWCA-LHN-MBA 44.5 CWCA-LHN-MBA/S 44.5 Pg. 12.049	44.5	† T-22A CWEA-LHN-NBA 63.2 CWEA-LHN-NBA/S 63.2 Pg. 12.123	63.2	† T-22A CWEA-LHN-NJA 63.2 CWEA-LHN-NJA/S 63.2 Pg. 12.197	63.2	† T-23A CWGA-LHN-NKA 89.4 CWGA-LHN-NKA/S 89.4 Pg. 12.270		† T-23A CWGA-LHN-PBA 87.4 CWGA-LHN-PBA/S 87.4 Pg. 12.330	87.4
On A No Pilot Assist	† T-10A RDDA-L*N-FB4 44.5 RDDA-L*N-FB4/S 44.5 Pg. 12.050	44.5	† T-3A RDFA-L*N-CB4 63.2 RDFA-L*N-CB4/S 63.2 Pg. 12.124	63.2	† T-3A RDFA-L*N-CJ4 63.2 RDFA-L*N-CJ4/S 63.2 Pg. 12.198	63.2	† T-16A RDHA-L*N-CK4 69.6 RDHA-L*N-CK4/S 69.6 Pg. 12.271		† T-16A RDHA-L*N-CD4 87.4 RDHA-L*N-CD4/S 87.4 Pg. 12.331	87.4

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ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



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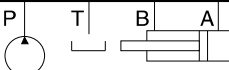
Counterbalance Valves (Continued)

	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
On B Pilot from A	T-11A CBCA-LHN-EBAM 44,5 CBCA-LHN-EBAT 44,5 Pg. 12.048		T-2A CBEA-LHN-BBB/M 49,3 CBEA-LHN-BBB/T 49,3 Pg. 12.125		T-2A CBEA-LHN-BJB/M 63,2 CBEA-LHN-BJB/T 63,2 Pg. 12.199		† T-17A CBGA-LHN-BKB 69,6 CBGA-LHN-BKB/S 69,6 Pg. 12.272		† T-17A CBGA-LHN-HBM 87,4 CBGA-LHN-HBM/S 87,4 Pg. 12.332	
On B Pilot from A (High Capacity)									T-19A CBIA-LHN-HBB 87,4 CBIA-LHN-HBB/S 87,4 Pg. 12.332	
On B Pilot from A Vent to T	† T-21A CWCA-LHN-MBB 44,5 CWCA-LHN-MBB/S 44,5 Pg. 12.049		† T-22A CWEA-LHN-NBB 63,2 CWEA-LHN-NBB/S 63,2 Pg. 12.123		† T-22A CWEA-LHN-NJB 63,2 CWEA-LHN-NJB/S 63,2 Pg. 12.197		† T-23A CWGA-LHN-NKB 89,4 CWGA-LHN-NKB/S 89,4 Pg. 12.270		† T-23A CWGA-LHN-PBB 87,4 CWGA-LHN-PBB/S 87,4 Pg. 12.330	
On B No pilot assist	† T-10A RDDA-L*N-FB4 44,5 RDDA-L*N-FB4/S 44,5 Pg. 12.050		† T-3A RDFA-L*N-CB5 63,2 RDFA-L*N-CB5/S 63,2 Pg. 12.124		† T-3A RDFA-L*N-CJ5 63,2 RDFA-L*N-CJ5/S 63,2 Pg. 12.198		† T-16A RDHA-L*N-CK5 89,4 RDHA-L*N-CK5/S 89,4 Pg. 12.271			
On A and B Cross-Piloted	† T-11A CBCA-LHN-EBY 44,5 CBCA-LHN-EBY/S 44,5 Pg. 12.051		† T-2A CBEA-LHN-BBY 49,3 CBEA-LHN-BBY/S 49,3 Pg. 12.126		† T-2A CBEA-LHN-BJY 63,2 CBEA-LHN-BJY/S 63,2 Pg. 12.200		† T-17A CBGA-LHN-BKY 69,6 CBGA-LHN-BKY/S 69,6 Pg. 12.273		† T-17A CBGA-LHN-HBN 87,4 CBGA-LHN-HBN/S 87,4 Pg. 12.333	
On A and B Cross-Piloted (High Capacity)									† T-19A CBIA-LHN-HBY 87,4 CBIA-LHN-HBY/S 87,4 Pg. 12.333	
On A and B Cross-Piloted Vents to T	† T-21A CWCA-LHN-MBY 44,5 CWCA-LHN-MBY/S 44,5 Pg. 12.052		† T-22A CWEA-LHN-NBY 63,2 CWEA-LHN-NBY/S 63,2 Pg. 12.127		† T-22A CWEA-LHN-NJY 63,2 CWEA-LHN-NJY/S 63,2 Pg. 12.201		† T-23A CWGA-LHN-NKY 89,4 CWGA-LHN-NKY/S 89,4 Pg. 12.274		† T-23A CWGA-LHN-PBY 87,4 CWGA-LHN-PBY/S 87,4 Pg. 12.334	
Cushion Lock Circuit On A and B	† T-11A CBCA-LHN-EB8 63,2 CBCA-LHN-EB8/S 63,2 Pg. 12.053		† T-2A CBEA-LHN-BB8 75,9 CBEA-LHN-BB8/S 75,9 Pg. 12.128		† T-2A CBEA-LHN-BJ8 75,9 CBEA-LHN-BJ8/S 75,9 Pg. 12.202					

Pilot Operated Check Valves

	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
On A Pilot from B	T-11A CKCB-XCN-EBAM 44,5 CKCB-XCN-EBAT 44,5 Pg. 12.054		T-2A CKEB-XCN-BBAM 49,3 CKEB-XCN-BBAT 49,3 Pg. 12.129		T-2A CKEB-XCN-BJAM 63,2 CKEB-XCN-BJAT 63,2 Pg. 12.203		† T-17A CKGB-XCN-BKA 69,6 CKGB-XCN-BKA/S 69,6 Pg. 12.275		† T-17A CKGB-XCN-HBL 87,4 CKGB-XCN-HBL/S 87,4 Pg. 12.335	
On A Pilot from B (High Capacity)									† T-19A CKIB-XCN-HBA 87,4 CKIB-XCN-HBA/S 87,4 Pg. 12.335	
On A Pilot from B Vent to T	† T-21A CVCV-XCN-MBA 44,5 CVCV-XCN-MBA/S 44,5 Pg. 12.055		† T-22A CVEV-XCN-NBA 63,2 CVEV-XCN-NBA/S 63,2 Pg. 12.130		† T-22A CVEV-XCN-NJA 63,2 CVEV-XCN-NJA/S 63,2 Pg. 12.204		† T-23A CVGV-XCN-NKA 89,4 CVGV-XCN-NKA/S 89,4 Pg. 12.276		† T-23A CVGV-XCN-PBA 87,4 CVGV-XCN-PBA/S 87,4 Pg. 12.336	
On B Pilot from A	T-11A CKCB-XCN-EBAM 44,5 CKCB-XCN-EBAT 44,5 Pg. 12.054		T-2A CKEB-XCN-BBB/M 49,3 CKEB-XCN-BBB/T 49,3 Pg. 12.131		T-2A CKEB-XCN-BJB/M 63,2 CKEB-XCN-BJB/T 63,2 Pg. 12.205		† T-17A CKGB-XCN-BKB 69,6 CKGB-XCN-BKB/S 69,6 Pg. 12.277		† T-17A CKGB-XCN-HBM 87,4 CKGB-XCN-HBM/S 87,4 Pg. 12.337	
On B Pilot from A (High Capacity)									† T-19A CKIB-XCN-HBB 87,4 CKIB-XCN-HBB/S 87,4 Pg. 12.337	

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**Seal plate must be ordered separately. European and U.S. X and Y available.

* Incomplete model number. See catalogue page for order information.

† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Pilot Operated Check Valves (Continued)									
On B Pilot from A Vent to T					Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height
					† T-21A CVCV-XCN-MBB 44,5 CVCV-XCN-MBB/S 44,5 Pg. 12.055	† T-22A CVEV-XCN-NBB 63,2 CVEV-XCN-NBB/S 63,2 Pg. 12.130	† T-22A CVEV-XCN-NJB 63,2 CVEV-XCN-NJB/S 63,2 Pg. 12.204	† T-23A CVGV-XCN-NKB 89,4 CVGV-XCN-NKB/S 89,4 Pg. 12.276	† T-23A CVGV-XCN-PBB 87,4 CVGV-XCN-PBB/S 87,4 Pg. 12.336
On A and B Cross-Piloted					† T-11A CKCB-XCN-EBY 44,5 CKCB-XCN-EBY/S 44,5 Pg. 12.056	† T-2A CKEB-XCN-BBY 49,3 CKEB-XCN-BBY/S 49,3 Pg. 12.132	† T-2A CKEB-XCN-BJY 63,2 CKEB-XCN-BJY/S 63,2 Pg. 12.206	† T-17A CKGB-XCN-BKY 69,6 CKGB-XCN-BKY/S 69,6 Pg. 12.278	† T-17A CKGB-XCN-HBN 87,4 CKGB-XCN-HBN/S 87,4 Pg. 12.338
On A and B Cross-Piloted (High Capacity)									† T-19A CKIB-XCN-HBY 87,4 CKIB-XCN-HBY/S 87,4 Pg. 12.338
On A and B Cross-Piloted Vents to T					† T-21A CVCV-XCN-MBY 44,5 CVCV-XCN-MBY/S 44,5 Pg. 12.057	† T-22A CVEV-XCN-NBY 63,2 CVEV-XCN-NBY/S 63,2 Pg. 12.133	† T-22A CVEV-XCN-NJY 63,2 CVEV-XCN-NJY/S 63,2 Pg. 12.207	† T-23A CVGV-XCN-NKY 89,4 CVGV-XCN-NKY/S 89,4 Pg. 12.279	† T-23A CVGV-XCN-PBY 87,4 CVGV-XCN-PBY/S 87,4 Pg. 12.339
Flow Control Valves									
Meter-In P					Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height
					† T-13A NFCC-LCN-GBP 44,5 NFCC-LCN-GBP/S 44,5 Pg. 12.058	† T-5A NFDC-LAN-DBP 62,0 NFDC-LAN-DBP/S 62,0 Pg. 12.134	† T-5A NFDC-LAN-DJP 62,0 NFDC-LAN-DJP/S 62,0 Pg. 12.208	† T-16A NFEC-LCN-DKP 69,6 NFEC-LCN-DKP/S 69,6 Pg. 12.280	† T-16A NFEC-LCN-IBP 87,4 NFEC-LCN-IBP/S 87,4 Pg. 12.340
Meter-In P (High Capacity)					† T-5A NFDC-LAN-GBO 44,5 NFDC-LAN-GBO/S 44,5 Pg. 12.058		† T-16A NFEC-LCN-DJO 63,2 NFEC-LCN-DJO/S 63,2 Pg. 12.208	† T-18A NFFC-LGN-DKO 89,4 NFFC-LGN-DKO/S 89,4 Pg. 12.280	† T-18A NFFC-LGN-IBO 87,4 NFFC-LGN-IBO/S 87,4 Pg. 12.340
Bleed-Off P to T					† T-13A NCCB-LCN-GBQ/M 44,5 NCCB-LCN-GBQ/T 44,5 Pg. 12.059	† T-5A NCEB-LCN-DBQ 49,3 NCEB-LCN-DBQ/S 49,3 Pg. 12.135			† T-16A NCFB-LCN-CDOM 87,4 NCFB-LCN-CDO/T 87,4 Pg. 12.341
Priority Flow on P					† T-11A FRCA-LAN-WBN 44,5 FRCA-LAN-WBN/S 44,5 Pg. 12.060		† T-2A FRDA-LAN-DJN 63,2 FRDA-LAN-DJN/S 63,2 Pg. 12.209		
Meter-In A					† T-13A NCCB-LCN-GBA 44,5 NCCB-LCN-GBA/S 44,5 Pg. 12.061	† T-5A NCEB-LCN-DBB 50,5 NCEB-LCN-DBB/S 50,5 Pg. 12.136	† T-5A NCEB-LCN-DJB 63,2 NCEB-LCN-DJB/S 63,2 Pg. 12.210	† T-16A NCFB-LCN-DKC 69,6 NCFB-LCN-DKC/S 69,6 Pg. 12.281	† T-16A NCFB-LCN-IBC 87,4 NCFB-LCN-IBC/S 87,4 Pg. 12.342
Meter-In A (High Capacity)					† T-5A NCEB-LCN-GBD 44,5 NCEB-LCN-GBD/S 44,5 Pg. 12.061		† T-16A NCFB-LCN-DJC 63,2 NCFB-LCN-DJC/S 63,2 Pg. 12.210	† T-18A NCGB-LCN-DKG 89,4 NCGB-LCN-DKG/S 89,4 Pg. 12.281	† T-18A NCGB-LCN-IBG 87,4 NCGB-LCN-IBG/S 87,4 Pg. 12.342
Meter-Out A					† T-13A NCCB-LCN-GBA 44,5 NCCB-LCN-GBA/S 44,5 Pg. 12.061	† T-5A NCEB-LCN-DBA 50,5 NCEB-LCN-DBA/S 50,5 Pg. 12.137	† T-5A NCEB-LCN-DJA 63,2 NCEB-LCN-DJA/S 63,2 Pg. 12.211	† T-16A NCFB-LCN-DKA 69,6 NCFB-LCN-DKA/S 69,6 Pg. 12.282	† T-16A NCFB-LCN-IBA 87,4 NCFB-LCN-IBA/S 87,4 Pg. 12.343
Meter-Out A (High Capacity)					† T-5A NCEB-LCN-GBD 44,5 NCEB-LCN-GBD/S 44,5 Pg. 12.061		† T-16A NCFB-LCN-DJD 63,2 NCFB-LCN-DJD/S 63,2 Pg. 12.211	† T-18A NCGB-LCN-DKE 89,4 NCGB-LCN-DKE/S 89,4 Pg. 12.282	† T-18A NCGB-LCN-IBE 87,4 NCGB-LCN-IBE/S 87,4 Pg. 12.343
Bleed-Off A to T					† T-13A NCCB-LCN-GBW 44,5 NCCB-LCN-GBW/S 44,5 Pg. 12.062	† T-5A NCEB-LCN-DBC 37,8 NCEB-LCN-DBC/S 37,8 Pg. 12.138			† T-16A NCFB-LCN-CDC/M 87,4 NCFB-LCN-CDC/T 87,4 Pg. 12.344
Bleed-Off A to T (High Capacity)					† T-5A NCEB-LCN-GBE 44,5 NCEB-LCN-GBE/S 44,5 Pg. 12.062				

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**Seal plate must be ordered separately. European and U.S. X and Y available.
† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON

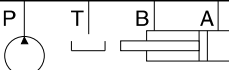


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Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8					
Flow Control Valves (Continued)														
					Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
Priority Flow On A, Bypass to T Reverse FF Check									† T-2A FRDA-XAN-WHY 63,2 FRDA-XAN-WHY/S63,2 Pg. 12.213					
Meter-In B		† T-13A NCCB-LCN-GBA 44,5 NCCB-LCN-GBA/S 44,5 Pg. 12.061	† T-5A NCEB-LCN-DBA 50,5 NCEB-LCN-DBA/S 50,5 Pg. 12.137	† T-5A NCEB-LCN-DJA 63,2 NCEB-LCN-DJA/S 63,2 Pg. 12.211	† T-16A NCFB-LCN-DKD 69,6 NCFB-LCN-DKD/S 69,6 Pg. 12.283	† T-16A NCFB-LCN-IBD 87,4 NCFB-LCN-IBD/S 87,4 Pg. 12.345								
Meter-In B (High Capacity)		† T-5A NCEB-LCN-GBD 44,5 NCEB-LCN-GBD/S 44,5 Pg. 12.061		† T-16A NCFB-LCN-DJE 63,2 NCFB-LCN-DJE/S 63,2 Pg. 12.212	† T-18A NCGB-LCN-DKI 89,4 NCGB-LCN-DKI/S 89,4 Pg. 12.283	† T-18A NCGB-LCN-IBH 87,4 NCGB-LCN-IBH/S 87,4 Pg. 12.345								
Meter-Out B		† T-13A NCCB-LCN-GBA 44,5 NCCB-LCN-GBA/S 44,5 Pg. 12.061	† T-5A NCEB-LCN-DBB 50,5 NCEB-LCN-DBB/S 50,5 Pg. 12.136	† T-5A NCEB-LCN-DJB 63,2 NCEB-LCN-DJB/S 63,2 Pg. 12.210	† T-16A NCFB-LCN-DKB 69,6 NCFB-LCN-DKB/S 69,6 Pg. 12.284	† T-16A NCFB-LCN-IBB 87,4 NCFB-LCN-IBB/S 87,4 Pg. 12.346								
Meter-Out B (High Capacity)		† T-5A NCEB-LCN-GBD 44,5 NCEB-LCN-GBD/S 44,5 Pg. 12.061		† T-16A NCFB-LCN-DJF 63,2 NCFB-LCN-DJF/S 63,2 Pg. 12.212	† T-18A NCGB-LCN-DKF 89,4 NCGB-LCN-DKF/S 89,4 Pg. 12.284	† T-18A NCGB-LCN-IBF 87,4 NCGB-LCN-IBF/S 87,4 Pg. 12.346								
Bleed-Off B to T		† T-13A NCCB-LCN-GBW 44,5 NCCB-LCN-GBW/S 44,5 Pg. 12.062	† T-5A NCEB-LCN-DBC 37,8 NCEB-LCN-DBC/S 37,8 Pg. 12.138			† T-16A NCFB-LCN-CDD/M87,4 NCFB-LCN-CDD/T 87,4 Pg. 12.347								
Bleed-Off B to T (High Capacity)		† T-5A NCEB-LCN-GBE 44,5 NCEB-LCN-GBE/S 44,5 Pg. 12.062												
Priority Flow On B, Bypass to T Reverse FF Check					† T-2A FRDA-XAN-WHZ 63,2 FRDA-XAN-WHZ/S63,2 Pg. 12.213									
Meter-In A and B		† T-13A NCCB-LCN-GBY 44,5 NCCB-LCN-GBY/S 44,5 Pg. 12.063	† T-5A NCEB-LCN-DBY 50,5 NCEB-LCN-DBY/S 50,5 Pg. 12.139	† T-5A NCEB-LCN-DJY 63,2 NCEB-LCN-DJY/S 63,2 Pg. 12.214	† T-16A NCFB-LCN-DKZ 69,6 NCFB-LCN-DKZ/S 69,6 Pg. 12.285	† T-16A NCFB-LCN-IBX 87,4 NCFB-LCN-IBX/S 87,4 Pg. 12.348								
Meter-In A and B (High Capacity)		† T-5A NCEB-LCN-GBZ 44,5 NCEB-LCN-GBZ/S 44,5 Pg. 12.063		† T-16A NCFB-LCN-DJZ 75,9 NCFB-LCN-DJZ/S 75,9 Pg. 12.214	† T-18A NCGB-LCN-DKU 89,4 NCGB-LCN-DKU/S 89,4 Pg. 12.285	† T-18A NCGB-LCN-IBZ 87,4 NCGB-LCN-IBZ/S 87,4 Pg. 12.348								
Meter-Out A and B		† T-13A NCCB-LCN-GBY 44,5 NCCB-LCN-GBY/S 44,5 Pg. 12.063	† T-5A NCEB-LCN-DBY 50,5 NCEB-LCN-DBY/S 50,5 Pg. 12.139	† T-5A NCEB-LCN-DJY 63,2 NCEB-LCN-DJY/S 63,2 Pg. 12.214	† T-16A NCFB-LCN-DKY 69,6 NCFB-LCN-DKY/S 69,6 Pg. 12.286	† T-16A NCFB-LCN-IBW 87,4 NCFB-LCN-IBW/S 87,4 Pg. 12.349								
Meter-Out A and B (High Capacity)		† T-5A NCEB-LCN-GBZ 44,5 NCEB-LCN-GBZ/S 44,5 Pg. 12.063		† T-16A NCFB-LCN-DJZ 75,9 NCFB-LCN-DJZ/S 75,9 Pg. 12.214	† T-18A NCGB-LCN-DKW 89,4 NCGB-LCN-DKW/S 89,4 Pg. 12.286	† T-18A NCGB-LCN-IBY 87,4 NCGB-LCN-IBY/S 87,4 Pg. 12.349								
Bleed-Off A and B to T		† T-13A NCCB-LCN-GBX 44,5 NCCB-LCN-GBX/S 44,5 Pg. 12.064	† T-5A NCEB-LCN-DBX 36,6 NCEB-LCN-DBX/S 36,6 Pg. 12.140	† T-5A NCEB-LCN-DJX 37,8 NCEB-LCN-DJX/S 37,8 Pg. 12.215										
Bleed-Off A and B to T (High Capacity)		† T-5A NCEB-LCN-GBF 44,5 NCEB-LCN-GBF/S 44,5 Pg. 12.064												
Bleed-Off A to B and B to A		† T-13A NFCC-LCN-GBS 31,5 NFCC-LCN-GBS/S 31,5 Pg. 12.065	† T-13A NFCC-LCN-DBS 31,5 NFCC-LCN-DBS/S 31,5 Pg. 12.141	† T-13A NFCC-LCN-DJS 31,5 NFCC-LCN-DJS/S 31,5 Pg. 12.216										

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**Seal plate must be ordered separately. European and U.S. X and Y available.

† These bodies do not have a gauge port.

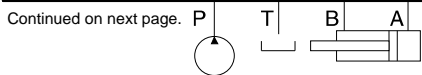
ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Flow Control Valves (Continued)									
Meter-Out T					† Cartridge Body T-13A NCCB-LCN-GBP 44,5 NCCB-LCN-GBP/S 44,5 Pg. 12.058	† Cartridge Body T-5A NCEB-LCN-DBT 49,3 NCEB-LCN-DBT/S 49,3 Pg. 12.142	† Cartridge Body T-5A NCEB-LCN-DJT 63,2 NCEB-LCN-DJT/S 63,2 Pg. 12.217	† Cartridge Body T-16A NCFB-LCN-DKT 69,6 NCFB-LCN-DKT/S 69,6 Pg. 12.287	† Cartridge Body T-16A NCFB-LCN-IBT 87,4 NCFB-LCN-IBT/S 87,4 Pg. 12.350
Meter-Out T (High Capacity)					† Cartridge Body T-5A NCEB-LCN-GBO 44,5 NCEB-LCN-GBO/S 44,5 Pg. 12.058			† Cartridge Body T-18A NCGB-LCN-DKV 89,4 NCGB-LCN-DKV/S 89,4 Pg. 12.287	† Cartridge Body T-18A NCGB-LCN-IBV 87,4 NCGB-LCN-IBV/S 87,4 Pg. 12.350
Check Valves – use only CX*A check valves									
On P					† Cartridge Body T-13A CXDA-XCN-GDP 44,5 CXDA-XCN-GDP/S 44,5 Pg. 12.066	† Cartridge Body T-5A CXFA-XCN-DBP 62,0 CXFA-XCN-DBP/S 62,0 Pg. 12.143	† Cartridge Body T-5A CXFA-XCN-DJP 63,2 CXFA-XCN-DJP/S 63,2 Pg. 12.219	† Cartridge Body T-16A CXHA-XCN-DKP 69,6 CXHA-XCN-DKP/S 69,6 Pg. 12.288	† Cartridge Body T-16A CXHA-XCN-IBP 87,4 CXHA-XCN-IBP/S 87,4 Pg. 12.351
On P (High Capacity)					† Cartridge Body T-5A CXFA-XCN-GDO 44,5 CXFA-XCN-GDO/S 44,5 Pg. 12.066		† Cartridge Body T-16A CXHA-XCN-DJO 63,2 CXHA-XCN-DJO/S 63,2 Pg. 12.219		† Cartridge Body T-18A CXJA-XCN-IBO 87,4 CXJA-XCN-IBO/S 87,4 Pg. 12.351
T to P					† Cartridge Body T-13A CXDA-XAN-GDQ/M 44,5 CXDA-XAN-GDQ/T 44,5 Pg. 12.067				
On A Free Flow Out of Valve					† Cartridge Body T-13A CXDA-XCN-GDA 44,5 CXDA-XCN-GDA/S 44,5 Pg. 12.068	† Cartridge Body T-5A CXFA-XCN-DBK 50,5 CXFA-XCN-DBK/S 50,5 Pg. 12.144	† Cartridge Body T-5A CXFA-XCN-DJK 63,2 CXFA-XCN-DJK/S 63,2 Pg. 12.220	† Cartridge Body T-16A CXHA-XCN-DKC 69,6 CXHA-XCN-DKC/S 69,6 Pg. 12.289	† Cartridge Body T-16A CXHA-XCN-IBC 87,4 CXHA-XCN-IBC/S 87,4 Pg. 12.352
On A Free Flow Out of Valve (High Capacity)					† Cartridge Body T-5A CXFA-XCN-GDD 44,5 CXFA-XCN-GDD/S 44,5 Pg. 12.068		† Cartridge Body T-16A CXHA-XCN-DJC 63,2 CXHA-XCN-DJC/S 63,2 Pg. 12.220	† Cartridge Body T-18A CXJA-XCN-DKG 89,4 CXJA-XCN-DKG/S 89,4 Pg. 12.289	† Cartridge Body T-18A CXJA-XCN-IBG 87,4 CXJA-XCN-IBG/S 87,4 Pg. 12.352
On A Free Flow Into Valve					† Cartridge Body T-13A CXDA-XCN-GDA 44,5 CXDA-XCN-GDA/S 44,5 Pg. 12.068	† Cartridge Body T-5A CXFA-XCN-DBJ 50,5 CXFA-XCN-DBJ/S 50,5 Pg. 12.145	† Cartridge Body T-5A CXFA-XCN-DJJ 63,2 CXFA-XCN-DJJ/S 63,2 Pg. 12.221	† Cartridge Body T-16A CXHA-XCN-DKA 69,6 CXHA-XCN-DKA/S 69,6 Pg. 12.290	† Cartridge Body T-16A CXHA-XCN-IBA 87,4 CXHA-XCN-IBA/S 87,4 Pg. 12.353
On A Free Flow Into Valve (High Capacity)					† Cartridge Body T-5A CXFA-XCN-GDD 44,5 CXFA-XCN-GDD/S 44,5 Pg. 12.068		† Cartridge Body T-16A CXHA-XCN-DJD 63,2 CXHA-XCN-DJD/S 63,2 Pg. 12.221	† Cartridge Body T-18A CXJA-XCN-DKE 89,4 CXJA-XCN-DKE/S 89,4 Pg. 12.290	† Cartridge Body T-18A CXJA-XCN-IBE 87,4 CXJA-XCN-IBE/S 87,4 Pg. 12.353
T to A					† Cartridge Body T-13A CXDA-XAN-GDW 44,5 CXDA-XAN-GDW/S 44,5 Pg. 12.069				
T to A (High Capacity)					† Cartridge Body T-5A CXFA-XAN-GDE 44,5 CXFA-XAN-GDE/S 44,5 Pg. 12.069	† Cartridge Body T-16A CXHA-XAN-DBM 75,9 CXHA-XAN-DBM/S 75,9 NOT CATALOGUED	† Cartridge Body T-16A CXHA-XAN-DJM 75,9 CXHA-XAN-DJM/S 75,9 NOT CATALOGUED	† Cartridge Body T-18A CXJA-XAN-DKM 89,4 CXJA-XAN-DKM/S 89,4 NOT CATALOGUED	† Cartridge Body T-18A CXJA-XAN-IBM 87,4 CXJA-XAN-IBM/S 87,4 NOT CATALOGUED
A to B					† Cartridge Body T-13A CXDA-XAN-GBS 44,5 CXDA-XAN-GBS/S 44,5 Pg. 12.070	† Cartridge Body T-13A CXDA-XAN-DBS 31,5 CXDA-XAN-DBS/S 31,5 Pg. 12.146	† Cartridge Body T-13A CXDA-XAN-DJS 31,5 CXDA-XAN-DJS/S 31,5 Pg. 12.222		
On B Free Flow Out of Valve					† Cartridge Body T-13A CXDA-XCN-GDA 44,5 CXDA-XCN-GDA/S 44,5 Pg. 12.068	† Cartridge Body T-5A CXFA-XCN-DBJ 50,5 CXFA-XCN-DBJ/S 50,5 Pg. 12.145	† Cartridge Body T-5A CXFA-XCN-DJJ 63,2 CXFA-XCN-DJJ/S 63,2 Pg. 12.221	† Cartridge Body T-16A CXHA-XCN-DKD 69,6 CXHA-XCN-DKD/S 69,6 Pg. 12.291	† Cartridge Body T-16A CXHA-XCN-IBD 87,4 CXHA-XCN-IBD/S 87,4 Pg. 12.354
On B Free Flow Out of Valve (High Capacity)					† Cartridge Body T-5A CXFA-XCN-GDD 44,5 CXFA-XCN-GDD/S 44,5 Pg. 12.068		† Cartridge Body T-16A CXHA-XCN-DJE 63,2 CXHA-XCN-DJE/S 63,2 Pg. 12.223	† Cartridge Body T-18A CXJA-XCN-DKI 89,4 CXJA-XCN-DKI/S 89,4 Pg. 12.291	† Cartridge Body T-18A CXJA-XCN-IBH 87,4 CXJA-XCN-IBH/S 87,4 Pg. 12.354



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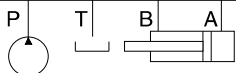
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Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Check Valves – use CX*A check valves (Continued)									
					Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height	Cartridge Body Stack Height
On B Free Flow Into Valve					T-13A CXDA-XCN-GDA 44,5 CXDA-XCN-GDA/S 44,5 Pg. 12.068	T-5A CXFA-XCN-DBK 50,5 CXFA-XCN-DBK/S 50,5 Pg. 12.144	T-5A CXFA-XCN-DJK 63,2 CXFA-XCN-DJK/S 63,2 Pg. 12.220	T-16A CXHA-XCN-DKB 69,6 CXHA-XCN-DKB/S 69,6 Pg. 12.292	T-16A CXHA-XCN-IBB 87,4 CXHA-XCN-IBB/S 87,4 Pg. 12.355
On B Free Flow Into Valve (High Capacity)					T-5A CXFA-XCN-GDD 44,5 CXFA-XCN-GDD/S 44,5 Pg. 12.068		T-16A CXHA-XCN-DJF 63,2 CXHA-XCN-DJF/S 63,2 Pg. 12.223	T-18A CXJA-XCN-DFK 89,4 CXJA-XCN-DFK/S 89,4 Pg. 12.292	T-18A CXJA-XCN-IBF 87,4 CXJA-XCN-IBF/S 87,4 Pg. 12.355
T to B					T-13A CXDA-XAN-GDW 44,5 CXDA-XAN-GDW/S 44,5 Pg. 12.069				
T to B (High Capacity)					T-5A CXFA-XAN-GDE 44,5 CXFA-XAN-GDE/S 44,5 Pg. 12.069	T-16A CXHA-XAN-DBM 75,9 CXHA-XAN-DBM/S 75,9 NOT CATALOGUED	T-16A CXHA-XAN-DJM 75,9 CXHA-XAN-DJM/S 75,9 NOT CATALOGUED	T-18A CXJA-XAN-DKN 89,4 CXJA-XAN-DKN/S 89,4 NOT CATALOGUED	T-18A CXJA-XAN-IBN 87,4 CXJA-XAN-IBN/S 87,4 NOT CATALOGUED
B to A					T-13A CXDA-XAN-GBS 44,5 CXDA-XAN-GBS/S 44,5 Pg. 12.070	T-13A CXDA-XAN-DBS 31,5 CXDA-XAN-DBS/S 31,5 Pg. 12.146	T-13A CXDA-XAN-DJS 31,5 CXDA-XAN-DJS/S 31,5 Pg. 12.222		
B to P (For Regenerative Circuits)					T-13A YDCK-XCN-AA 68,6 YDCK-XCN-AA/S 68,6 Pg. 12.070				
On A and B Free Flow Out of Valve					T-13A CXDA-XCN-GDY 44,5 CXDA-XCN-GDY/S 44,5 Pg. 12.071	T-5A CXFA-XCN-DBL 50,5 CXFA-XCN-DBL/S 50,5 Pg. 12.147	T-5A CXFA-XCN-DJL 63,2 CXFA-XCN-DJL/S 63,2 Pg. 12.224	T-16A CXHA-XCN-DKZ 69,6 CXHA-XCN-DKZ/S 69,6 Pg. 12.293	T-16A CXHA-XCN-IBX 87,4 CXHA-XCN-IBX/S 87,4 Pg. 12.356
On A and B Free Flow Out of Valve (High Capacity)					T-5A CXFA-XCN-GDZ 44,5 CXFA-XCN-GDZ/S 44,5 Pg. 12.071		T-16A CXHA-XCN-DJZ 75,9 CXHA-XCN-DJZ/S 75,9 Pg. 12.224	T-18A CXJA-XCN-DKU 89,4 CXJA-XCN-DKU/S 89,4 Pg. 12.293	T-18A CXJA-XCN-IBZ 87,4 CXJA-XCN-IBZ/S 87,4 Pg. 12.356
On A and B Free Flow Into Valve					T-13A CXDA-XCN-GDY 44,5 CXDA-XCN-GDY/S 44,5 Pg. 12.071	T-5A CXFA-XCN-DBL 50,5 CXFA-XCN-DBL/S 50,5 Pg. 12.147	T-5A CXFA-XCN-DJL 63,2 CXFA-XCN-DJL/S 63,2 Pg. 12.224	T-16A CXHA-XCN-DKY 69,6 CXHA-XCN-DKY/S 69,6 Pg. 12.294	T-16A CXHA-XCN-IBW 87,4 CXHA-XCN-IBW/S 87,4 Pg. 12.357
On A and B Free Flow Into Valve (High Capacity)					T-5A CXFA-XCN-GDZ 44,5 CXFA-XCN-GDZ/S 44,5 Pg. 12.071		T-16A CXHA-XCN-DJZ 75,9 CXHA-XCN-DJZ/S 75,9 Pg. 12.224	T-18A CXJA-XCN-DKW 89,4 CXJA-XCN-DKW/S 89,4 Pg. 12.294	T-18A CXJA-XCN-IBY 87,4 CXJA-XCN-IBY/S 87,4 Pg. 12.357
T to A and B					T-13A CXDA-XAN-GDX 44,5 CXDA-XAN-GDX/S 44,5 Pg. 12.072	T-5A CXFA-XAN-DBW 63,2 CXFA-XAN-DBW/S 63,2 Pg. 12.148	T-5A CXFA-XAN-DJW 63,2 CXFA-XAN-DJW/S 63,2 Pg. 12.225	T-5A CXFA-XAN-DKX 49,8 CXFA-XAN-DKX/S 49,8 NOT CATALOGUED	T-5A CXFA-XAN-CDX 49,3 CXFA-XAN-CDX/S 49,3 Pg. 12.358
T to A and B (High Capacity)					T-5A CXFA-XAN-GDF 44,5 CXFA-XAN-GDF/S 44,5 Pg. 12.072	T-16A CXHA-XAN-DBR 75,9 CXHA-XAN-DBR/S 75,9 NOT CATALOGUED	T-16A CXHA-XAN-DJR 75,9 CXHA-XAN-DJR/S 75,9 NOT CATALOGUED	T-18A CXJA-XAN-DKR 89,4 CXJA-XAN-DKR/S 89,4 NOT CATALOGUED	T-16A CXHA-XAN-CDV 87,4 CXHA-XAN-CDV/S 87,4 Pg. 12.358
On T					T-13A CXDA-XCN-GDP 44,5 CXDA-XCN-GDP/S 44,5 Pg. 12.066	T-5A CXFA-XCN-DBT 49,3 CXFA-XCN-DBT/S 49,3 Pg. 12.149	T-5A CXFA-XCN-DJT 63,2 CXFA-XCN-DJT/S 63,2 Pg. 12.226	T-16A CXHA-XCN-DKT 69,6 CXHA-XCN-DKT/S 69,6 Pg. 12.295	T-16A CXHA-XCN-IBT 87,4 CXHA-XCN-IBT/S 87,4 Pg. 12.359
On T (High Capacity)					T-5A CXFA-XCN-GDO 44,5 CXFA-XCN-GDO/S 44,5 Pg. 12.066				T-18A CXJA-XCN-IBV 87,4 CXJA-XCN-IBV/S 87,4 Pg. 12.359



**Seal plate must be ordered separately. European and U.S. X and Y available.
All bodies on this page do not have a gage port.

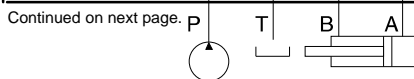
ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Circuit Savers					
Air-Bleed and Start-Up	† T-3A NQEB-XAN-FBOM 44,5 NQEB-XAN-FBOT 44,5 NOT CATALOGUED	† T-3A NQEB-XAN-CBP 49,3 NQEB-XAN-CBP/S 49,3 Pg. 12.150	† T-3A NQEB-XAN-CJPM 50,5 NQEB-XAN-CJPT 50,5 Pg. 12.228	† T-3A NQEB-XAN-CKPM 49,8 NQEB-XAN-CKPT 49,8 Pg. 12.296	† T-3A NQEB-XAN-CDPM 49,3 NQEB-XAN-CDPT 49,3 Pg. 12.360
Pilot Choke	† YNAA-LDN-AA 44,5 YNAA-LDN-AA/S 44,5 Pg. 12.073	† YNAB-LDN-BA 28,2 YNAB-LDN-BA/S 28,2 Pg. 12.151			
Shuttle A and B Output External	† T-13A CSAA-BXN-GBS 31,5 CSAA-BXN-GBS/S 31,5 Pg. 12.074	† T-13A CSAA-BXN-DBS 31,5 CSAA-BXN-DBS/S 31,5 Pg. 12.152	† T-13A CSAA-BXN-DJS 31,5 CSAA-BXN-DJS/S 31,5 Pg. 12.229	† T-13A CSAA-BXN-DKS 30,0 CSAA-BXN-DKS/S 30,0 Pg. 12.297	† T-13A CSAA-BXN-IBS 36,6 CSAA-BXN-IBS/S 36,6 Pg. 12.361
Checks from A and B Output to Y Port			† T-11A CDAB-XBN-BJS 30,2 CDAB-XBN-BJS/S 30,2 Pg. 12.229	† T-11A CDAB-XBN-BKS 30,0 CDAB-XBN-BKS/S 30,0 Pg. 12.297	† T-11A CDAB-XBN-HBS 36,6 CDAB-XBN-HBS/S 36,6 Pg. 12.361
Checks from A and B Adapter to ISO 05 W/Y Port	† T-11A CDAB-XBN-EBS 36,6 CDAB-XBN-EBS/S 36,6 Pg. 12.074	† T-11A CDAB-XBN-BJS 30,2 CDAB-XBN-BJS/S 30,2 Pg. 12.152			
Pressure Compensator (Restrictive)	† YFCG-XHN-AA 44,5 YFCG-XHN-AA/S 44,5 Pg. 12.075	† YFEJ-XHN-BA 63,2 YFEJ-XHN-BA/S 63,2 Pg. 12.153	† YFEK-XHN-BB 63,2 YFEK-XHN-BB/S 63,2 Pg. 12.230	† YFFE-XHN-AB 69,6 YFFE-XHN-AB/S 69,6 Pg. 12.298	† YFIA-XHN-CA 87,4 YFIA-XHN-CA/S 87,4 Pg. 12.362
Pressure Compensator (Restrictive) W/LS Port	† YFCJ-XHN-AA/M 64,8 YFCJ-XHN-AA/T 64,8 Pg. 12.076	† YFEP-XHN-BB/M 63,2 YFEP-XHN-BB/T 63,2 Pg. 12.153	† YFEQ-XHN-BB/M 63,2 YFEQ-XHN-BB/T 63,2 Pg. 12.230	† YFFF-XHN-AB/M 69,6 YFFF-XHN-AB/T 69,6 Pg. 12.298	† YFIB-XHN-CA/M 87,4 YFIB-XHN-CA/T 87,4 Pg. 12.362
Pressure Compensator (Bypass)	† YFCK-XHN-AA 64,8 YFCK-XHN-AA/S 64,8 Pg. 12.075	† YFEV-XHN-BA 63,2 YFEV-XHN-BA/S 63,2 Pg. 12.153	† YFEW-XHN-BB 63,2 YFEW-XHN-BB/S 63,2 Pg. 12.230	† YFFG-XHN-AB 67,6 YFFG-XHN-AB/S 67,6 Pg. 12.298	† YFIC-XHN-CA 87,4 YFIC-XHN-CA/S 87,4 Pg. 12.362
Flow Divider and/or Combiner on A	† T-31A FSCA-XAN-MBJ/M 63,2 FSCA-XAN-MBJ/T 63,2 Pg. 12.075				
Flow Divider and/or Combiner on B	† T-31A FSCA-XAN-MBJ/M 63,2 FSCA-XAN-MBJ/T 63,2 Pg. 12.076				
B to A Regenerative	† YDCA-LHN-AA 44,5 YDCA-LHN-AA/S 44,5 Pg. 12.077	† YDES-LHN-BA 63,2 YDES-LHN-BA/S 63,2 Pg. 12.154	† YDEL-LHN-BB 63,2 YDEL-LHN-BB/S 63,2 Pg. 12.231	† YDFG-LHN-AB 69,6 YDFG-LHN-AB/S 69,6 Pg. 12.299	† YDFF-LHN-CA 87,4 YDFF-LHN-CA/S 87,4 Pg. 12.363
B to A Regenerative (High Capacity)					† YDGF-LHN-CA 87,4 YDGF-LHN-CA/S 87,4 Pg. 12.363
B to A Regenerative (Full Time)	† YDCF-XCN-AA 46,0 YDCF-XCN-AA/S 46,0 Pg. 12.078	† YDET-XCN-BA 63,2 YDET-XCN-BA/S 63,2 Pg. 12.155		† YDFH-XCN-AB 69,6 YDFH-XCN-AB/S 69,6 Pg. 12.300	† YDGH-XCN-CA 87,4 YDGH-XCN-CA/S 87,4 Pg. 12.364



**Seal plate must be ordered separately. European and U.S. X and Y available.
† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON

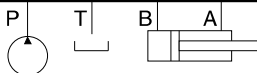


All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8					
Circuit Savers (Continued)														
					Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height	Cartridge Body	Stack Height
A to B Regenerative					YDCA-LHN-AA YDCA-LHN-AA/S Pg. 12.077	44,5 44,5	YDER-LHN-BA YDER-LHN-BA/S Pg. 12.156	63,2 63,2			YDFE-LHN-AB YDFE-LHN-AB/S Pg. 12.301	63,2 63,2	YDFJ-LHN-CA YDFJ-LHN-CA/S Pg. 12.365	87,4 87,4
A to B Regenerative (High Capacity)													YDGE-LHN-CA YDGE-LHN-CA/S Pg. 12.365	87,4 87,4
A to B Regenerative (Full Time)					YDCF-XCN-AA YDCF-XCN-AA/S Pg. 12.078	46,0 46,0	YDEV-XCN-BA YDEV-XCN-BA/S Pg. 12.155	63,2 63,2			YDFI-XCN-AB YDFI-XCN-AB/S Pg. 12.300	69,6 69,6	YDGI-XCN-CA YDGI-XCN-CA/S Pg. 12.364	87,4 87,4
P and A Tap in Manifold					ZVC ZVC/S Pg. 12.079	25,1 25,1	ZVE ZVE/S Pg. 12.157	25,1 25,1						
P and B Tap in Manifold					ZVC ZVC/S Pg. 12.079	25,1 25,1	ZVE ZVE/S Pg. 12.157	25,1 25,1						
P, T, A and B Tap in Manifold							ZKM ZKM/S Pg. 12.157	25,1 25,1					WKF WKF/S NOT CATALOGUED	25,4 25,4
A and B Tap in Manifold					ZVB ZVB/S Pg. 12.079	25,1 25,1	ZVD ZVD/S Pg. 12.158	23,9 23,9						
Swap Block Swaps A and B					ZKX ZKX/S Pg. 12.079	25,1 25,1	ZTB ZTB/S Pg. 12.158	36,6 36,6						
Adapter to Next Smaller Valve Pattern							ZVT ZVT/S Pg. 12.159	36,6 36,6						
ISO 05 to ISO 05 with Dual Tank Ports							ZXC ZXC/S Pg. 12.159	23,9 23,9						
ISO 05 to ISO 05 with X and Y Access to X and Y (Amer)							ZSV/M ZSV/T Pg. 12.160	23,9 23,9						
ISO 05 to ISO 05 with X and Y Access to X and Y (Euro)							ZST/M ZST/T Pg. 12.160	23,9 23,9						
ISO 05 with X and Y Amer to Euro							ZSX ZSX/S Pg. 12.232	25,1 25,1						
ISO 05 with X and Y Euro to Amer							ZSW ZSW/S Pg. 12.232	25,1 25,1						
Bosch L Port to ISO 05 X Port (European)							ZJA ZJA/S Pg. 12.233	24,1 24,1						

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****Seal plate must be ordered separately. European and U.S. X and Y available.**
All bodies on this page do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



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Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

<i>Function</i>	p t b a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8

Circuit Savers (Continued)

		<i>Cartridge Body</i>	<i>Stack Height</i>	<i>Cartridge Body</i>	<i>Stack Height</i>	<i>Cartridge Body</i>	<i>Stack Height</i>	<i>Cartridge Body</i>	<i>Stack Height</i>
ISO 05 X Port (European) to Bosch L Port						ZJB ZJB/S Pg. 12.233	24,1 24,1		

Cover Plates

Counterbored for socket head cap screws. Clamp height and engagement in subplate determines cap screw length.

	<i>Cartridge Body</i>	<i>Clamp Height</i>	<i>Cartridge Body</i>	<i>Clamp Height</i>	<i>Cartridge Body</i>	<i>Clamp Height</i>	<i>Cartridge Body</i>	<i>Clamp Height</i>	<i>Cartridge Body</i>	<i>Clamp Height</i>
All Ports Blocked 	ZJR ZJR/S Pg. 12.090	12,7 12,7			ZJP ZJP/S Pg. 12.241	9,7 9,7				
P to A and B to T 	ZJS ZJS/S Pg. 12.090	12,7 12,7			ZJM ZJM/S Pg. 12.241	9,7 9,7				
P to B and A to T 	ZJT ZJT/S Pg. 12.090	12,7 12,7			ZJJ ZJJ/S Pg. 12.241	9,7 9,7				
P to T A and B blocked 	ZJV ZJV/S Pg. 12.091	12,7 12,7			ZJN ZJN/S Pg. 12.242	9,7 9,7				
A to B P and T blocked 	ZJW ZJW/S Pg. 12.091	12,7 12,7			ZJL ZJL/S Pg. 12.242	9,7 9,7				
P to B A and T blocked 	ZWE ZWE/S Pg. 12.091	12,7 12,7			ZJK ZJK/S Pg. 12.242	9,7 9,7				
P to A and B T blocked 	WJG WJG/S Pg. 12.092	12,7 12,7								

****Seal plate must be ordered separately. European and U.S. X and Y available.**

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



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Function	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8
Side Ported Subplates					
	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height
Relief P to T	T-10A RPEC-L*N-FSU 50,8 RPEC-L*N-FSU/S 50,8 Pg. 12.080	T-10A RPEC-L*N-FSV 49,3 RPEC-L*N-FSV/S 49,3 Pg. 12.161	T-10A RPEC-L*N-ZHV 62,0 RPEC-L*N-ZHV/S 62,0 Pg. 12.234	T-3A RPGC-L*N-ZLZ 49,3 RPGC-L*N-ZLZ/S 49,3 Pg. 12.302	T-3A RPGC-L*N-CSX 49,3 RPGC-L*N-CSX/S 49,3 Pg. 12.366
Relief P to T Check on P	T-10A YRCC-L*N-BU 50,8 YRCC-L*N-BU/S 50,8 Pg. 12.081	T-10A YREJ-L*N-BV 49,3 YREJ-L*N-BV/S 49,3 Pg. 12.162			
Air-Bleed and Start-Up		T-3A NQEB-XAN-CSV 49,3 NQEB-XAN-CSV/S 49,3 Pg. 12.163		T-3A NQEB-XAN-ZLZ 49,3 NQEB-XAN-ZLZ/S 49,3 Pg. 12.302	T-3A NQEB-XAN-CSX 49,3 NQEB-XAN-CSX/S 49,3 Pg. 12.366
Reducing on P	T-11A PBDB-L*N-ESU 50,8 PBDB-L*N-ESU/S 50,8 Pg. 12.083	T-2A PBFB-L*N-BSV 49,3 PBFB-L*N-BSV/S 49,3 Pg. 12.164			T-17A PBHB-L*N-HSX 87,4 PBHB-L*N-HSX/S 87,4 Pg. 12.367
Reducing/ Relieving on P	T-11A PPDB-L*N-ESU 50,8 PPDB-L*N-ESU/S 50,8 Pg. 12.083	T-2A PBFB-L*N-BSV 49,3 PBFB-L*N-BSV/S 49,3 Pg. 12.164			T-17A PPHB-L*N-HSX 87,4 PPHB-L*N-HSX/S 87,4 Pg. 12.367
Bypass Compensator for Proportional Valves	T-11A YFCL-XHN-BU 50,8 YFCL-XHN-BU/S 50,8 Pg. 12.084	T-2A YFES-XHN-BV 50,8 YFES-XHN-BV/S 50,8 Pg. 12.165			
Relief P to T and Bypass Flow Regulator	T-11A YFCS-L*N-BU 50,8 YFCS-L*N-BU/S 50,8 Pg. 12.085	T-2A YFED-LCN-BV 50,8 YFED-LCN-BV/S 50,8 Pg. 12.166			
Relief P to T Regenerative B to A	T-11A YDCG-LAN-BV 63,5 YDCG-LAN-BV/S 63,5 Pg. 12.086	T-2A YDEM-LAN-BW 74,7 YDEM-LAN-BW/S 74,7 Pg. 12.167			
Rear Ported Subplates					
	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height	Cartridge Body Overall Height
Relief P to T	T-10A RPEC-L*N-FRU 50,8 RPEC-L*N-FRU/S 50,8 Pg. 12.080	T-10A RPEC-L*N-FRV 53,8 RPEC-L*N-FRV/S 53,8 Pg. 12.161			T-3A RPGC-L*N-CRX 49,3 RPGC-L*N-CRX/S 49,3 Pg. 12.366
Relief P to T Check on P	T-10A YRCB-LAN-BU 50,8 YRCB-LAN-BU/S 50,8 Pg. 12.081	T-10A YREQ-LAN-BV 49,3 YREQ-LAN-BV/S 49,3 Pg. 12.162			

Continued on next page.

****Seal plate must be ordered separately. European and U.S. X and Y available.**

* Incomplete model number. See catalogue page for order information.

† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



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<i>Function</i>	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with X and Y	ISO 07/CETOP 7	ISO 08/CETOP 8					
Rear Ported Subplates (Continued)										
	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>
Air-Bleed and Start-Up 			T-3A NQEB-XAN-CRV 49,3 NQEB-XAN-CRV/S 49,3 Pg. 12.163				† T-3A NQEB-XAN-CRX 49,3 NQEB-XAN-CRX/S 49,3 Pg. 12.366			
Reducing on P 	T-11A PBDB-L*N-ERU 50,8 PBDB-L*N-ERU/S 50,8 Pg. 12.083		T-2A PFB-L*N-BRV 49,3 PFB-L*N-BRV/S 49,3 Pg. 12.164				T-17A PBHB-L*N-HRX 87,4 PBHB-L*N-HRX/S 87,4 Pg. 12.367			
Reducing/Relieving on P P T B A	T-11A PPDB-L*N-ERU 50,8 PPDB-L*N-ERU/S 50,8 Pg. 12.083		T-2A PFB-L*N-BRV 49,3 PFB-L*N-BRV/S 49,3 Pg. 12.164				T-17A PPHB-L*N-HRX 87,4 PPHB-L*N-HRX/S 87,4 Pg. 12.367			
Side Ported Subplates with Gasket Mount Tank Port										
	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>	<i>Cartridge Body</i>	<i>Overall Height</i>
Relief P to T 	† T-10A RPEC-L*N-FTU 50,8 RPEC-L*N-FTU/S 50,8 Pg. 12.080		† T-10A RPEC-L*N-FTV 49,3 RPEC-L*N-FTV/S 49,3 Pg. 12.161				† T-3A RPGC-L*N-VTG 62,0 RPGC-L*N-VTG/S 62,0 NOT CATALOGUED		† T-3A RPGC-L*N-CTS 49,3 RPGC-L*N-CTS/S 49,3 Pg. 12.366	
Air-Bleed and Start-Up 	T-3A NQEB-XAN-CTU 50,8 NQEB-XAN-CTU/S 50,8 Pg. 12.082		† T-3A NQEB-XAN-CTV 49,3 NQEB-XAN-CTV/S 49,3 Pg. 12.163				† T-3A NQEB-XAN-VTG 62,0 NQEB-XAN-VTG/S 62,0 NOT CATALOGUED		† T-3A NQEB-XAN-CTS 49,3 NQEB-XAN-CTS/S 49,3 Pg. 12.366	
Reducing on P 	T-11A PBDB-L*N-ETU 50,8 PBDB-L*N-ETU/S 50,8 Pg. 12.083		T-2A PFB-L*N-BTV 49,3 PFB-L*N-BTV/S 49,3 Pg. 12.164					T-17A PBHB-L*N-HTX 87,4 PBHB-L*N-HTX/S 87,4 Pg. 12.367		
Reducing/Relieving on P 	T-11A PPDB-L*N-ETU 50,8 PPDB-L*N-ETU/S 50,8 Pg. 12.083		T-2A PFB-L*N-BTV 49,3 PFB-L*N-BTV/S 49,3 Pg. 12.164					T-17A PPHB-L*N-HTX 87,4 PPHB-L*N-HTX/S 87,4 Pg. 12.367		

**Seal plate must be ordered separately. European and U.S. X and Y available.

* Incomplete model number. See catalogue page for order information.

† These bodies do not have a gauge port.

ISO/CETOP SANDWICH BODY LOCATOR ALUMINIUM AND SG IRON



All pages listed below refer to SUN's Sandwich Body Catalogue.

Full model codes are shown with typical cartridges. Other types of cartridges with identical cavity configuration can be used in place of typical cartridges shown. If a * is present in the sixth position of the full model code, the customer must specify the pressure range.

Function	p	t	b	a	ISO 03/CETOP 3	ISO 05/CETOP 5	ISO 05/CETOP 5 with Y Port	ISO 07/CETOP 7	ISO 08/CETOP 8	
							U.S. Version	CETOP Version	with Y Port	with Y Port

Bar Manifolds

	Model	Price	Model	Price	Model	Price	Model	Price	Model	Price	Model	Price	
One Station 	VPA VPA/S		VNA VNA/S		VNW VNW/S		VMR VMR/S		VRT VRT/S		VLJ VLJ/S		VLX VLX/S
	Pg. 12.087		Pg. 12.168		Pg. 12.168		Pg. 12.235		Pg. 12.235		Pg. 12.303		Pg. 12.368
Two Station 	VPB VPB/S		VNB VNB/S		VNX VNX/S		VMT VMT/S		VRV VRV/S		VLK VLK/S		VLY VLY/S
	Pg. 12.088		Pg. 12.169		Pg. 12.169		Pg. 12.236		Pg. 12.236		Pg. 12.304		Pg. 12.369
Three Station 	VPC VPC/S		VNC VNC/S		VNY VNY/S		VMN VMN/S		VRW VRW/S		VLL VLL/S		VLZ VLZ/S
	Pg. 12.088		Pg. 12.170		Pg. 12.170		Pg. 12.239		Pg. 12.237		Pg. 12.304		Pg. 12.369
Four Station 	VPD VPD/S		VND VND/S		VNZ VNZ/S		VMX VMX/S		VRX VRX/S				
	Pg. 12.089		Pg. 12.171		Pg. 12.171		Pg. 12.238		Pg. 12.238				
Five Station 	VPE VPE/S		VNE VNE/S		VMA VNMAS		VMY VMY/S		VRY VRY/S				
	Pg. 12.089		Pg. 12.172		Pg. 12.172		Pg. 12.239		Pg. 12.239				

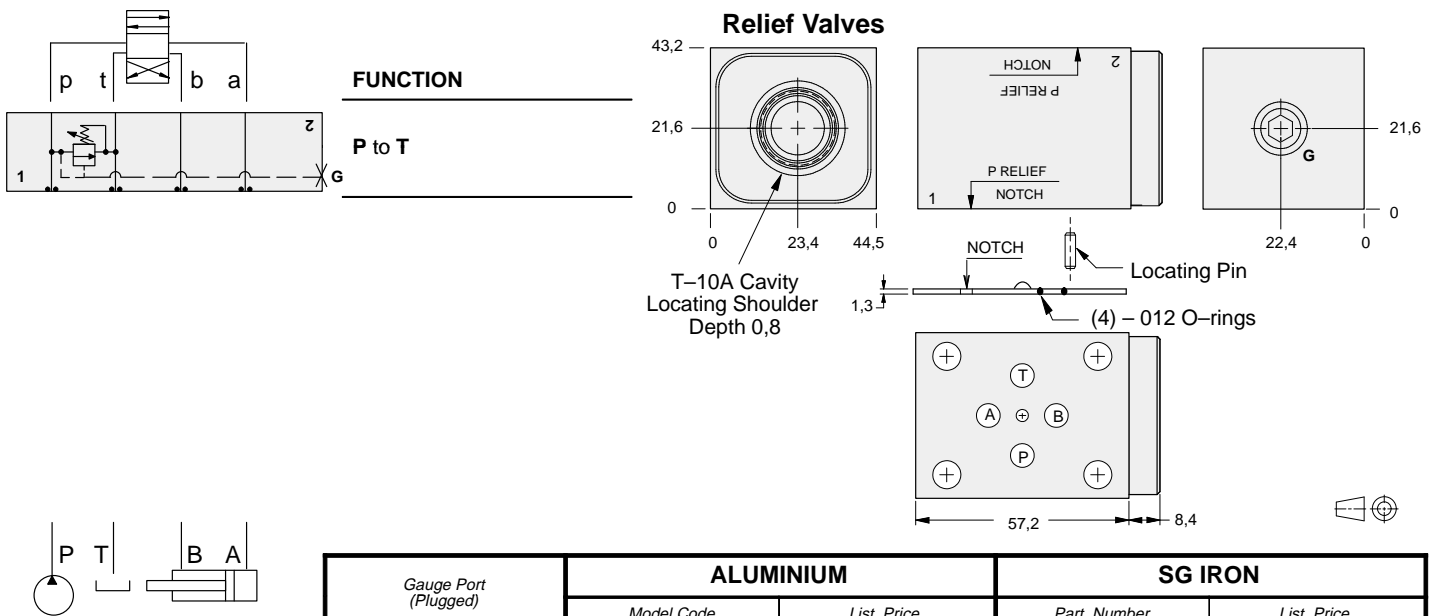
12



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	FBP		FBP/S	
.25 BSPP	FBP/M		FBP/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEC Page 1.06		RQEB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		
	RPEE Page 1.08		
	Direct Acting Relief Valve		
	RDDA Page 1.10		
OTHER VALVES:			

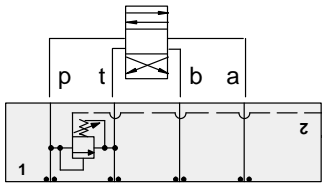


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

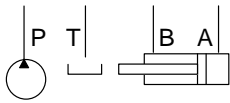
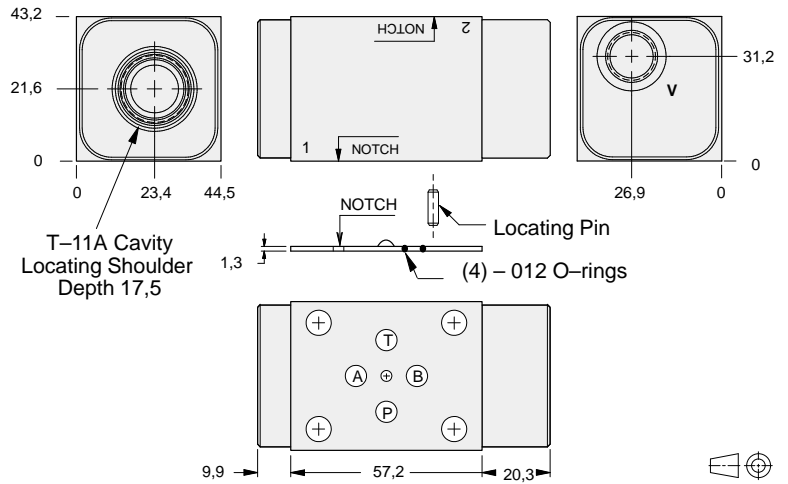
03 RELIEF



FUNCTION

P to T
Externally Vented

Relief Valves



Vent Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	EBC		EBC/S	
.25 BSPP	EBC/M		EBC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

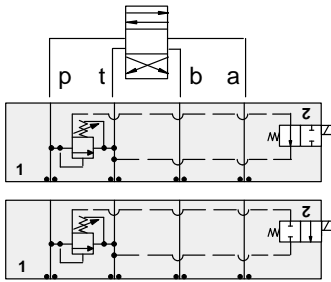
	<i>Pilot Operated Vented Relief Valve</i>		
	RVCA Page 1.18		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

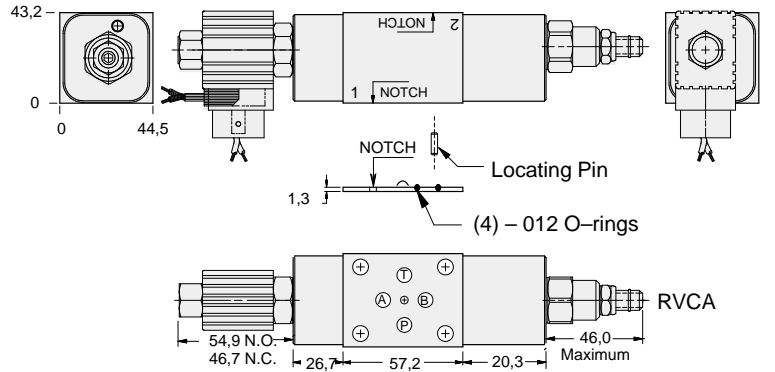


FUNCTION

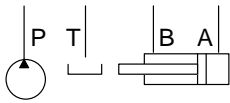
P to T
N.O. Solenoid
Vented *

P to T
N.C. Solenoid
Vented *

Relief Valves



Operating pressure is limited to 210 bar.



Solenoid Type	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
N.O.	YRCO-LAN-*A		YRCO-LAN-*A/S	
N.C.	YRCP-LAN-*A		YRCP-LAN-*A/S	

* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.

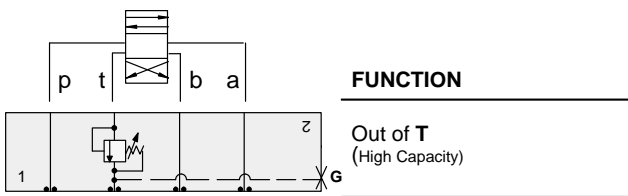


ISO 03 SANDWICH BODIES

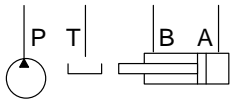
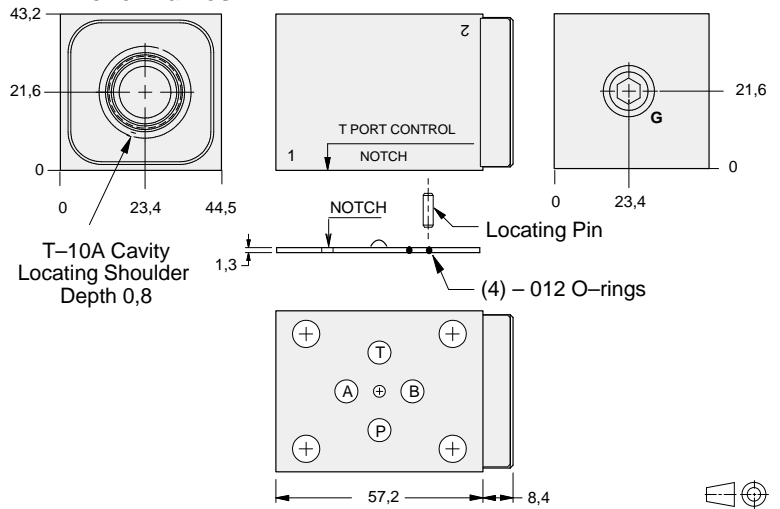


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 RELIEF



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	FBT		FBT/S	
.25 BSPP	FBT/M		FBT/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

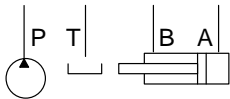
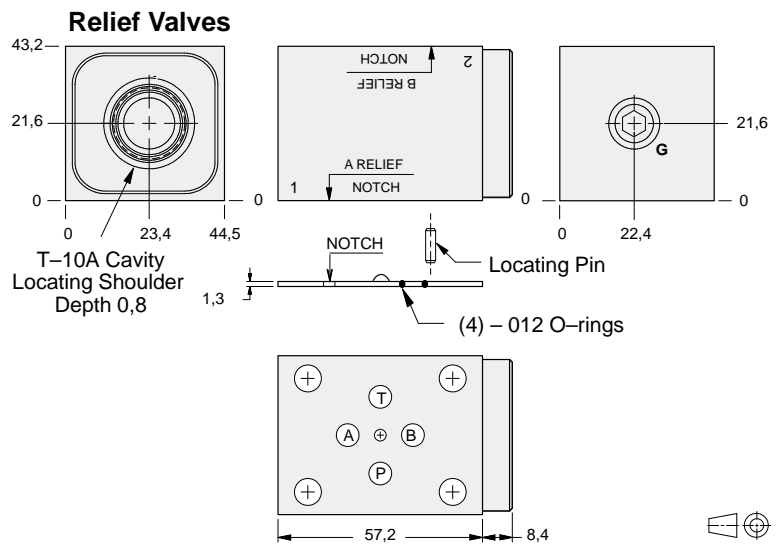
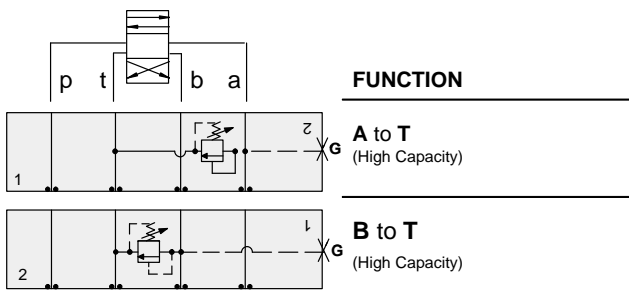
Cartridge Diagram	Valve Type	Page Reference
	Pilot Operated Relief Valve	RPEC Page 1.06
	Pilot Operated, Rapid Response Relief Valve	RPEE Page 1.08
	Direct Acting Relief Valve	RDDA Page 1.10
OTHER VALVES:		



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	FBA		FBA/S	
.25 BSPP	FBA/M		FBA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEC Page 1.06		RQEB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		
	RPEE Page 1.08		
	Direct Acting Relief Valve		
	RDDA Page 1.10		
OTHER VALVES:			

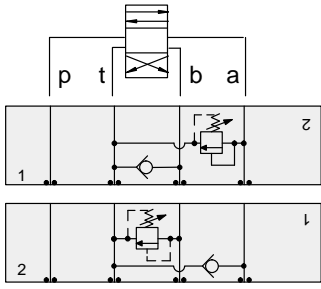


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 RELIEF

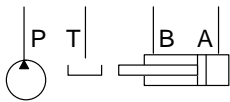
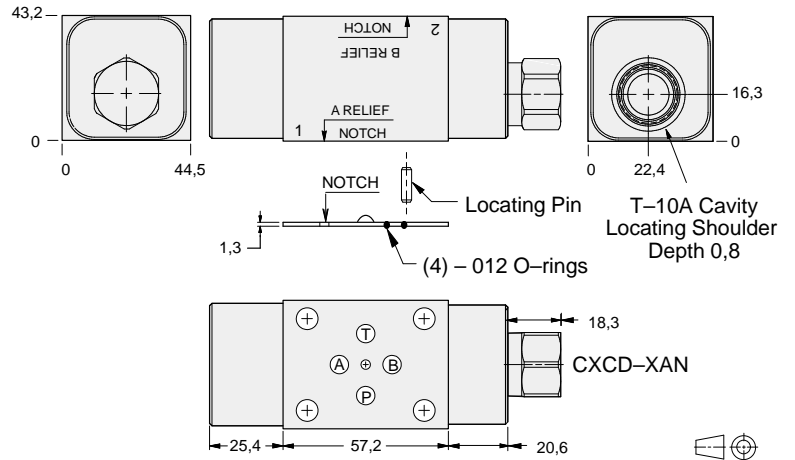


FUNCTION

A to T
FF Check T to B

B to T
FF Check to T to A

Relief Valves

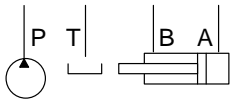
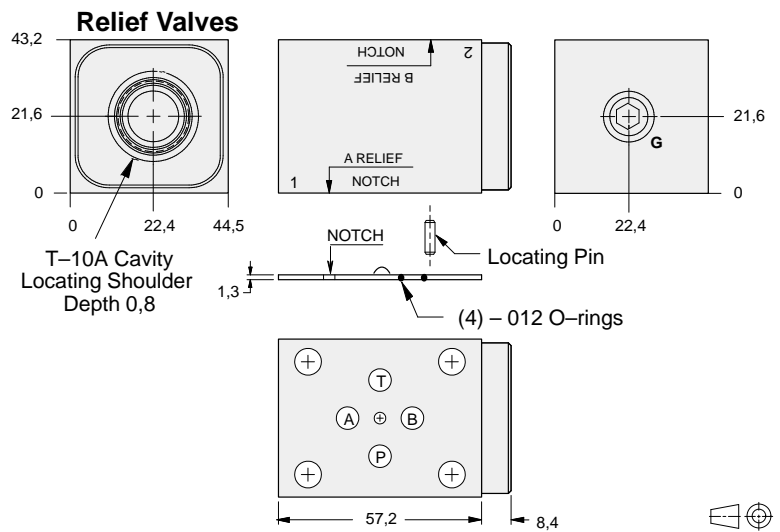
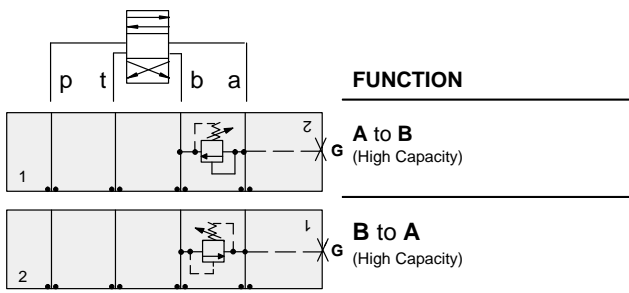


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
FB2		FB2/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPEC Page 1.06		RQEB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		
	RPEE Page 1.08		
	<i>Direct Acting Relief Valve</i>		
	RDDA Page 1.10		
OTHER VALVES:			

- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	FBC		FBC/S	
.25 BSPP	FBC/M		FBC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPEC Page 1.06		RQEB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		
	RPEE Page 1.08		
	<i>Direct Acting Relief Valve</i>		
	RDDA Page 1.10		
OTHER VALVES:			

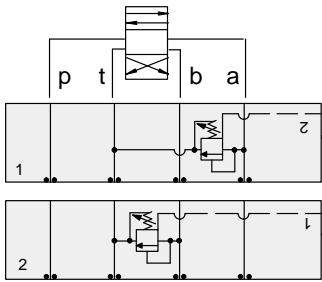


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 RELIEF

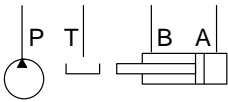
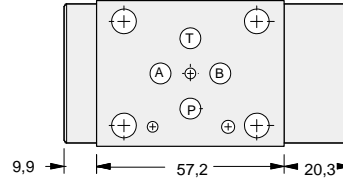
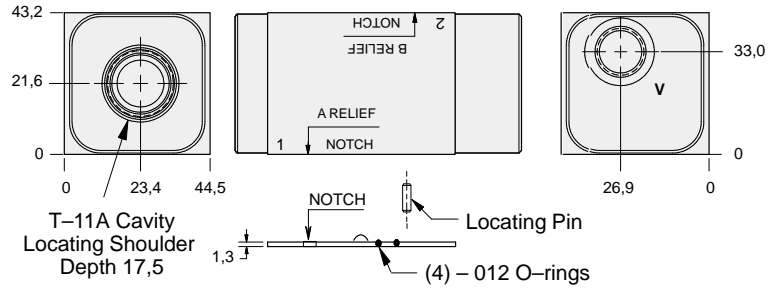


FUNCTION

A to T
Externally Vented

B to T
Externally Vented

Relief Valves



Vent Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	EBI		EBI/S	
.25 BSPP	EBI/M		EBI/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

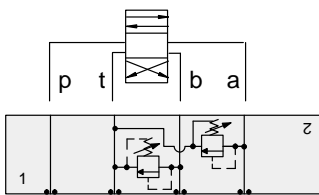
	<i>Pilot Operated Vented Relief Valve</i>		
	RVCA Page 1.18		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



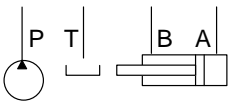
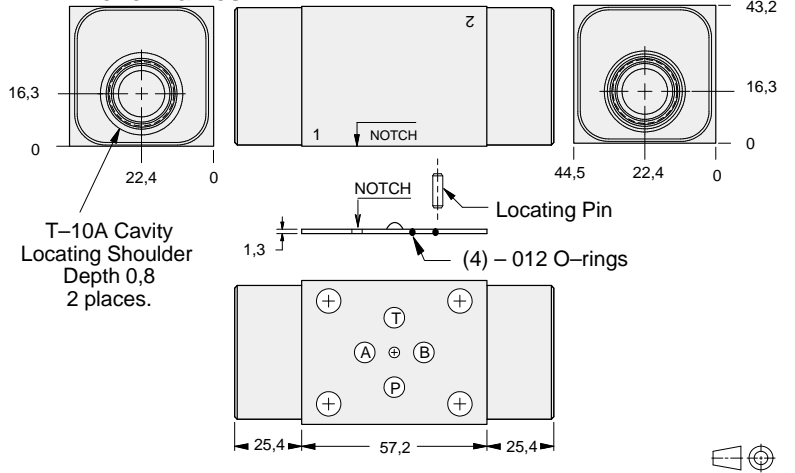
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

A and B to T
(High Capacity)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
FBX		FBX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPEC Page 1.06		RQEB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		
	RPEE Page 1.08		
	<i>Direct Acting Relief Valve</i>		
	RDDA Page 1.10		
OTHER VALVES:			

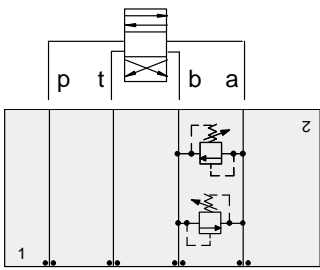


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

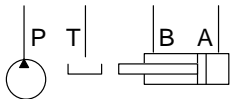
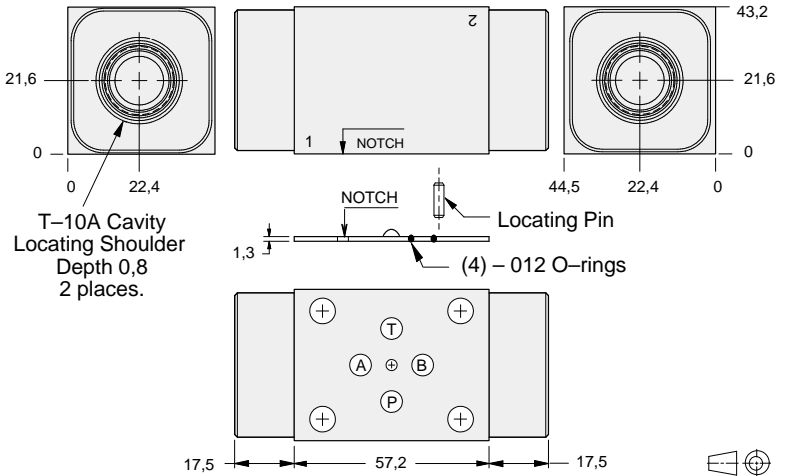
03 RELIEF



FUNCTION

A to B and B to A
(High Capacity)
(Cross Port)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
FBY		FBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

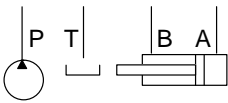
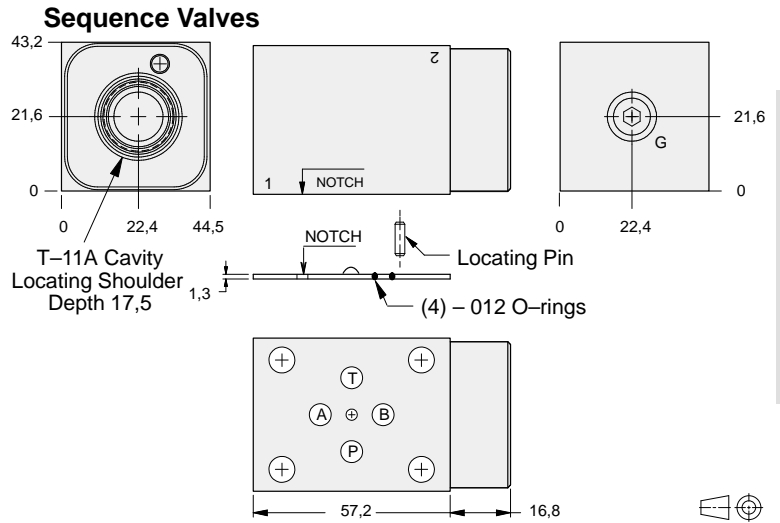
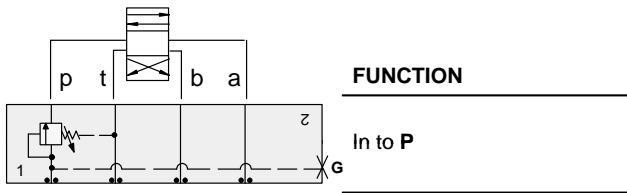
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEC Page 1.06		RQEB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		
	RPEE Page 1.08		
	Direct Acting Relief Valve		
	RDDA Page 1.10		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBW		EBW/S	
.25 BSPP	EBW/M		EBW/T	

03 SEQUENCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Sequence Valve</i>		
	RSDC Page 2.06		
	<i>Pilot Operated "Kick-Down" Sequence Valve</i>		
	SQDB Page 2.08		
	<i>Direct Acting Sequence Valve with Reverse Free Flow Check</i>		
	SCCA Page 2.12		
OTHER VALVES:			



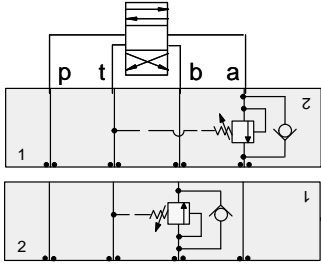
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 SEQUENCE

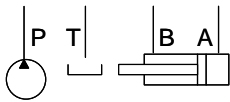
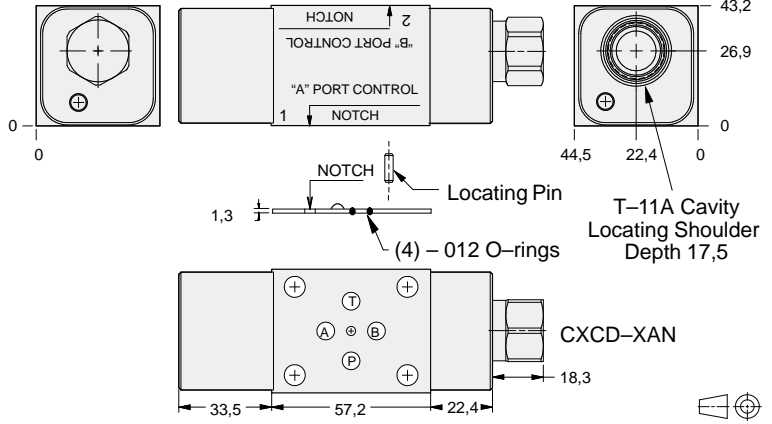
Sequence Valves



FUNCTION

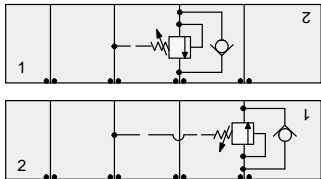
In to A
Reverse FF Check

Out of B
Reverse FF Check



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EB4		EB4/S	

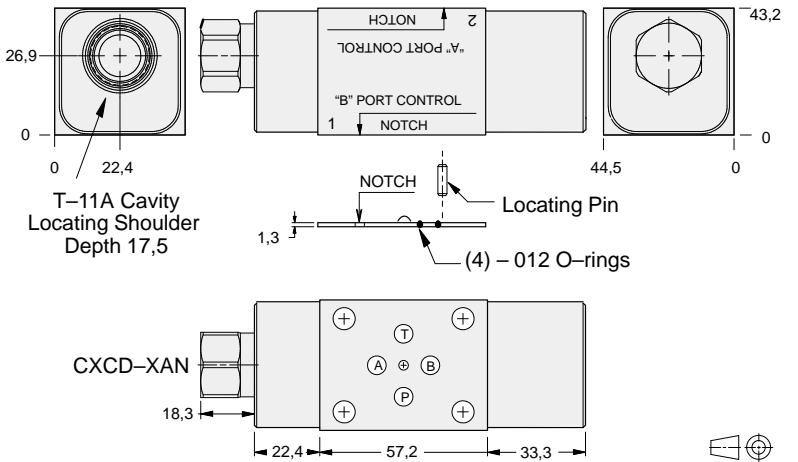
Sequence Valves



FUNCTION

In to B
Reverse FF Check

Out of A
Reverse FF Check



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
EB5		EB5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

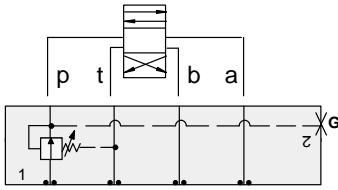
	Pilot Operated Sequence Valve		
	RSDC Page 2.06		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQDB Page 2.08		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



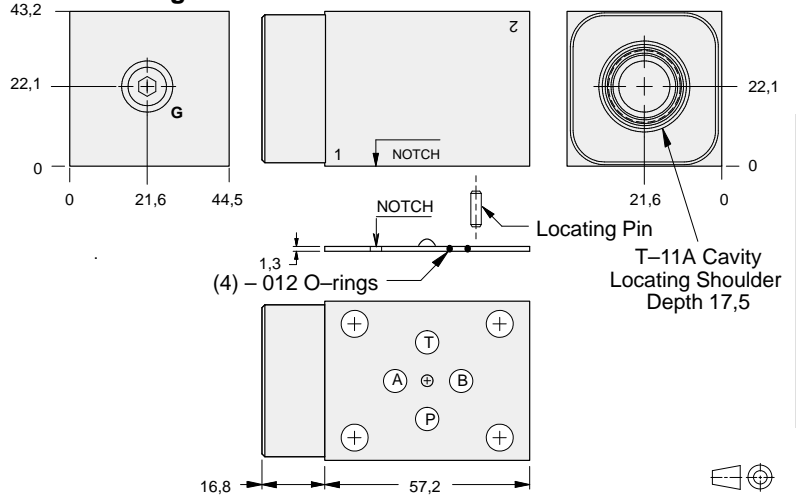
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



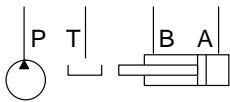
FUNCTION

On P
Drained to T

Reducing Valves



03 REDUCING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBP		EBP/S	
.25 BSPP	EBP/M		EBP/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBDB Page 3.06		
OTHER VALVES:			

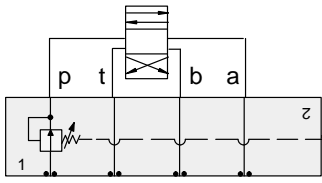


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

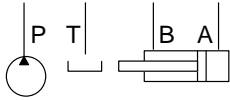
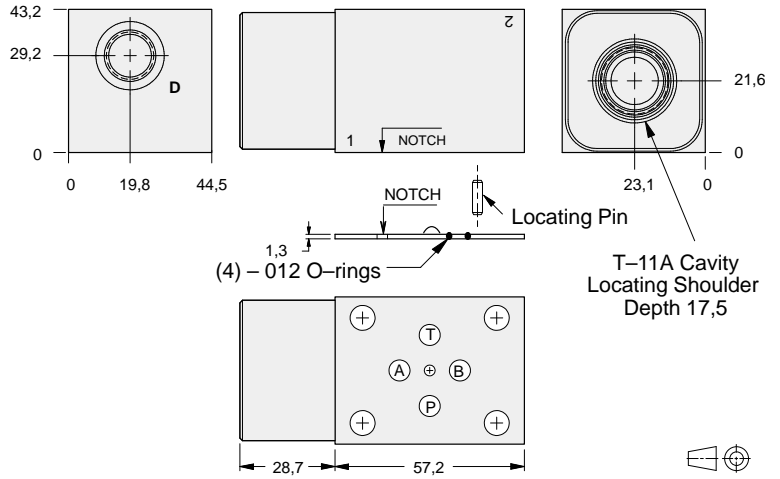
03 REDUCING



FUNCTION

On P
Drained Externally

Reducing Valves



Drain Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	EBQ		EBQ/S	
.25 BSPP	EBQ/M		EBQ/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

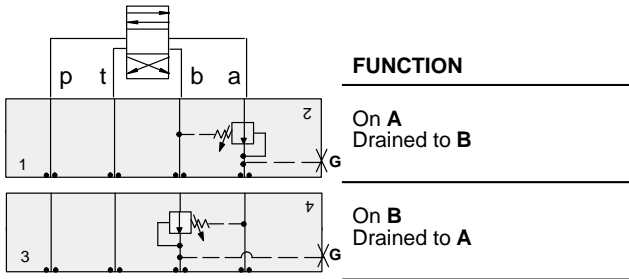
Cartridge Diagram	Cartridge Name	Reference	Other Columns
	Pilot Operated Reducing Valve	PBDB Page 3.06	
OTHER VALVES:			



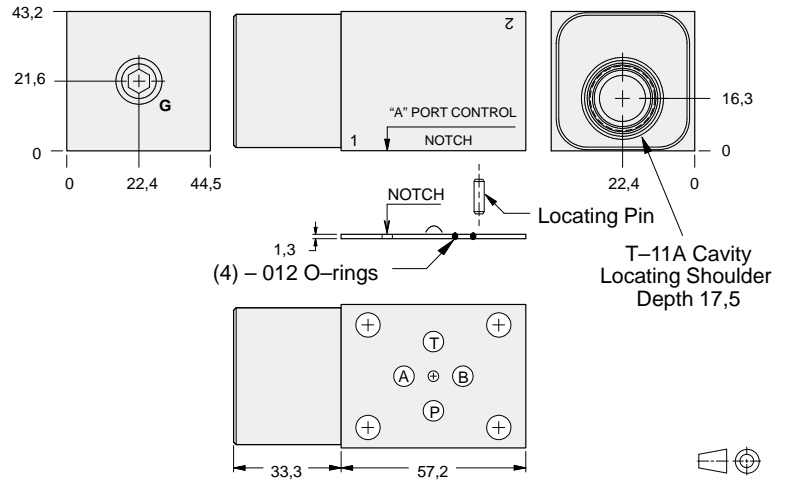
ISO 03 SANDWICH BODIES



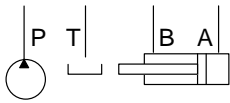
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



03 REDUCING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBA		EBA/S	
.25 BSPP	EBA/M		EBA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBDB Page 3.06		
OTHER VALVES:			

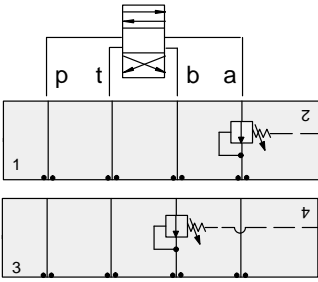


ISO 03 SANDWICH BODIES



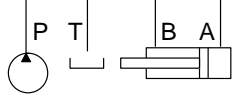
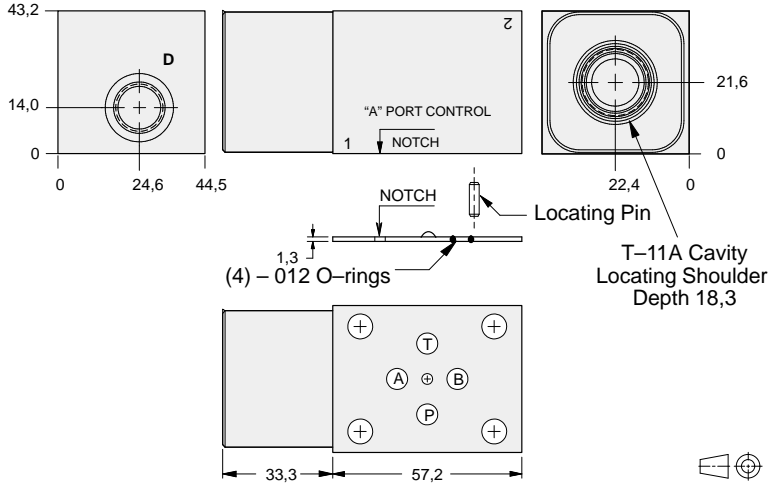
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 REDUCING



FUNCTION	
On A	Drained Externally
On B	Drained Externally

Reducing Valves



Drain Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	EBD		EBD/S	
.25 BSPP	EBD/M		EBD/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing Valve		
	PBDB Page 3.06		
OTHER VALVES:			

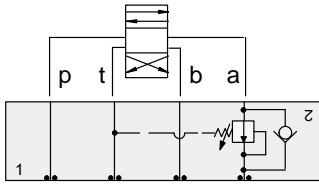


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

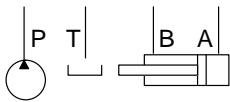
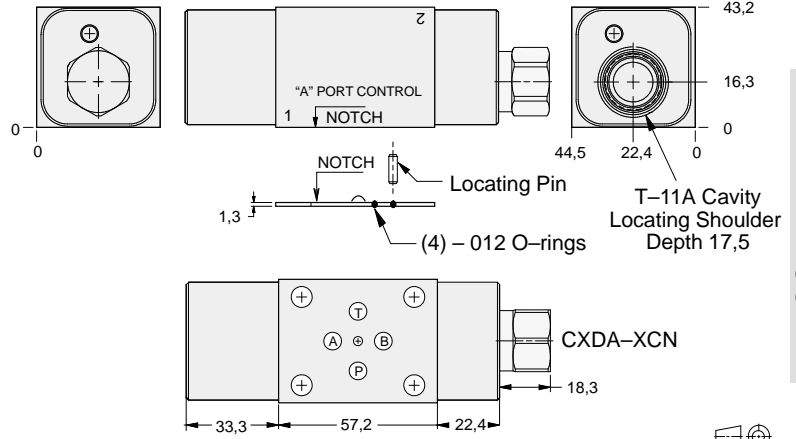
03 REDUCING



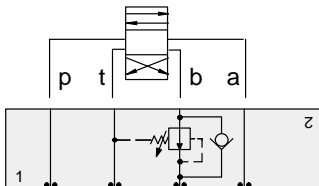
FUNCTION

On A Drain to T
Reverse FF Check

Reducing Valves



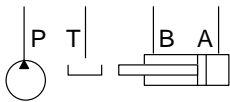
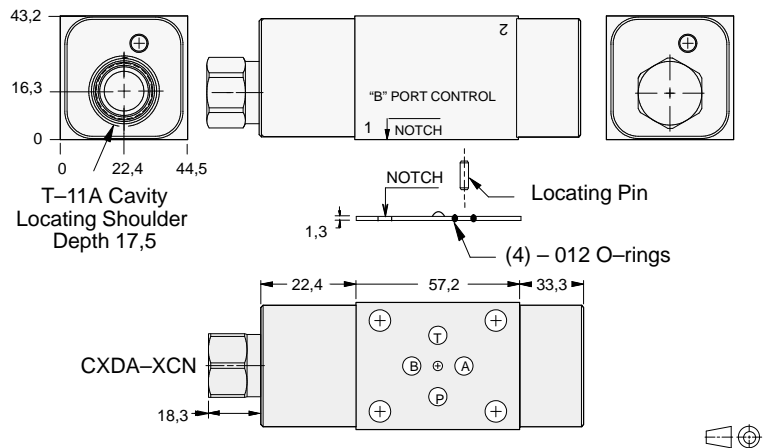
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EB2		EB2/S	



FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
EB3		EB3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing Valve		
	PBDB Page 3.06		
OTHER VALVES:			

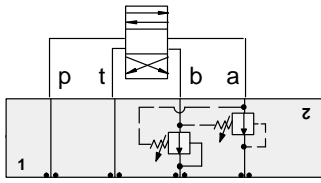


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

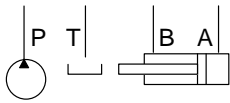
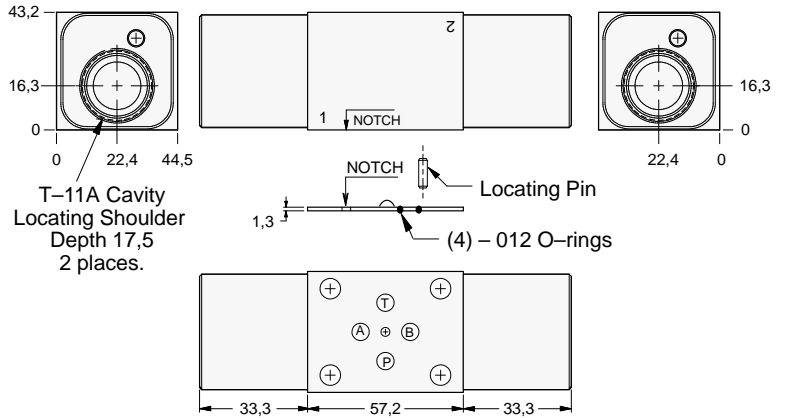
03 REDUCING



FUNCTION

On A and B
Drains to Opposite Port

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EBY		EBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

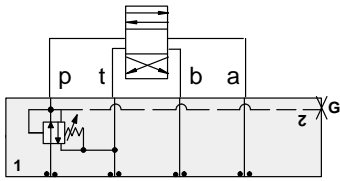
	Pilot Operated Reducing Valve		
	PBDB Page 3.06		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



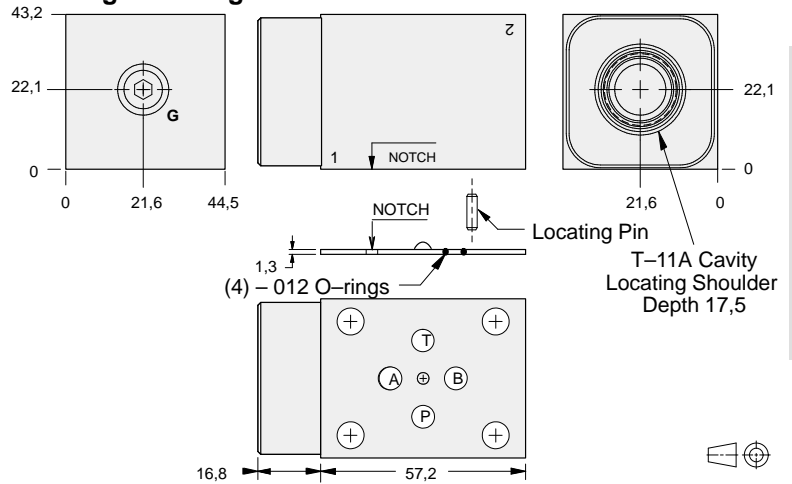
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



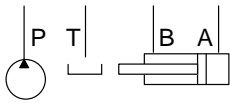
FUNCTION

On P Tank to T
Drained to T

Reducing/Relieving Valves



03 REDUCING/RELIEVING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBP		EBP/S	
.25 BSPP	EBP/M		EBP/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPDB Page 3.10		
OTHER VALVES:			

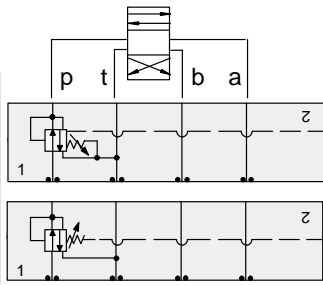


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 REDUCING/RELIEVING

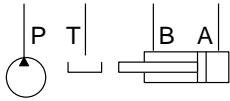
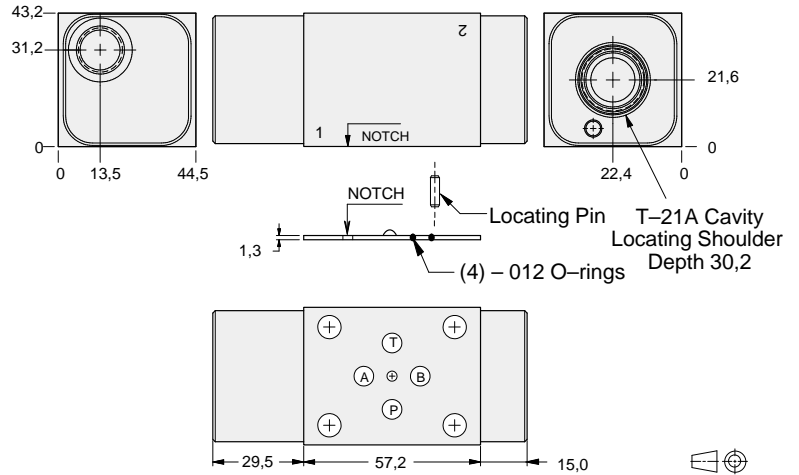


FUNCTION

On P Tank to T
Vented Externally

On P Tank to T
Drained Externally

Reducing/Relieving Valves



External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	MBP		MBP/S	
.25 BSPP	MBP/M		MBP/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

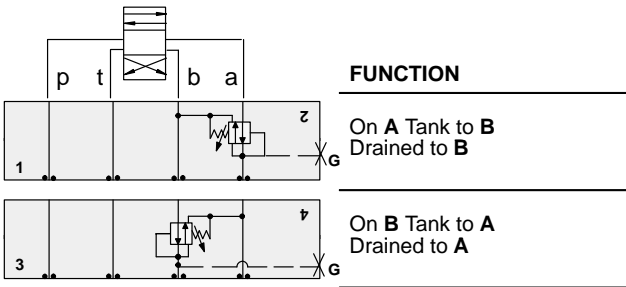
	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVDA Page 3.14		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVDB Page 3.16		
OTHER VALVES:			



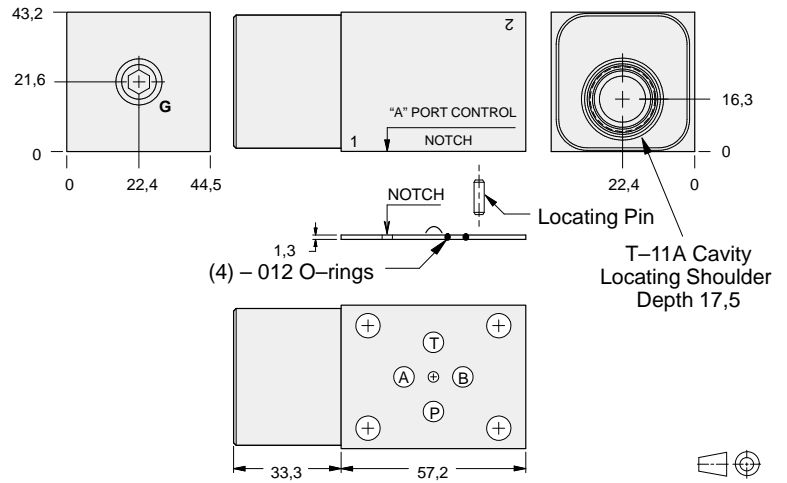
ISO 03 SANDWICH BODIES



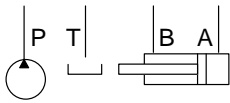
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing/Relieving Valves



03 REDUCING/RELIEVING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBA		EBA/S	
.25 BSPP	EBA/M		EBA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve		
	PPBD Page 3.10		
OTHER VALVES:			

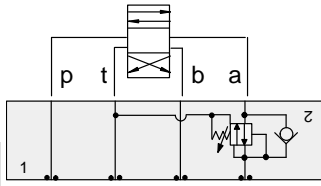


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

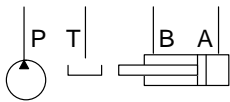
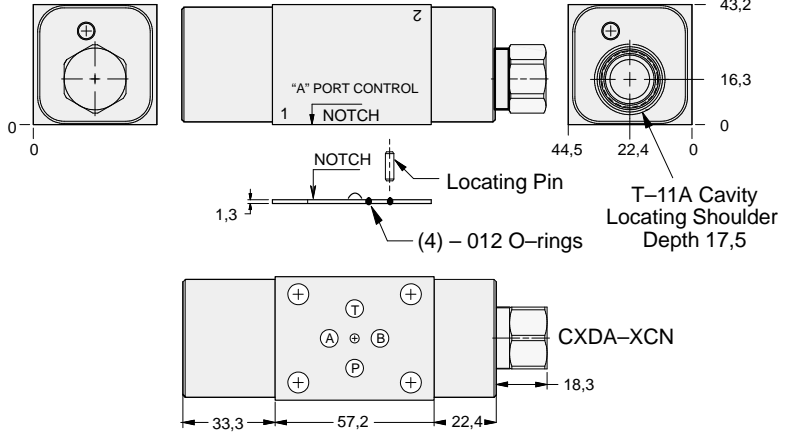
03 REDUCING/RELIEVING



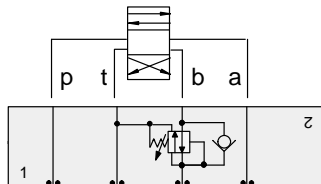
FUNCTION

On A Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves



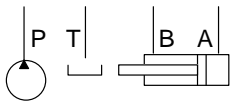
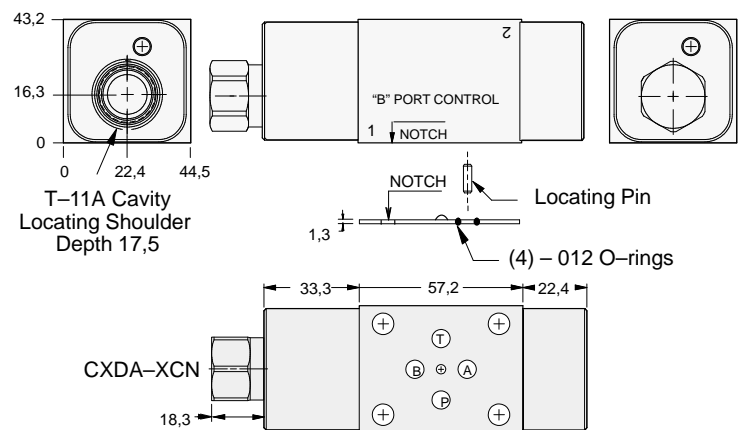
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EB2		EB2/S	



FUNCTION

On B Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
EB3		EB3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

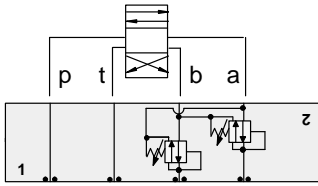
	Pilot Operated Reducing/Relieving Valve		
	PPDB Page 3.10		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



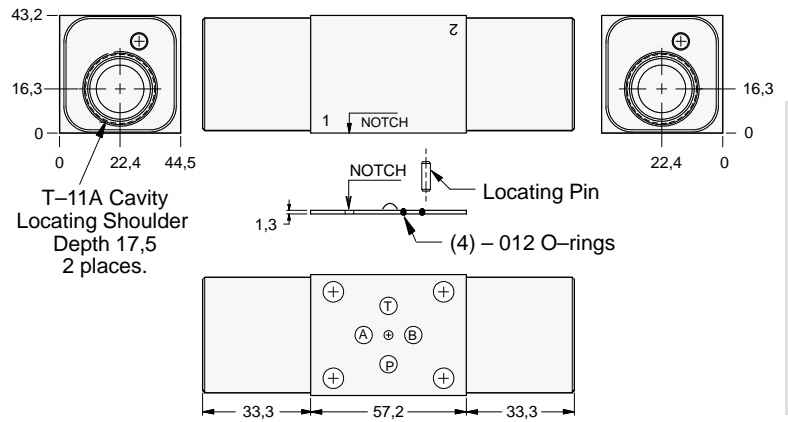
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



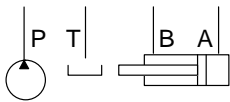
FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port

Reducing/Relieving Valves



03 REDUCING/RELIEVING



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EBY		EBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPDB Page 3.10		
OTHER VALVES:			

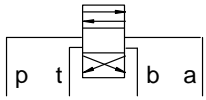


ISO 03 SANDWICH BODIES

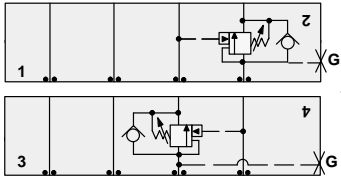


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 COUNTERBALANCE



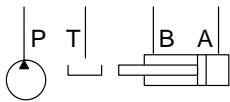
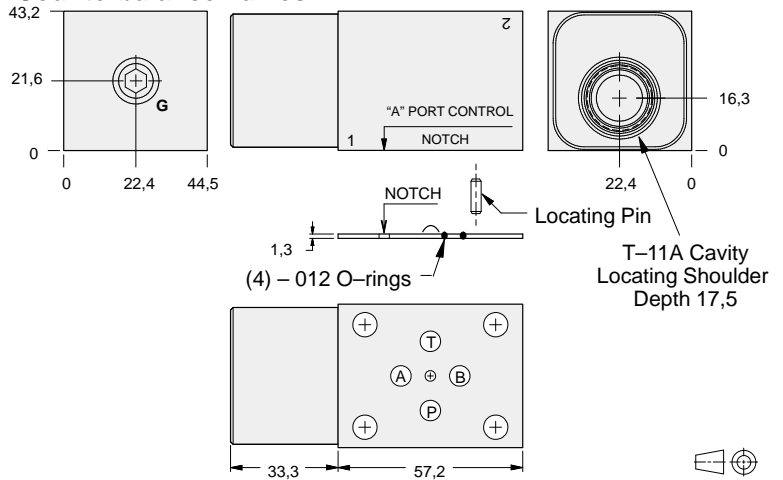
FUNCTION



On A Pilot from B

On B Pilot from A

Counterbalance Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBA		EBA/S	
.25 BSPP	EBA/M		EBA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

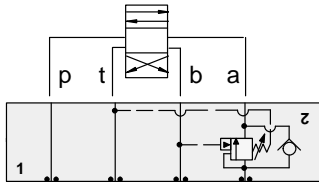
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBCA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBCG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBCH Page 4.14		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



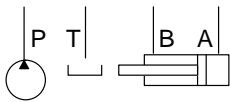
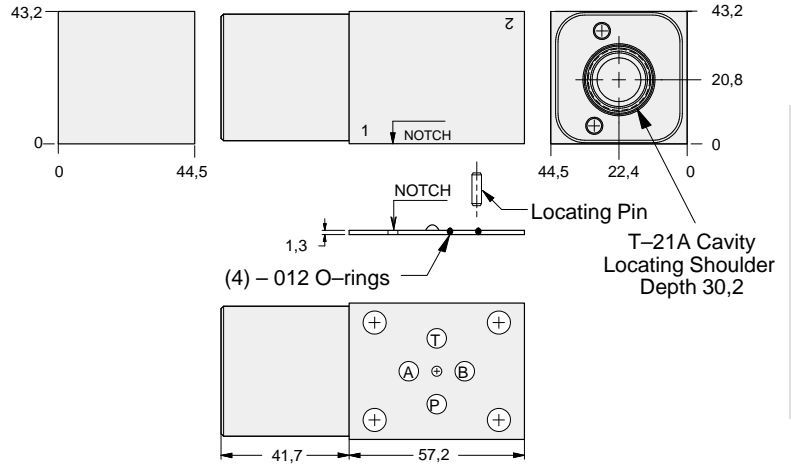
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



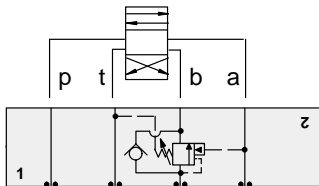
FUNCTION

On A Pilot from B
Vent to T

Counterbalance Valves



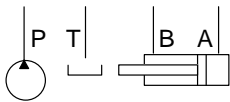
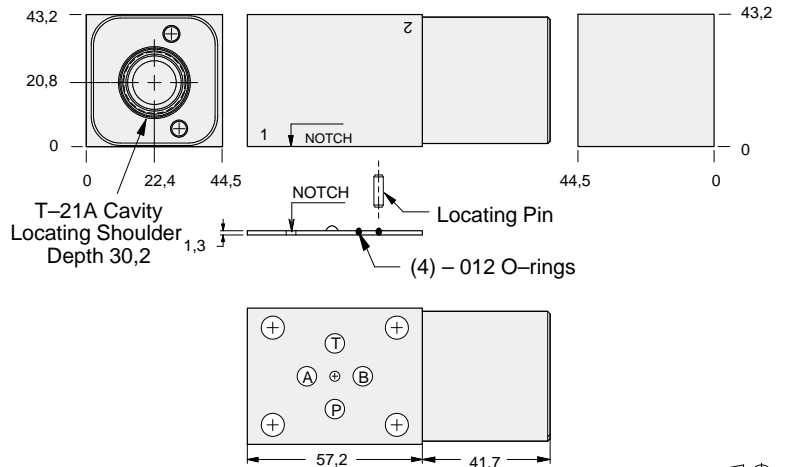
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
MBA		MBA/S	



FUNCTION

On B Pilot from A
Vent to T

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
MBB		MBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWCA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWCG Page 4.20		
OTHER VALVES:			

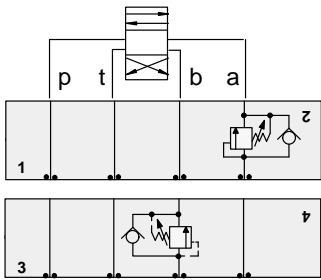


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 COUNTERBALANCE

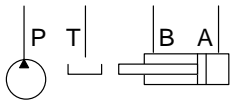
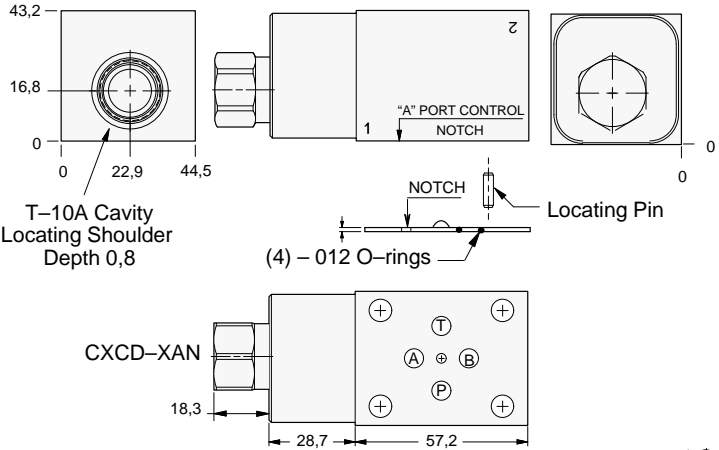


FUNCTION

On A
No pilot assist

On B
No pilot assist

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
FB4		FB4/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

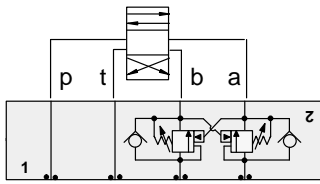
	Direct Acting Relief Valve		
	RDDA Page 1.10		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



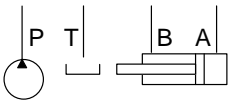
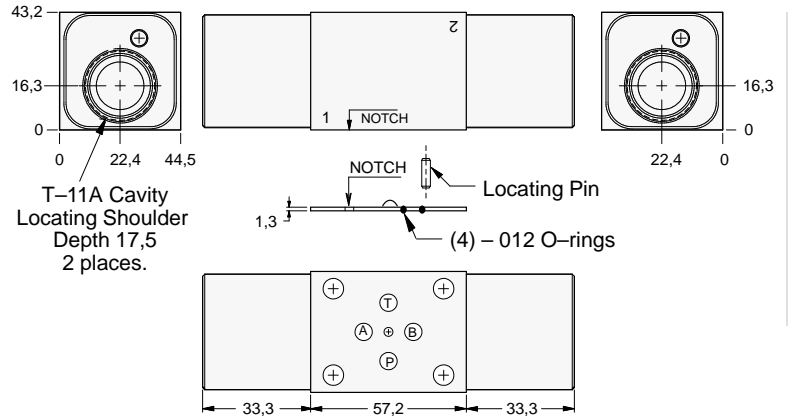
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EBY		EBY/S	

03 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBCA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBCG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBCH Page 4.14		
OTHER VALVES:			

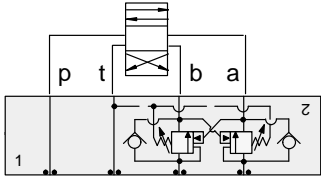


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

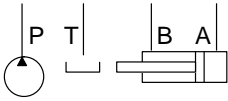
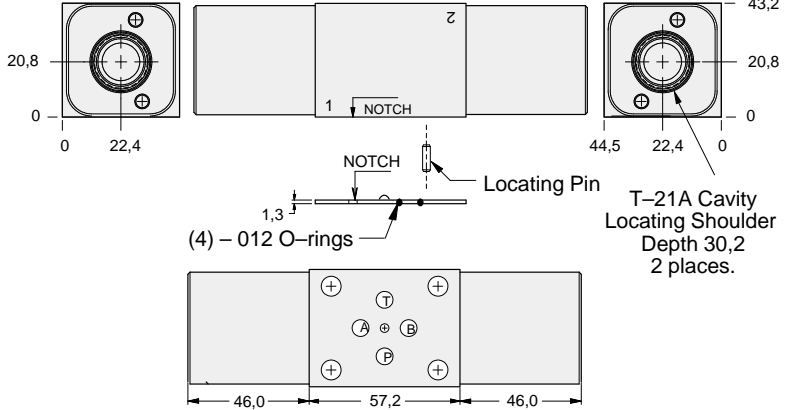
03 COUNTERBALANCE



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
MBY		MBY/S	

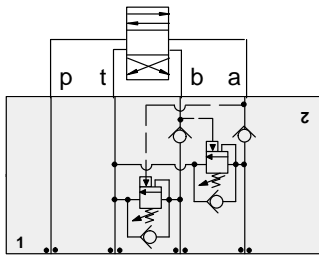
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWCA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWCG Page 4.20		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



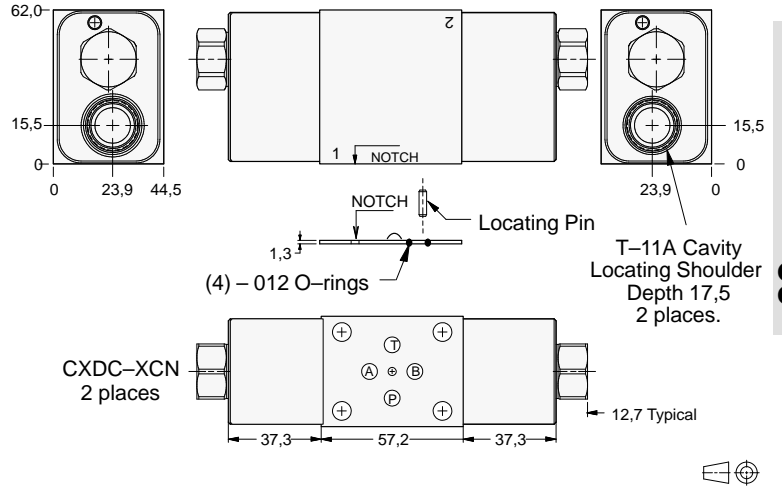
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



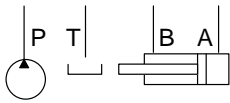
FUNCTION

Cushion Lock
Circuit
On A and B

Counterbalance Valves



03 COUNTERBALANCE



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EB8		EB8/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBCA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBCG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBCH Page 4.14		
OTHER VALVES:			

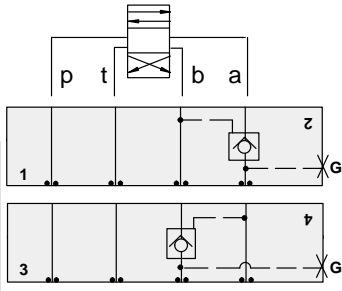


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 P.O. CHECK

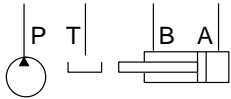
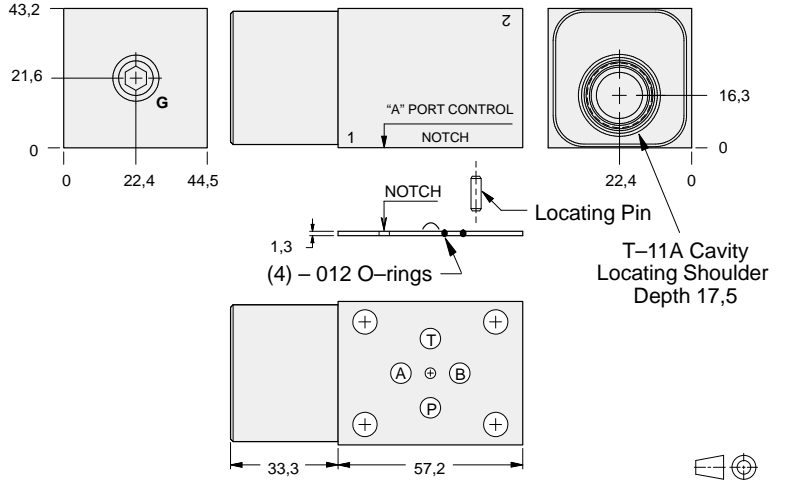


FUNCTION

On A
Pilot from B

On B
Pilot from A

Pilot Operated Check Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	EBA		EBA/S	
.25 BSPP	EBA/M		EBA/T	

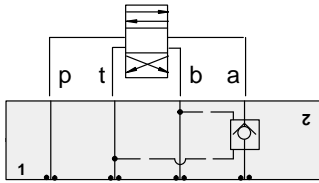
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKCB Page 4.16		
OTHER VALVES:			



ISO 03 SANDWICH BODIES

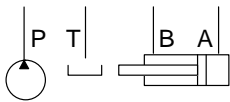
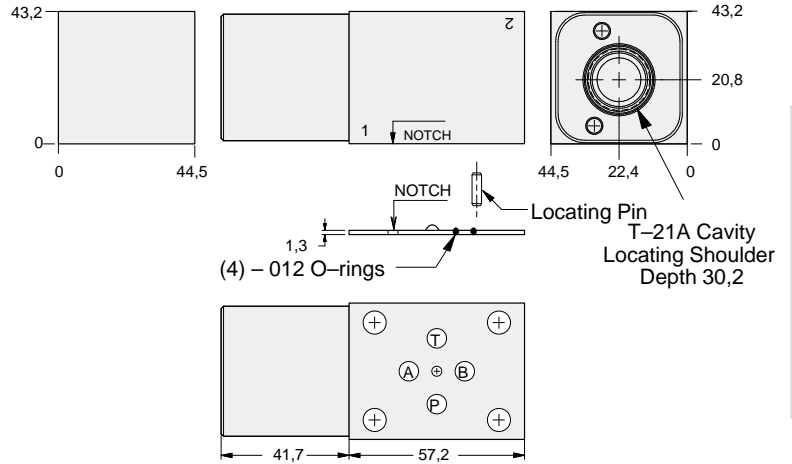


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

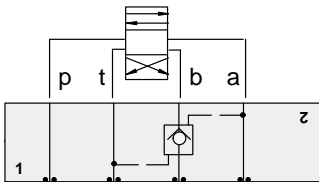


FUNCTION
 On A
 Pilot from B
 Vent to T

Pilot Operated Check Valves

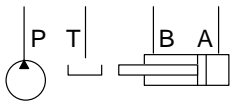
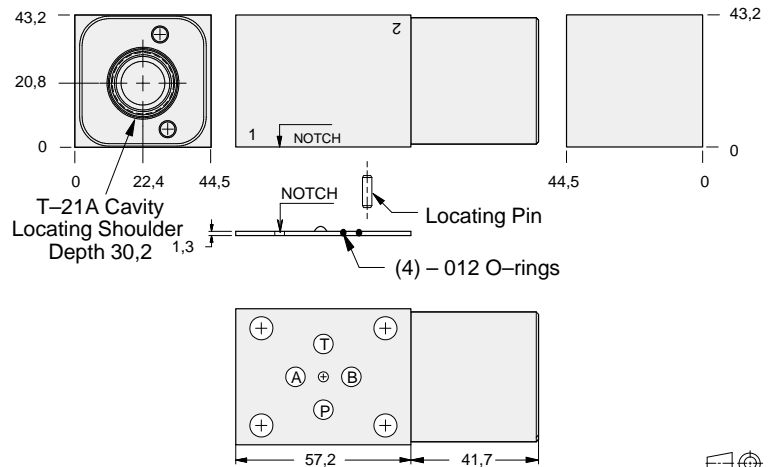


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
MBA		MBA/S	



FUNCTION
 On B
 Pilot from A
 Vent to T

Pilot Operated Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
MBB		MBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVCV Page 4.22		
OTHER VALVES:			



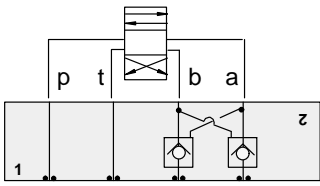
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

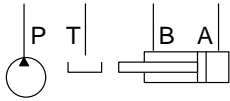
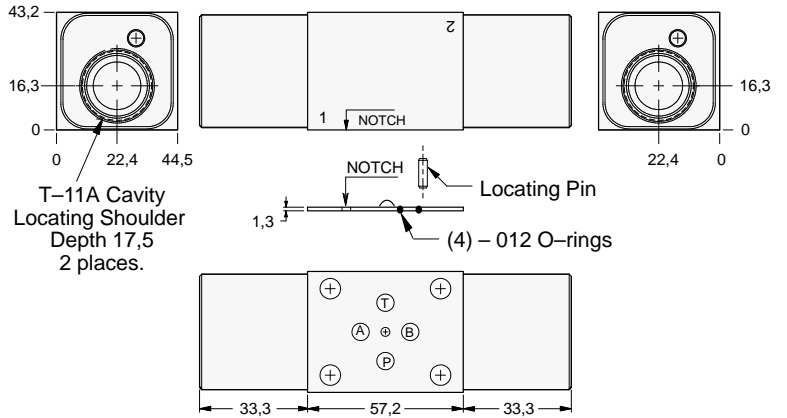
03 P.O. CHECK

Pilot Operated Check Valves



FUNCTION

On A and B
Cross-Piloted



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
EBY		EBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

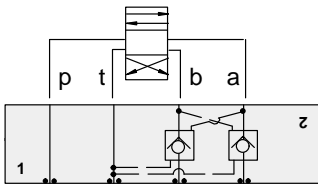
	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKCB Page 4.16		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



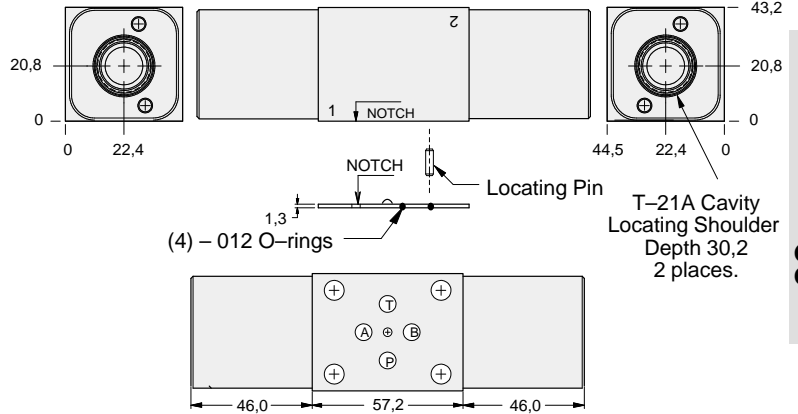
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



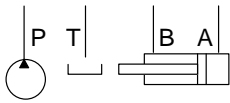
FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Pilot Operated Check Valves



03 P.O. CHECK



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
MBY		MBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVCV Page 4.22		
OTHER VALVES:			

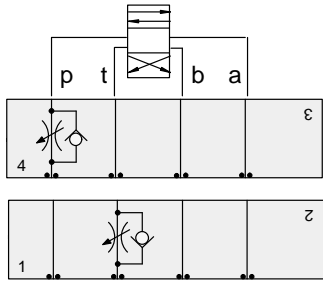


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 FLOW CONTROL

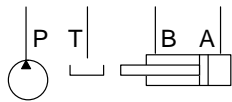
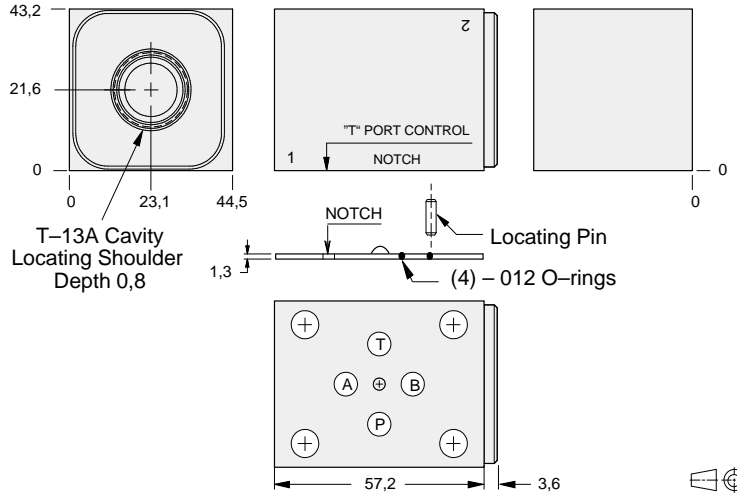


FUNCTION

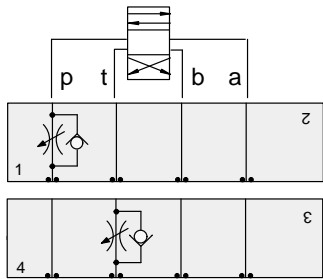
Meter-In P

Meter-Out T

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBP		GBP/S	

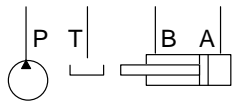
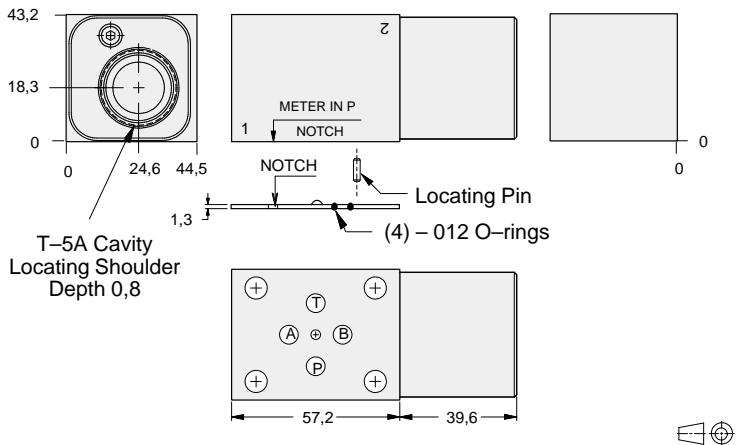


FUNCTION

Meter-In P
(High Capacity)

Meter-Out T
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GBO		GBO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

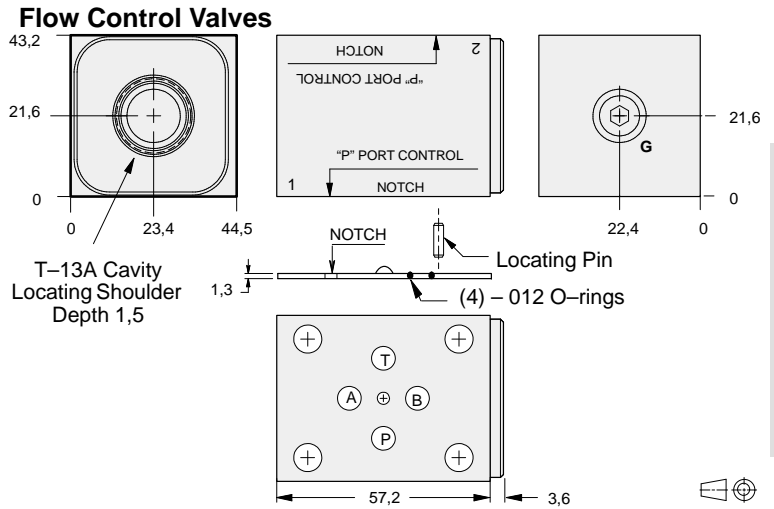
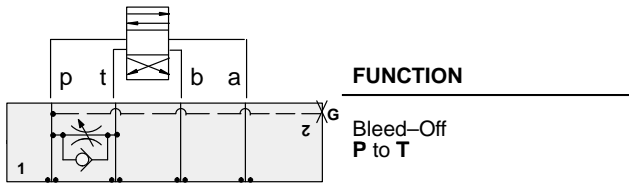
	Fully Adjustable Needle Valve		
	NF*C Page 5.12		
	Fixed Orifice, Pressure-Compensated Flow Control		
	FX*A Page 5.20		
OTHER VALVES:			



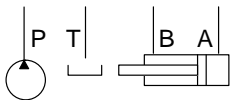
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



03 FLOW CONTROL



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	GBQ		GBQ/S	
.25 BSPP	GBQ/M		GBQ/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve NFCC Page 5.12		Fixed Orifice, Pressure-Compensated Flow Control FXCA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check NCCB Page 5.16		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check FCCB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow NCCC Page 5.18		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check FDBA Page 5.24
OTHER VALVES:	CNCC		

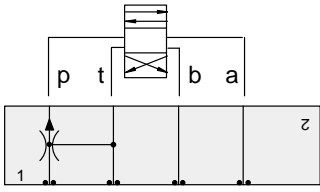


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

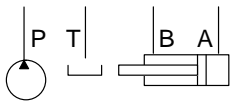
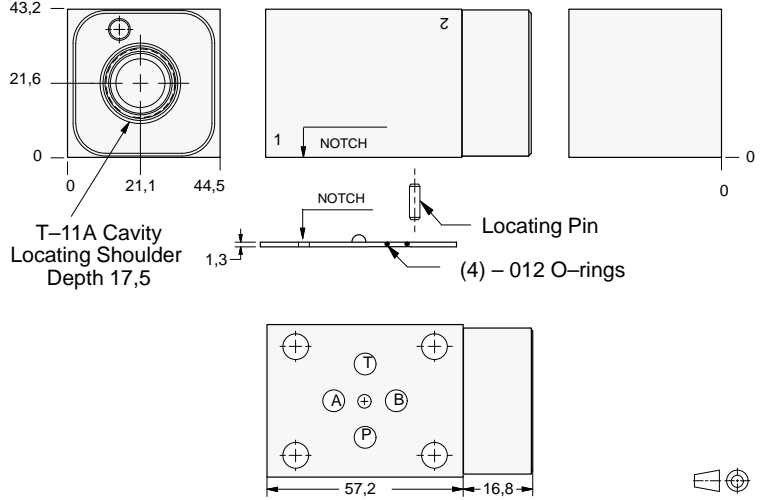
03 FLOW CONTROL



FUNCTION

Priority Flow on P

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
WBN		WBN/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

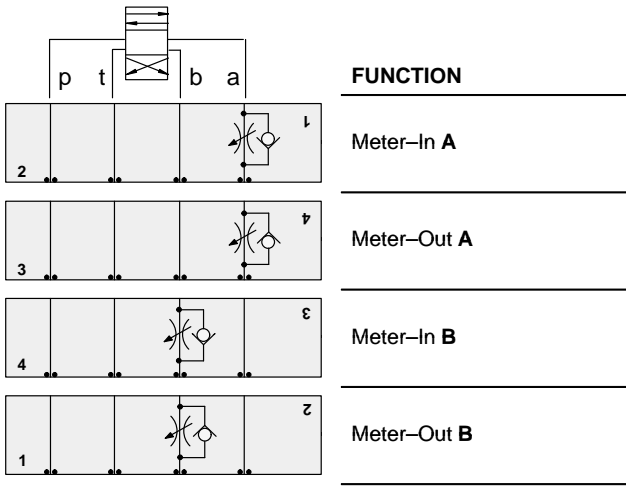
	Priority Flow Control, Bypass/Restrictive, Fixed Orifice		
	FRCA Page 6.02		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



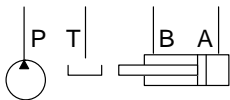
FUNCTION

Meter-In A

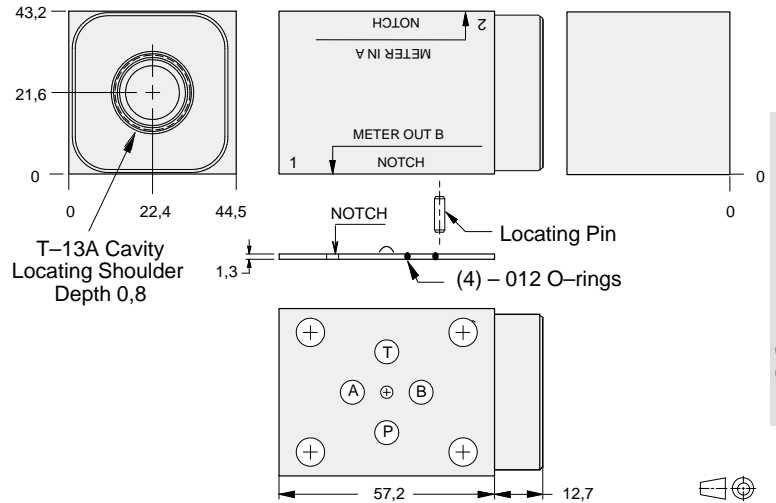
Meter-Out A

Meter-In B

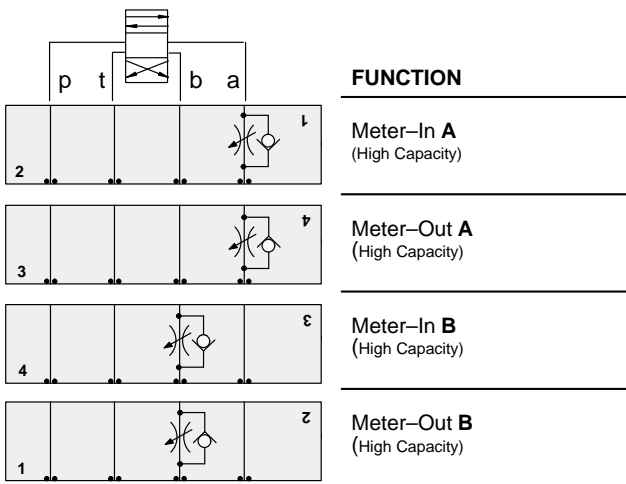
Meter-Out B



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBA		GBA/S	



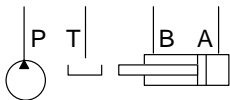
FUNCTION

Meter-In A
(High Capacity)

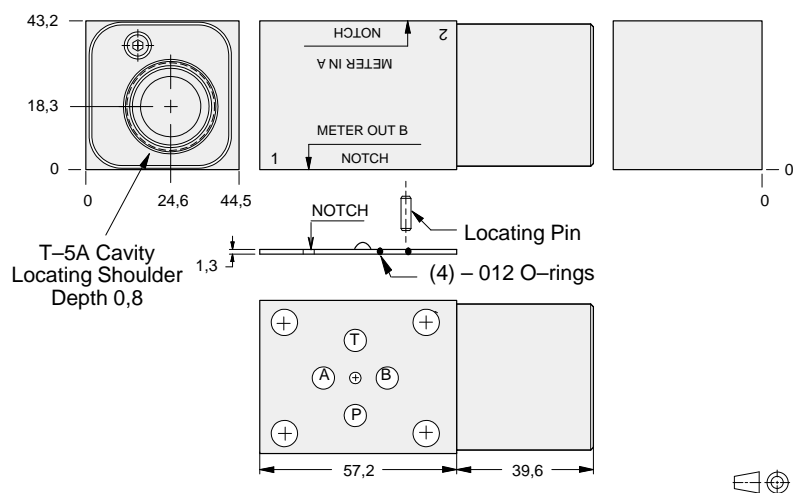
Meter-Out A
(High Capacity)

Meter-In B
(High Capacity)

Meter-Out B
(High Capacity)



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GBD		GBD/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12		FX*A Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16		FC*B Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18		FDBA, FDCB Page 5.24
OTHER VALVES:	CN*C		

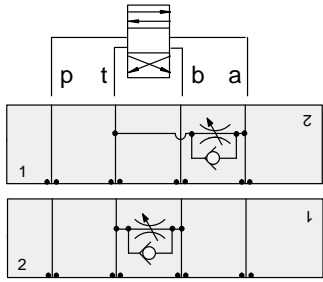


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

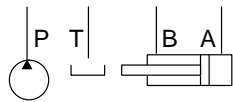
03 FLOW CONTROL



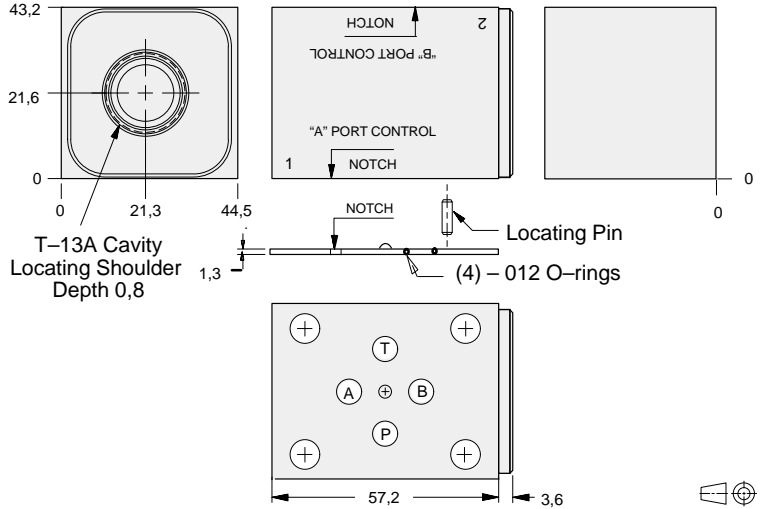
FUNCTION

Bleed-Off
A to T

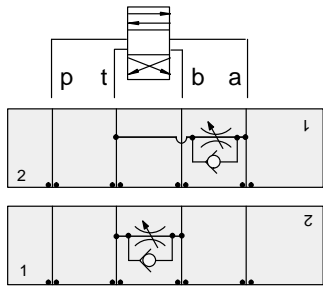
Bleed-Off
B to T



Flow Control Valves



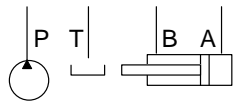
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBW		GBW/S	



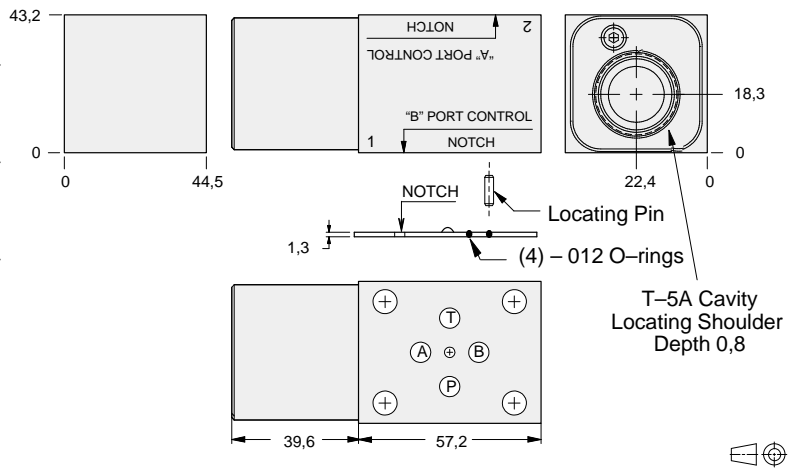
FUNCTION

Bleed-Off
A to T
(High Capacity)

Bleed-Off
B to T
(High Capacity)



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GBE		GBE/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

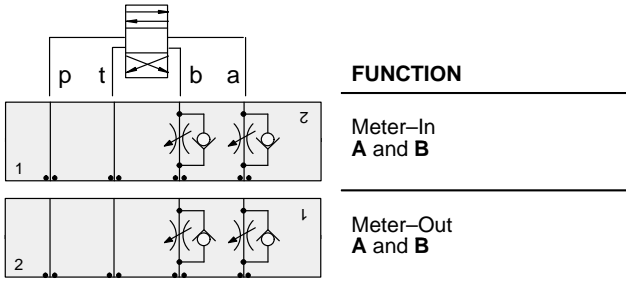
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12		FX*A Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16		FC*B Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18		FDBA, FDCB Page 5.24
OTHER VALVES:	CNCC, CNEC		



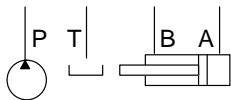
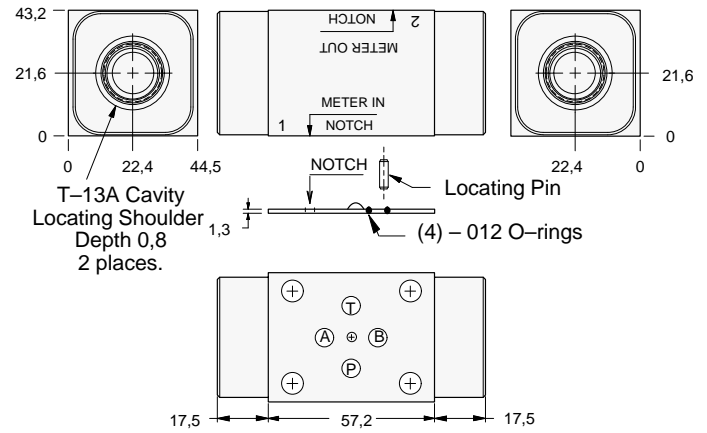
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

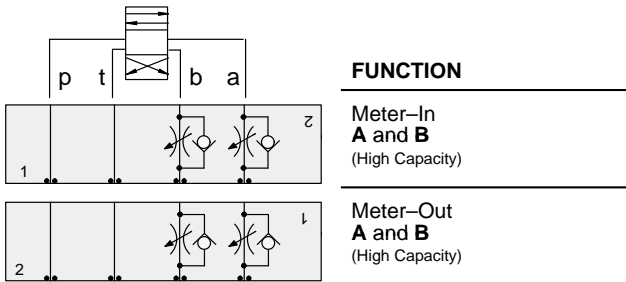


Flow Control Valves

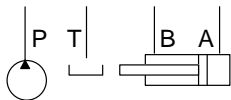
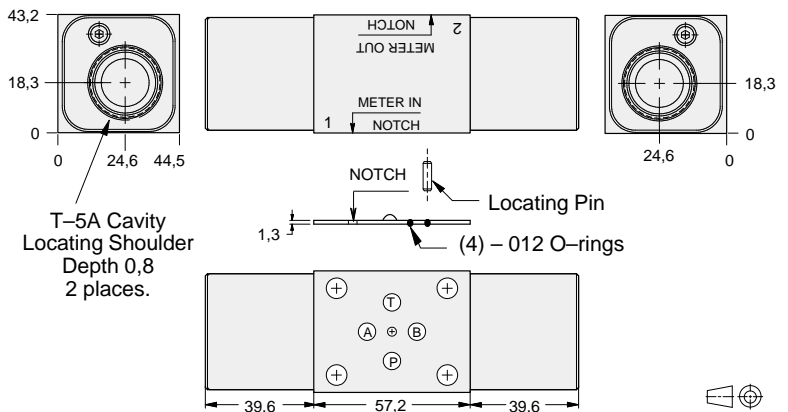


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBY		GBY/S	

03 FLOW CONTROL



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GBZ		GBZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12		FX*A Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16		FC*B Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18		FDBA, FDCB Page 5.24
OTHER VALVES:	CNCC, CNEC		

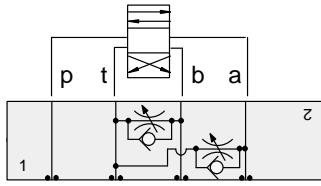


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

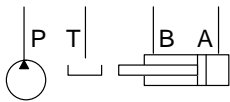
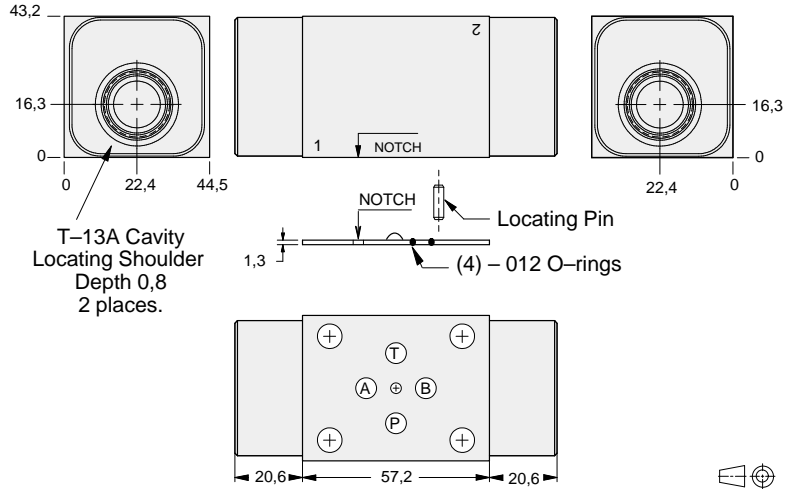
03 FLOW CONTROL



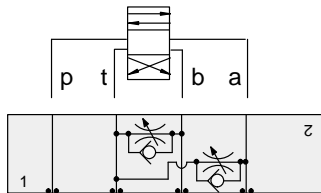
FUNCTION

Bleed-Off
A and B to T

Flow Control Valves



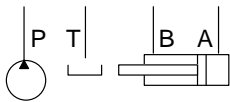
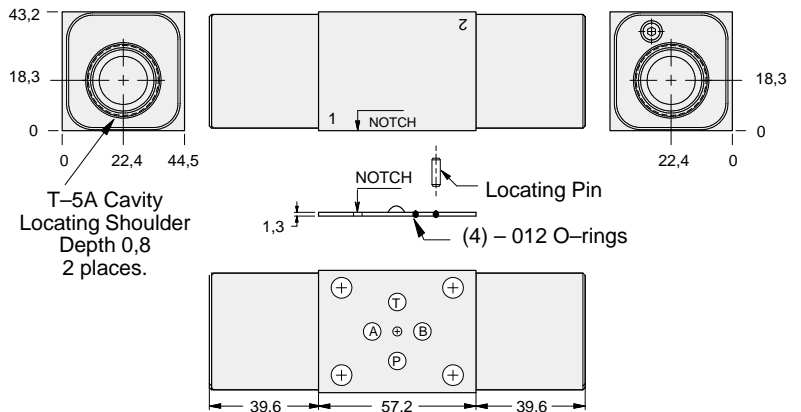
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBX		GBX/S	



FUNCTION

Bleed-Off
A and B to T
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GBF		GBF/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

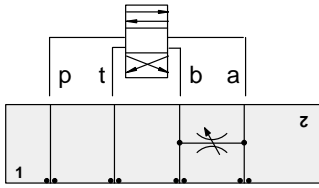
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12		FX*A Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.15		FC*B Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18		FDBA, FDCB Page 5.24
OTHER VALVES:	CNCC, CNEC		



ISO 03 SANDWICH BODIES



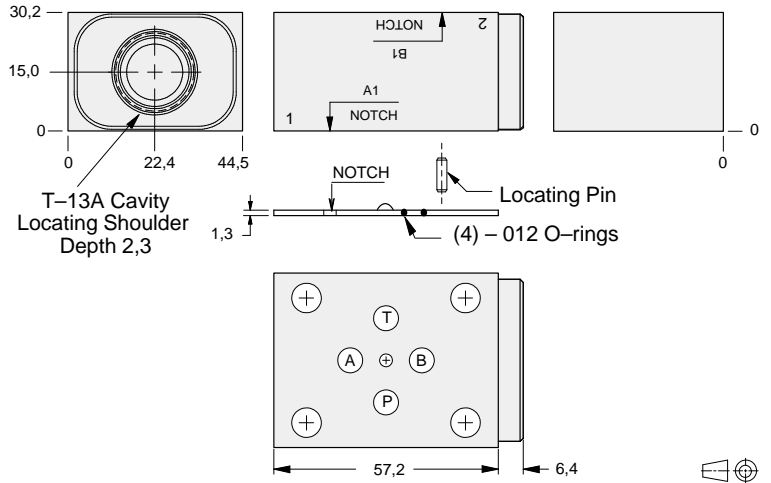
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



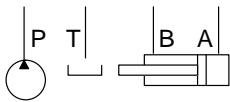
FUNCTION

Bleed-Off
A to B and
B to A

Flow Control Valves



03 FLOW CONTROL



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBS		GBS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		
	NFCC Page 5.12		
OTHER VALVES:			

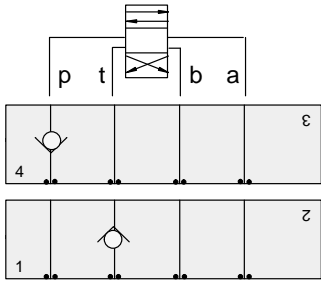


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 CHECK

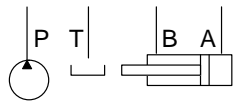
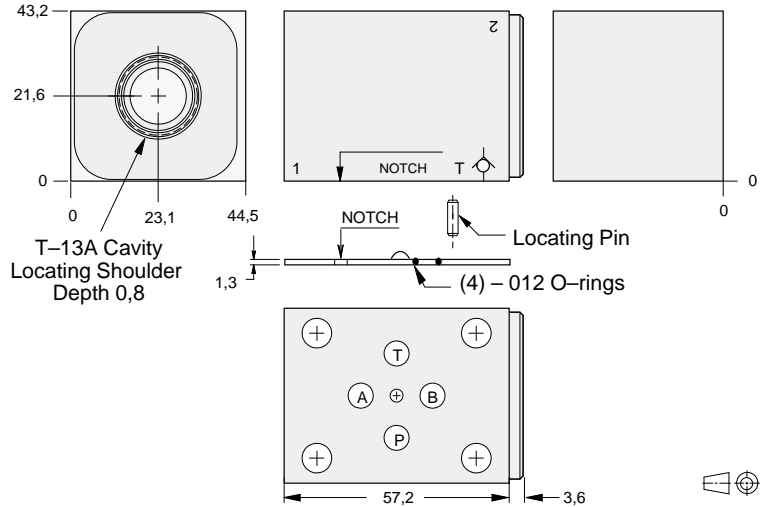


FUNCTION

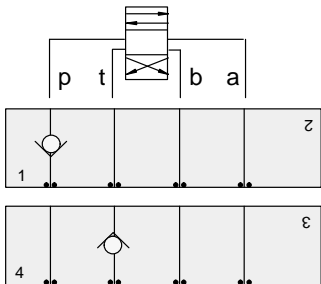
On P

On T

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GDP		GDP/S	

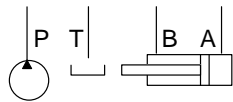
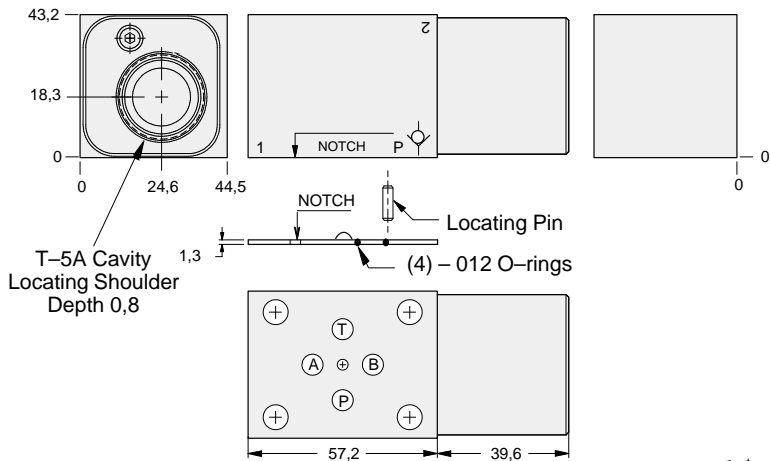


FUNCTION

On P
(High Capacity)

On T
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GDO		GDO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

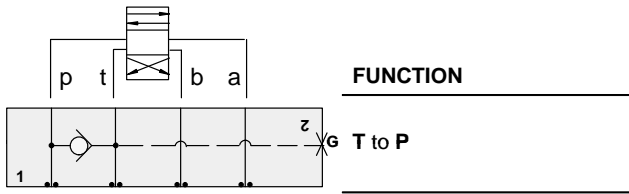
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08 (use with GDP)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with GDO)		
OTHER VALVES:			



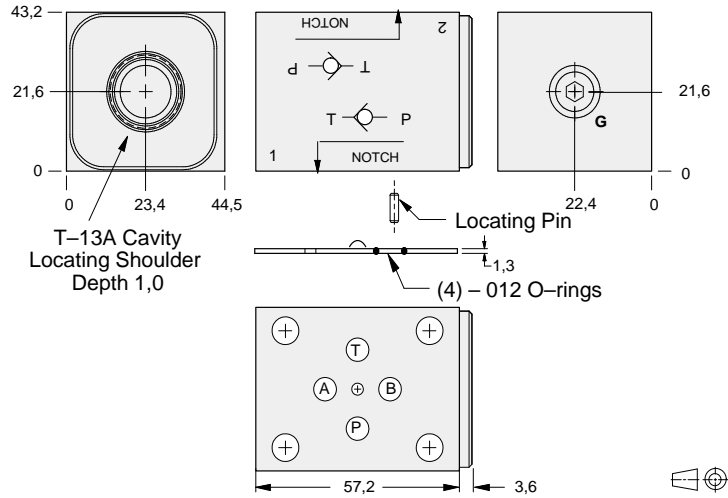
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Check Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	GDQ		GDQ/S	
.25 BSPP	GDQ/M		GDQ/T	

03 CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08		
OTHER VALVES:			

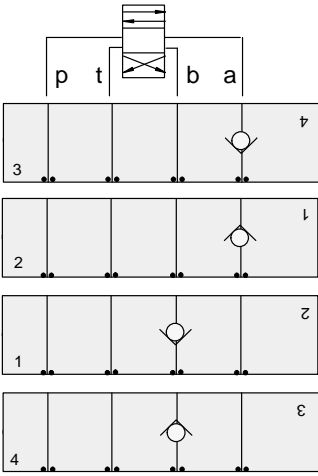


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 CHECK



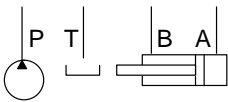
FUNCTION

On A
Free Flow Into Valve

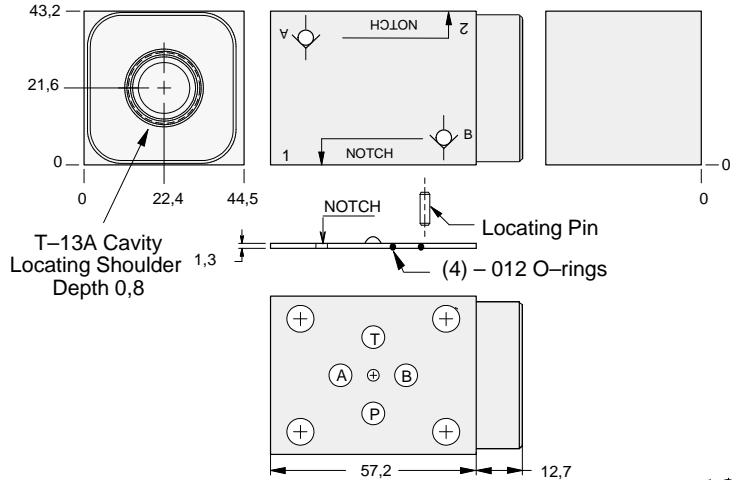
On A
Free Flow Out of Valve

On B
Free Flow Into Valve

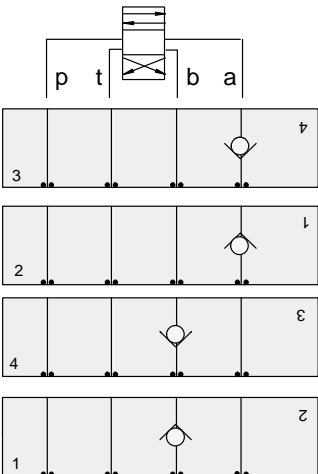
On B
Free Flow Out of Valve



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GDA		GDA/S	



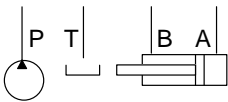
FUNCTION

On A
Free Flow Into Valve
(High Capacity)

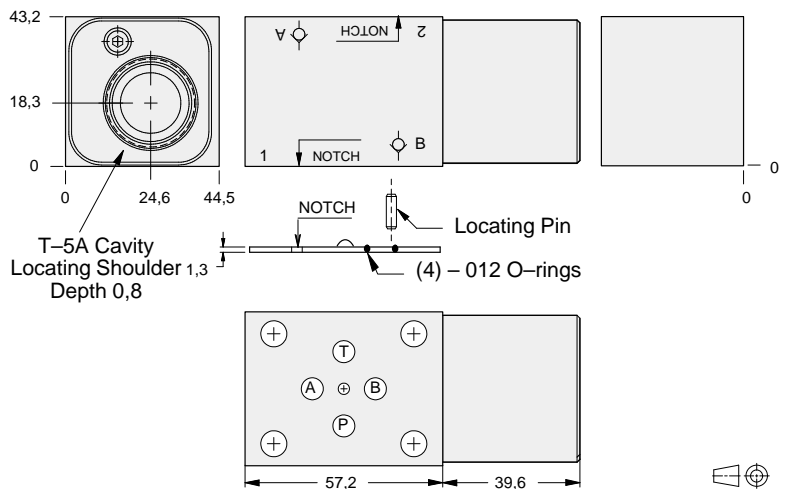
On A
Free Flow Out of Valve
(High Capacity)

On B
Free Flow Into Valve
(High Capacity)

On B
Free Flow Out of Valve
(High Capacity)



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GDD		GDD/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

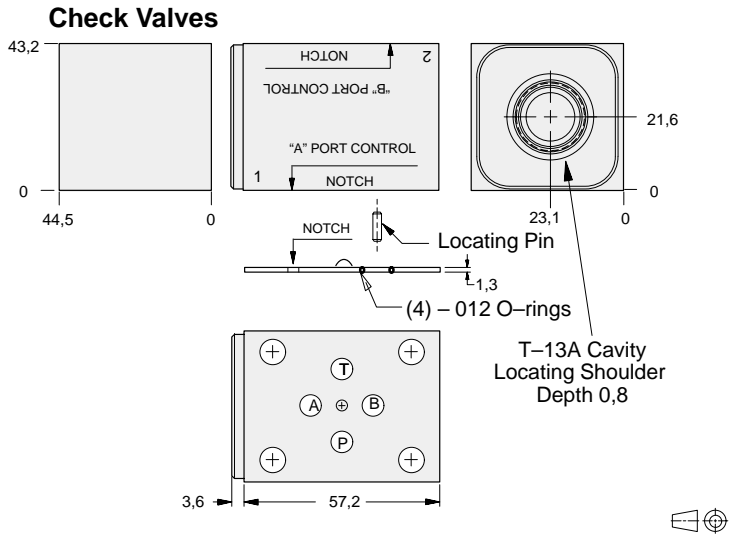
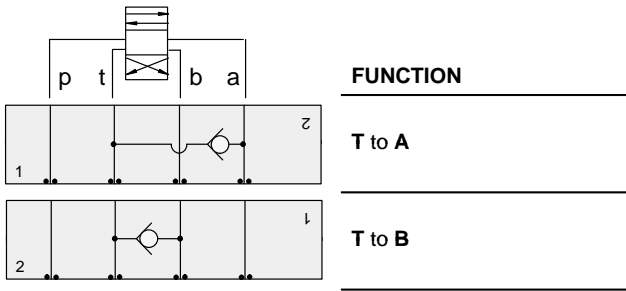
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08 (use with GDA)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with GDD)		
OTHER VALVES:			



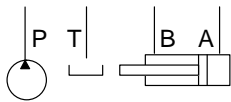
ISO 03 SANDWICH BODIES



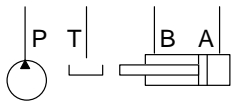
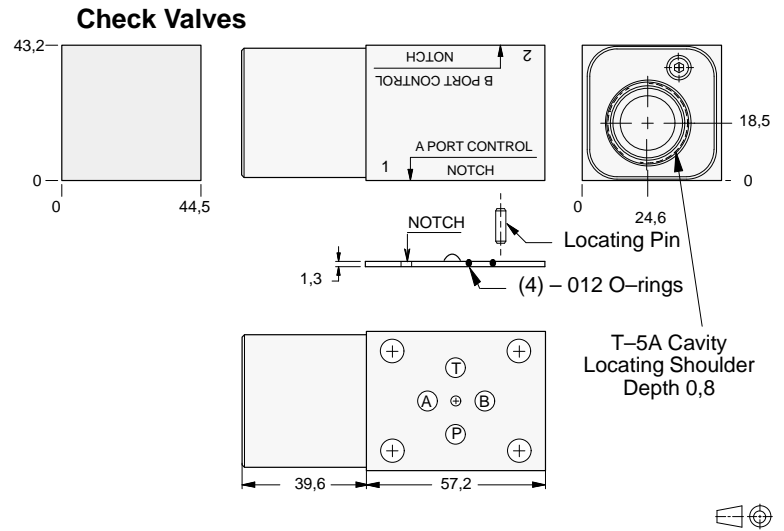
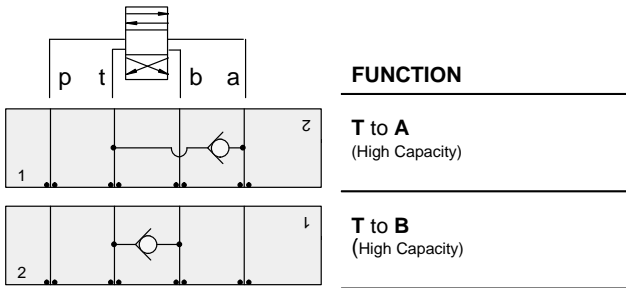
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



03 CHECK



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GDW		GDW/S	



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GDE		GDE/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08 (use with GDW)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with GDE)		
OTHER VALVES:			

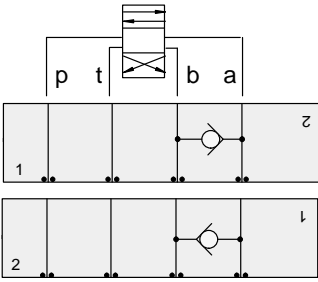


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 CHECK

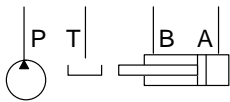
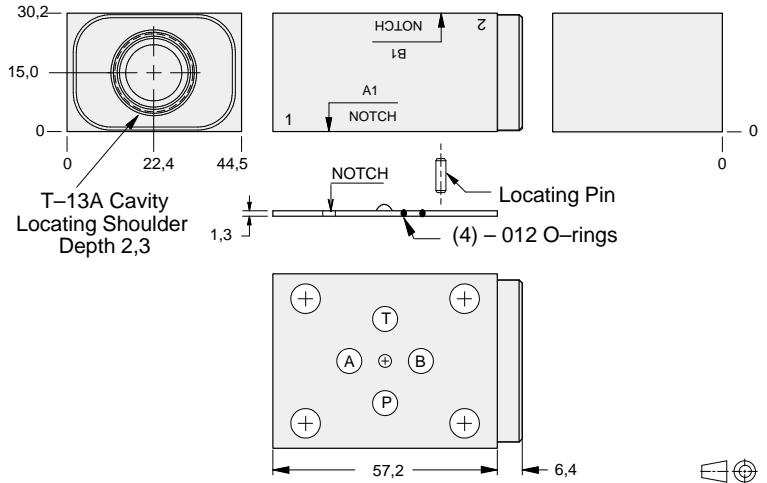


FUNCTION

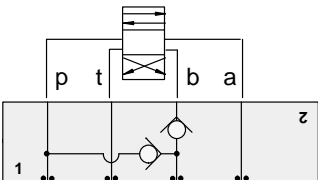
A to B

B to A

Check Valves



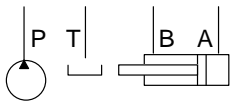
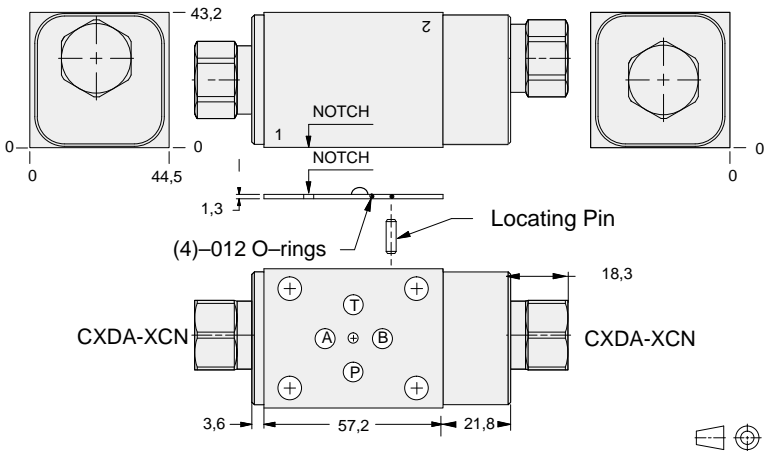
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBS		GBS/S	



FUNCTION

B to P
(For Regenerative Circuits)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YDCK-XCN-AA		YDCK-XCN-AA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

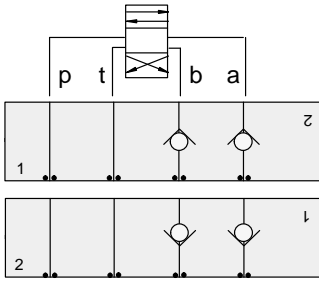
Cartridge Symbol	Description	Material	Part Number
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



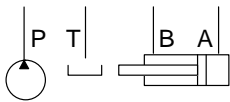
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



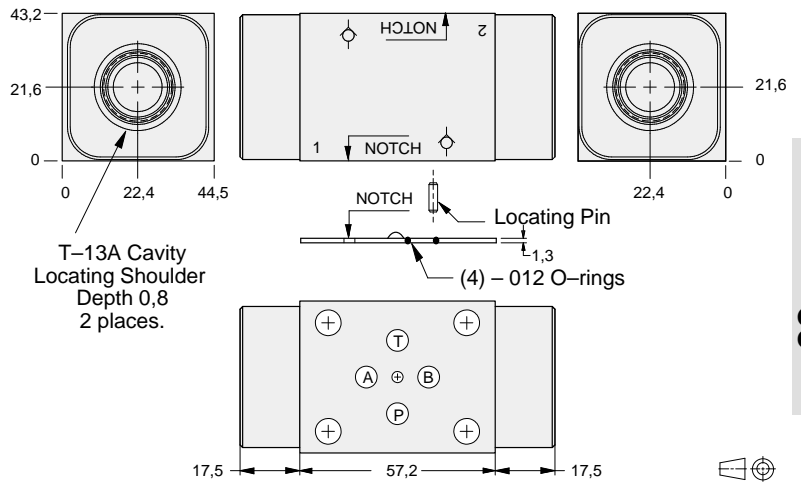
FUNCTION

On **A** and **B**
Free Flow **Out** of Valve

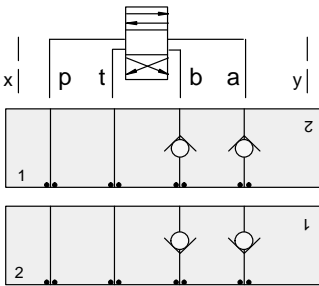
On **A** and **B**
Free Flow **Into** Valve



Check Valves



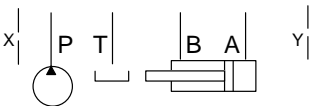
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GDY		GDY/S	



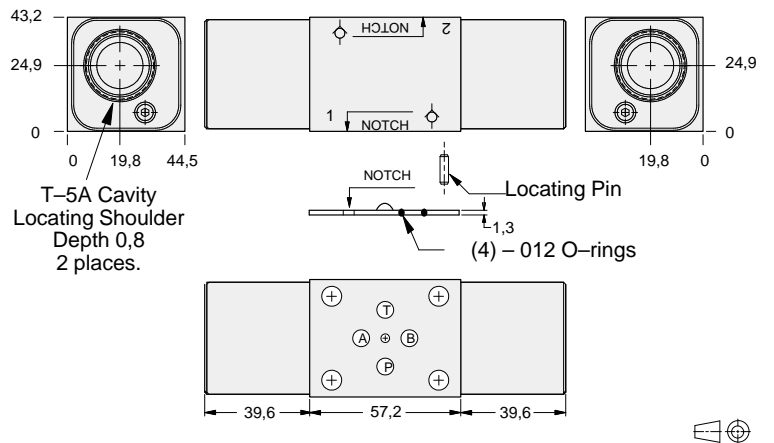
FUNCTION

On **A** and **B**
Free Flow **Out**
of Valve (High Capacity)

On **A** and **B**
Free Flow **Into** Valve
(High Capacity)



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
GDZ		GDZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08 (use with GDY)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with GDZ)		
OTHER VALVES:			

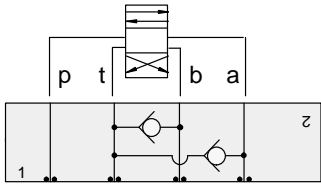


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

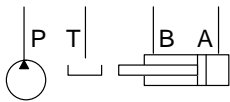
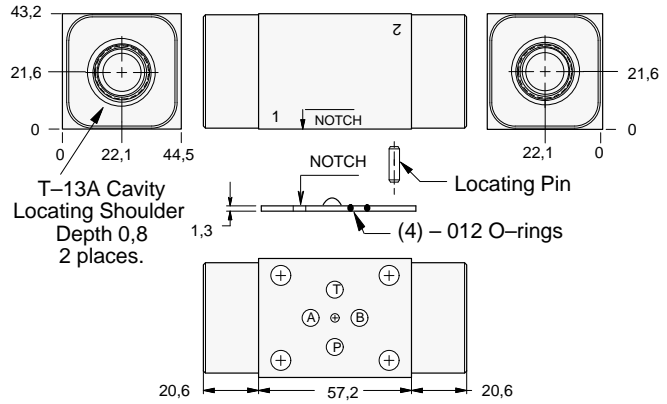
03 CHECK



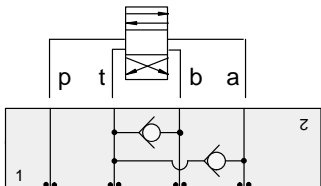
FUNCTION

T to A and B

Check Valves



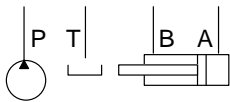
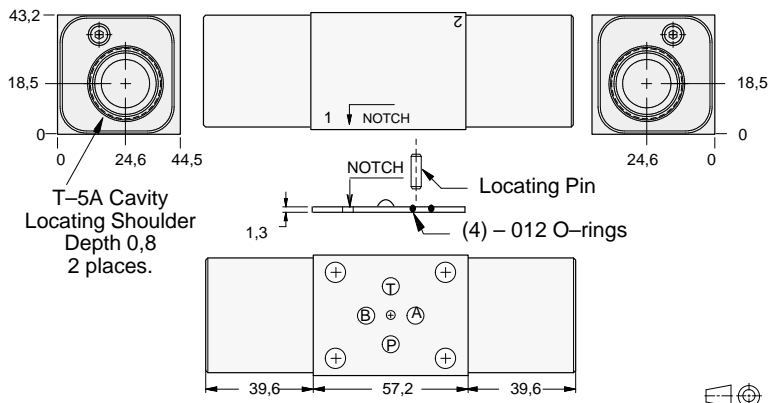
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
GDX		GDX/S	



FUNCTION

T to A and B
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
GDF		GDF/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

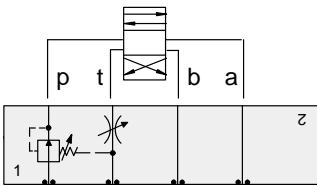
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08 (use with GDX)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with GDF)		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



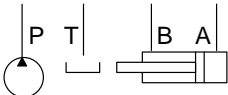
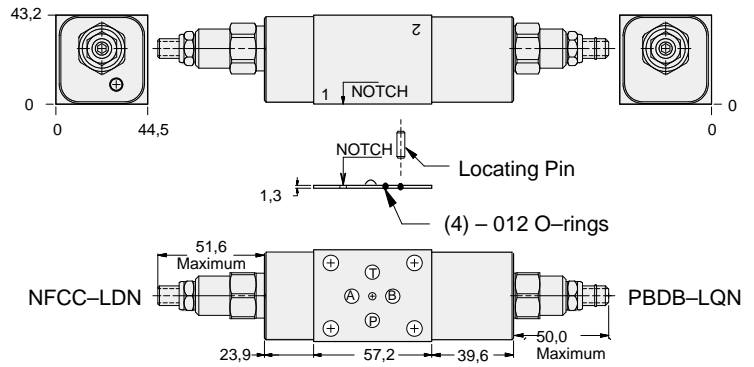
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Pilot Choke

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YNAA-LDN-AA		YNAA-LDN-AA/S	

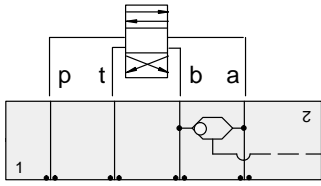


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

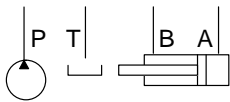
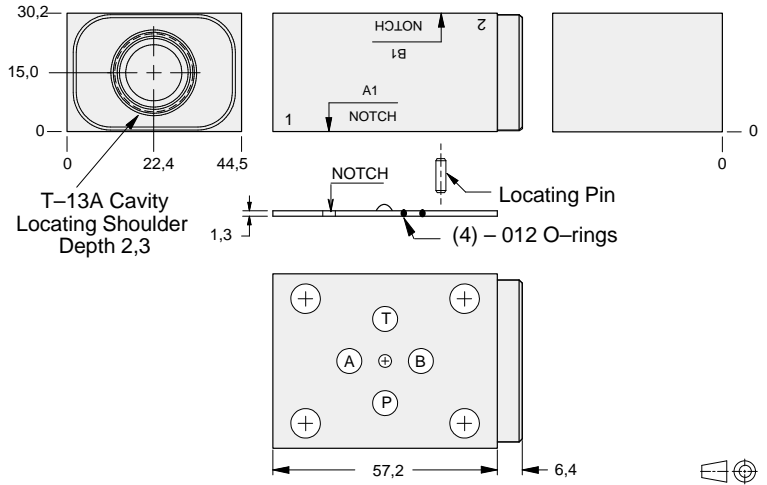
03 CIRCUIT SAVER



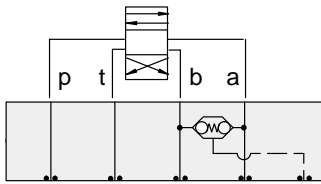
FUNCTION

Shuttle
A and B
Output External

Circuit Savers



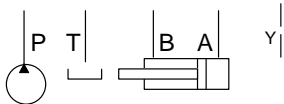
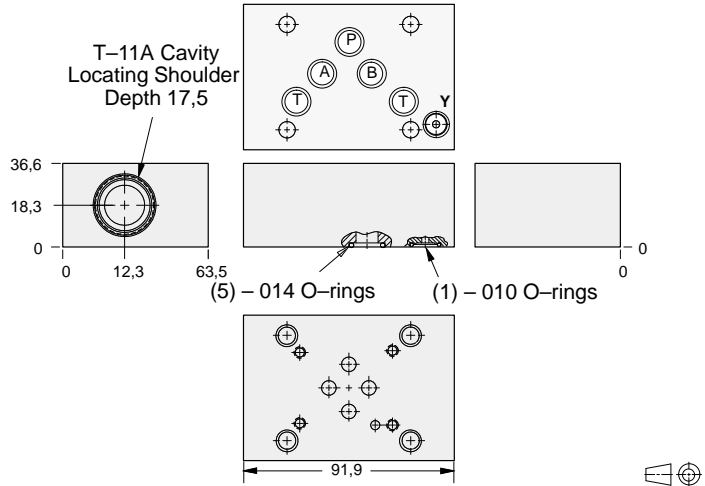
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
GBS		GBS/S	



FUNCTION

Checks from
A and B-Adapter
to ISO 05 w/Y Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
EBS		EBS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

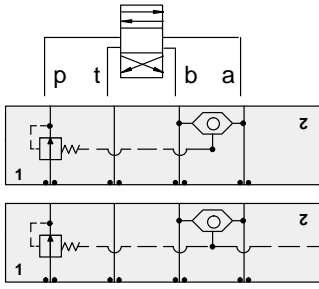
	2 Port Shuttle Valve, Signal External		
	CSAA Page 10.09 (use with GBS)		
	3 Port Back-to-Back Check Valve, Signal at Port 3		
	CDAB Page 10.10 (use with EBS)		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

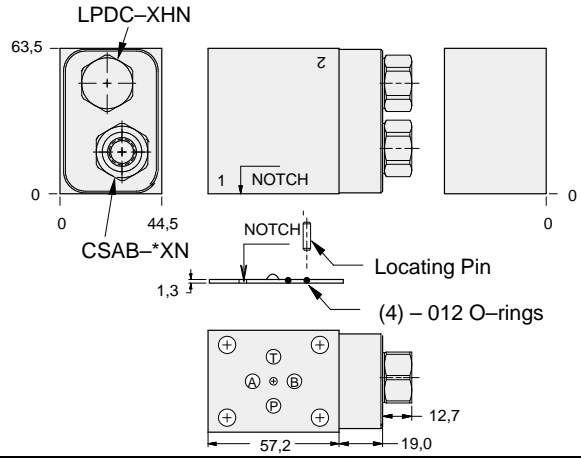


FUNCTION

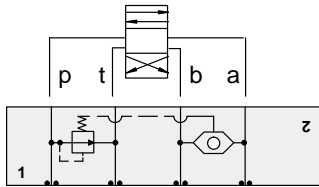
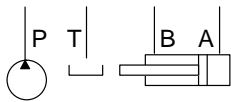
Pressure Compensator (Restrictive)

Pressure Compensator (Restrictive) w/Load-Sensing Port

Circuit Savers



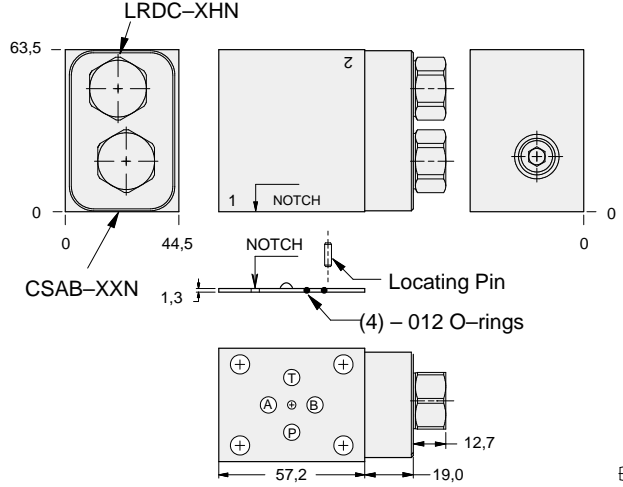
Shuttle Cartridge	External Shuttle Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
CSAB-XXN	None	YFCG-XHN-AA		YFCG-XHN-AA/S	
CSAB-AXN	SAE-4	YFCJ-XHN-AA		YFCJ-XHN-AA/S	
CSAB-BXN	.250 BSPP	YFCJ-XHN-AA/M		YFCJ-XHN-AA/T	



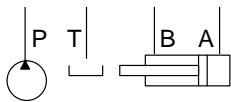
FUNCTION

Pressure Compensator (Bypass)

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YFCG-XHN-AA		YFCG-XHN-AA/S	



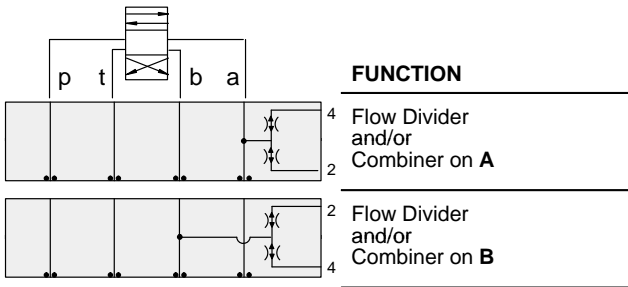


ISO 03 SANDWICH BODIES

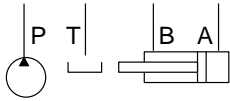
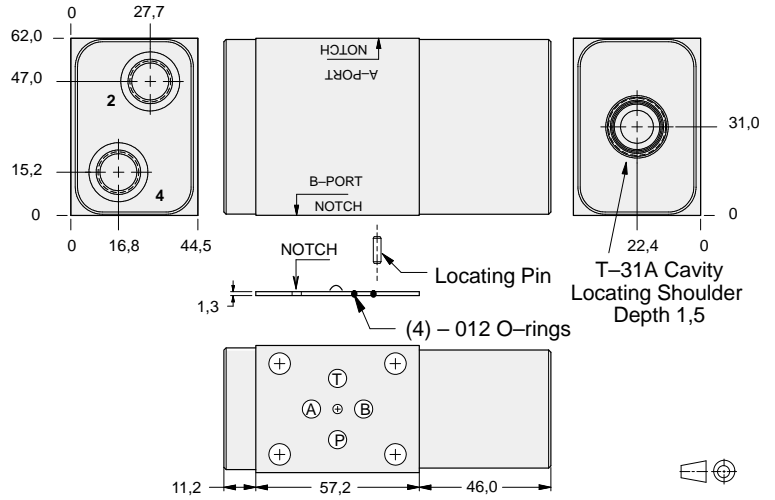


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 CIRCUIT SAVER



Circuit Savers



Ports 2,4	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	MBJ		MBJ/S	
.25 BSPP	MBJ/M		MBJ/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

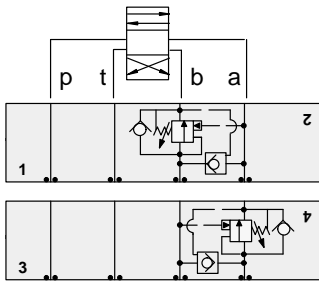
	Flow Divider		High Capacity Flow Divider/Combiner
	FSBD, FSCD Page 7.08		FSCH Page 7.14
	Flow Divider/Combiner		
	FSBA, FSCA Page 7.10		
	Synchronizing Flow Divider/Combiner		
	FSBS, FSCS Page 7.12		
OTHER VALVES:			



ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

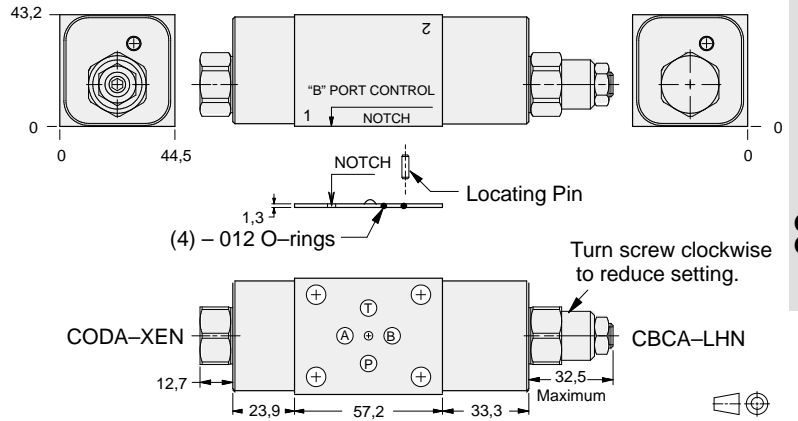


FUNCTION

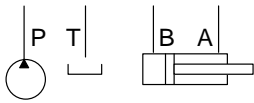
B to A
Regenerative

A to B
Regenerative

Circuit Savers



03 CIRCUIT SAVER



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDCA-LHN-AA		YDCA-LHN-AA/S	

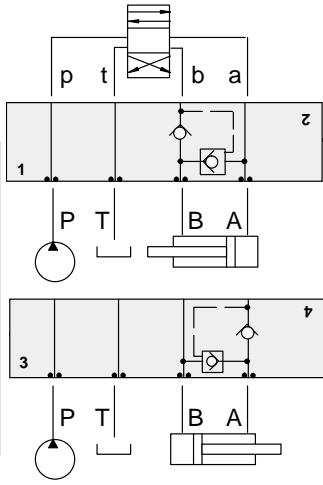


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 CIRCUIT SAVER

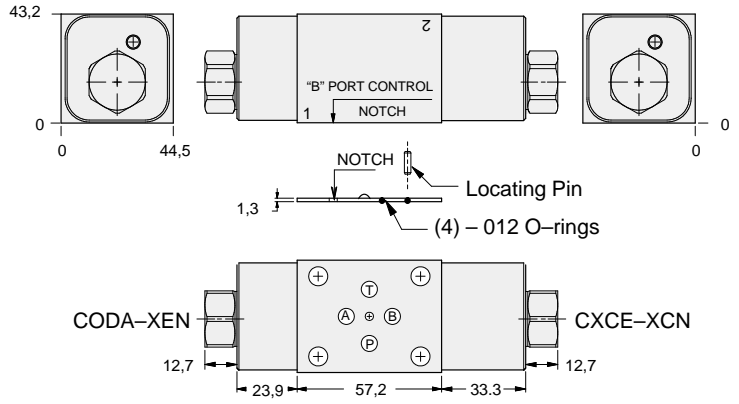


FUNCTION

B to A
Regenerative
(Full Time)

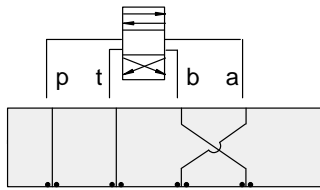
A to B
Regenerative
(Full Time)

Circuit Savers



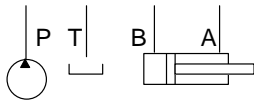
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDCF-XCN-AA		YDCF-XCN-AA/S	

- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

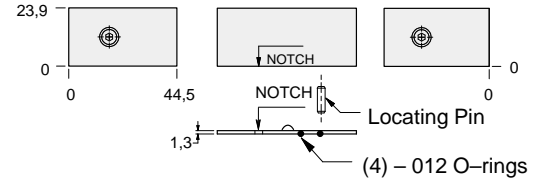


FUNCTION

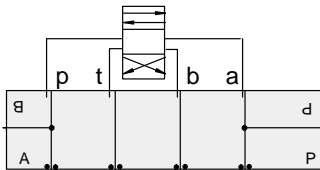
Swap Block
Swaps A and B



Circuit Savers

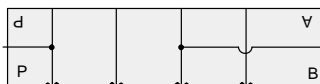


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZKX		ZKX/S	



FUNCTION

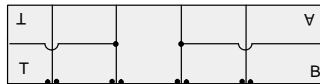
P and A
Tap in Manifold



P and B
Tap in Manifold

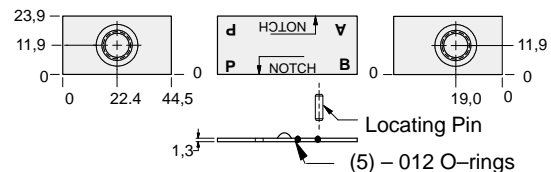


A and T
Tap in Manifold

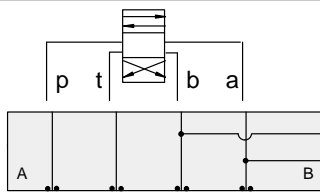


B and T
Tap in Manifold

Circuit Savers

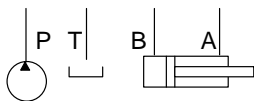


External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	ZWW		ZWW/S	
SAE-4	ZPT		ZPT/S	
.25 BSPP	ZVC		ZVC/S	

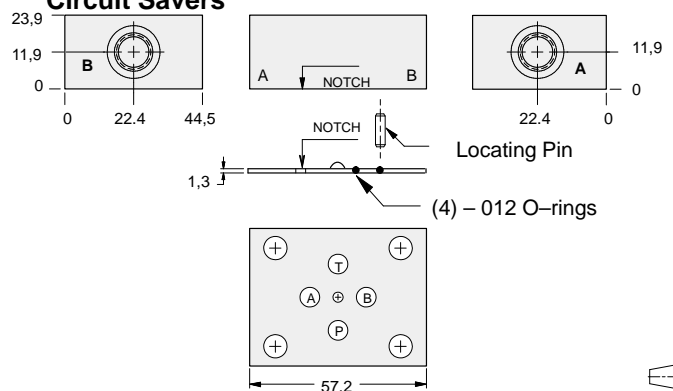


FUNCTION

A and B
Tap in Manifold



Circuit Savers



Ports A, B	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	ZWV		ZWV/S	
SAE-4	ZUO		ZUO/S	
.25 BSPP	ZVB		ZVB/S	



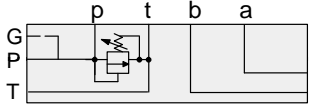
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 SUBPLATE

FUNCTION



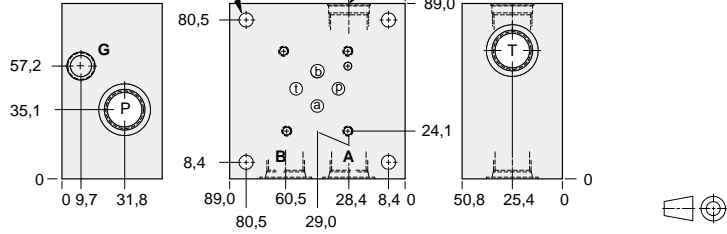
Relief P to T

Side Ported Subplates

Mounting Holes:
7,1 diameter through hole.
4 places.

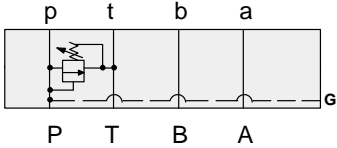
T-10A Cavity
Locating Shoulder
Depth 0,8

4 Interface Bolt Holes
x 9,7 deep
Inch:10-24 UNC
Metric: M5 x 0.8



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	FSB		FSB/S	
Inch	.25 NPTF	SAE-8	FSJ		FSJ/S	
Metric	.25 BSPP	.375 BSPP	FSU		FSU/S	

FUNCTION



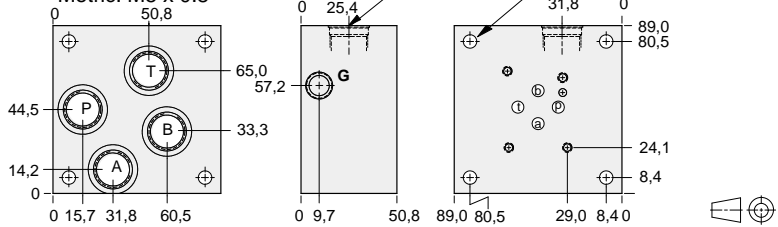
Relief P to T

Rear Ported Subplates

4 Interface Bolt Holes
x 9,7 deep
Inch:10-24 UNC
Metric: M5 x 0.8

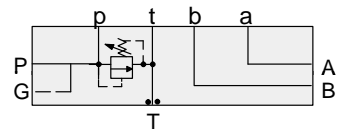
T-10A Cavity
Locating Shoulder
Depth 0,8

Mounting Holes:
7,1 diameter through hole.
4 places.



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	FRB		FRB/S	
Inch	.25 NPTF	SAE-8	FRJ		FRJ/S	
Metric	.25 BSPP	.375 BSPP	FRU		FRU/S	

FUNCTION



Relief P to T

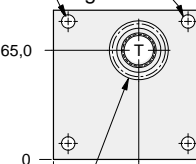
Side Ported Subplates with Gasket Mount Tank Port

Mounting Holes (Sealed):
7,1 diameter through hole.
4 places.

T-10A Cavity
Locating Shoulder
Depth 0,8

4 Interface Bolt Holes
x 9,7 deep
Inch:10-24 UNC
Metric: M5 x 0.8

(4) - O12 O-rings



(1) - 123 O-rings

Bolt Hole Interface	Gauge Port	Ports A,B,P	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	FTB		FTB/S	
Inch	.25 NPTF	SAE-8	FTJ		FTJ/S	
Metric	.25 BSPP	.375 BSPP	FTU		FTU/S	

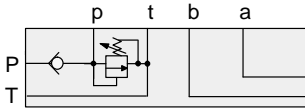
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEC Page 1.06		RQEB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Direct Acting Relief Valve
	RPEE Page 1.08		RDDA Page 1.10

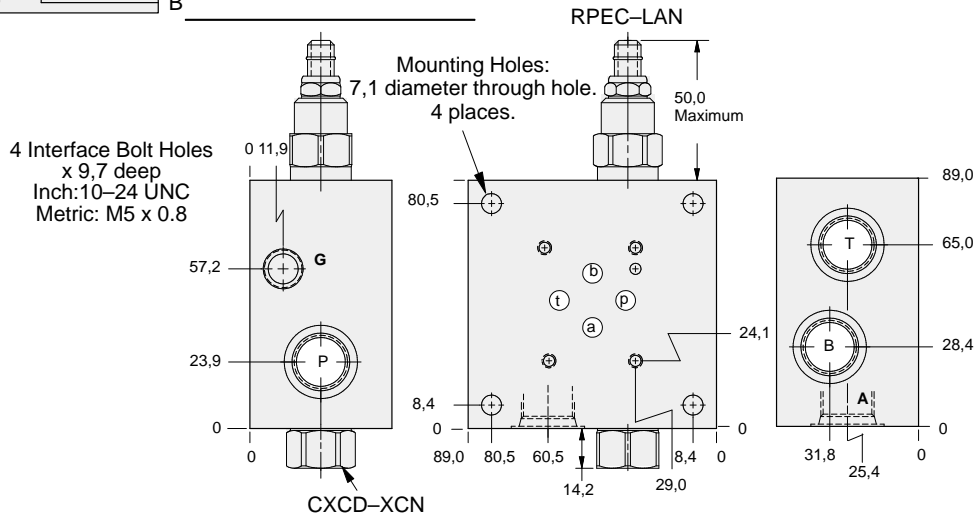
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



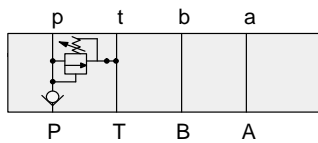
Relief P to T
Check on P



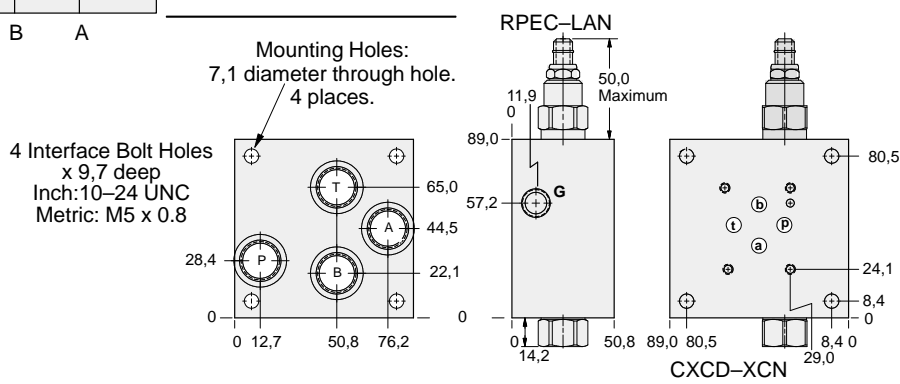
Bolt Hole Interface	Gauge Port	Port A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	YRCC-LAN-BB		YRCC-LAN-BB/S	
Inch	.25 NPTF	SAE-8	YRCC-LAN-BJ		YRCC-LAN-BJ/S	
Metric	.25 BSPP	.375 BSPP	YRCC-LAN-BU		YRCC-LAN-BU/S	

Rear Ported Subplates

FUNCTION



Relief P to T
Check on P



Bolt Hole Interface	Gauge Port	Port A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Part Number	List Price
Inch	.25 NPTF	.375 NPTF	YRCB-LAN-BB		YRCB-LAN-BB/S	
Inch	.25 NPTF	SAE-8	YRCB-LAN-BJ		YRCB-LAN-BJ/S	
Metric	.25 BSPP	.375 BSPP	YRCB-LAN-BU		YRCB-LAN-BU/S	



ISO 03 SANDWICH BODIES

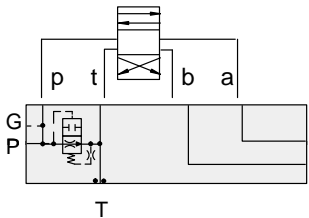


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

03 SUBPLATE

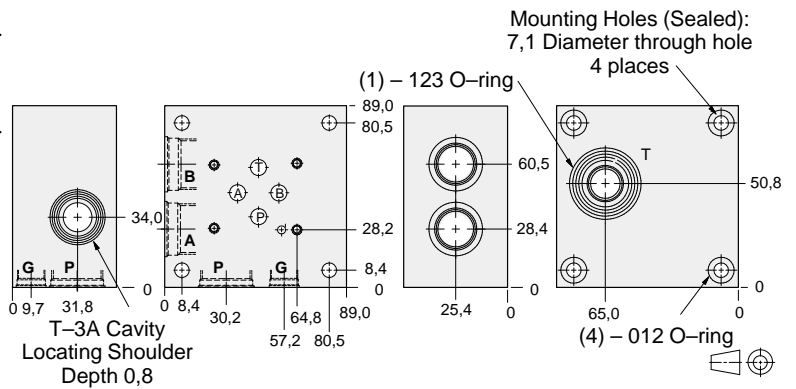
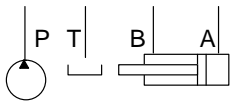
				ALUMINIM		DUCTILE IRON	
				Model Code	List Price	Model Code	List Price

Side Ported Subplates with Gasket Mount Tank Port



FUNCTION

Air-Bleed and Start-Up



Bolt Hole Interface	Ports T	Ports A,B,P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.375 NPTF	.375 NPTF	.25 NPTF	CTB		CTB/S	
Inch	.375 NPTF	SAE-8	.25 NPTF	CTJ		CTJ/S	
Metric	.375 BSPP	.375 BSPP	.25 BSPP	CTU		CTU/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Air Bleed and Start-up Valve		
	NQEB Page 10.16		

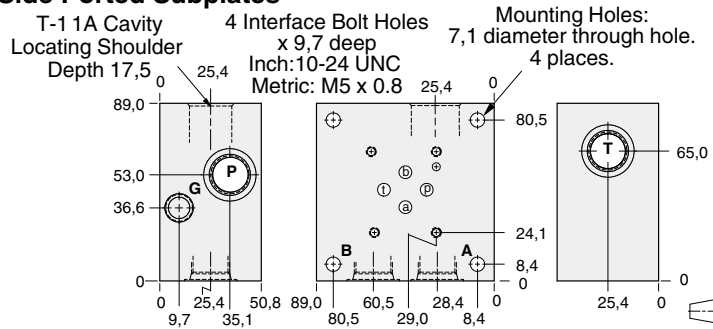
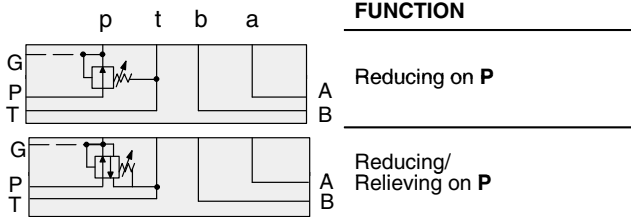


ISO 03 SANDWICH BODIES



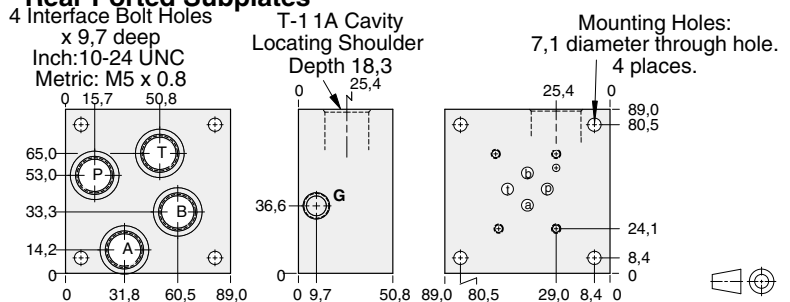
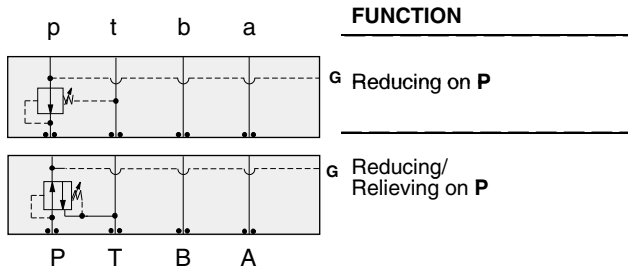
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates



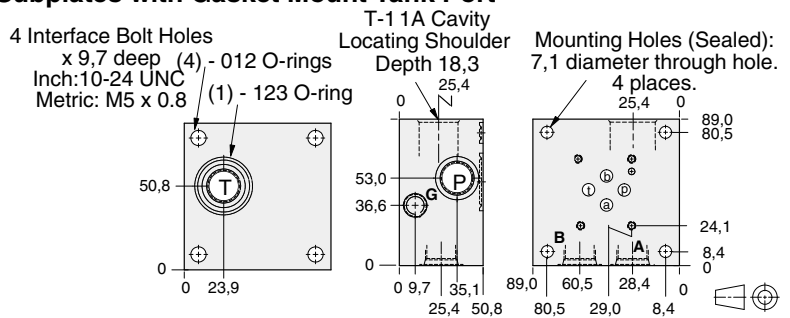
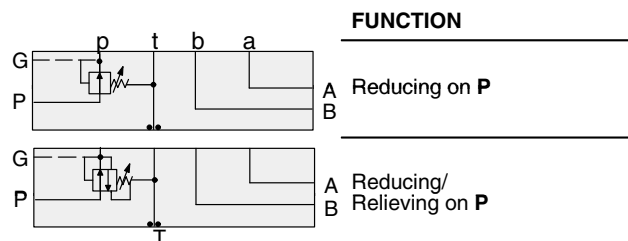
Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	ESB		ESB/S	
Inch	.25 NPTF	SAE-8	ESJ		ESJ/S	
Metric	.25 BSPP	.375 BSPP	ESU		ESU/S	

Rear Ported Subplates



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	ERB		ERB/S	
Inch	.25 NPTF	SAE-8	ERJ		ERJ/S	
Metric	.25 BSPP	.375 BSPP	ERU		ERU/S	

Side Ported Subplates with Gasket Mount Tank Port



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.375 NPTF	ETB		ETB/S	
Inch	.25 NPTF	SAE-8	ETJ		ETJ/S	
Metric	.25 BSPP	.375 BSPP	ETU		ETU/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing Valve		Pilot Operated Relief Valve
	PBDB Page 3.06		PPDB Page 3.10



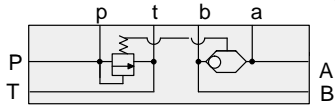
ISO 03 SANDWICH BODIES



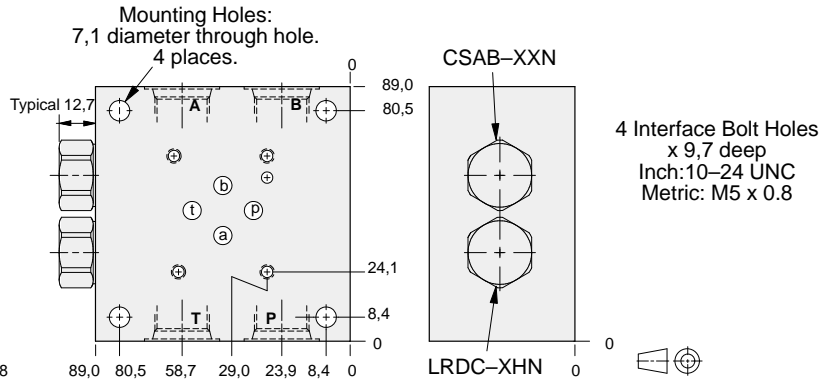
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



Bypass
Compensator
for Proportional
Valves



Bolt Hole Interface	Port A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.375 NPTF	YFCL-XHN-BB		YFCL-XHN-BB/S	
Inch	SAE-8	YFCL-XHN-BJ		YFCL-XHN-BJ/S	
Metric	.375 BSPP	YFCL-XHN-BU		YFCL-XHN-BU/S	



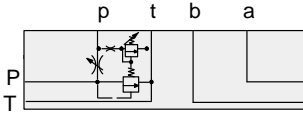
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

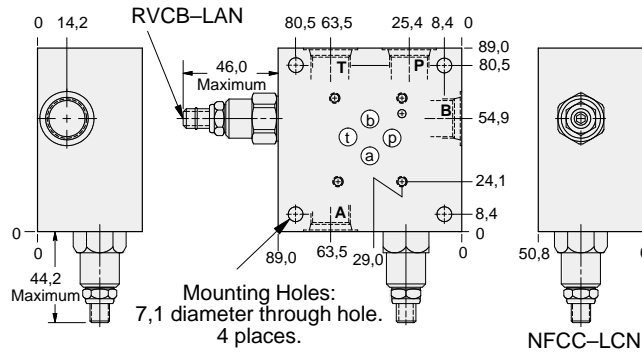
Side Ported Subplates

FUNCTION



Relief P to T
and Bypass
A Flow Regulator

4 Interface Bolt Holes
x 9,7 deep
Inch: 10-24 UNC
Metric: M5 x 0.8



Bolt Hole Interface	Port A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.375 NPTF	YFCS-LCN-BB		YFCS-LCN-BB/S	
Inch	SAE-8	YFCS-LCN-BJ		YFCS-LCN-BJ/S	
Metric	.375 BSPP	YFCS-LCN-BU/M		YFCS-LCN-BU/T	

03 SUBPLATE



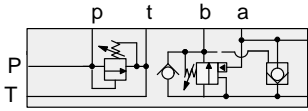
ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

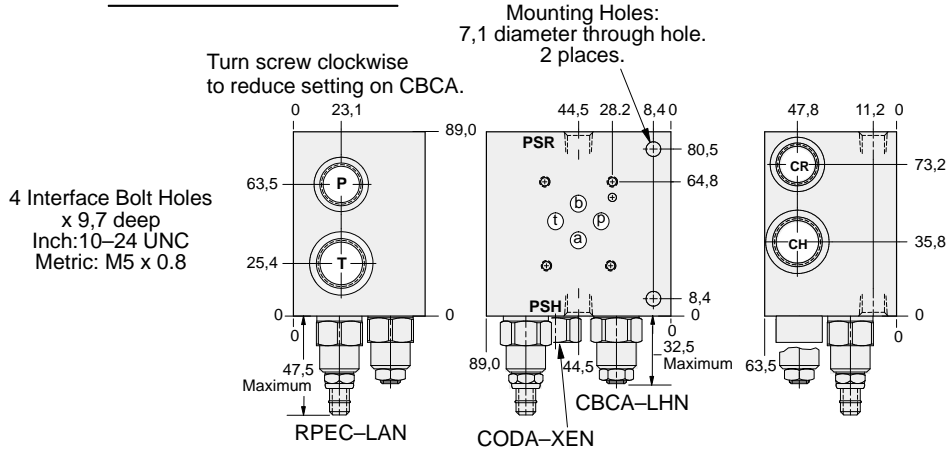
Side Ported Subplates

FUNCTION



A Relief P to T
Regenerative
B to A

03 SUBPLATE



Bolt Holes Interface	Ports T, CH	Ports P, CR	Ports PSH, PSR	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	.375 NPTF	.25 NPTF	YDCG-LHN-BC		YDCG-LHN-BC/S	
Inch	SAE-10	SAE-8	.25 NPTF	YDCG-LHN-BK		YDCG-LHN-BK/S	
Metric	.50 BSPP	.375 BSPP	.25 BSPP	YDCG-LHN-BV		YDCG-LHN-BV/S	

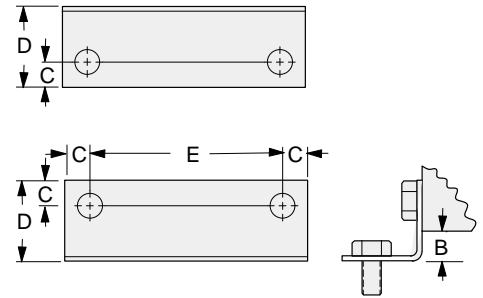


BAR MANIFOLDS



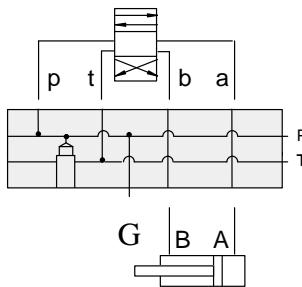
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Some of the bar manifolds offered in this catalogue are manufactured by Daman Products Company, Inc. All bar manifolds are parallel circuit type and contain a cavity for a Sun relief valve, pressure to tank, as well as a gauge port. Mounting kits for all bar manifolds must be ordered separately and contain brackets, bolts and washers. Metric mounting kits are also available.



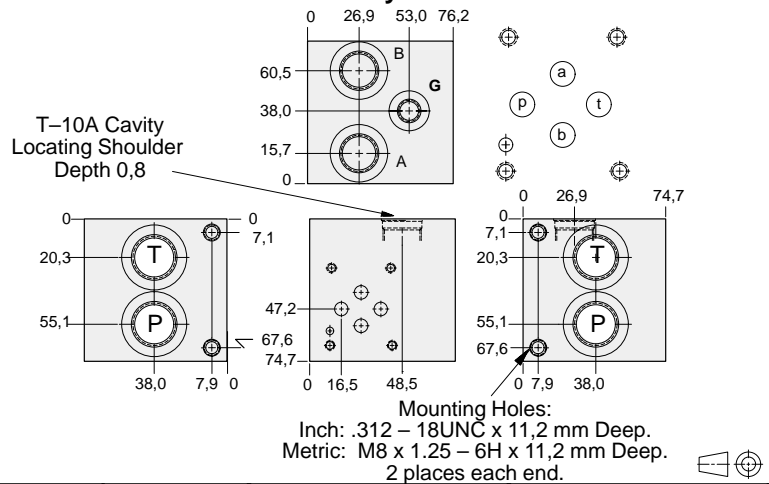
Manifold Interface	Thread Size	Mounting Bracket Dimensions				Bracket	Bolts	Washer	Model Code
		B	C	D	E				
ISO 03	.312-18UNC x .62 lg.	9,4	7,9	25,4	60,5	700-020	300-005-001	Washer Head	991-021-001
ISO 03	M8 x 1.25 x 16,0 mm lg.	9,4	7,9	25,4	60,5	700-020	300-006-001	450-002-001	991-021-002
ISO 05	.312-18UNC x .62 lg.	9,4	7,9	25,4	60,5	700-020	300-005-001	Washer Head	991-021-003
ISO 05	M8 x 1.25 x 16,0 mm lg.	9,4	7,9	25,4	60,5	700-020	300-006-001	450-002-001	991-021-004
ISO 05 y	.375-16UNC x .75 lg.	14,2	11,2	35,1	104,9	700-021	300-005-002	450-001-002	991-021-005
ISO 05 y	M10 x 1.5 x 20,0 mm lg.	14,2	11,2	35,1	104,9	700-021	300-006-002	450-002-002	991-021-006
ISO 07	.375-16UNC x .75 lg.	14,2	11,2	35,1	104,9	700-021	300-005-002	450-001-002	991-021-007
ISO 07	M10 x 1.5 x 20,0 mm lg.	14,2	11,2	35,1	104,9	700-021	300-006-002	450-002-002	991-021-008
ISO 08	.500-13UNC x 1.0 lg.	14,2	14,2	41,4	124,0	700-022	300-005-003	450-001-003	991-021-009
ISO 08	M12 x 1.75 x 25,0 mm lg.	14,2	14,2	41,4	124,0	700-022	300-006-003	450-002-003	991-021-010

ISO 03 Parallel Circuit with Relief Cavity



FUNCTION

One Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.50 NPTF	.375 NPTF	.25 NPTF	VSA		VSA/S	
inch	SAE-10	SAE-8	SAE-4	VSL		VSL/S	
metric	.50 BSPP	.375 BSPP	.25 BSPP	VPA		VPA/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPEC Page 1.06		RDDA Page 1.10
OTHER VALVES:			

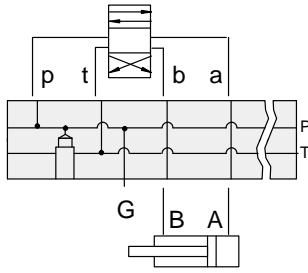


BAR MANIFOLDS



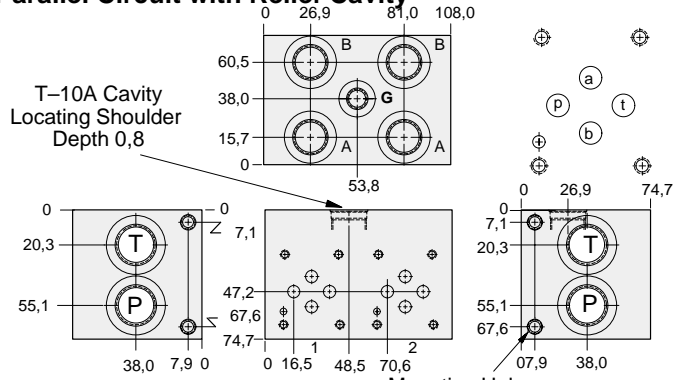
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 03 Parallel Circuit with Relief Cavity



FUNCTION

Two Station

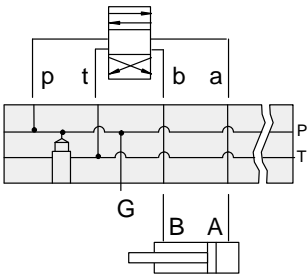


Mounting Holes:
 Inch: .312 – 18UNC x 11,2 mm Deep.
 Metric: M8 x 1.25 – 6H x 11,2 mm Deep.
 2 places each end.

Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.50 NPTF	.375 NPTF	.25 NPTF	VSB		VSB/S	
inch	SAE-10	SAE-8	SAE-4	VSM		VSM/S	
metric	.50 BSPP	.375 BSPP	.25 BSPP	VPB		VPB/S	

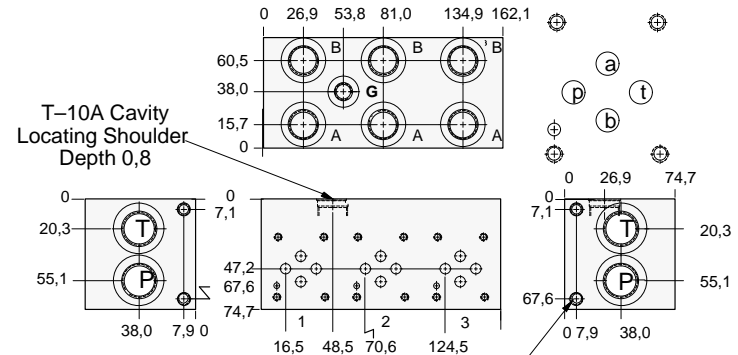
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 03 Parallel Circuit with Relief Cavity



FUNCTION

Three Station



Mounting Holes:
 Inch: .312 – 18UNC x 11,2 mm Deep.
 Metric: M8 x 1.25 – 6H x 11,2 mm Deep.
 2 places each end.

Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.50 NPTF	.375 NPTF	.25 NPTF	VSC		VSC/S	
inch	SAE-10	SAE-8	SAE-4	VSN		VSN/S	
metric	.50 BSPP	.375 BSPP	.25 BSPP	VPC		VPC/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPEC Page 1.06		RDDA Page 1.10
OTHER VALVES:			

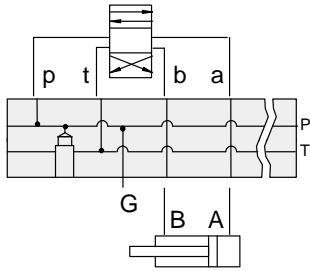


BAR MANIFOLDS



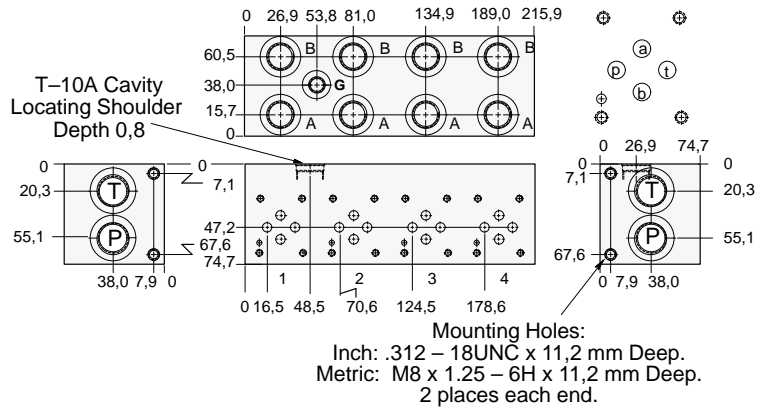
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 03 Parallel Circuit with Relief Cavity



FUNCTION

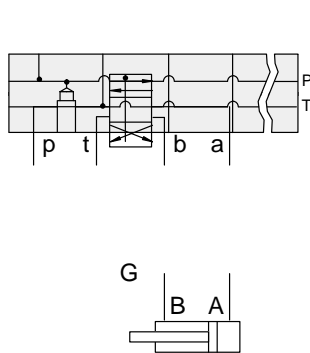
Four Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.50 NPTF	.375 NPTF	.25 NPTF	VSD		VSD/S	
inch	SAE-10	SAE-8	SAE-4	VSP		VSP/S	
metric	.50 BSPP	.375 BSPP	.25 BSPP	VPD		VPD/S	

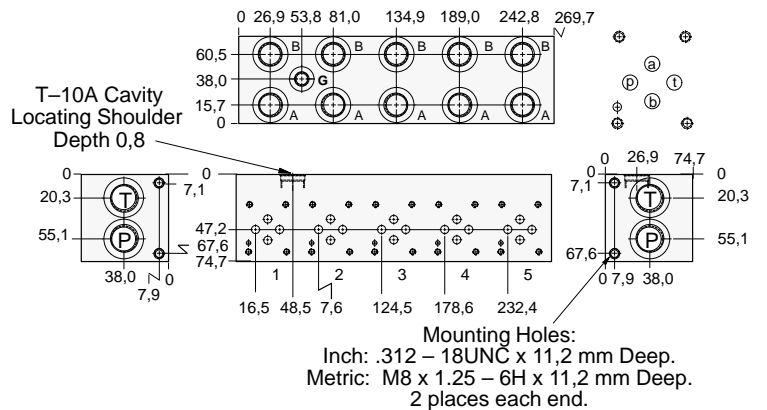
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 03 Parallel Circuit with Relief Cavity



FUNCTION

Five Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.50 NPTF	.375 NPTF	.25 NPTF	VSE		VSE/S	
inch	SAE-10	SAE-8	SAE-4	VSR		VSR/S	
metric	.50 BSPP	.375 BSPP	.25 BSPP	VPE		VPE/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPEC Page 1.06		RDDA Page 1.10
OTHER VALVES:			

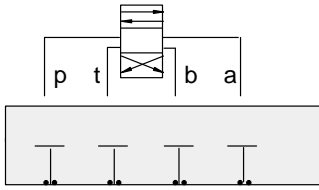


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

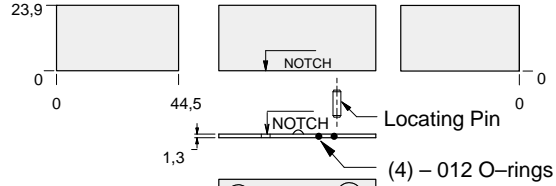
03 COVER PLATE



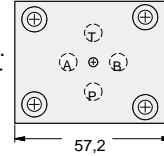
FUNCTION

All Ports Blocked

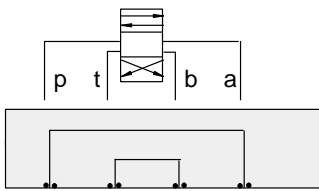
Cover Plates



Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep.
4 places.



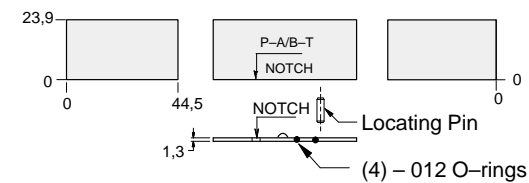
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJR		ZJR/S	



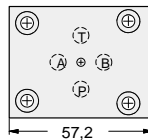
FUNCTION

P to A and B to T

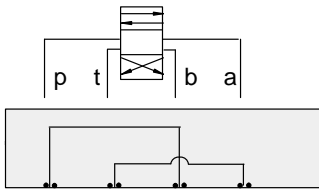
Cover Plates



Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep.
4 places.



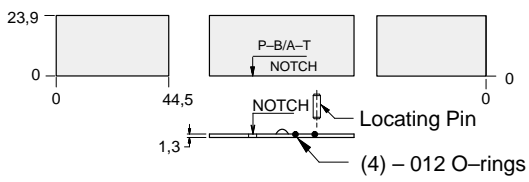
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJS		ZJS/S	



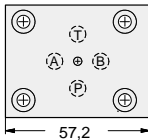
FUNCTION

P to B and A to T

Cover Plates

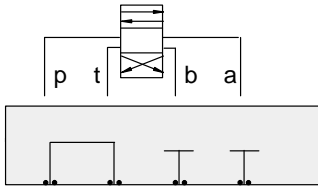


Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep.
4 places.



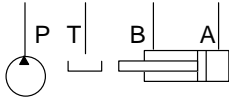
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJT		ZJT/S	

- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

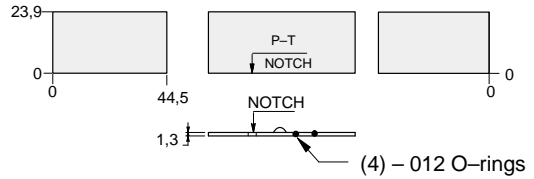


FUNCTION

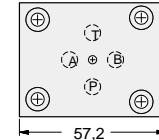
P to T
A and B blocked



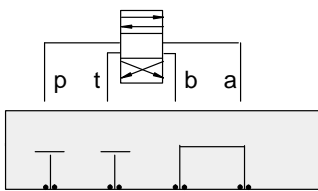
Cover Plates



Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep.
4 places.

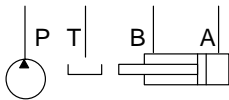


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJV		ZJV/S	

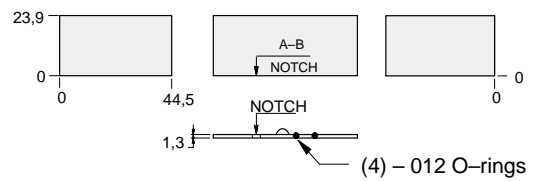


FUNCTION

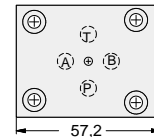
A to B
P and T blocked



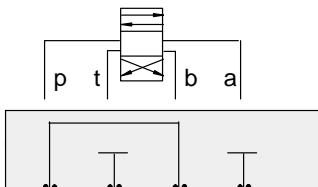
Cover Plates



Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep.
4 places.

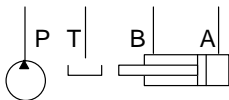


ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJW		ZJW/S	

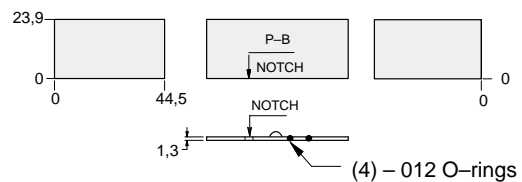


FUNCTION

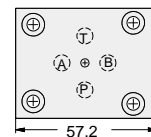
P to B
A and T blocked



Cover Plates



Mounting Holes:
5,1 diameter through hole.
Counterbore 9,1 diameter
x 12,7 deep
4 places



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZWE		ZWE/S	

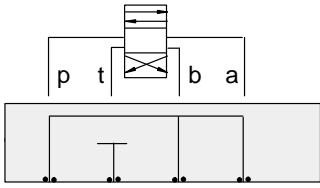


ISO 03 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

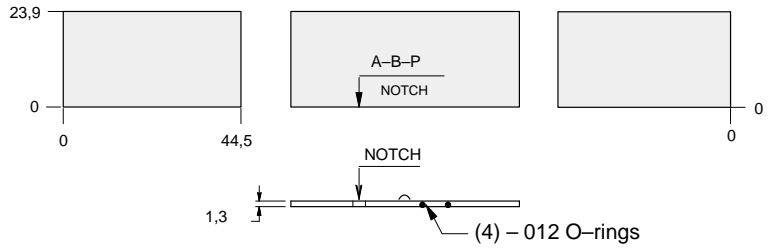
03 COVER PLATE



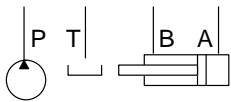
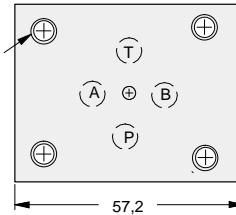
FUNCTION

**P to A and B
T blocked**

Cover Plates



Mounting Holes:
5,1 Diameter through hole
Counterbore 9,1 diameter
x 12,7 deep
4 places.



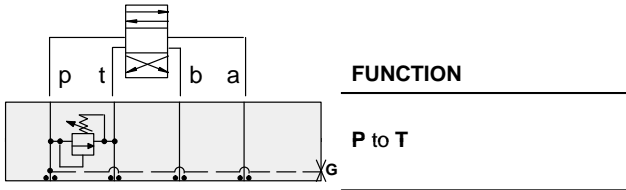
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
WJG		WJG/S	



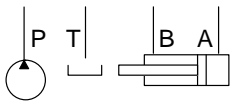
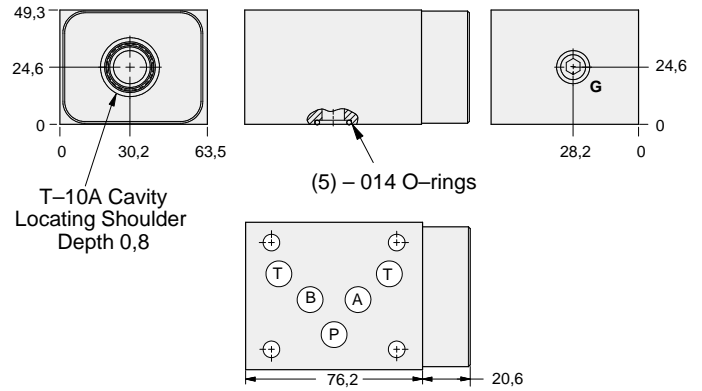
ISO 05 SANDWICH BODIES



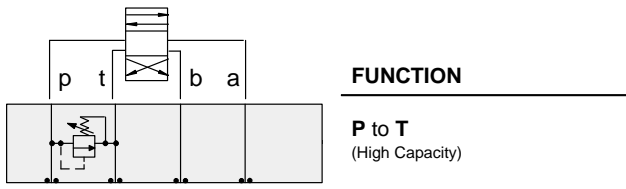
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



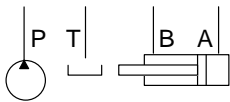
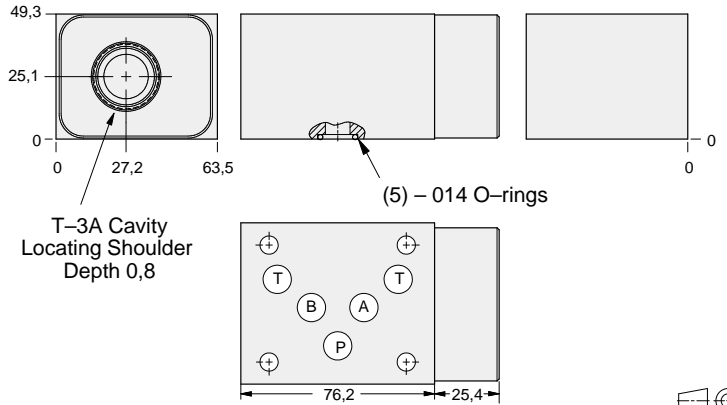
Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CBE		CBE/S	
.25 BSPP	CBE/M		CBE/T	



Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBP		CBP/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

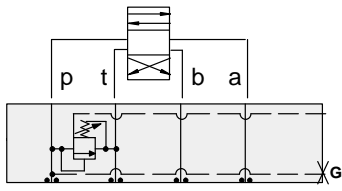
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.06		RQ*B Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.08		RPGD Page 1.14 (use with CBP)
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



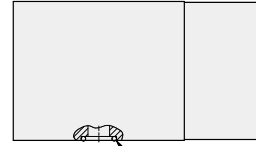
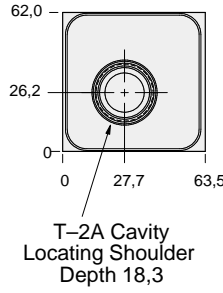
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



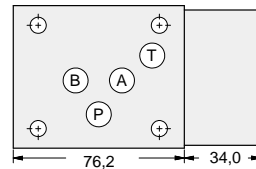
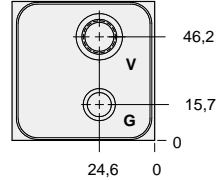
FUNCTION

P to T
Externally Vented

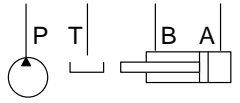
Relief Valves



(5) - 014 O-rings



05 RELIEF



Gauge Port (Plugged)	Vent Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
.25 NPTF	SAE-6	BBC		BBC/S	
.25 BSPP	.25 BSPP	BBC/M		BBC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

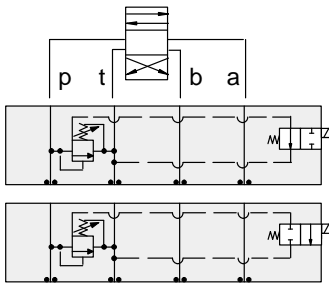
	<i>Pilot Operated Vented Relief Valve</i>		
	RVEA Page 1.18		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

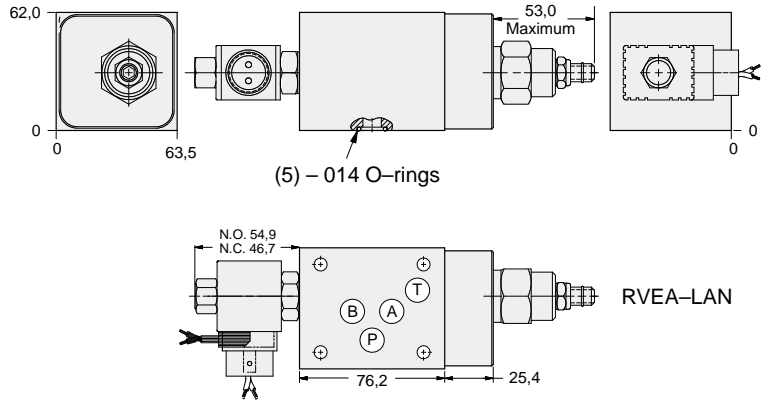


FUNCTION

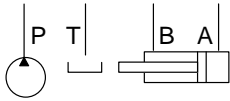
P to T
N.O. Solenoid
Vented *

P to T
N.C. Solenoid
Vented *

Relief Valves



Operating pressure is limited to 210 bar.



Solenoid Type	ALUMINUM		DUCTILE IRON	
	Model Code	List Price	Model Code	List Price
N.O.	YREO-LAN-*A		YREO-LAN-*A/S	
N.C.	YREP-LAN-*A		YREP-LAN-*A/S	

* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.

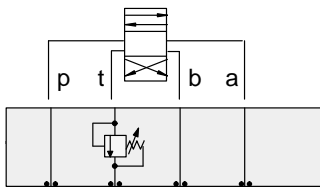


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

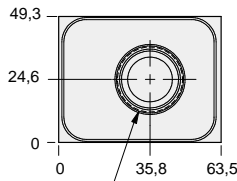
05 RELIEF



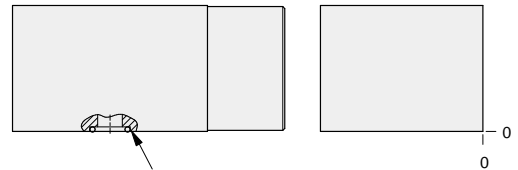
FUNCTION

Out of T
(High Capacity)

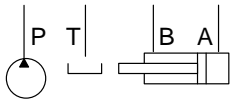
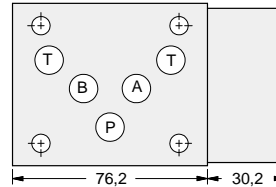
Relief Valves



T-3A Cavity
Locating Shoulder
Depth 1,5



(5) - 014 O-rings



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
CBT		CBT/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

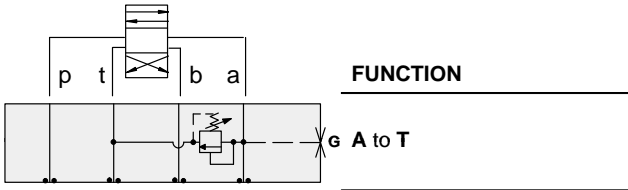
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



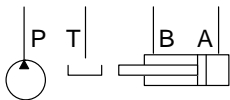
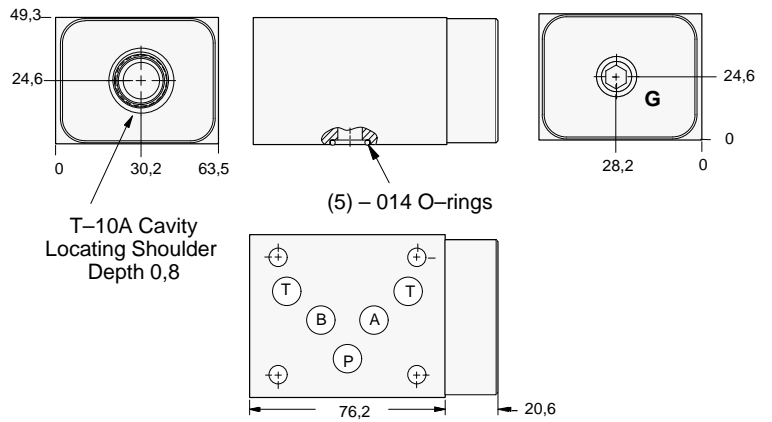
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

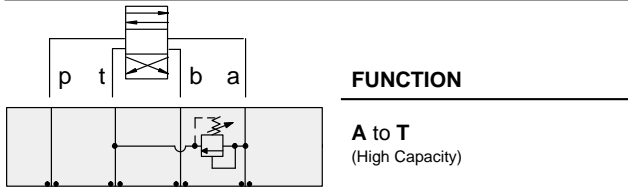


Relief Valves

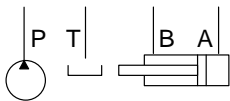
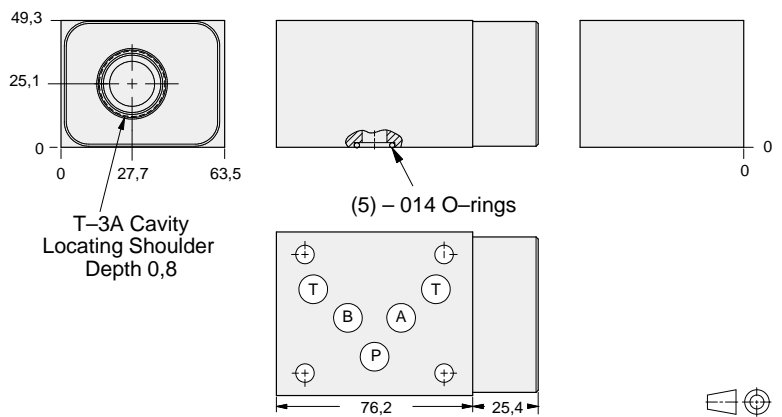


Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CBF		CBF/S	
.25 BSPP	CBF/M		CBF/T	

05 RELIEF



Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBA		CBA/S	

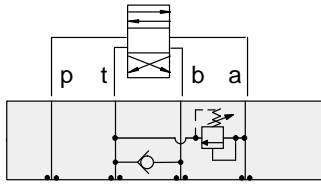
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.06		RQ*B Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.08		RPGD Page 1.14 (use with CBA)
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



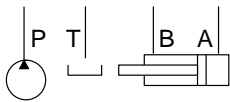
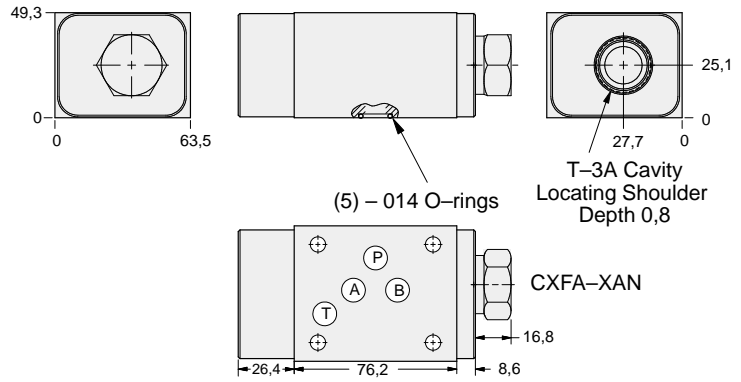
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

A to T
FF Check T to B

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CB2		CB2/S	

05 RELIEF

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

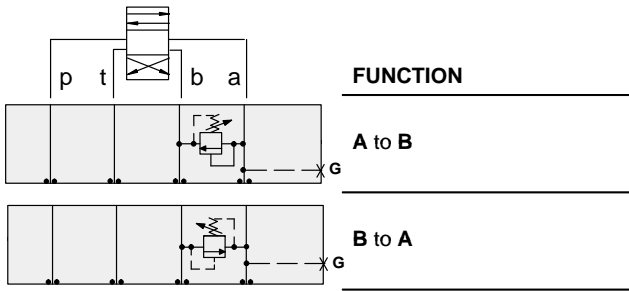
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

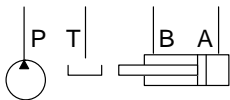
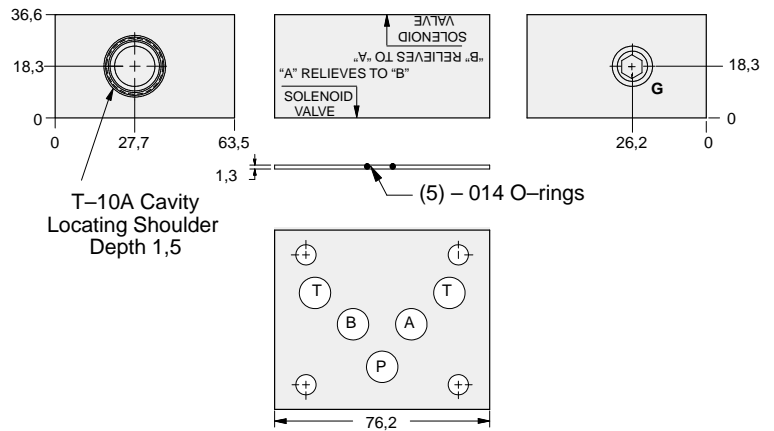


FUNCTION

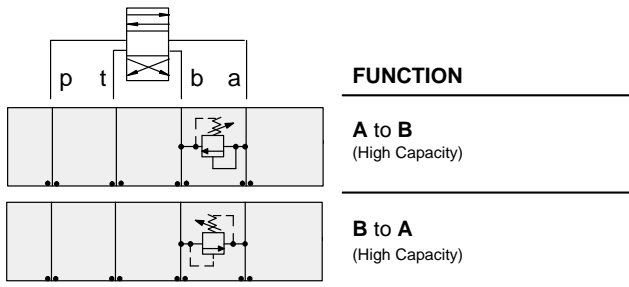
A to B

B to A

Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CBH		CBH/S	
.25 BSPP	CBH/M		CBH/T	

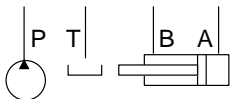
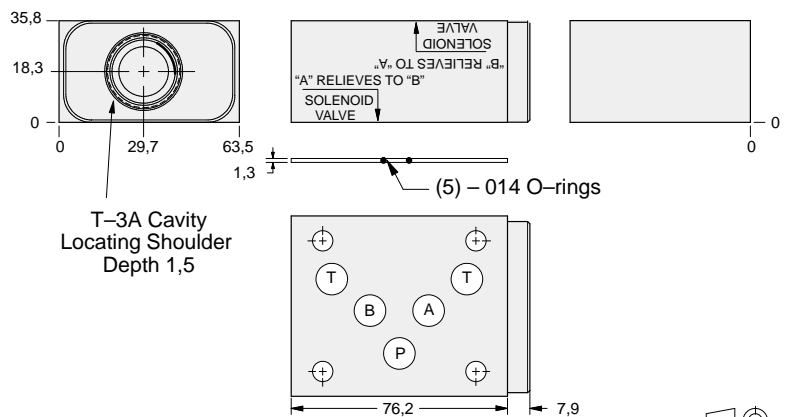


FUNCTION

A to B
(High Capacity)

B to A
(High Capacity)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBC		CBC/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

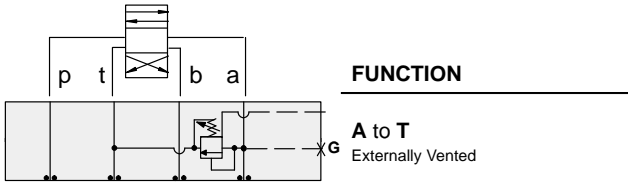
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.06		RQ*B Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.08		RPGD Page 1.14 (use with CBC)
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.10		



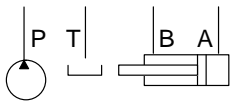
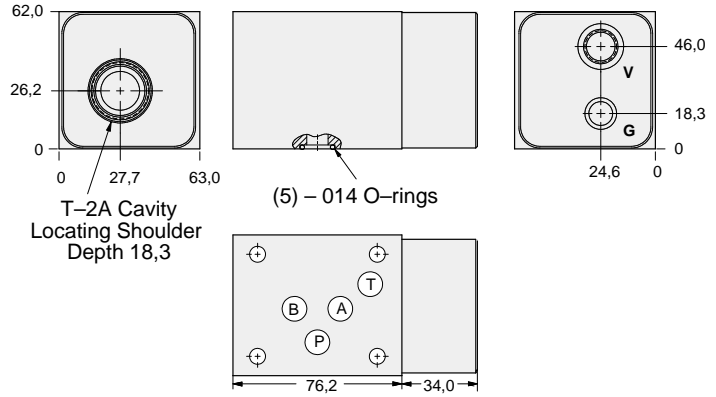
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

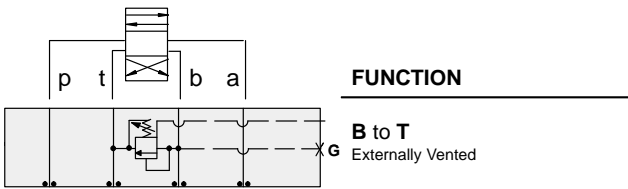


Relief Valves

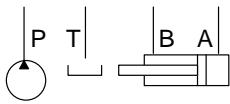
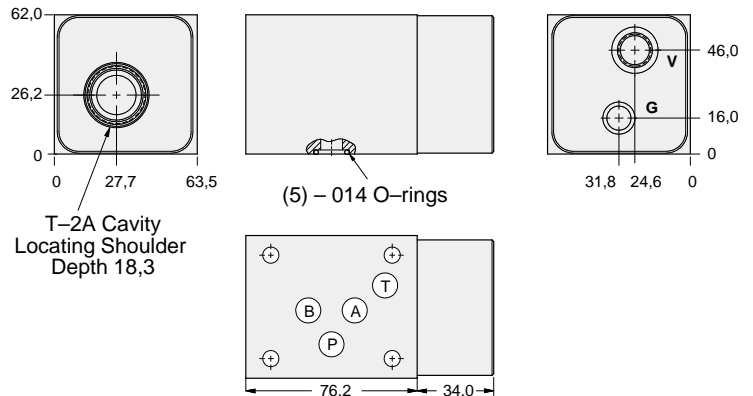


Gauge Port (Plugged)	Vent Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
.25 NPTF	SAE-6	BBD		BBD/S	
.25 BSPP	.25 BSPP	BBD/M		BBD/T	

05 RELIEF



Relief Valves



Gauge Port (Plugged)	Vent Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Part Number	List Price
.25 NPTF	SAE-6	BBE		BBE/S	
.25 BSPP	.25 BSPP	BBE/M		BBE/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

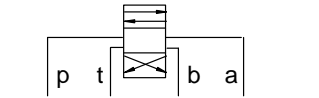
	Pilot Operated Vented Relief Valve		
	RVEA Page 1.18		
OTHER VALVES:			



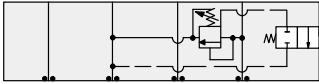
ISO 05 SANDWICH BODIES



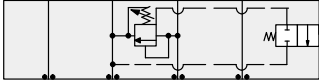
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



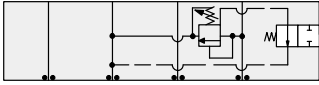
FUNCTION



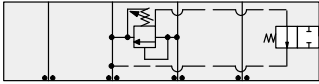
A to T
N.C. Solenoid
Vented



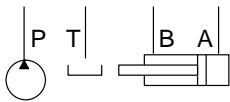
B to T
N.C. Solenoid Vented



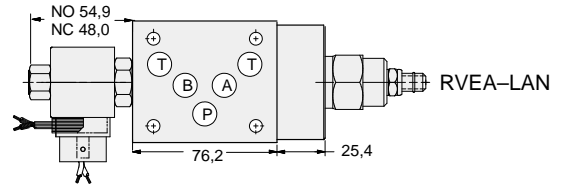
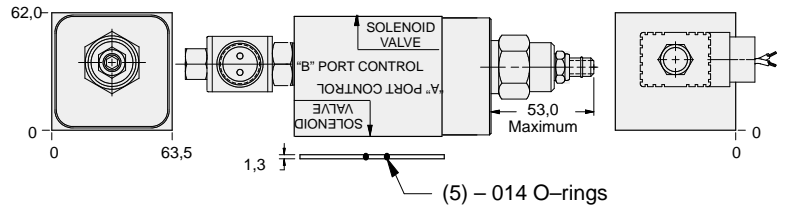
A to T
N.O. Solenoid
Vented



B to T
N.O. Solenoid Vented



Relief Valves



Operating pressure limited to 210 bar.

Solenoid Type	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
N.C.	YRET-LAN-*A		YRET-LAN-*A/S	
N.O.	YREU-LAN-A		YREU-LAN-A/S	

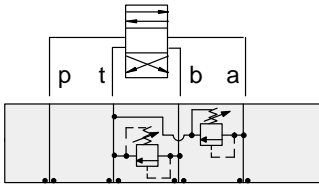
* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.



ISO 05 SANDWICH BODIES



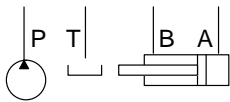
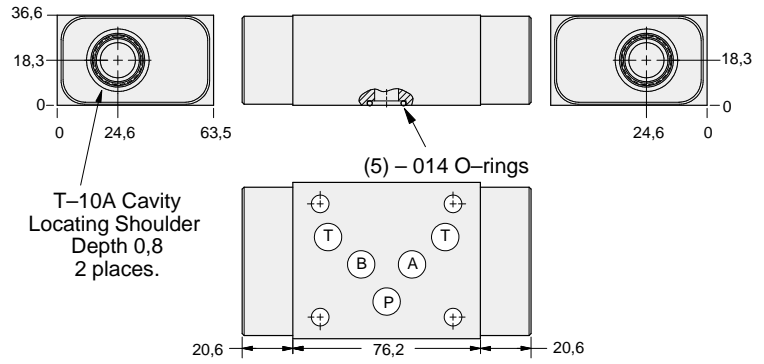
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

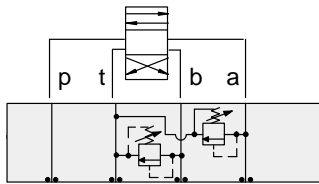
A and B to T

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CBD		CBD/S	

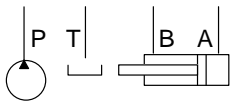
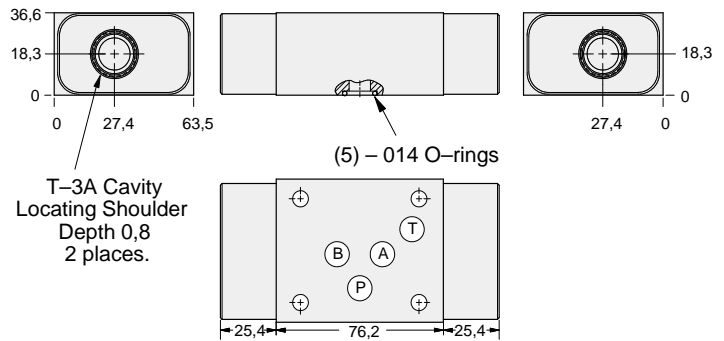
05 RELIEF



FUNCTION

A and B to T
(High Capacity)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBX		CBX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

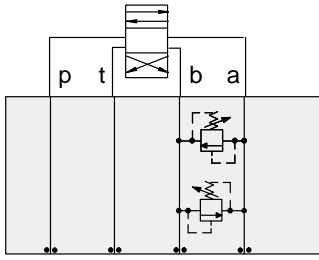
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RP*C Page 1.06		RQ*B Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RP*E Page 1.08		RPGD Page 1.14 (use with CBX)
	Direct Acting Relief Valve		
	RD*A Page 1.10		



ISO 05 SANDWICH BODIES



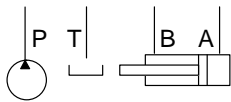
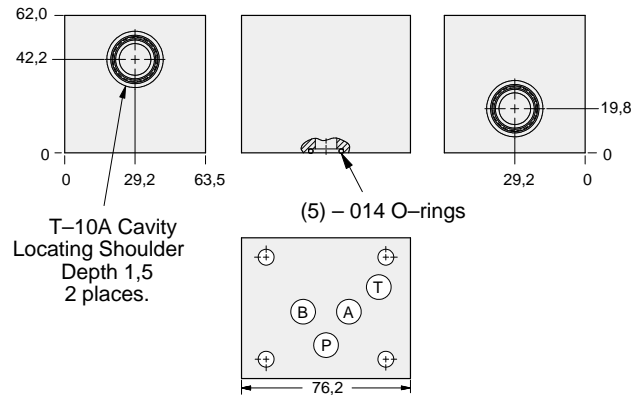
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



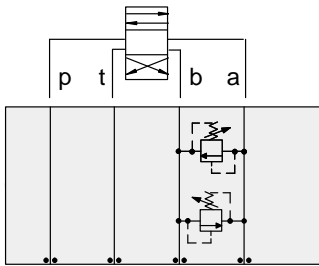
FUNCTION

A to B and B to A
(Cross Port)

Relief Valves



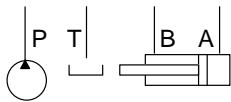
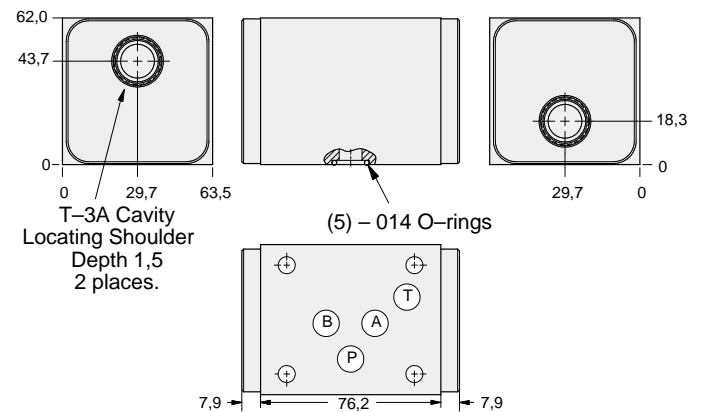
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CBI		CB/S	



FUNCTION

A to B and B to A
(High Capacity)
(Cross Port)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBY		CBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

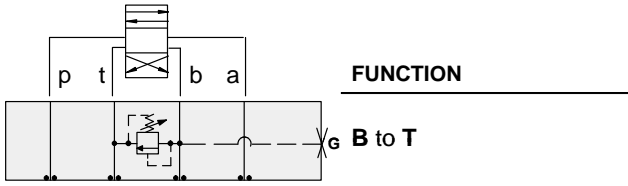
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.06		RQ*B Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.08		RPGD Page 1.14 (use with CBY)
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.10		



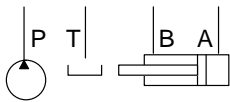
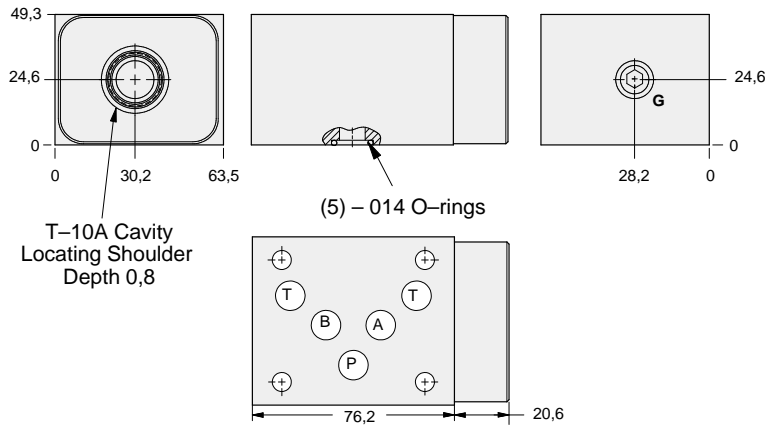
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

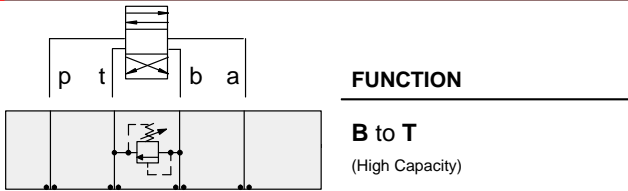


Relief Valves

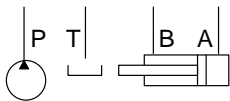
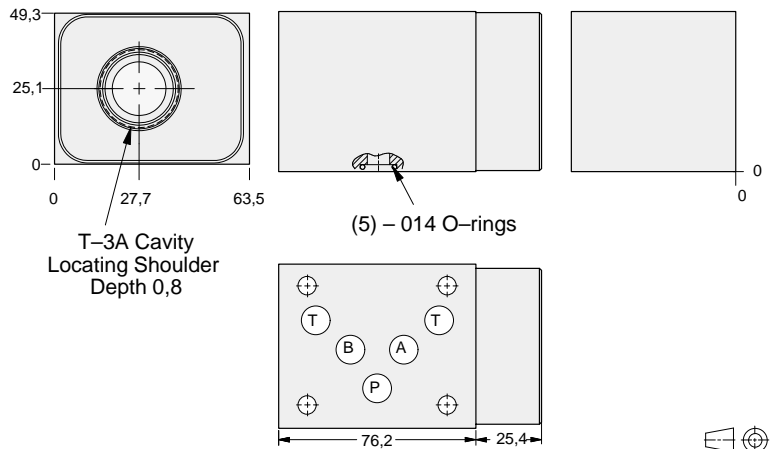


Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CBG		CBG/S	
.25 BSPP	CBG/M		CBG/T	

05 RELIEF



Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CBB		CBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

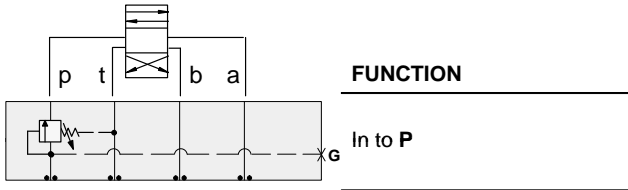
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RP*C Page 1.06		RQ*B Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RP*E Page 1.08		RP*D Page 1.14 (use with CBB)
	Direct Acting Relief Valve		
	RD*A Page 1.10		



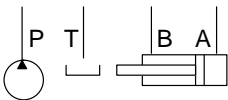
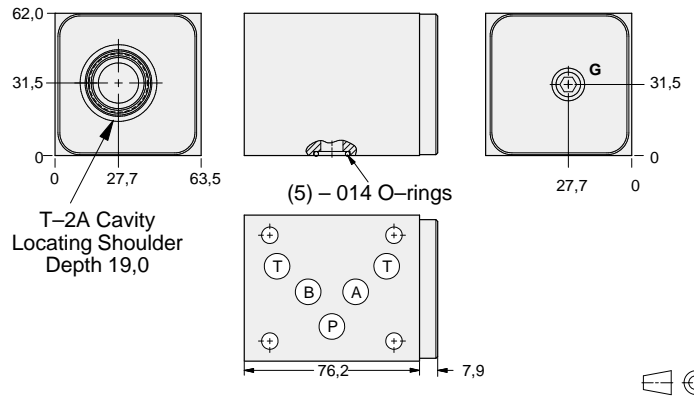
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBW		BBW/S	
.25 BSPP	BBW/M		BBW/T	

05 SEQUENCE

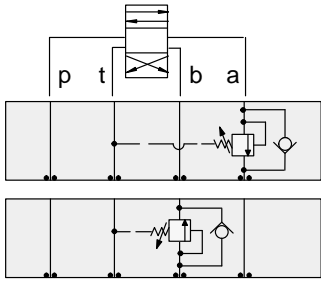
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Sequence Valve</i>		
	RSFC Page 2.06		
	<i>Pilot Operated "Kick-Down" Sequence Valve</i>		
	SQFB Page 2.08		
	<i>Air Controlled, Pilot Operated Sequence Valve</i>		
	RSFE Page 2.10		
OTHER VALVES:	SCEA		



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

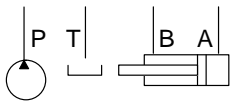
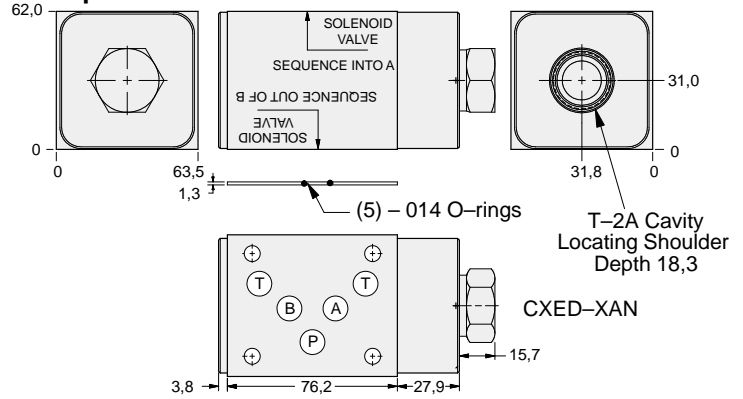


FUNCTION

In to A
Reverse FF Check

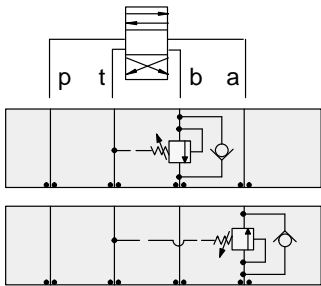
Out of B
Reverse FF Check

Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BB4		BB4/S	

05 SEQUENCE

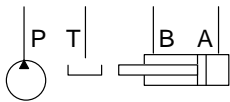
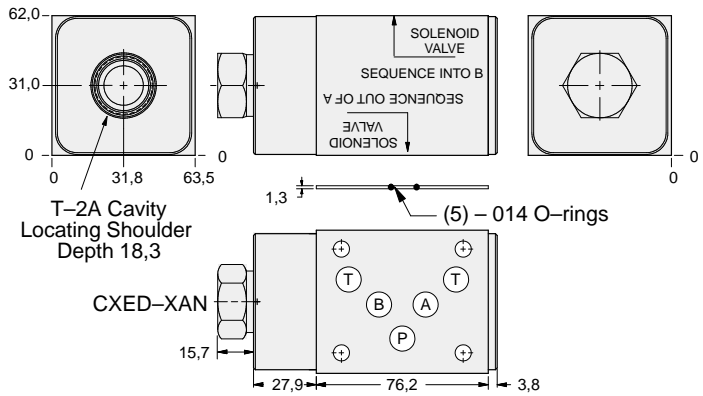


FUNCTION

In to B
Reverse FF Check

Out of A
Reverse FF Check

Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BB5		BB5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

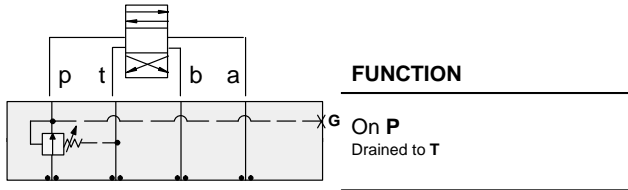
	Pilot Operated Sequence Valve		
	RSFC Page 2.06		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQFB Page 2.08		
	Air Controlled, Pilot Operated Sequence Valve		
	RSFE Page 2.10		
OTHER VALVES:			



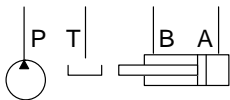
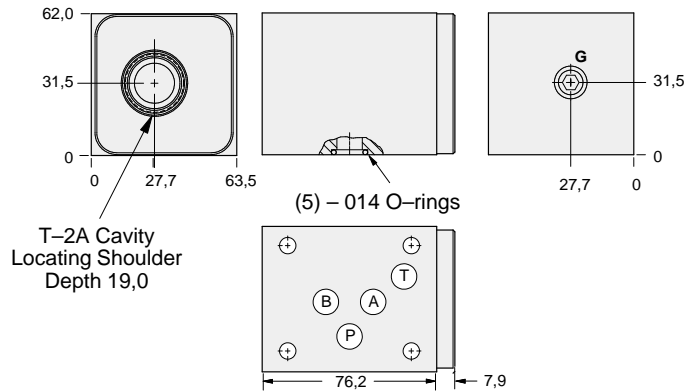
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBP		BBP/S	
.25 BSPP	BBP/M		BBP/T	

05 REDUCING

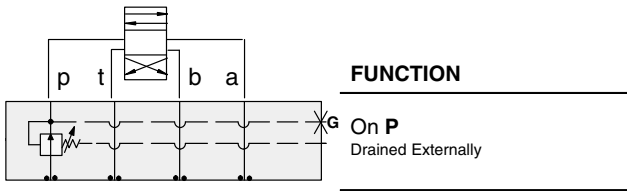
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
	<i>Air Controlled, Pilot Operated Reducing Valve</i>		
	PBFC Page 3.08		
OTHER VALVES:			



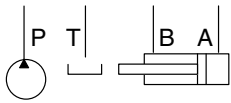
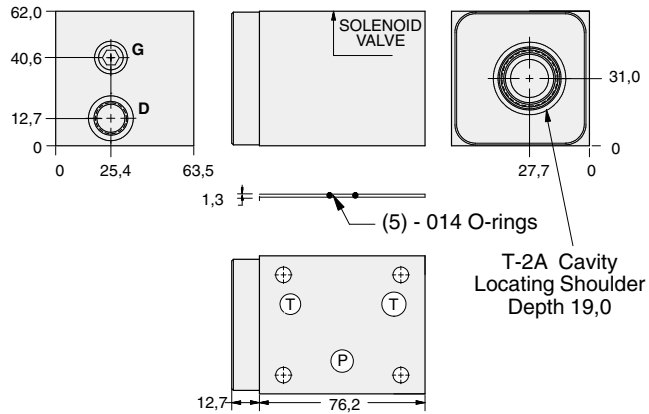
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Gauge Port (Plugged)	Drain Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
.25 NPTF	SAE-6	BBQ		BBQ/S	
.25 BSPP	.25 BSPP	BBQ/M		BBQ/T	

05 REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

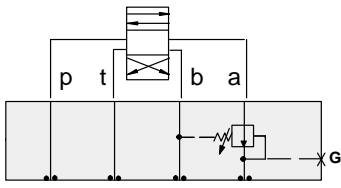
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
	<i>Air Controlled, Pilot Operated Reducing Valve</i>		
	PBFC Page 3.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



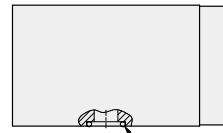
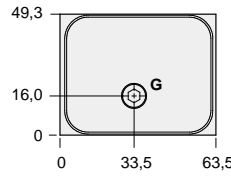
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



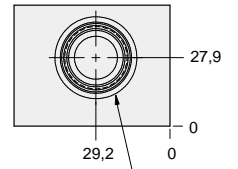
FUNCTION

On A
Drained to B

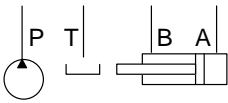
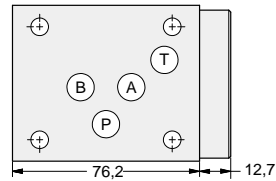
Reducing Valves



(5) - 014 O-rings



T-2A Cavity
Locating Shoulder
Depth 29,7



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBA		BBA/S	
.25 BSPP	BBA/M		BBA/T	

05 REDUCING

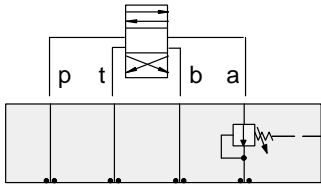
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
	Air Controlled, Pilot Operated Reducing Valve		
	PBFC Page 3.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



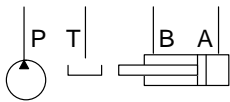
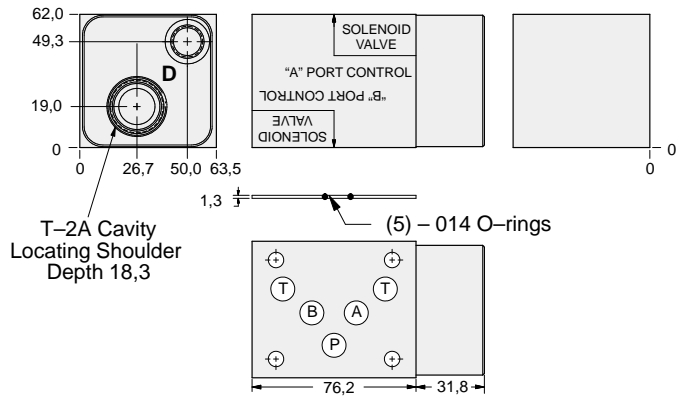
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

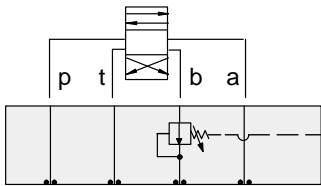
On A
Drained Externally

Reducing Valves



Drain Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	BBF		BBF/S	
.25 BSPP	BBF/M		BBF/T	

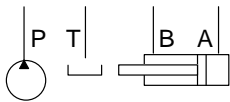
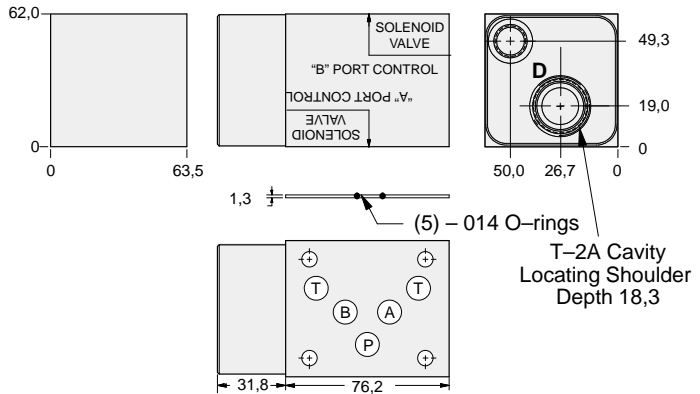
05 REDUCING



FUNCTION

On B
Drained Externally

Reducing Valves



Drain Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
SAE-6	BBG		BBG/S	
.25 BSPP	BBG/M		BBG/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
	Air Controlled, Pilot Operated Reducing Valve		
	PBFC Page 3.08		
OTHER VALVES:			

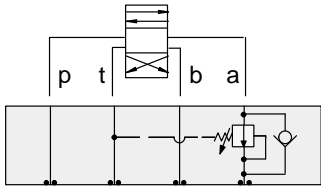


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

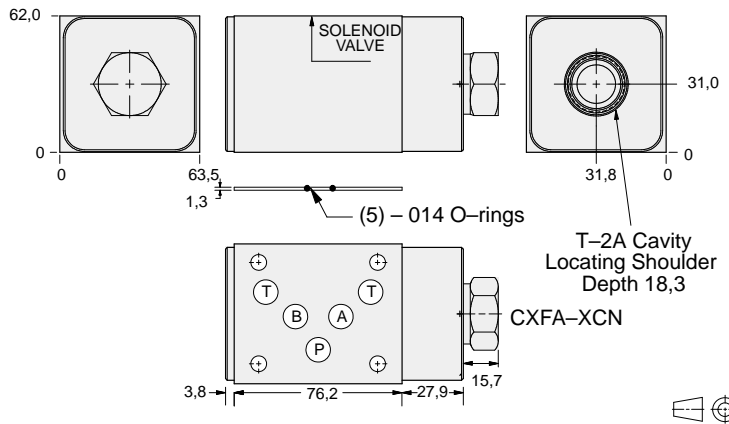
05 REDUCING



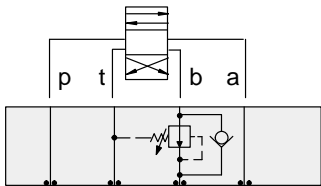
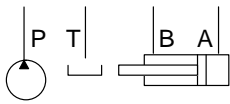
FUNCTION

On A Drain to T
Reverse FF Check

Reducing Valves



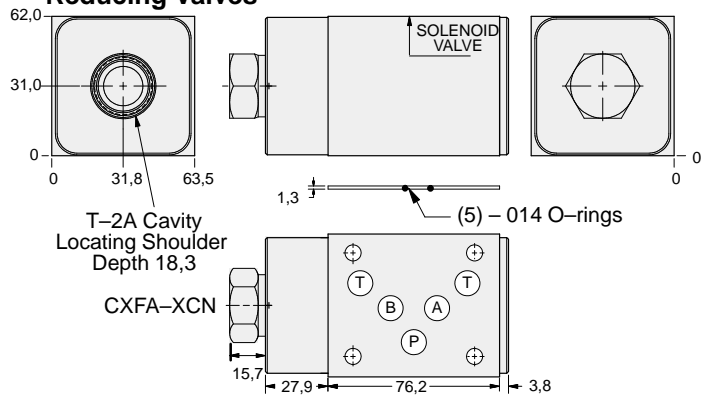
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BB2		BB2/S	



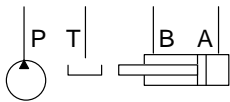
FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BB3		BB3/S	



TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

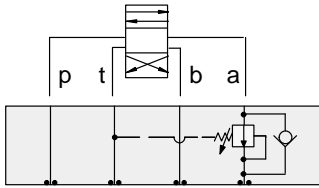
	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
	Air Controlled, Pilot Operated Reducing Valve		
	PBFC Page 3.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



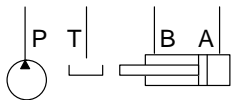
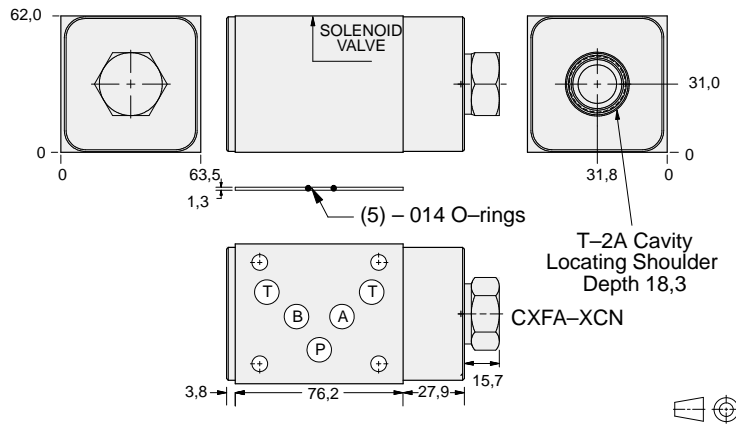
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

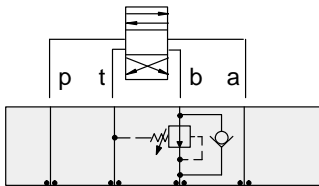
On A Drain to T
Reverse FF Check

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BB2		BB2/S	

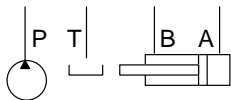
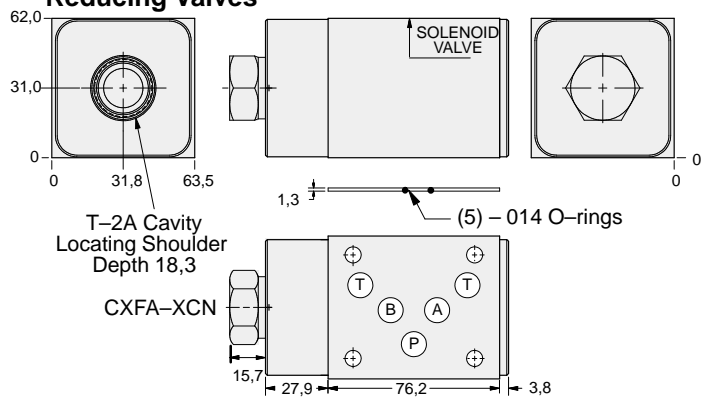
05 REDUCING



FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BB3		BB3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

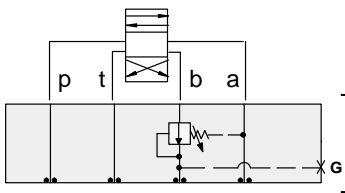
	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
	Air Controlled, Pilot Operated Reducing Valve		
	PBFC Page 3.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



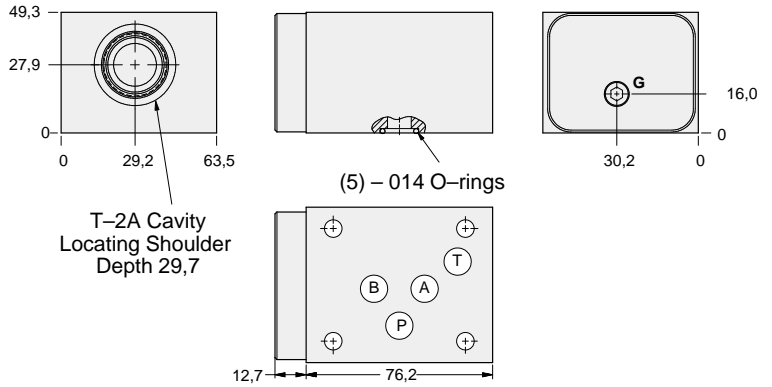
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



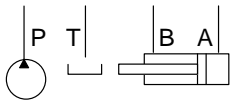
FUNCTION

On B
Drained to A

Reducing Valves



05 REDUCING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBB		BBB/S	
.25 BSPP	BBB/M		BBB/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

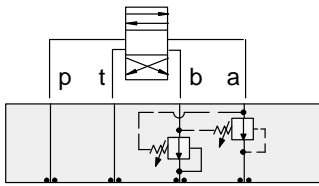
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



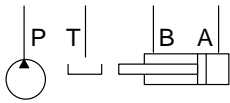
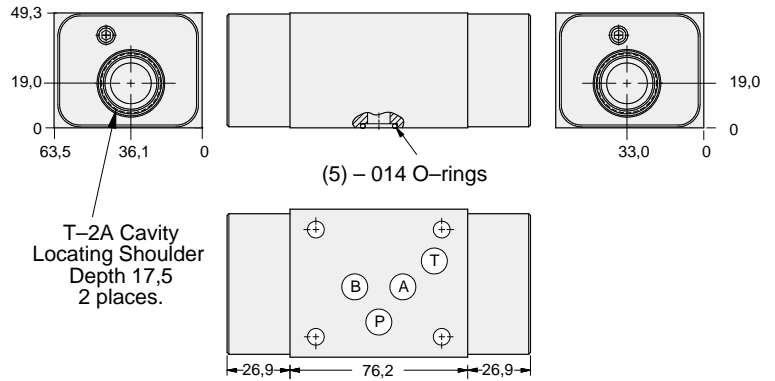
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Drains to Opposite Port

Reducing Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
BBY		BBY/S	



05 REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
OTHER VALVES:			

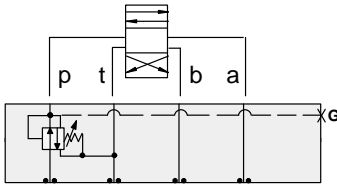


ISO 05 SANDWICH BODIES



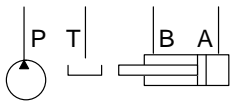
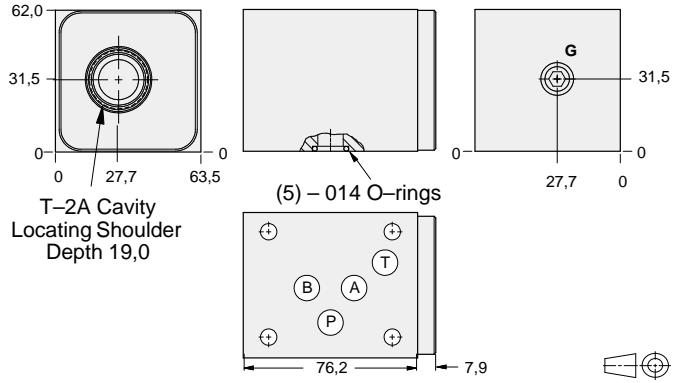
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Reducing/Relieving Valves



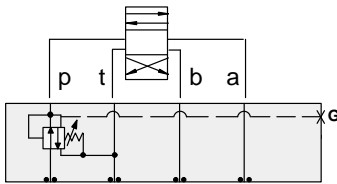
FUNCTION

On P Tank to T
Drained to T



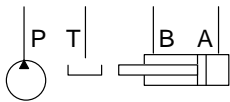
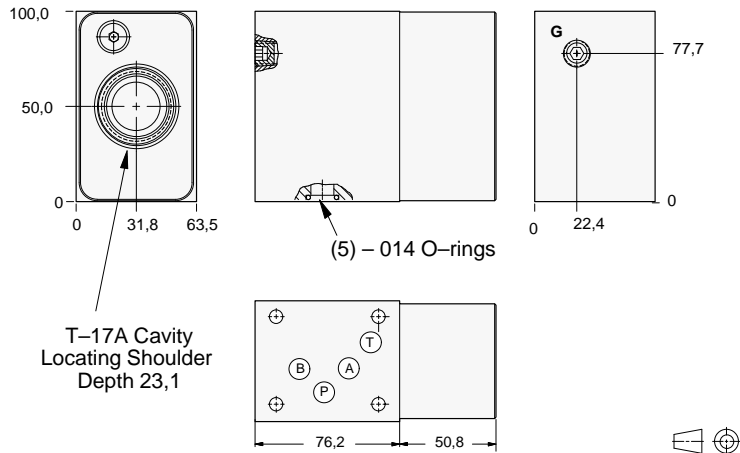
Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBP		BBP/S	
.25 BSPP	BBP/M		BBP/T	

Reducing/Relieving Valves



FUNCTION

On P Tank to T
Drained to T
(High Capacity)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	WCC		WCC/S	
.25 BSPP	WCC/M		WCC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing/Relieving Valve		
	PP*B Page 3.10, 3.11		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PP*C Page 3.12, 3.13		
OTHER VALVES:			

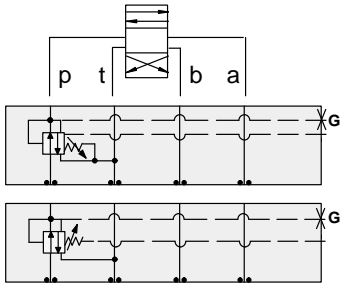


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

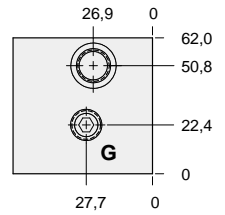
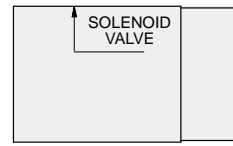
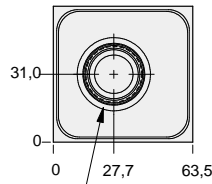
Reducing/Relieving Valves



FUNCTION

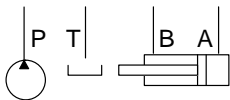
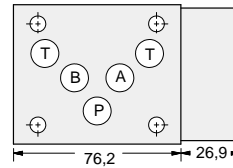
On **P** Tank to **T**
Vented Externally

On **P** Tank to **T**
Drained Externally



(5) - 014 O-rings

T-22A Cavity
Locating Shoulder
Depth 33,3



Gauge Port (Plugged)	External Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
.25 NPTF	SAE-6	NBP		NBP/S	
.25 BSPP	.25 BSPP	NBP/M		NBP/T	



05 REDUCING/RELIEVING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVFA Page 3.14		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVFB Page 3.16		
OTHER VALVES:			

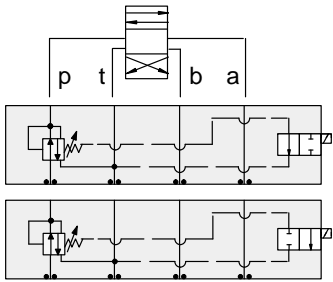


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

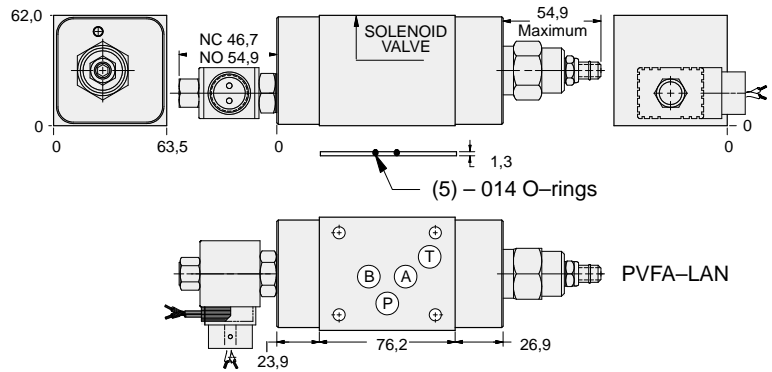
Reducing/Relieving Valves



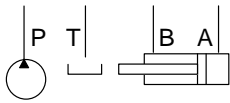
FUNCTION

On P Tank to T
N.O. Solenoid
on Drain *

On P Tank to T
N.C. Solenoid
on Drain *



Operating pressure is limited to 210 bar.



Solenoid Type	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
N.O.	YPDG-LAN-*A		YPDG-LAN-*A/S	
N.C.	YPDH-LAN-*A		YPDH-LAN-*A/S	

* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.

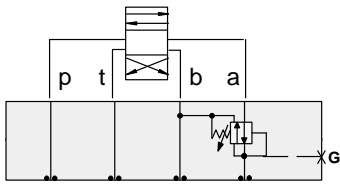
05 REDUCING/RELIEVING



ISO 05 SANDWICH BODIES



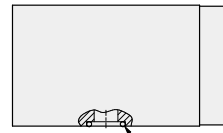
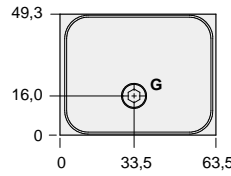
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



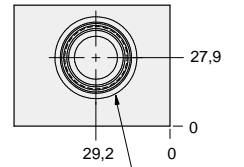
FUNCTION

On **A** Tank to **B**
Drained to **B**

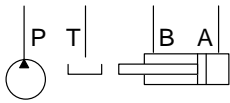
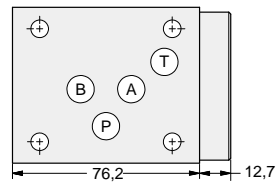
Reducing/Relieving Valves



(5) - 014 O-rings



T-2A Cavity
Locating Shoulder
Depth 29,7



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBA		BBA/S	
.25 BSPP	BBA/M		BBA/T	

05 REDUCING/RELIEVING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
OTHER VALVES:			

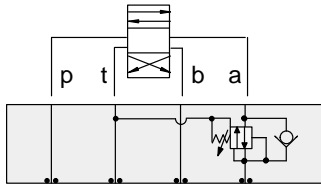


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

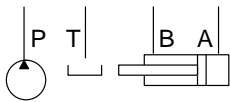
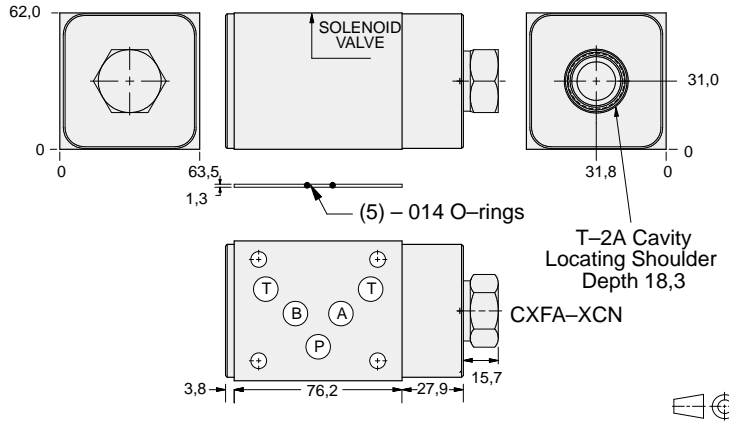
05 REDUCING/RELIEVING



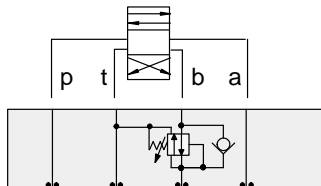
FUNCTION

On A Tank to T
 Drained to T
 Reverse FF Check

Reducing/Relieving Valves



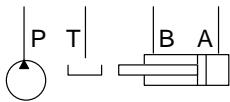
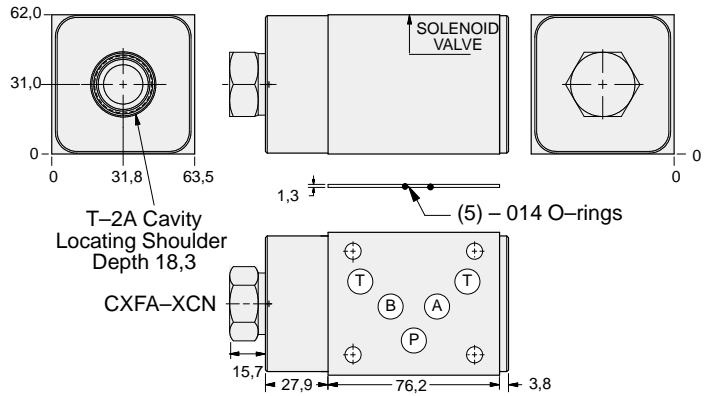
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BB2		BB2/S	



FUNCTION

On B Tank to T
 Drained to T
 Reverse FF Check

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BB3		BB3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

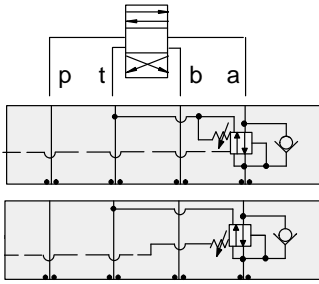
	Pilot Operated Reducing/Relieving Valve		
	PPFB Page 3.10		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PPFC Page 3.12		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

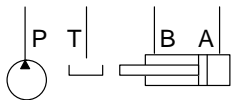
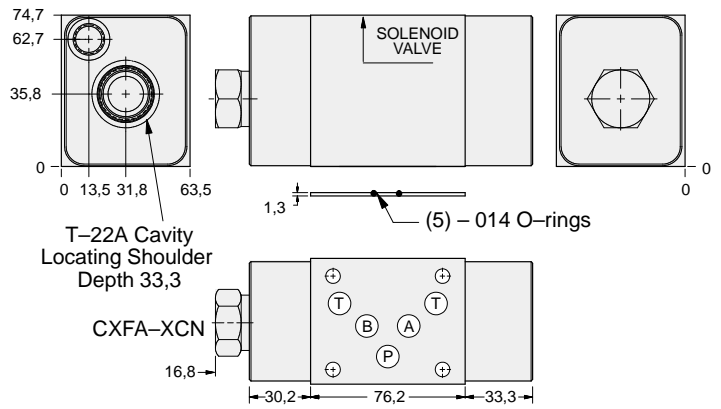


FUNCTION

On **A** tank to **T**
Vented Externally
Reverse FF Check

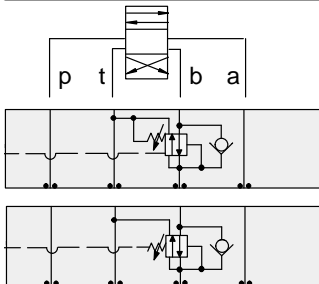
On **A** tank to **T**
Drained Externally
Reverse FF Check

Reducing/Relieving Valves



External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	NB2		NB2/S	
.25 BSPP	NB2/M		NB2/T	

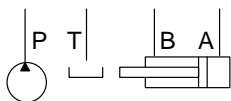
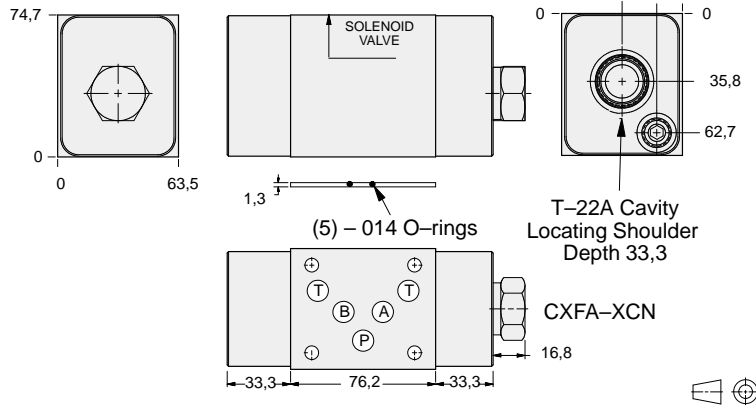
Reducing/Relieving Valves



FUNCTION

On **B** Tank to **T**
Vented Externally
Reverse FF Check

On **B** Tank to **T**
Drained Externally
Reverse FF Check



External Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
SAE-6	NB3		NB3/S	
.25 BSPP	NB3/M		NB3/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

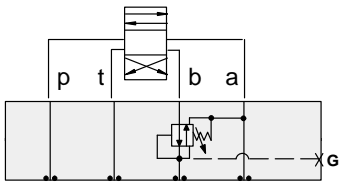
	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVFA Page 3.14		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVFB Page 3.16		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



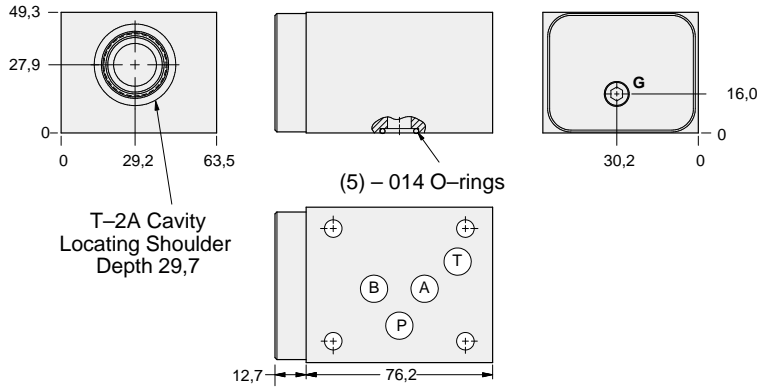
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



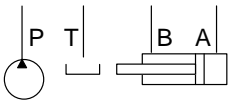
FUNCTION

On **B** Tank to **A**
Drained to **A**

Reducing/Relieving Valves



05 REDUCING/RELIEVING



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBB		BBB/S	
.25 BSPP	BBB/M		BBB/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

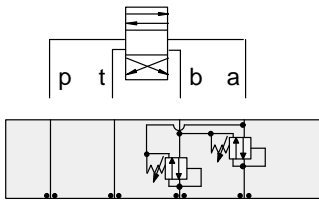
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



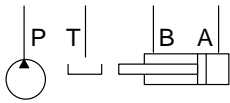
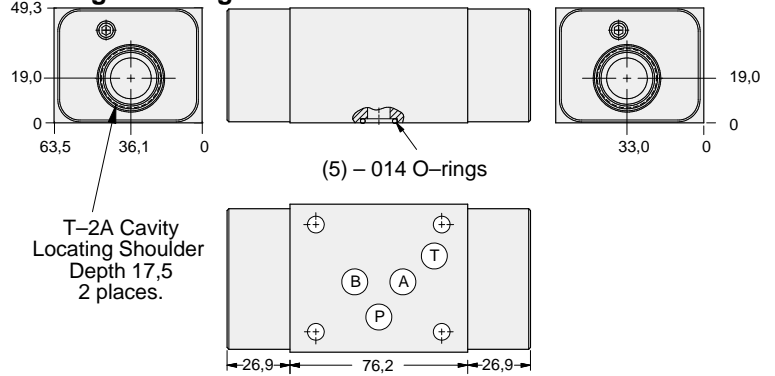
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
BBY		BBY/S	



05 REDUCING/RELIEVING

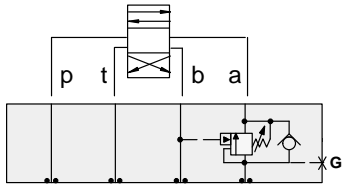
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



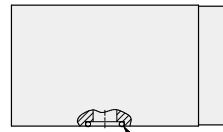
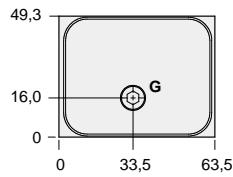
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



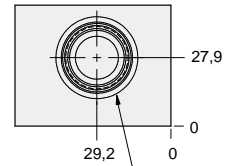
FUNCTION

On **A** Pilot from **B**

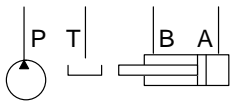
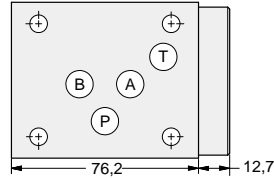
Counterbalance Valves



(5) - 014 O-rings



T-2A Cavity Locating Shoulder Depth 29,7



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBA		BBA/S	
.25 BSPP	BBA/M		BBA/T	

05 COUNTERBALANCE

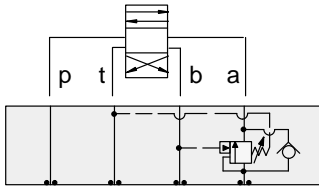
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



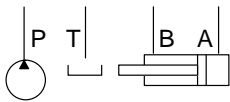
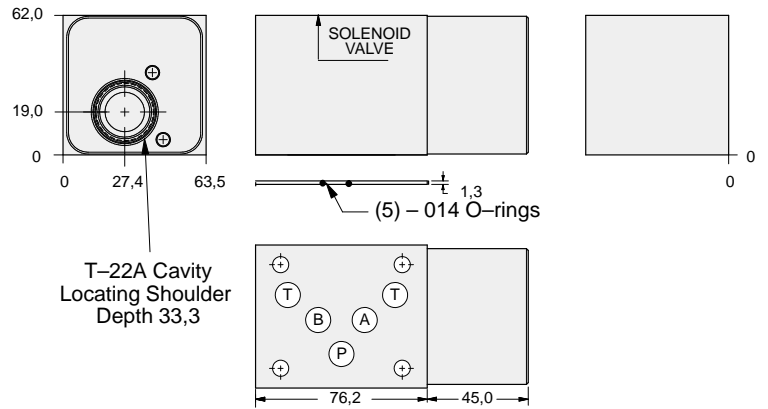
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



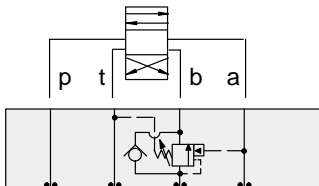
FUNCTION

On **A** Pilot from **B**
Vent to **T**

Counterbalance Valves



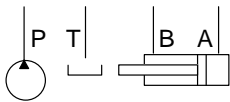
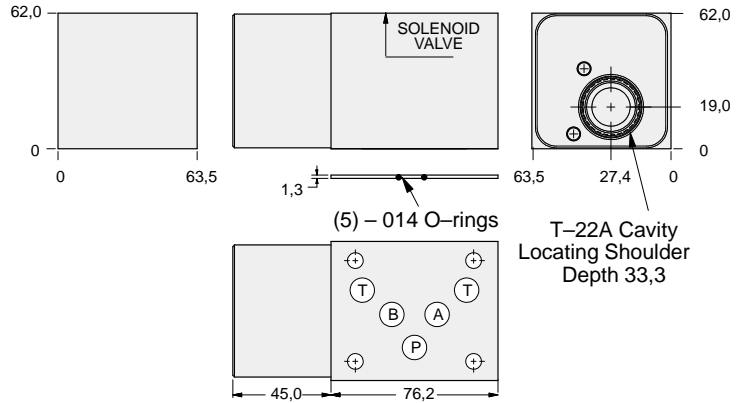
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NBA		NBA/S	



FUNCTION

On **B** Pilot from **A**
Vent to **T**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
NBB		NBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWEA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWEG Page 4.20		
OTHER VALVES:			

05 COUNTERBALANCE

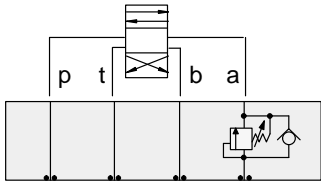


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

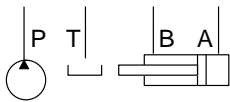
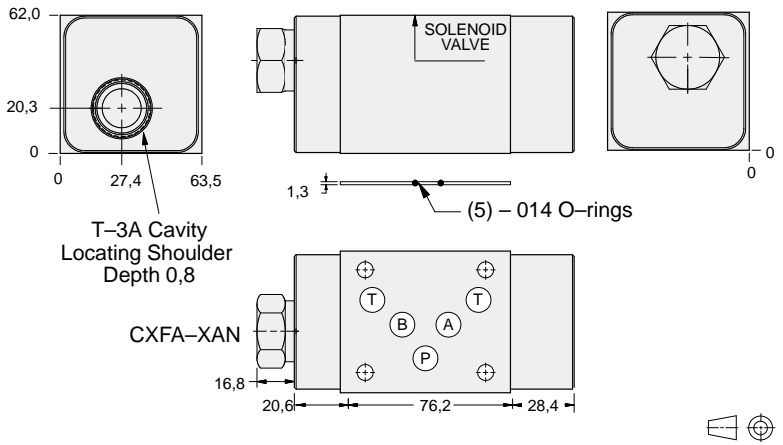
05 COUNTERBALANCE



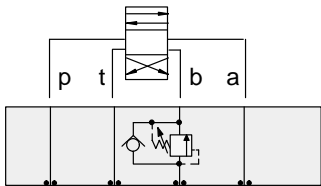
FUNCTION

On **A**
No Pilot Assist

Counterbalance Valves



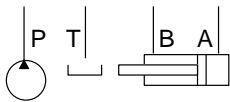
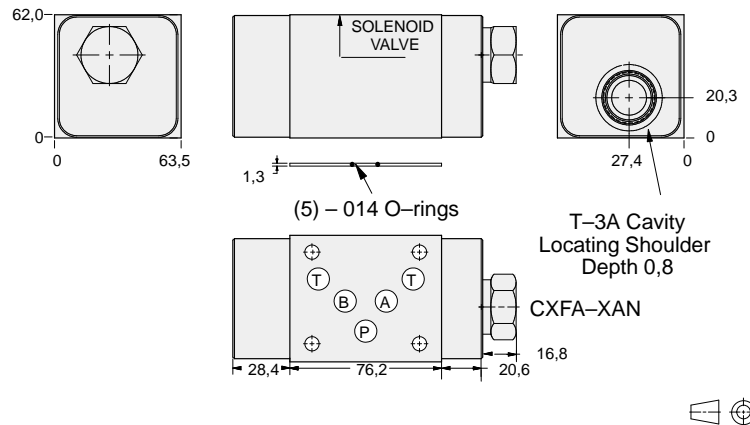
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CB4		CB4/S	



FUNCTION

On **B**
No Pilot Assist

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CB5		CB5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

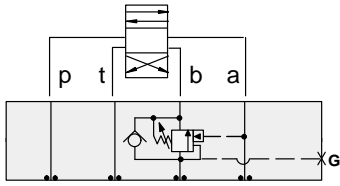
	Direct Acting Relief Valve		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



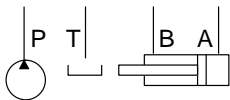
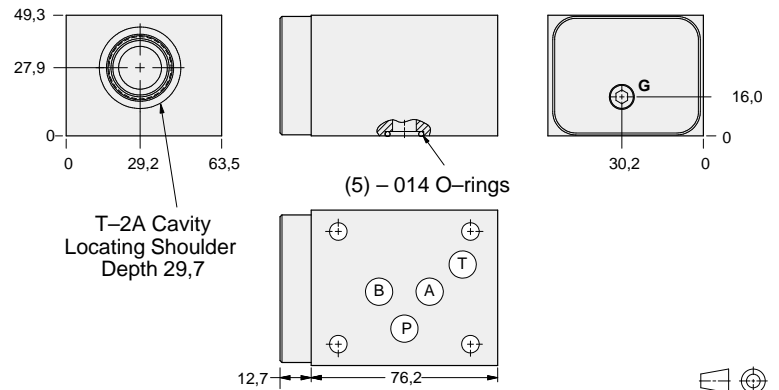
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **B**
Pilot from **A**

Counterbalance Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBB		BBB/S	
.25 BSPP	BBB/M		BBB/T	

05 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

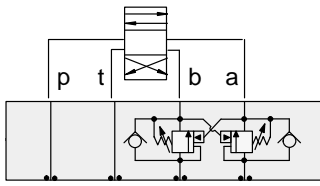
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



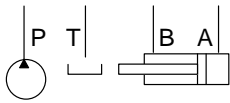
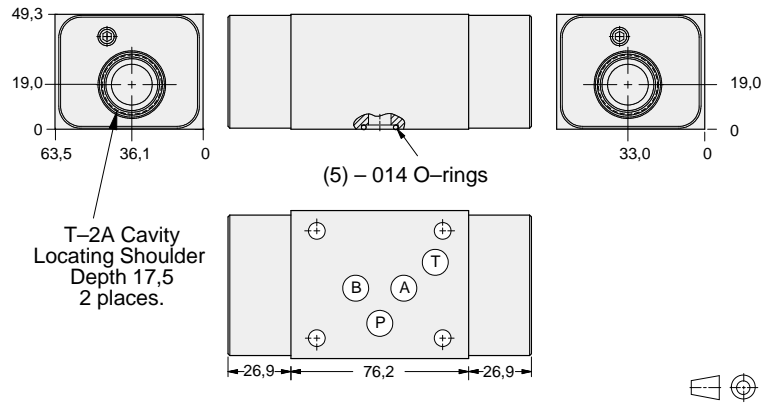
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BBY		BBY/S	

05 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

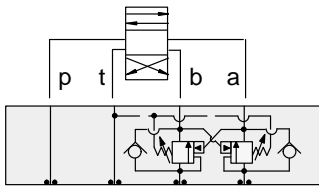
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



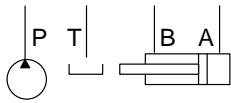
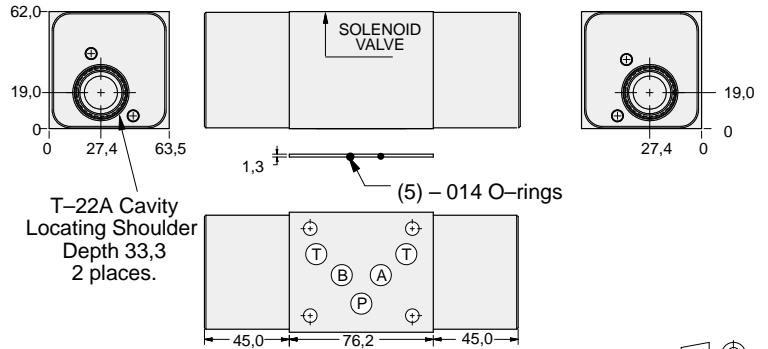
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NBY		NBY/S	

05 COUNTERBALANCE

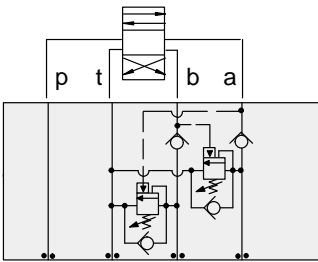
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWEA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWEG Page 4.20		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



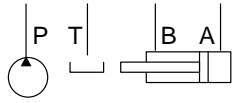
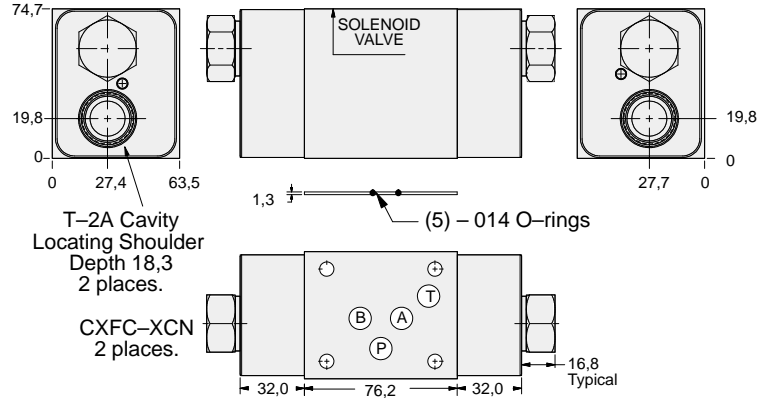
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Cushion Lock
Circuit
On **A** and **B**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BB8		BB8/S	

05 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			

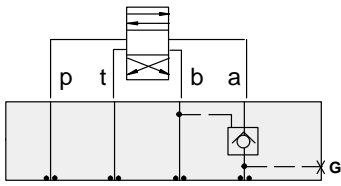


ISO 05 SANDWICH BODIES



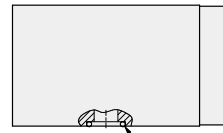
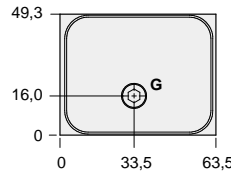
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves

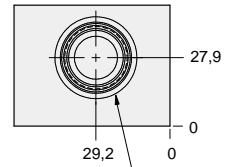


FUNCTION

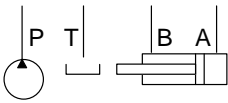
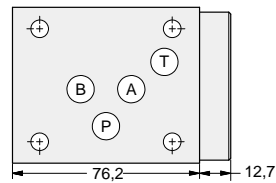
On A
Pilot from B



(5) - 014 O-rings



T-2A Cavity
Locating Shoulder
Depth 29,7



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBA		BBA/S	
.25 BSPP	BBA/M		BBA/T	

05 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CKEB Page 4.16		
OTHER VALVES:			

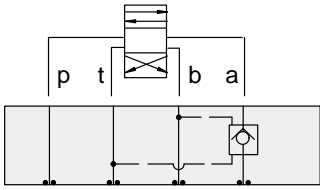


ISO 05 SANDWICH BODIES



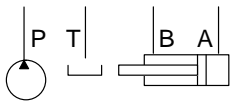
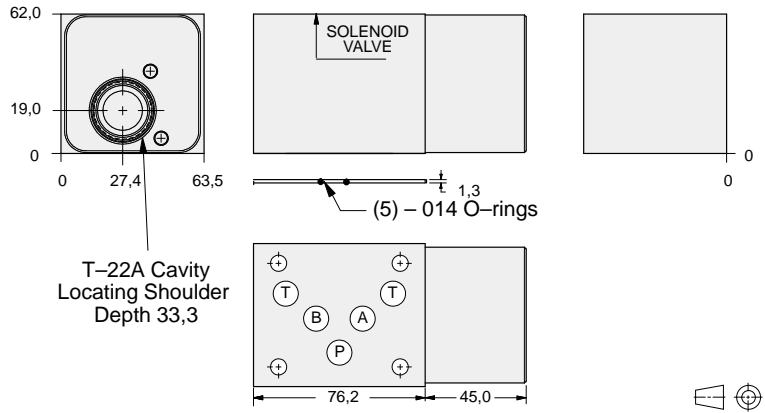
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



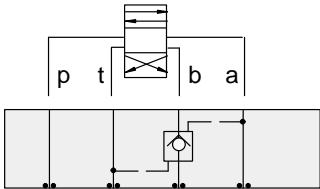
FUNCTION

On A
Pilot from B
Vent to T



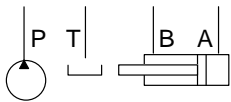
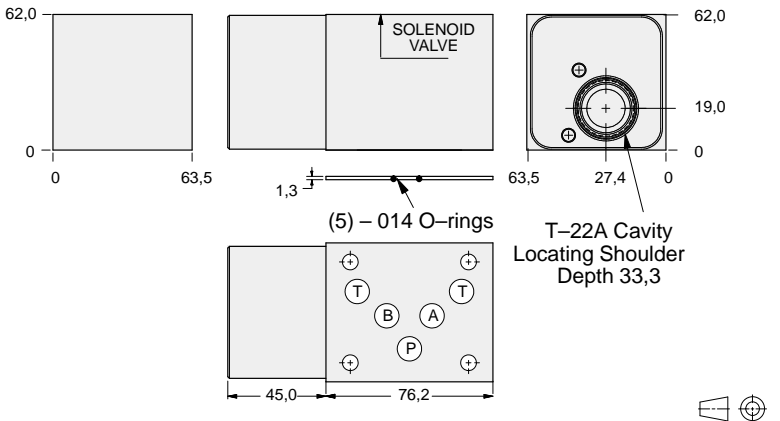
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NBA		NBA/S	

Pilot Operated Check Valves



FUNCTION

On B
Pilot from A
Vent to T



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
NBB		NBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVEV Page 4.22		
OTHER VALVES:			

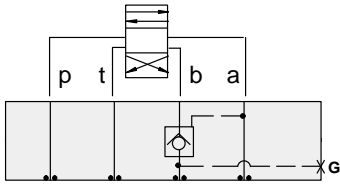


ISO 05 SANDWICH BODIES



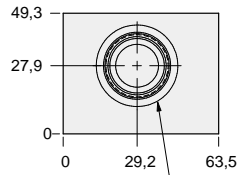
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves

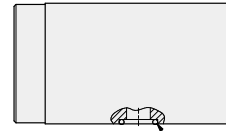


FUNCTION

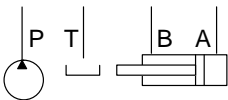
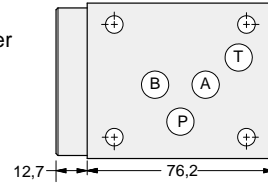
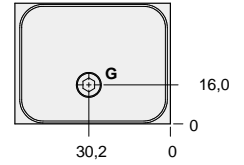
On **B**
Pilot from **A**



T-2A Cavity
Locating Shoulder
Depth 29,7



(5) - 014 O-rings



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BBB		BBB/S	
.25 BSPP	BBB/M		BBB/T	

05 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CKEB Page 4.16		
OTHER VALVES:			

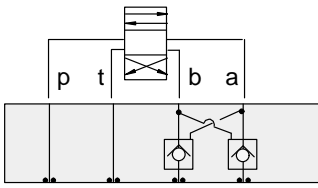


ISO 05 SANDWICH BODIES



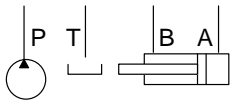
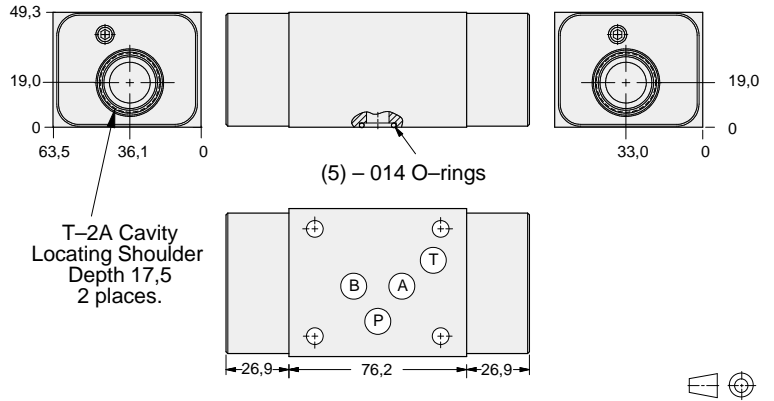
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On A and B
Cross-Piloted



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BBY		BBY/S	

05 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKEB Page 4.16		
OTHER VALVES:			

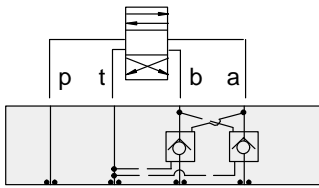


ISO 05 SANDWICH BODIES



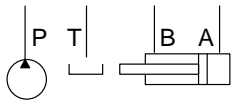
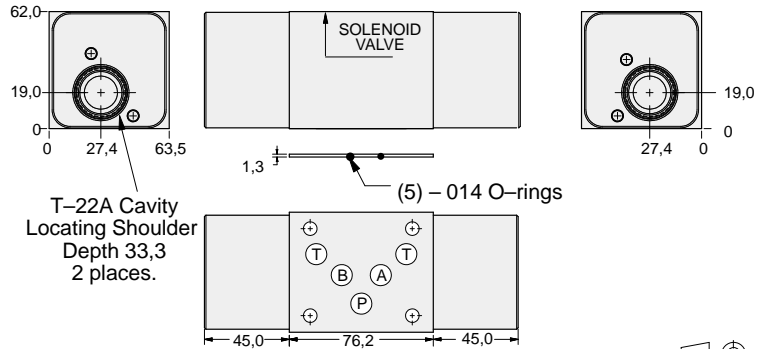
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NBY		NBY/S	

05 COUNTERBALANCE

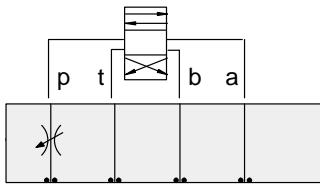
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVEV Page 4.22		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



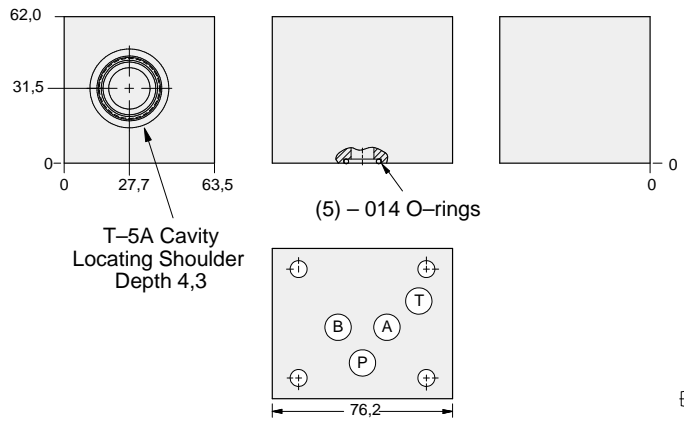
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



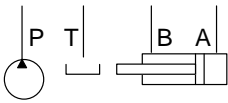
FUNCTION

Meter-In P

Flow Control Valves



05 FLOW CONTROL



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBP		DBP/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

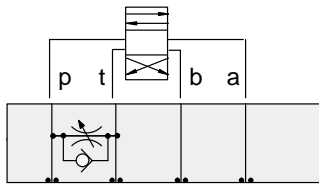
	Fully Adjustable Needle Valve		
	NFDC Page 5.12		
	Fixed Orifice, Pressure-Compensated Flow Control		
	FXDA Page 5.20		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



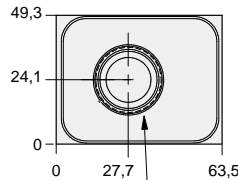
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



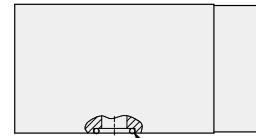
FUNCTION

Bleed-Off
P to T

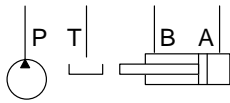
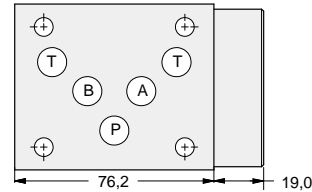
Flow Control Valves



T-5A Cavity
Locating Shoulder
Depth 0,8



(5) - 014 O-rings



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBQ		DBQ/S	

05 FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

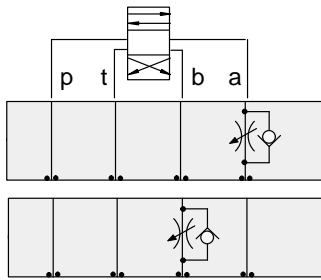
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

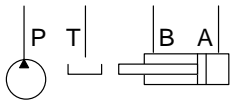
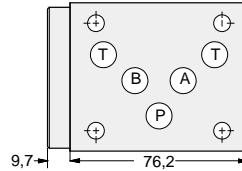
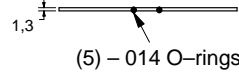
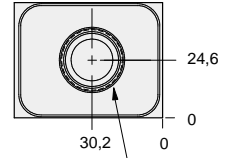
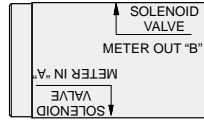
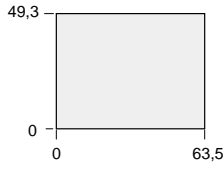


FUNCTION

Meter-In A

Meter-Out B

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBB		DBB/S	

05 FLOW CONTROL

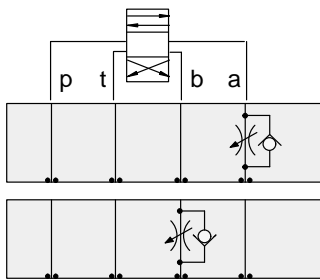
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve with Reverse Free Flow Check NCEB Page 5.16		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check FDCB Page 5.24
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow NCEC Page 5.18		
	Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check FCDB Page 5.22		
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

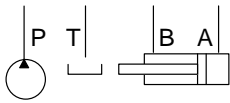
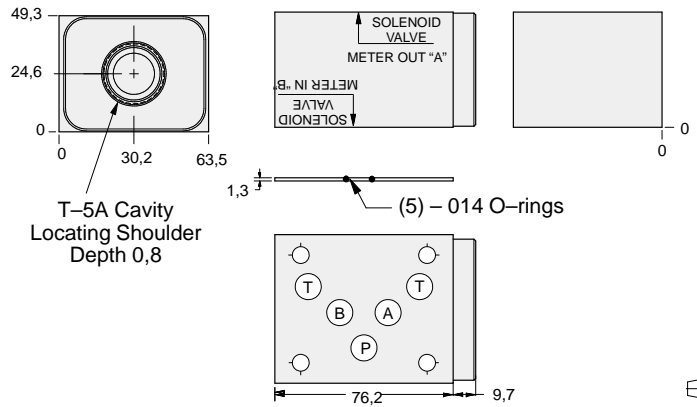


FUNCTION

Meter-Out A

Meter-In B

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBA		DBA/S	

05 FLOW CONTROL

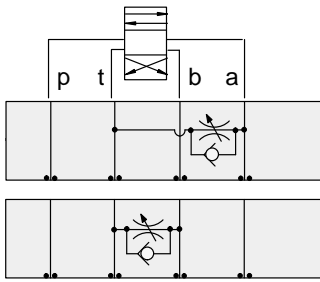
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FDCB Page 5.24
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		
	NCEC Page 5.18		
	Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check		
	FCDB Page 5.22		
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

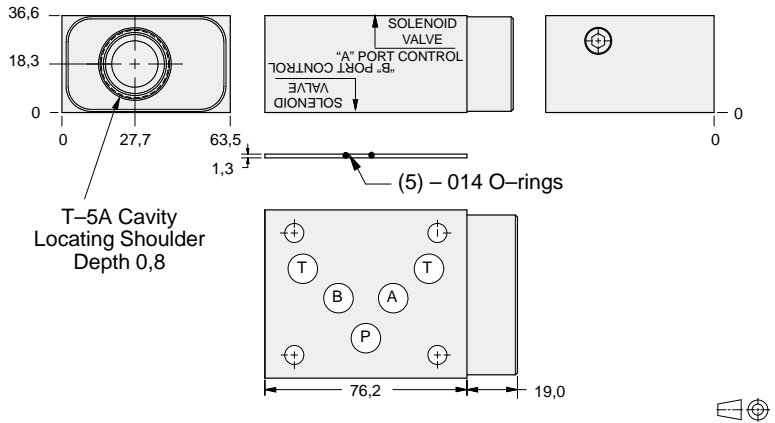


FUNCTION

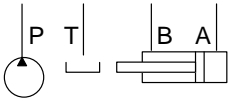
Bleed-Off
A to T

Bleed-Off
B to T

Flow Control Valves



05 FLOW CONTROL



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBC		DBC/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

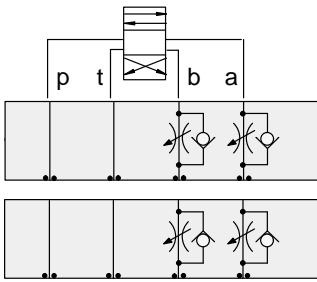
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

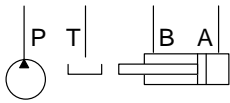
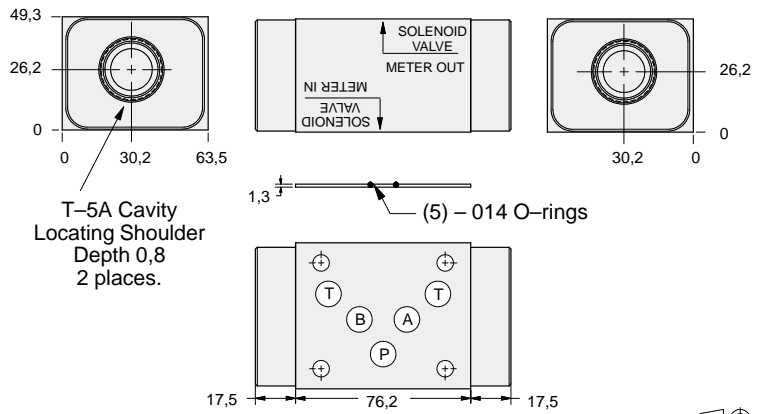


FUNCTION

Meter-In
A and B

Meter-Out
A and B

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBY		DBY/S	

05 FLOW CONTROL

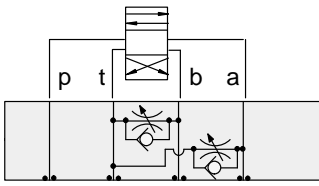
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve with Reverse Free Flow Check NCEB Page 5.16		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check FDCB Page 5.24
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow NCEC Page 5.18		
	Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check FCDB Page 5.22		
	OTHER VALVES: CNEC		



ISO 05 SANDWICH BODIES



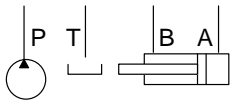
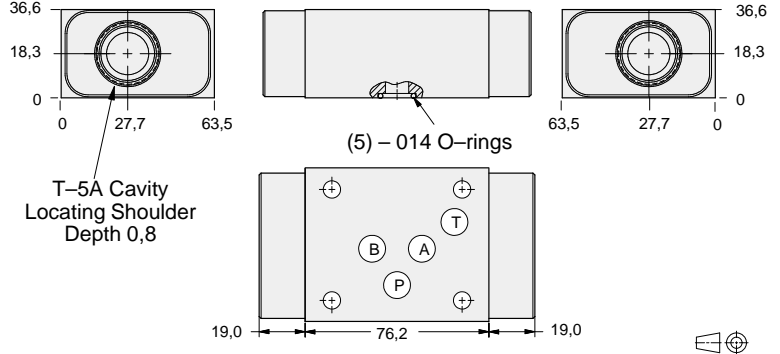
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Bleed-Off
A and B to T

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBX		DBX/S	

05 FLOW CONTROL

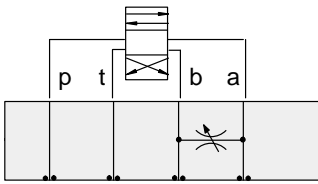
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



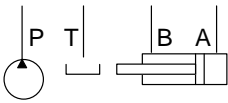
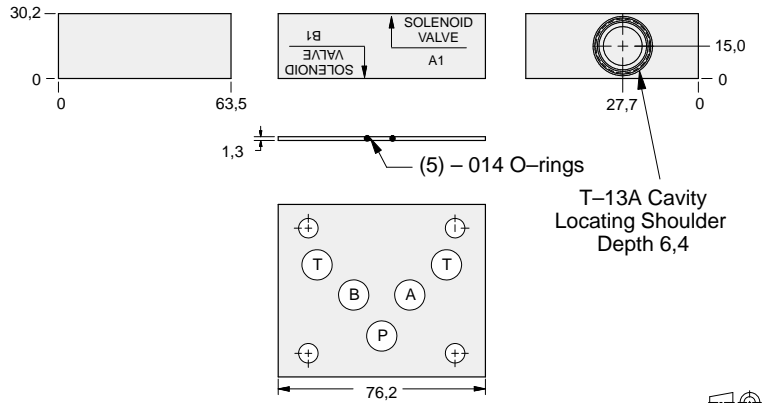
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Bleed-Off
A to B and
B to A

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBS		DBS/S	

05 FLOW CONTROL

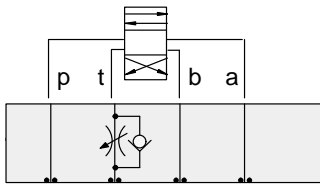
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		
	NFDC Page 5.12		
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



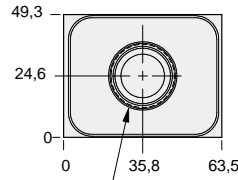
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



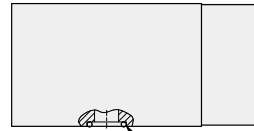
FUNCTION

Meter-Out T

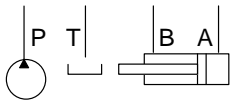
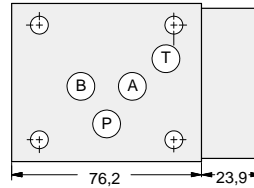
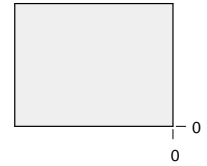
Flow Control Valves



T-5A Cavity
Locating Shoulder
Depth 1,5



(5) - 014 O-rings



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBT		DBT/S	

05 FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

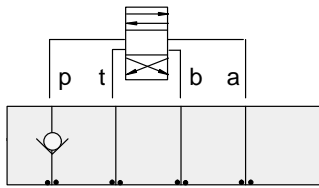
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC		



ISO 05 SANDWICH BODIES



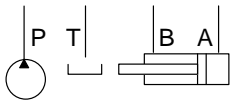
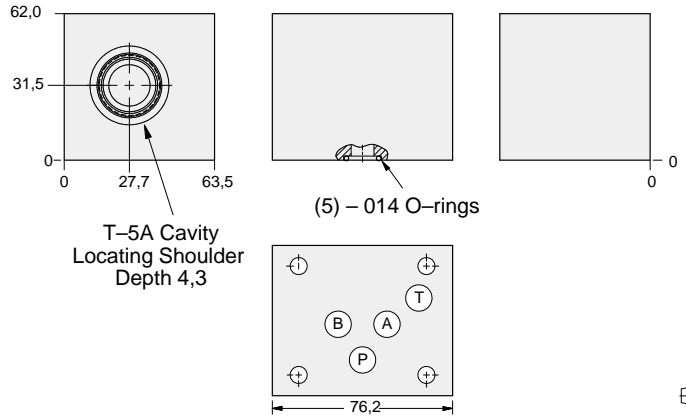
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On P

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBP		DBP/S	

05 CHECK

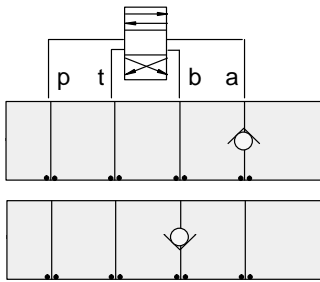
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

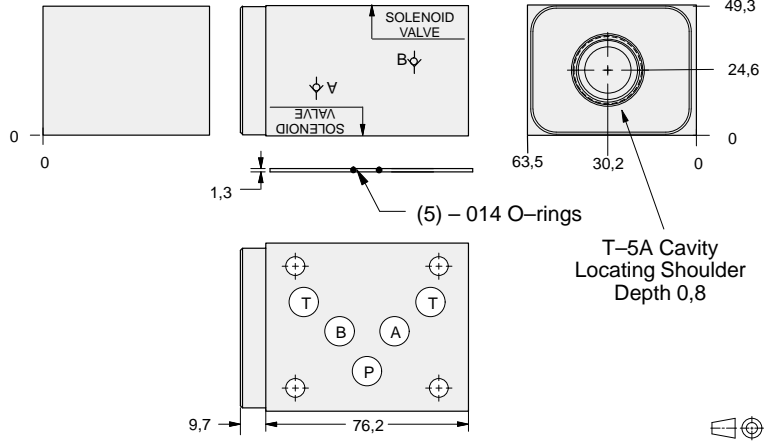


FUNCTION

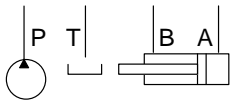
On A
Free Flow Out
of Valve

On B
Free Flow Into
Valve

Check Valves



05 CHECK



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBK		DBK/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

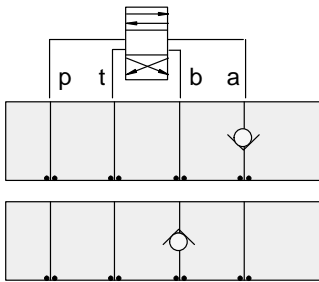
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

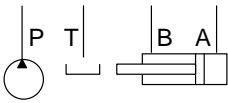
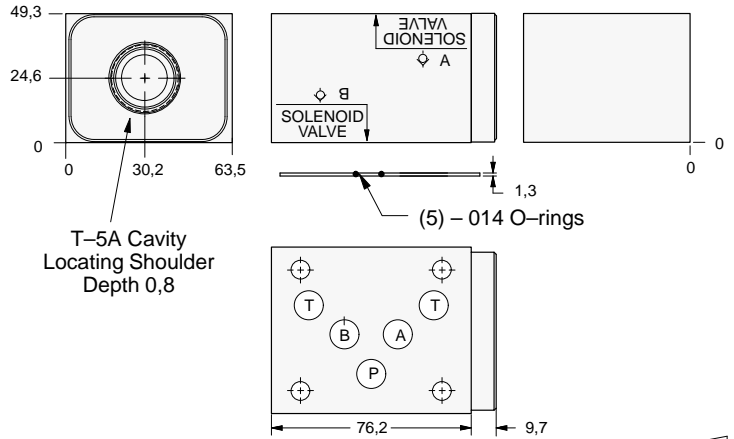


FUNCTION

On A
Free Flow Into
Valve

On B
Free Flow Out
of Valve

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBJ		DBJ/S	

05 CHECK

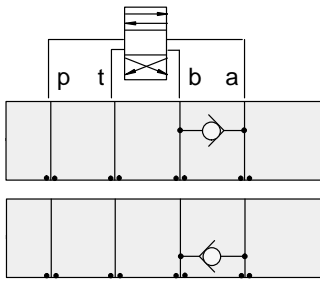
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

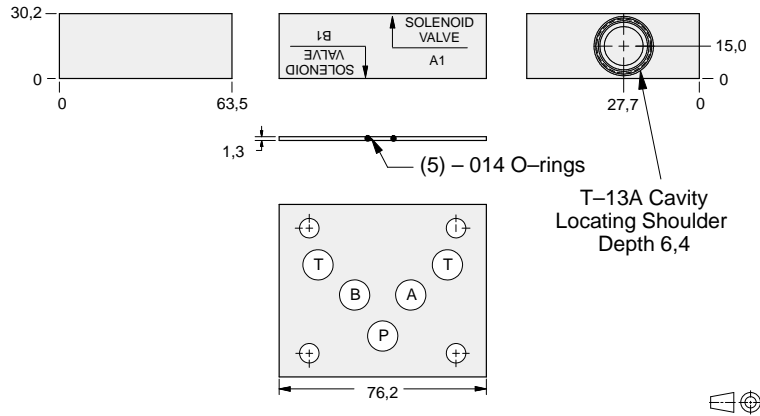


FUNCTION

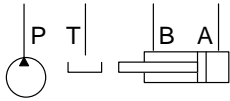
B to A

A to B

Check Valves



05 CHECK



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBS		DBS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

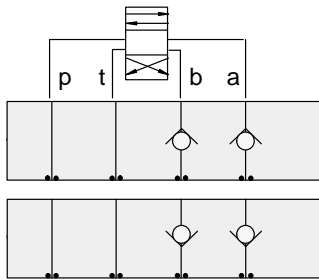
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

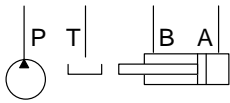
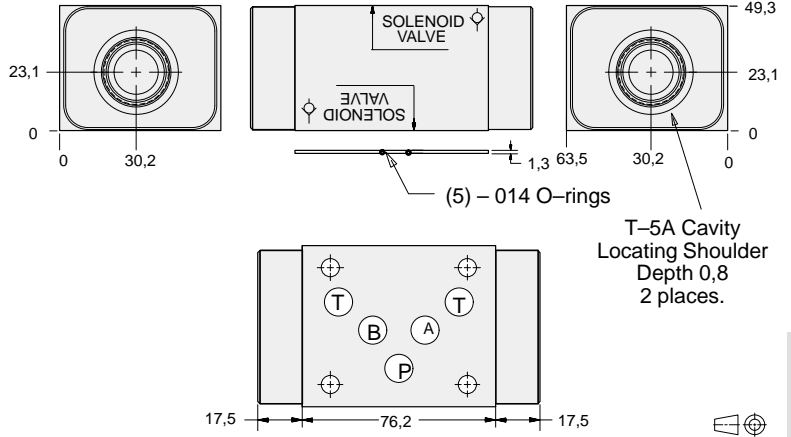


FUNCTION

On **A** and **B**
Free Flow **Out**
of Valve

On **A** and **B**
Free Flow **Into** Valve

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBL		DBL/S	

05 CHECK

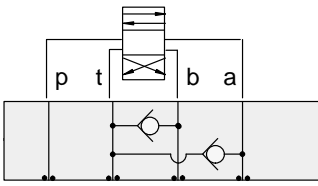
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



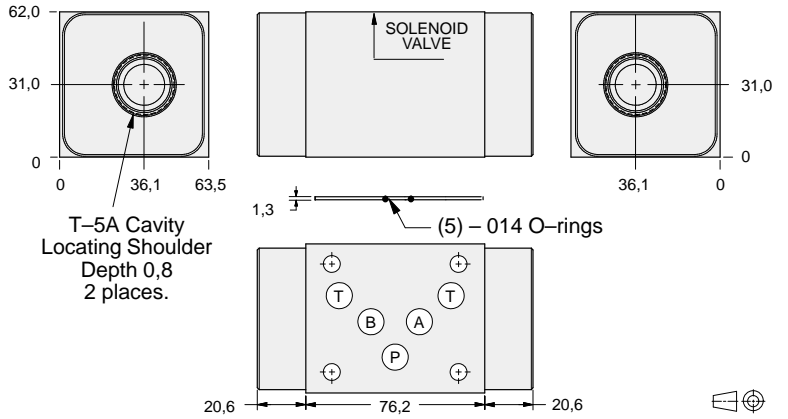
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



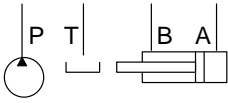
FUNCTION

T to A and B

Check Valves



05 CHECK



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBW		DBW/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

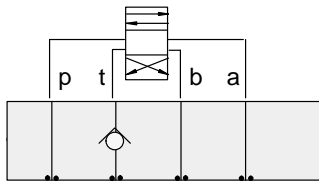
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



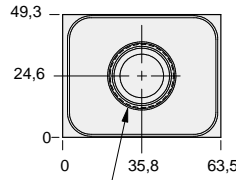
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On T

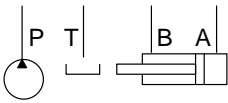
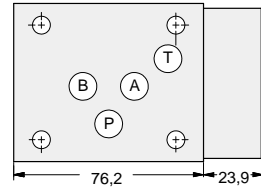
Check Valves



T-5A Cavity
Locating Shoulder
Depth 1,5



(5) - 014 O-rings



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBT		DBT/S	



05 CHECK

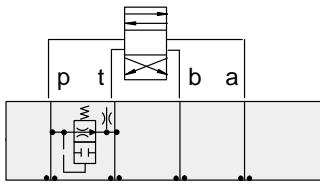
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



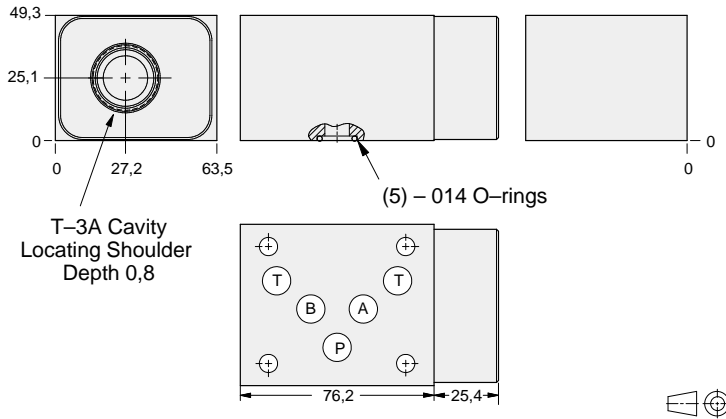
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



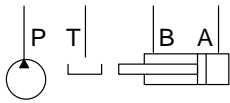
FUNCTION

Air-Bleed
and Start-Up

Circuit Savers



05 CIRCUIT SAVER



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CBP		CBP/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

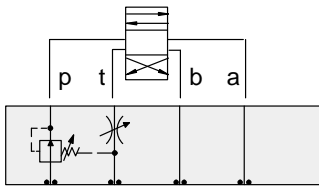
	Air Bleed and Start-up Valve		
	NQEB Page 10.16		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



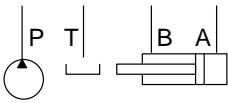
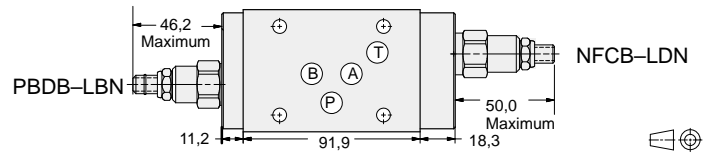
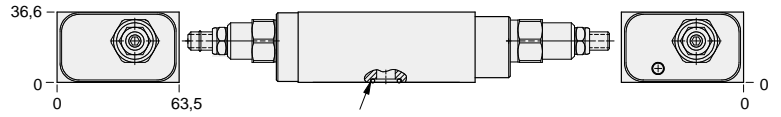
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Pilot Choke

Circuit Savers



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
YNAB-LDN-BA		YNAB-LDN-BA/S	

05 CIRCUIT SAVER

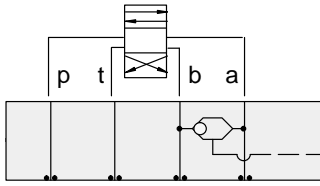


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

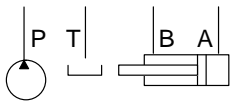
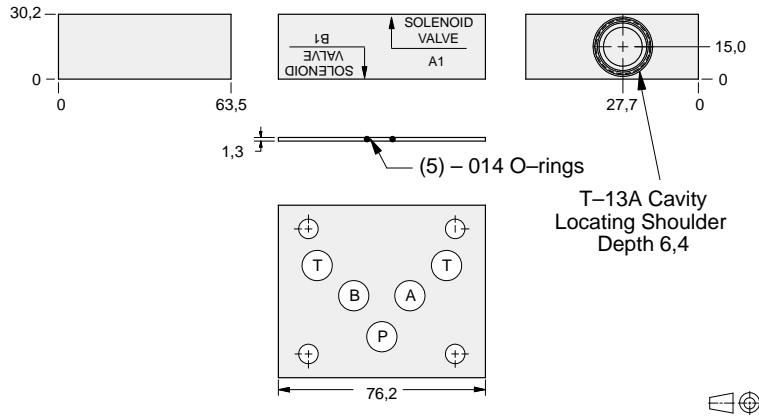
05 CIRCUIT SAVER



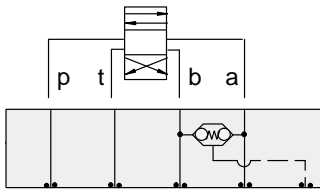
FUNCTION

Shuttle
A and B
Output External

Circuit Savers



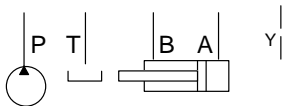
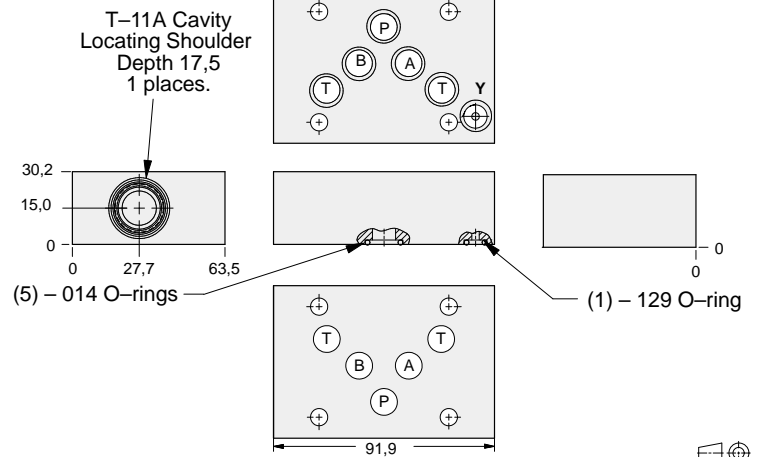
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DBS		DBS/S	



FUNCTION

Checks from
A and B-Adapter
to ISO 05 w/Y Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BJS		BJS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

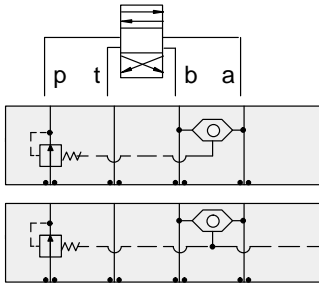
	2 Port Shuttle Valve, Signal External		
	CSAA Page 10.09 (use with DBS)		
	3 Port Shuttle Valve, Signal at Port 3		
	CDAB Page 10.10 (use with BJS)		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

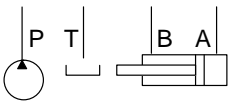
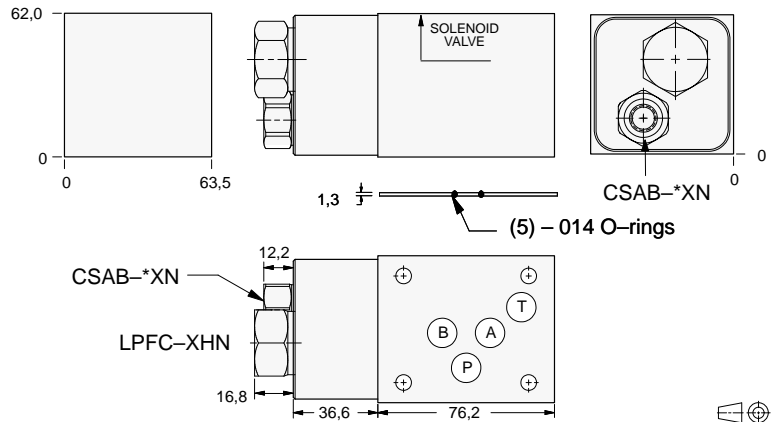


FUNCTION

Pressure Compensator (Restrictive)

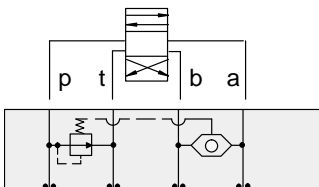
Pressure Compensator (Restrictive) w/Load-Sensing Port

Circuit Savers



Shuttle Cartridge	External Shuttle Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
CSAB-XXN	None	YFEJ-XHN-BA		YFEJ-XHN-BA/S	
CSAB-AXN	SAE-4	YFEP-XHN-BA		YFEP-XHN-BA/S	
CSAB-BXN	.25 BSPP	YFEP-XHN-BA/M		YFEP-XHN-BA/T	

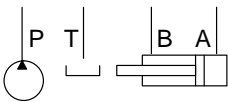
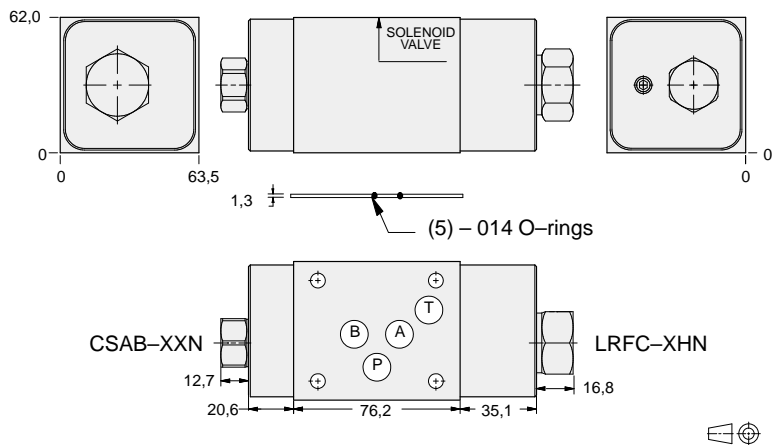
05 CIRCUIT SAVER



FUNCTION

Pressure Compensator (Bypass)

Circuit Savers



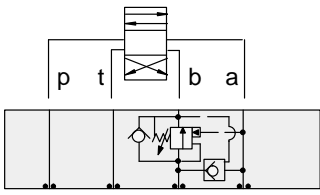
ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YFEV-XHN-BA		YFEV-XHN-BA/S	



ISO 05 SANDWICH BODIES



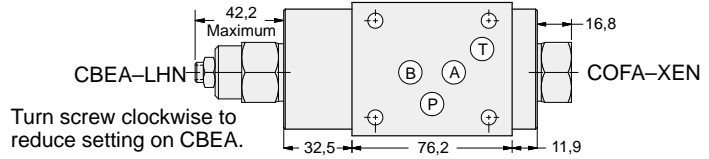
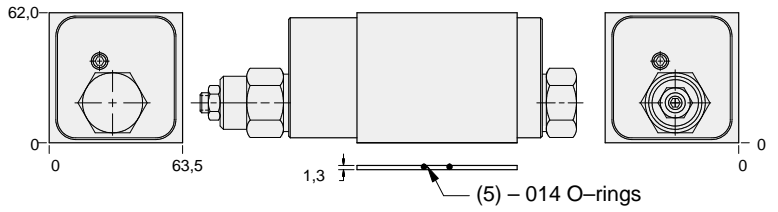
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



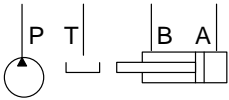
FUNCTION

B to A
Regenerative

Circuit Savers

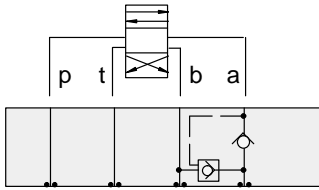


05 CIRCUIT SAVER



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
YDES-LHN-BA		YDES-LHN-BA/S	

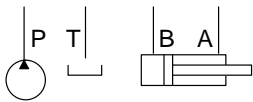
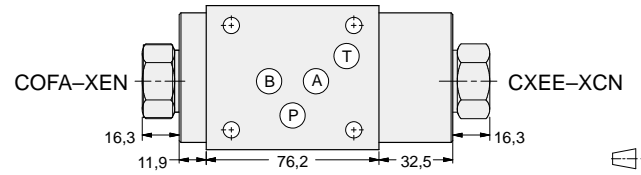
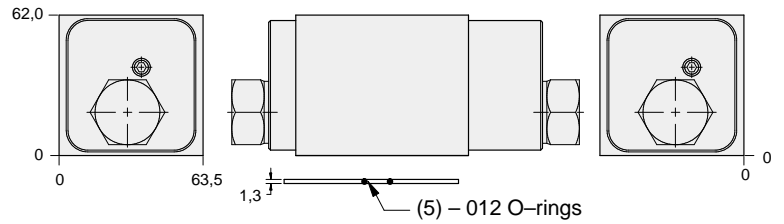
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

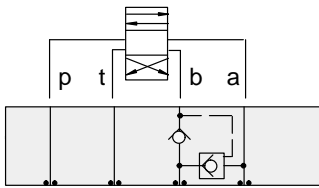
A to B
Regenerative
(Full Time)

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDEV-XCN-BA		YDEV-XCN-BA/S	

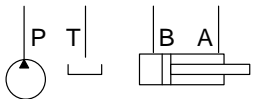
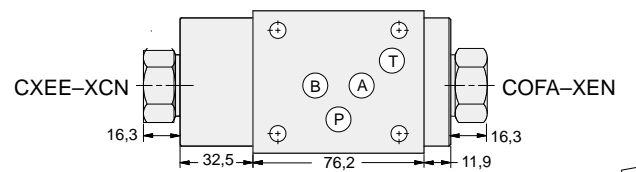
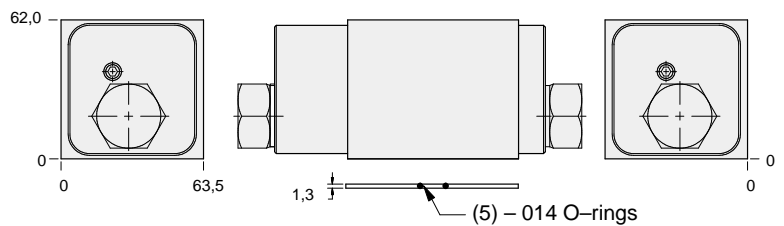
05 CIRCUIT SAVER



FUNCTION

B to A
Regenerative
(Full Time)

Circuit Savers



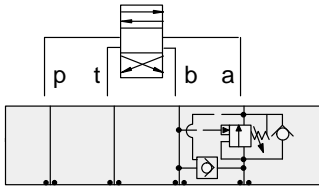
ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YDET-XCN-BA		YDET-XCN-BA/S	



ISO 05 SANDWICH BODIES



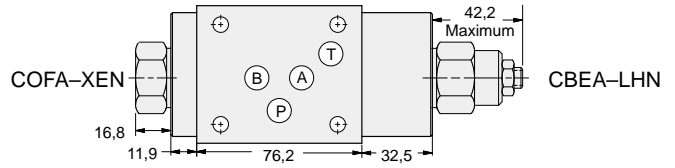
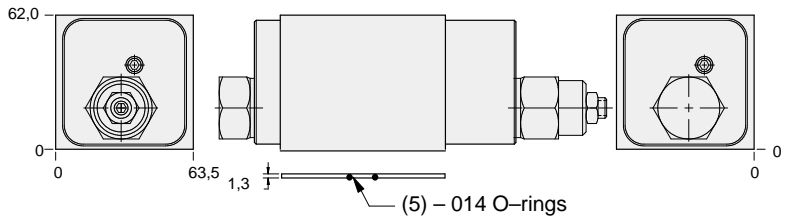
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



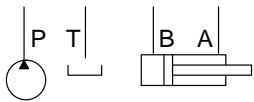
FUNCTION

A to B
Regenerative

Circuit Savers



Turn screw clockwise to reduce setting on CBEA.



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
YDER-LHN-BA		YDER-LHN-BA/S	

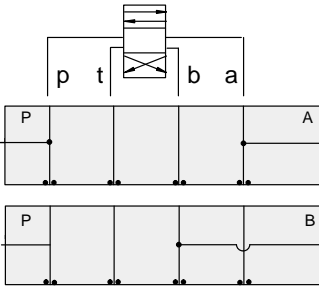
05 CIRCUIT SAVER



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

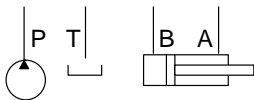
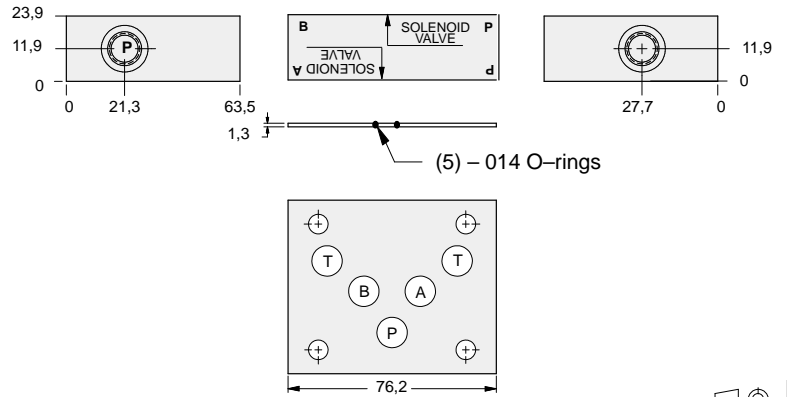


FUNCTION

P and A
Tap in Manifold

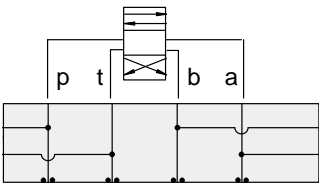
P and B
Tap in Manifold

Circuit Savers



External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-4	ZPS		ZPS/S	
.250 BSPP	ZVE		ZVE/S	
.25 NPTF	ZXE		ZXE/S	

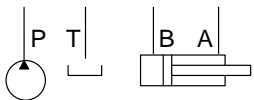
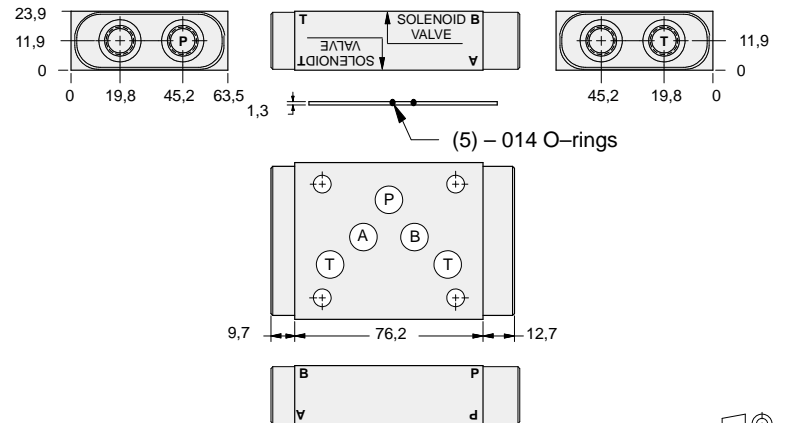
05 CIRCUIT SAVER



FUNCTION

P, T, A and B
Tap in Manifold

Circuit Savers



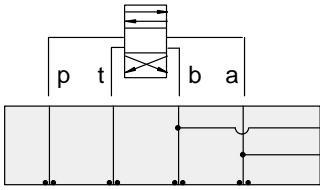
External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
SAE-4	ZKL		ZKL/S	
.250 BSPP	ZKM		ZKM/S	
.25 NPTF	ZKK		ZKK/S	



ISO 05 SANDWICH BODIES



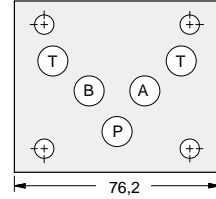
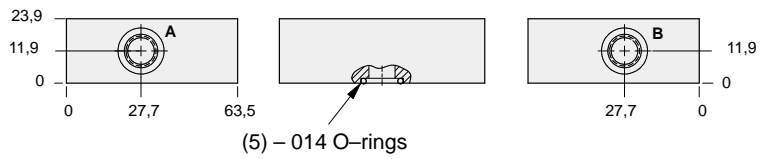
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



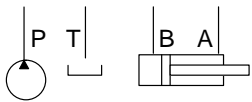
FUNCTION

A and B
Tap in Manifold

Circuit Savers

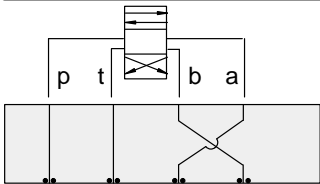


05 CIRCUIT SAVER



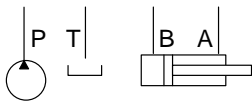
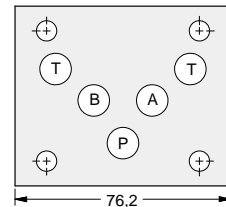
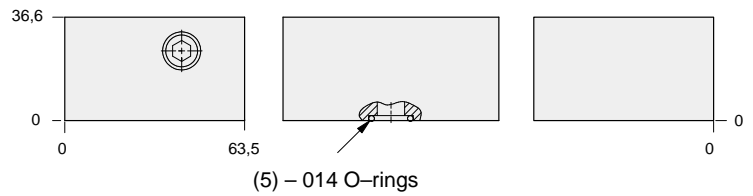
External Ports	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-4	ZPR		ZPR/S	
.25 NPTF	ZXD		ZXD/S	
.25 BSPP	ZVD		ZVD/S	

Circuit Savers



FUNCTION

Swap Block
Swaps **A** and **B**



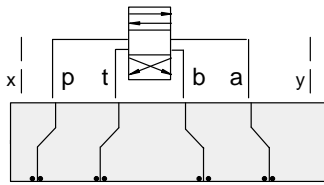
ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
ZTB		ZTB/S	



ISO 05 SANDWICH BODIES



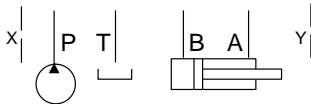
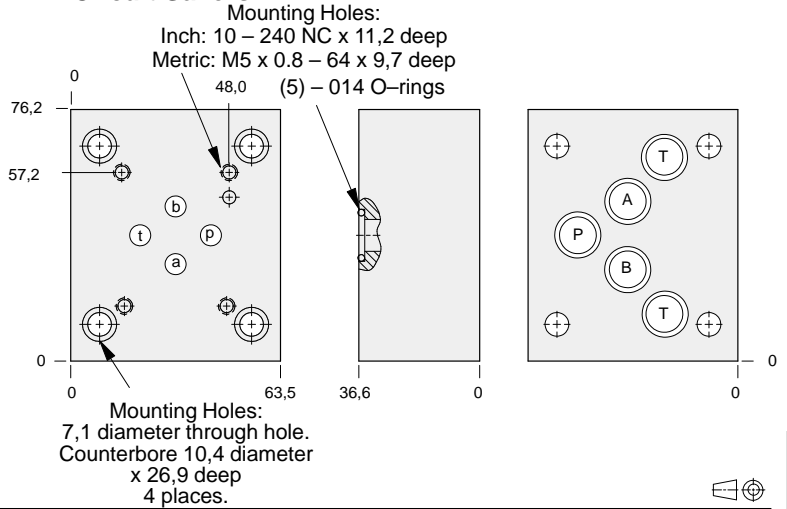
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

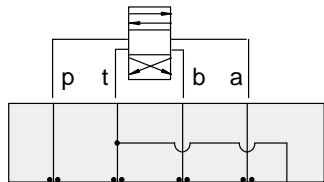
Adapter to Next Smaller Valve Pattern

Circuit Savers



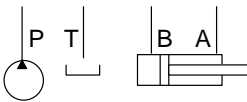
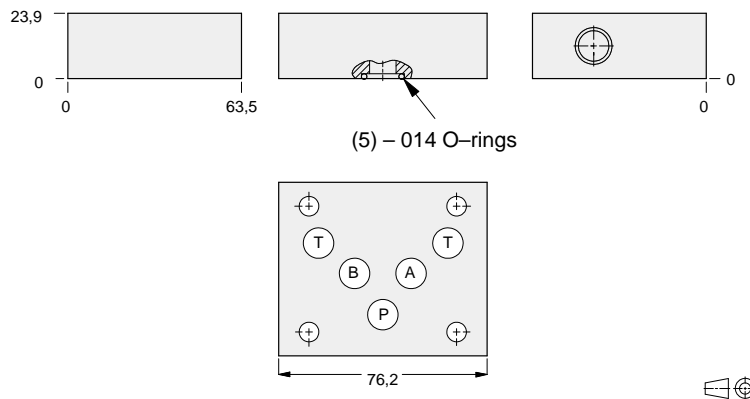
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZWU		ZWU/S	
ZVT		ZVT/S	

Circuit Savers



FUNCTION

ISO 05 to ISO 05 with Dual Tank Ports



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
ZXC		ZXC/S	

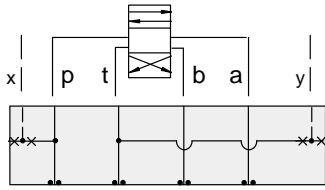
05 CIRCUIT SAVER



ISO 05 SANDWICH BODIES



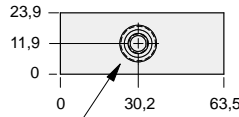
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



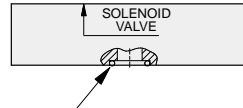
FUNCTION

ISO 05 to ISO 05
with **X** and **Y**
Access to **X** and **Y** (Amer)

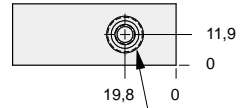
Circuit Savers



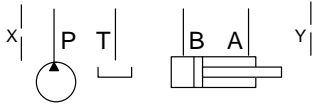
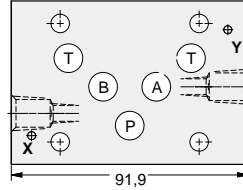
External Drain:
Use .062 NPTF Plug
Internal Drain:
Use .250 NPTF Plug



(5) – 014 O-rings
(1) 990-999-006 Installation Kit
(includes plugs)

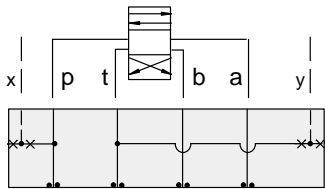


External Pilot:
Use .062 NPTF Plug
Internal Pilot:
Use .250 NPTF Plug



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZSV		ZSV/S	

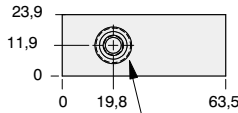
05 CIRCUIT SAVER



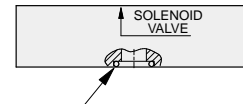
FUNCTION

ISO 05 to ISO 05
with **X** and **Y**
Access to **X** and **Y** (Euro)

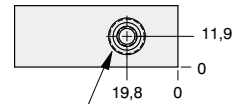
Circuit Savers



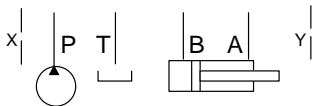
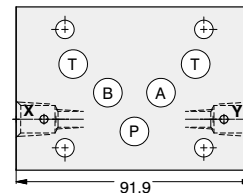
External Drain:
Use .062 NPTF Plug
Internal Drain:
Use .250 NPTF Plug



(5) – 014 O-rings
(1) 990-999-006 Installation Kit
(includes plugs)



External Pilot:
Use .062 NPTF Plug
Internal Pilot:
Use .250 NPTF Plug



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
ZST		ZST/S	

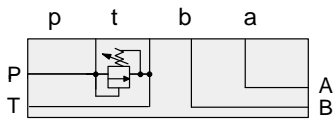


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates



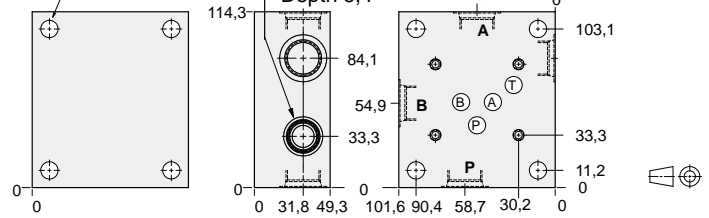
FUNCTION

Relief P to T

Mounting Holes:
11,2 diameter through hole.
4 places.

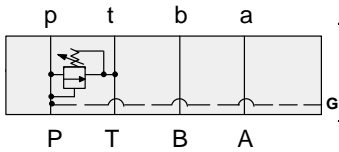
T-10A Cavity
Locating Shoulder
Depth 6,4

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Bolt Hole Interface	Ports A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	FSC		FSC/S	
Inch	SAE-10	FSK		FSK/S	
Metric	.50 BSPP	FSV		FSV/S	

Rear Ported Subplates



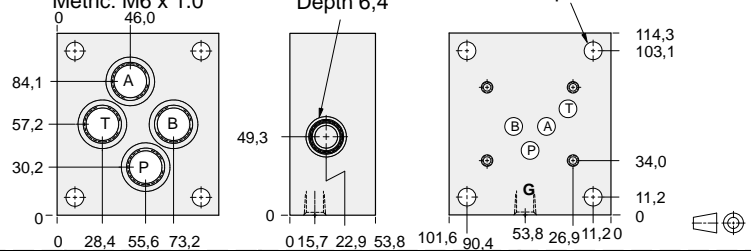
FUNCTION

Relief P to T

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0

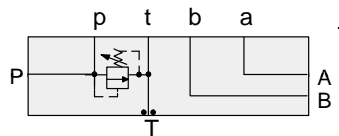
T-10A Cavity
Locating Shoulder
Depth 6,4

Mounting Holes:
11,2 diameter through hole.
4 places.



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	FRC		FRC/S	
Inch	.25 NPTF	SAE-10	FRK		FRK/S	
Metric	.25 BSPP	.50 BSPP	FRV		FRV/S	

Side Ported Subplates with Gasket Mount Tank Port



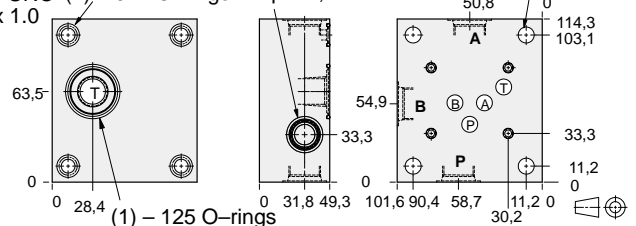
FUNCTION

Relief P to T

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC (4) - O12 O-rings
Metric: M6 x 1.0

T-10A Cavity
Locating Shoulder
Depth 6,4

Mounting Holes (Sealed):
11,2 diameter through hole.
4 places.



Bolt Hole Interface	Ports A,B,P	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	FTC		FTC/S	
Inch	SAE-10	FTK		FTK/S	
Metric	.50 BSPP	FTV		FTV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEC Page 1.06		RQEB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Direct Acting Relief Valve
	RPEE Page 1.08		RDDA Page 1.10



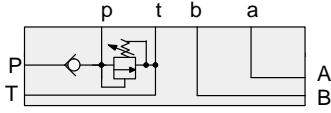
ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

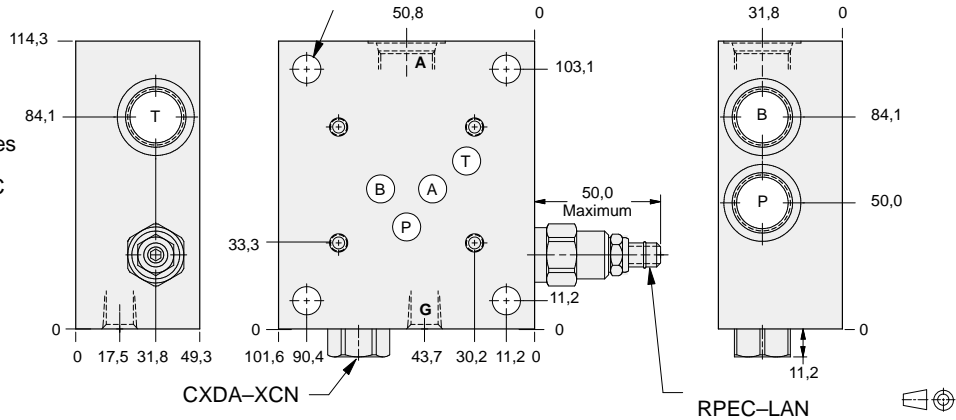
FUNCTION



Relief P to T
Check on P

Mounting Holes:
11,2 diameter through hole.
4 places.

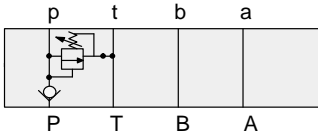
4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	YREJ-LAN-BC		YREJ-LAN-BC/S	
Inch	.25 NPTF	SAE-10	YREJ-LAN-BK		YREJ-LAN-BK/S	
Metric	.25 BSPP	.50 BSPP	YREJ-LAN-BV		YREJ-LAN-BV/S	

Rear Ported Subplates

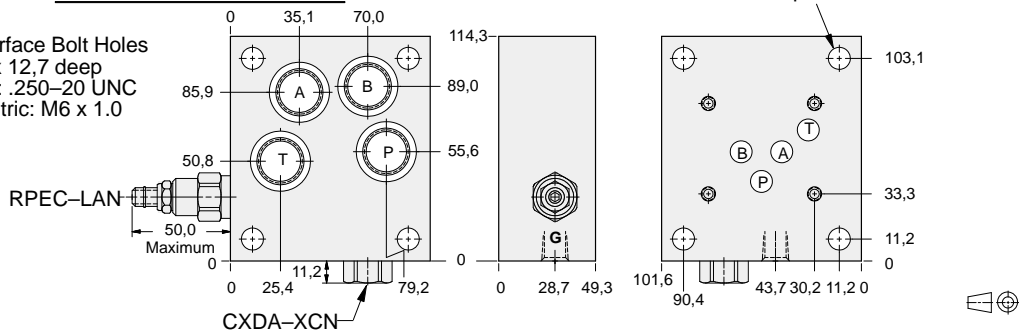
FUNCTION



Relief P to T
Check on P

Mounting Holes:
11,2 diameter through hole.
4 places.

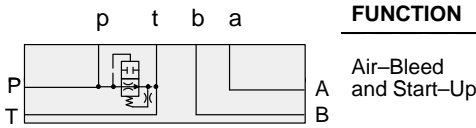
4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Part Number	List Price
Inch	.25 NPTF	.50 NPTF	YREQ-LAN-BC		YREQ-LAN-BC/S	
Inch	.25 NPTF	SAE-10	YREQ-LAN-BK		YREQ-LAN-BK/S	
Metric	.25 BSPP	.50 BSPP	YREQ-LAN-BV		YREQ-LAN-BV/S	

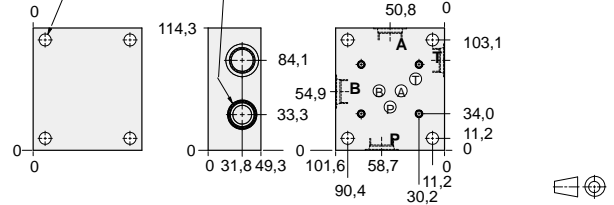
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates



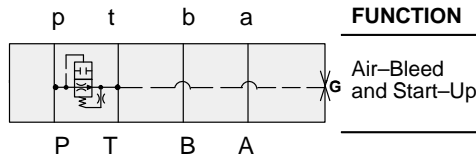
Mounting Holes:
11,2 diameter through hole.
4 places.

T-3A Cavity
Locating Shoulder
Depth 0,8



Interface Bolt Holes	Ports A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	CSC		CSC/S	
Inch	SAE-10	CSK		CSK/S	
Metric	.50 BSPP	CSV		CSV/S	

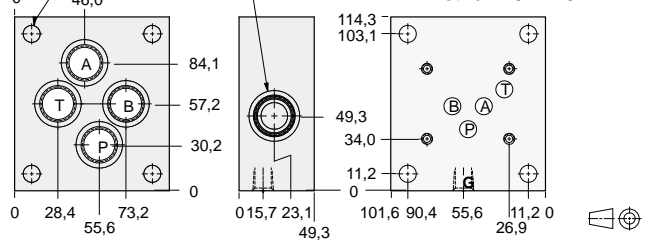
Rear Ported Subplates



Mounting Holes:
11,2 diameter through hole.
4 places.

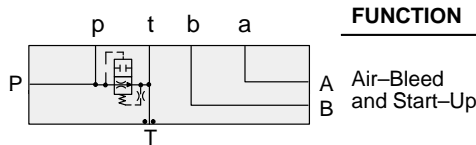
T-3A Cavity
Locating Shoulder
Depth 0,8

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Interface Bolt Holes	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	CRC		CRC/S	
Inch	.25 NPTF	SAE-10	CRK		CRK/S	
Metric	.25 BSPP	.50 BSPP	CRV		CRV/S	

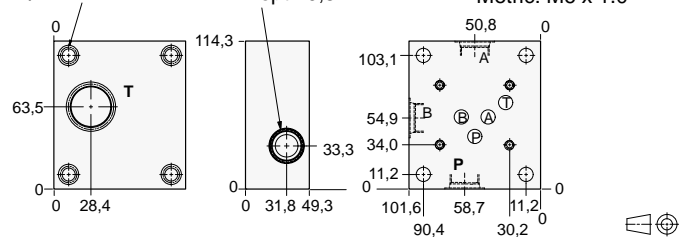
Side Ported Subplates with Gasket Mount Tank Port



Mounting Holes:
11,2 diameter through hole.
4 places.

T-3A Cavity
Locating Shoulder
Depth 0,8

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Interface Bolt Holes	Ports P, A, B	Port T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	.50 NPTF	CTC		CTC/S	
Inch	SAE-10	.50 NPTF	CTK		CTK/S	
Metric	.50 BSPP	.50 BSPP	CTV		CTV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

Cartridge	Function	Material	Model Code	List Price
	Air Bleed and Start-up Valve	Aluminium		
	NQEB Page 10.16	SG Iron		

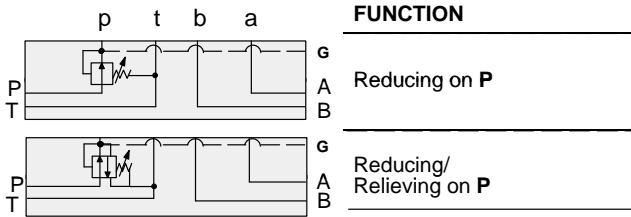


ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

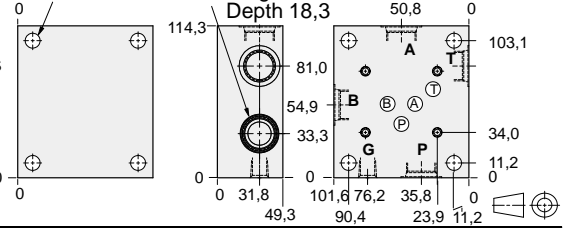


Mounting Holes:

11,2 diameter through hole.
4 places.

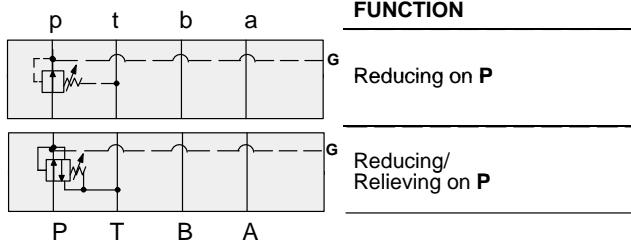
4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0

T-2A Cavity
Locating Shoulder
Depth 18,3



Interface Bolt Holes	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	BSC		BSC/S	
Inch	.25 NPTF	SAE-10	BSK		BSK/S	
Metric	.25 BSPP	.50 BSPP	BSV		BSV/S	

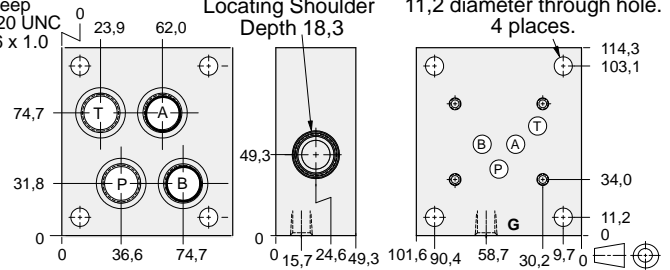
Rear Ported Subplates



4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0

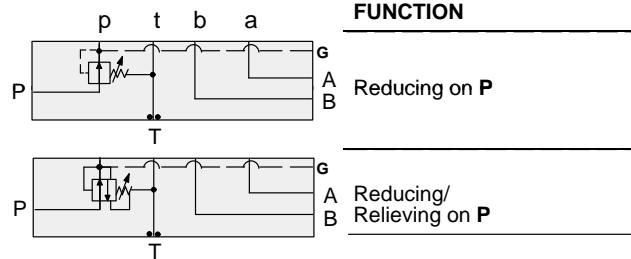
T-2A Cavity
Locating Shoulder
Depth 18,3

Mounting Holes:
11,2 diameter through hole.
4 places.



Interface Bolt Holes	Gauge Port	Ports A,B,P,T	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	BRC		BRC/S	
Inch	.25 NPTF	SAE-10	BRK		BRK/S	
Metric	.25 BSPP	.50 BSPP	BRV		BRV/S	

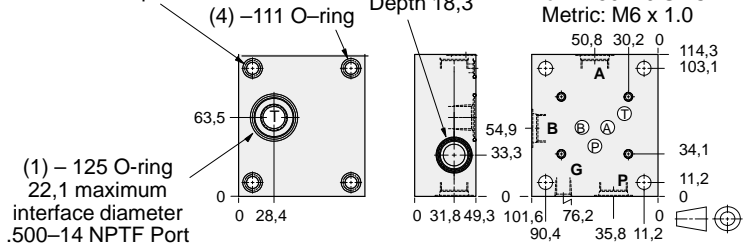
Side Ported Subplates with Gasket Mount Tank Port



Mounting Holes (Sealed):
11,2 diameter through hole.
4 places.

T-2A Cavity
Locating Shoulder
Depth 18,3

4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0



Interface Bolt Holes	Gauge Port	Ports A,B,P	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	.50 NPTF	BTC		BTC/S	
Inch	.25 NPTF	SAE-10	BTK		BTK/S	
Metric	.25 BSPP	.50 BSPP	BTV		BTV/S	

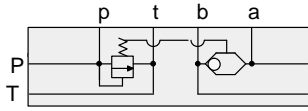
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot Operated Reducing Valve</i> PBFB Page 3.06		<i>Pilot Operated Reducing/Relieving Valve</i> PPFB Page 3.10
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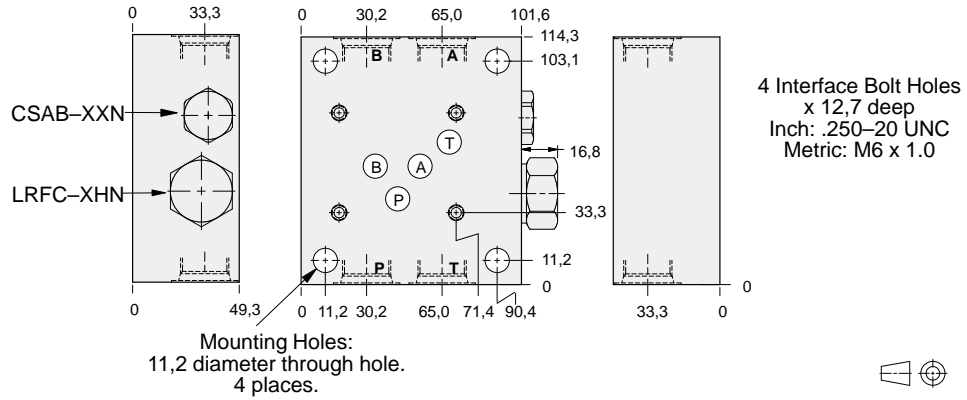
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



Bypass
Compensator
for Proportional
Valves



Bolt Hole Interface	Ports A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	YFES-XHN-BC		YFES-XHN-BC/S	
Inch	SAE-10	YFES-XHN-BK		YFES-XHN-BK/S	
Metric	.50 BSPP	YFES-XHN-BV		YFES-XHN-BV/S	



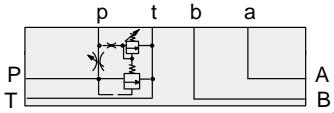
ISO 05 SANDWICH BODIES



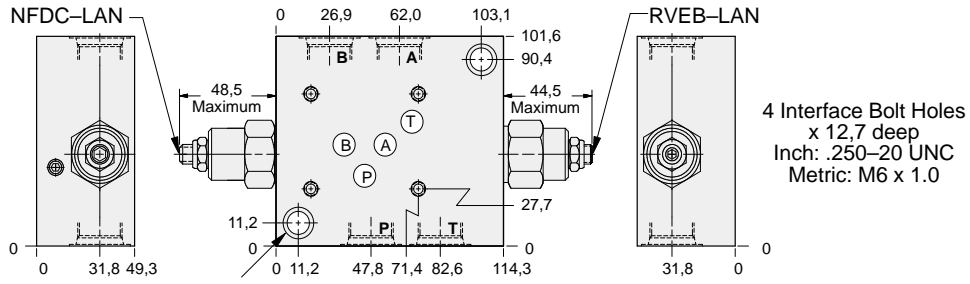
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



Relief **P** to **T**
and Bypass
Flow Regulator



4 Interface Bolt Holes
x 12,7 deep
Inch: .250-20 UNC
Metric: M6 x 1.0

Mounting Holes:
11,9 diameter through hole.
Counterbore 17,5 diameter x 11,2 deep.
2 places.



Bolt Hole Interface	Ports A,B,P,T	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	YFED-LAN-BC		YFED-LAN-BC/S	
Inch	SAE-10	YFED-LAN-BK		YFED-LAN-BK/S	
Metric	.50 BSPP	YFED-LAN-BV		YFED-LAN-BV/S	

05 SUBPLATE



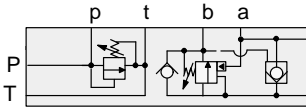
ISO 05 SANDWICH BODIES



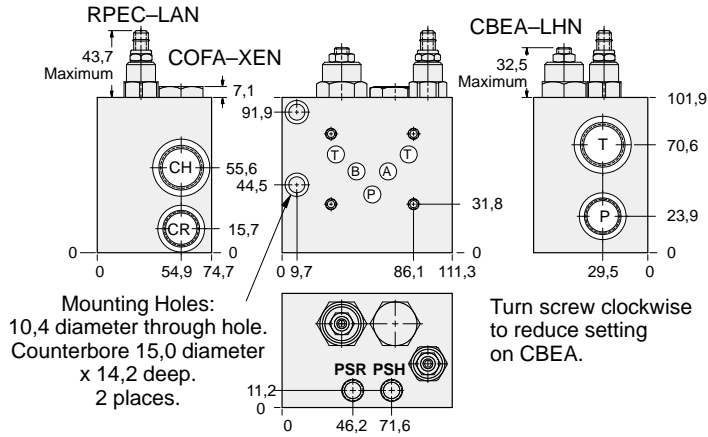
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



A Relief P to T
 Regenerative
 B to A
 B



4 Interface Bolt Holes
 x 12,7 deep
 Inch: .250-20 UNC
 Metric: M6 x 1.0

Bolt Hole Interface	Ports			ALUMINIUM		SG IRON	
	P,CR	T,CH	PSH,PSR	Model Code	List Price	Model Code	List Price
Inch	.50 NPTF	.75 NPTF	.25 NPTF	YDEM-LHN-BD		YDEM-LHN-BD/S	
Inch	SAE-10	SAE-12	.25 NPTF	YDEM-LHN-BL		YDEM-LHN-BL/S	
Metric	.50 BSPP	.75 BSPP	.25 BSPP	YDEM-LHN-BW		YDEM-LHN-BW/S	

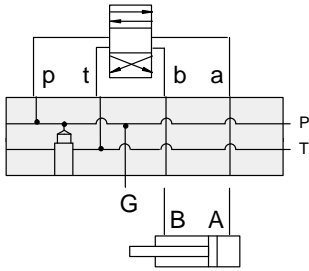


BAR MANIFOLDS



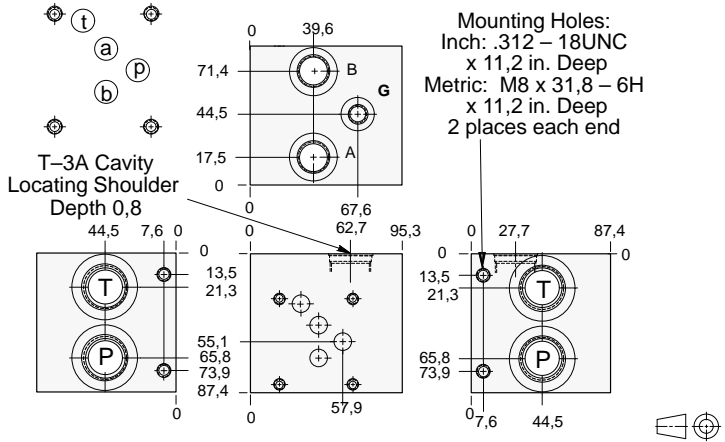
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

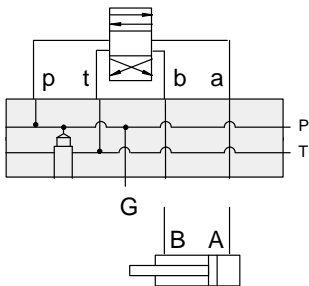
One Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.75 NPTF	.50 NPTF	.25 NPTF	VPL		VPL/S	
inch	SAE-12	SAE-8	SAE-4	VPT		VPT/S	
metric	.75 BSPP	.50 BSPP	.25 BSPP	VNA		VNA/S	

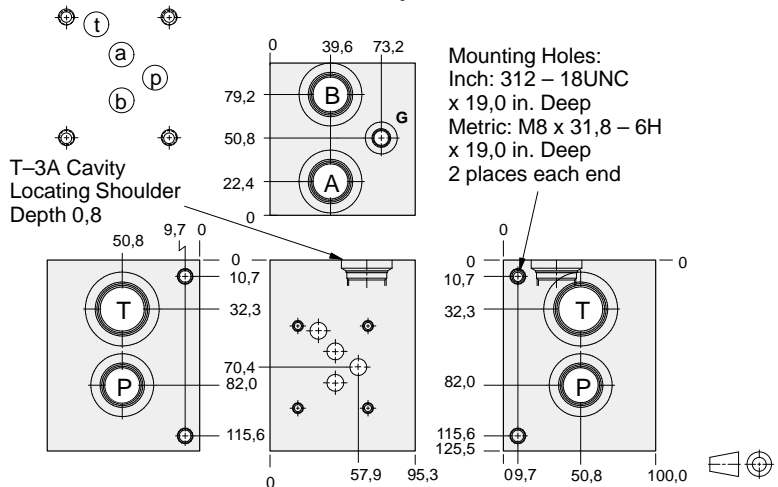
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

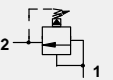
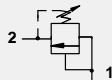
One Station
(High Capacity)



Mounting Holes	Port T	Ports A, B, P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	VNG		VNG/S	
inch	SAE-16	SAE-12	SAE-4	VNN		VNN/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	VNW		VNWS	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

OTHER VALVES:	 Pilot Operated Relief Valve RPGC Page 1.06	 Direct Acting Relief Valve RDFA Page 1.10

BAR MANIFOLD

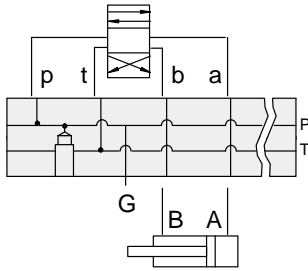


BAR MANIFOLDS



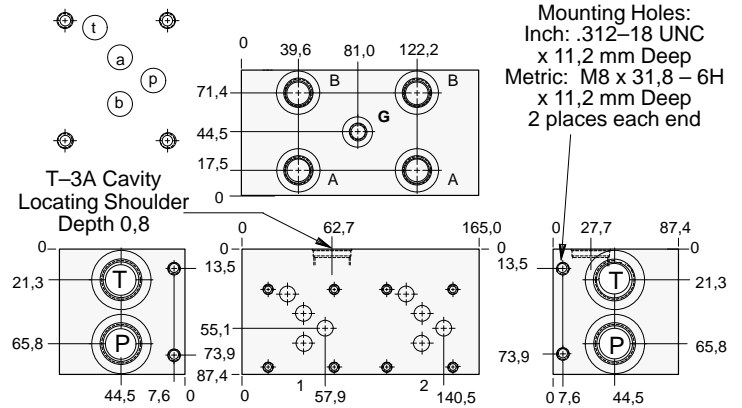
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

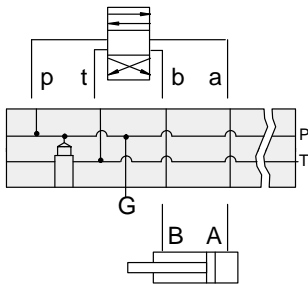
Two Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.75 NPTF	.50 NPTF	.25 NPTF	VPM		VPM/S	
inch	SAE-12	SAE-8	SAE-4	VPV		VPV/S	
metric	.75 BSPP	.50 BSPP	.25 BSPP	VNB		VNB/S	

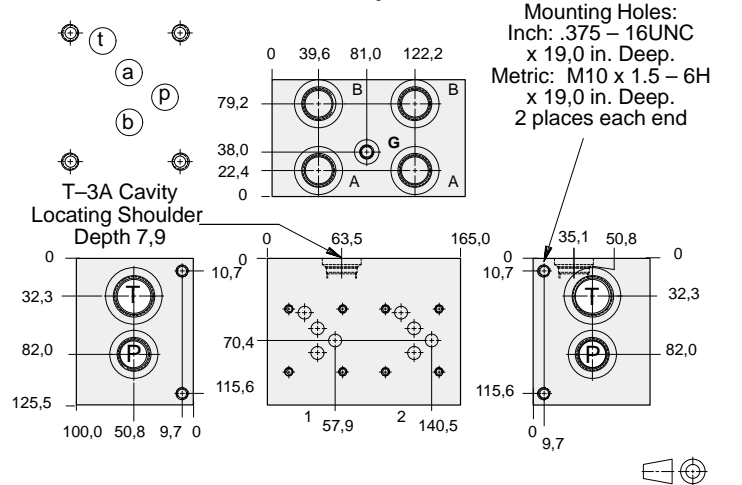
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

Two Station
(High Capacity)



Mounting Holes	Port T	Ports A, B, P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	VNH		VNH/S	
inch	SAE-16	SAE-12	SAE-4	VNP		VNP/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	VNX		VNX/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

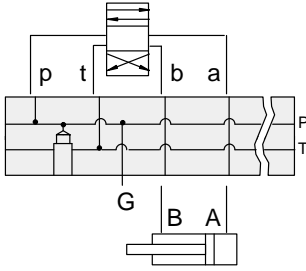


BAR MANIFOLDS



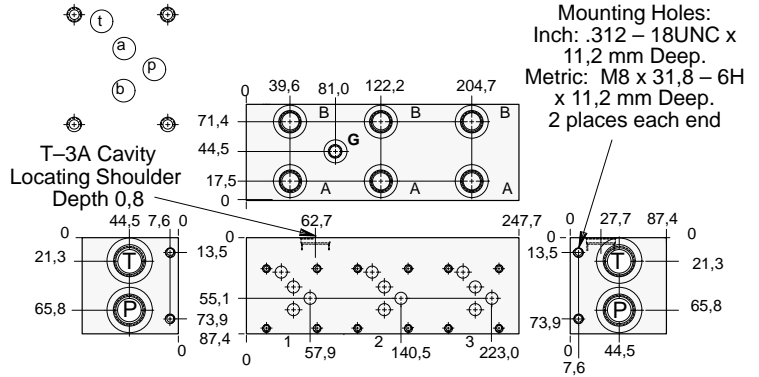
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

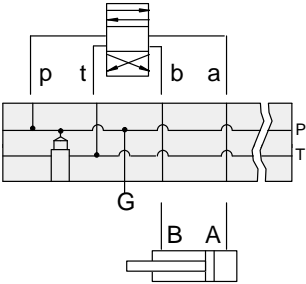
Three Station



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.75 NPTF	.50 NPTF	.25 NPTF	VPN		VPN/S	
inch	SAE-12	SAE-8	SAE-4	VPW		VPW/S	
metric	.75 BSPP	.50 BSPP	.25 BSPP	VNC		VNC/S	

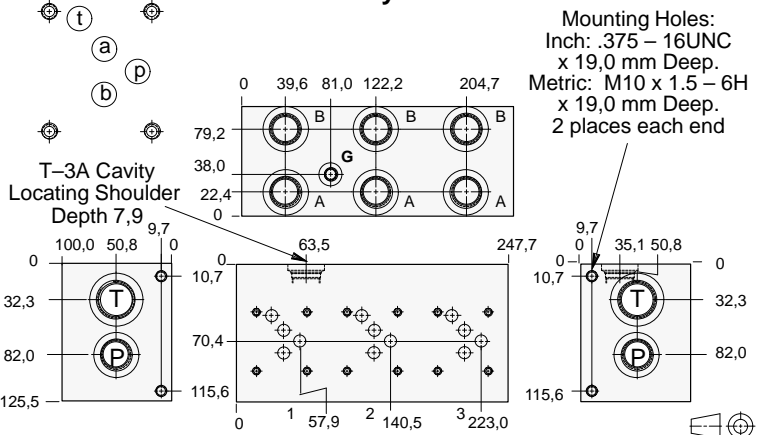
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

Three Station
(High Capacity)



Mounting Holes	Port T	Ports A, B, P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	VNJ		VNJ/S	
inch	SAE-16	SAE-12	SAE-4	VNR		VNR/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	VNY		VNY/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

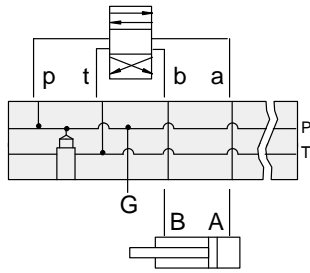
Pilot Operated Relief Valve		Direct Acting Relief Valve	
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			



BAR MANIFOLDS



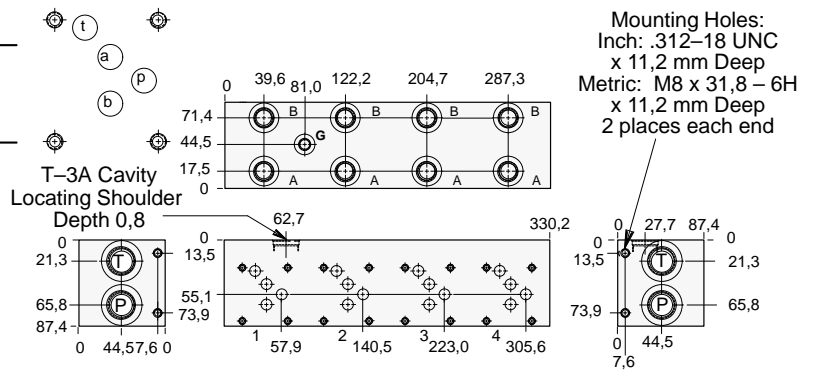
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Four Station

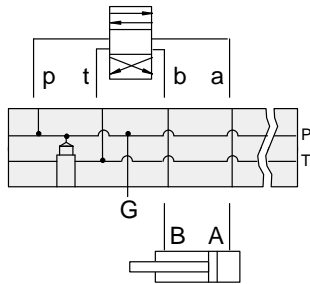
ISO 05 Parallel Circuit with Relief Cavity



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.75 NPTF	.50 NPTF	.25 NPTF	VPP		VPP/S	
inch	SAE-12	SAE-8	SAE-4	VPX		VPX/S	
metric	.75 BSPP	.50 BSPP	.25 BSPP	VND		VND/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

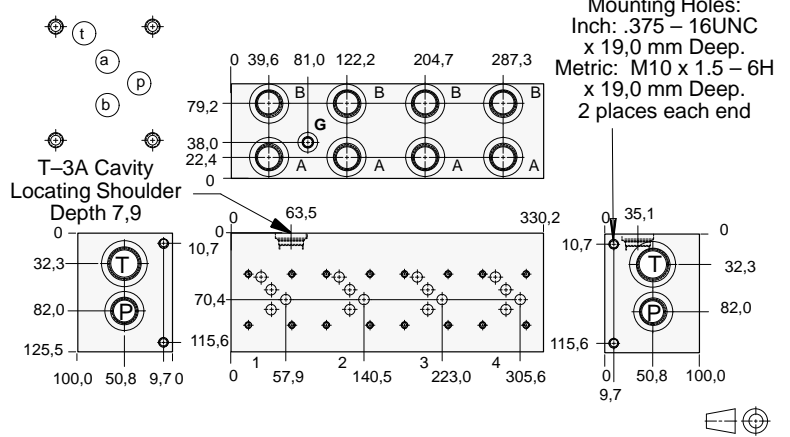
BARMANIFOLD



FUNCTION

Four Station
(High Capacity)

ISO 05 Parallel Circuit with Relief Cavity



Mounting Holes	Port T	Ports A, B, P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	VNK		VNK/S	
inch	SAE-16	SAE-12	SAE-4	VNS		VNS/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	VNZ		VNZ/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

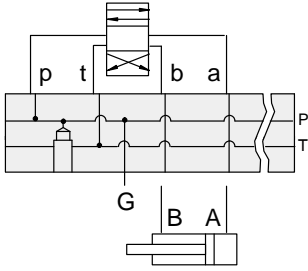


BAR MANIFOLDS



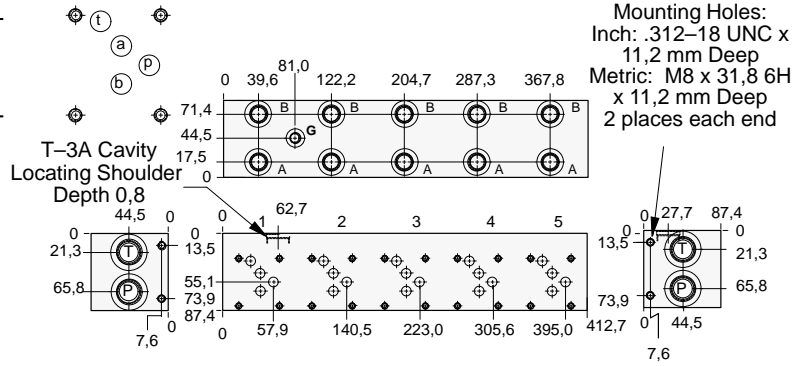
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

Five Station



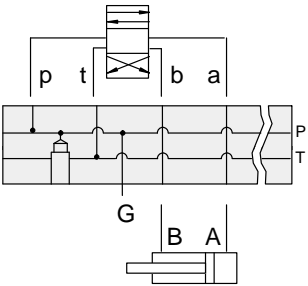
Mounting Holes:
 Inch: .312-18 UNC x
 11,2 mm Deep
 Metric: M8 x 31,8 6H
 x 11,2 mm Deep
 2 places each end



Mounting Holes	Ports P, T	Ports A, B	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	.75 NPTF	.50 NPTF	.25 NPTF	VPR		VPR/S	
inch	SAE-12	SAE-8	SAE-4	VPY		VPY/S	
metric	.75 BSPP	.50 BSPP	.25 BSPP	VNE		VNE/S	

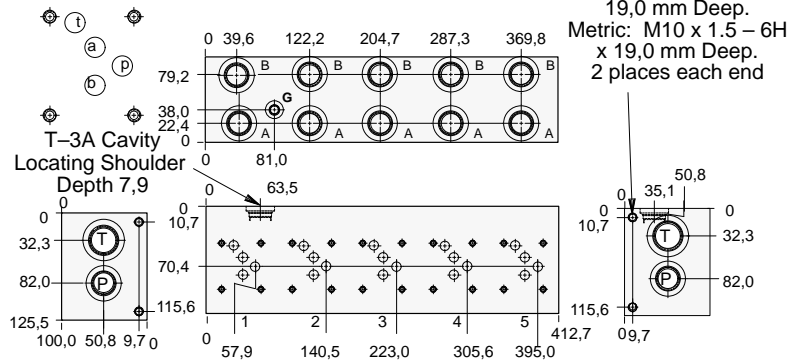
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 Parallel Circuit with Relief Cavity



FUNCTION

Five Station
(High Capacity)



Mounting Holes:
 Inch: .375 - 16UNC x
 19,0 mm Deep
 Metric: M10 x 1.5 - 6H
 x 19,0 mm Deep
 2 places each end



Mounting Holes	Port T	Ports A, B, P	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	VNL		VNL/S	
inch	SAE-16	SAE-12	SAE-4	VNT		VNT/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	VMA		VMA/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

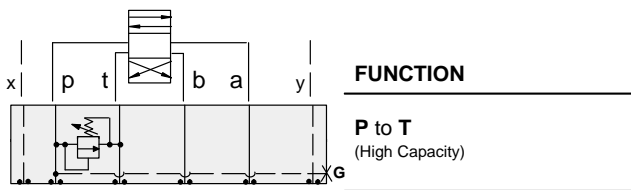
OTHER VALVES:	
	Pilot Operated Relief Valve RPGC Page 1.06
	Direct Acting Relief Valve RDFA Page 1.10



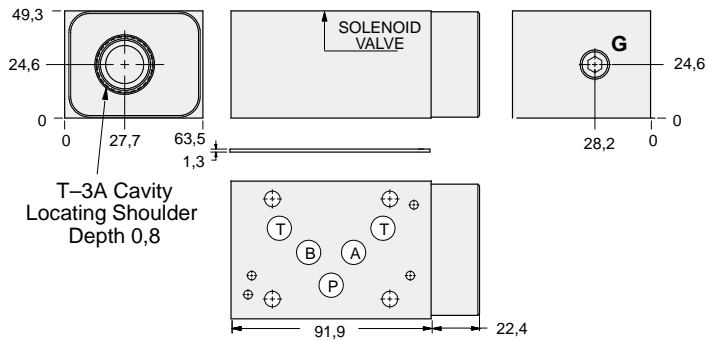
ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

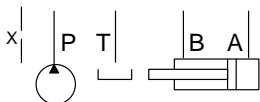


Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)

05xy RELIEF



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CJP		CJP/S	
.25 BSPP	CJP/M		CJP/T	

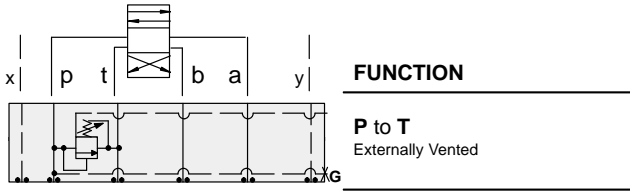
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



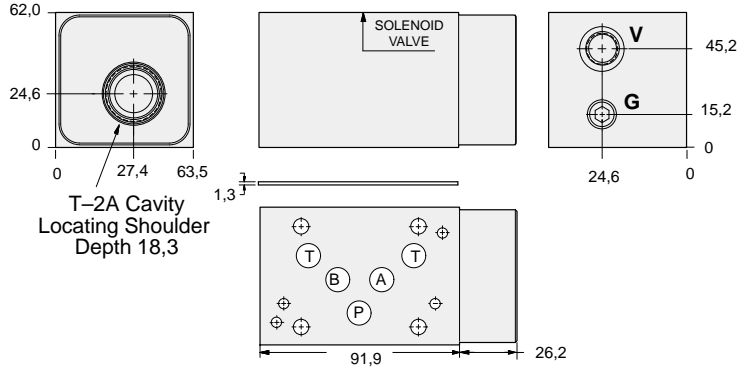
ISO 05 X,Y SANDWICH BODIES



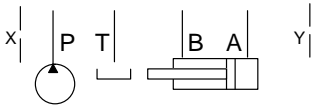
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



	Gauge Port (Plugged)	Vent Port	ALUMINIUM		SG IRON	
			Model Code	List Price	Model Code	List Price
	.25 NPTF	SAE-6	BJC		BJC/S	
	.25 BSPP	.25 BSPP	BJC/M		BJC/T	

05xy RELIEF

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

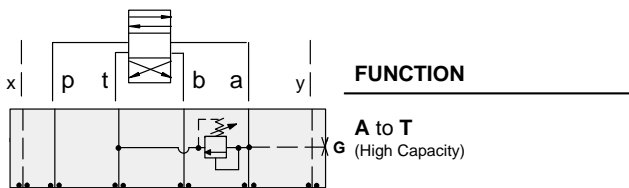
	<i>Pilot Operated Vented Relief Valve</i>		
	RVEA Page 1.18		
OTHER VALVES:			



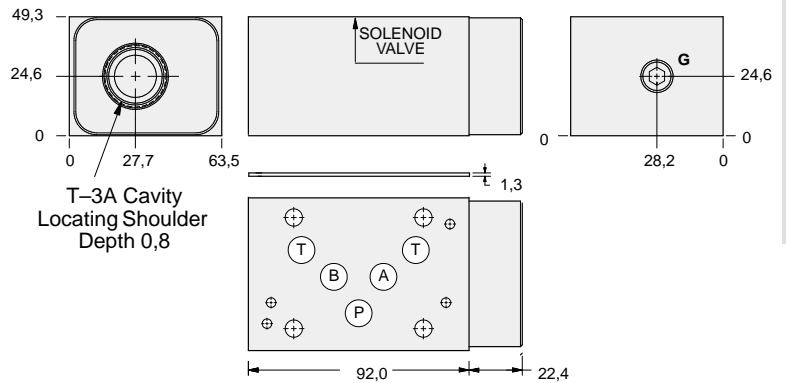
ISO 05 X,Y SANDWICH BODIES



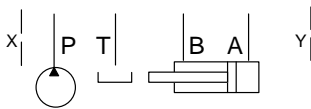
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CJA		CJA/S	
.25 BSPP	CJA/M		CJA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

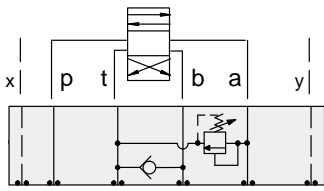
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



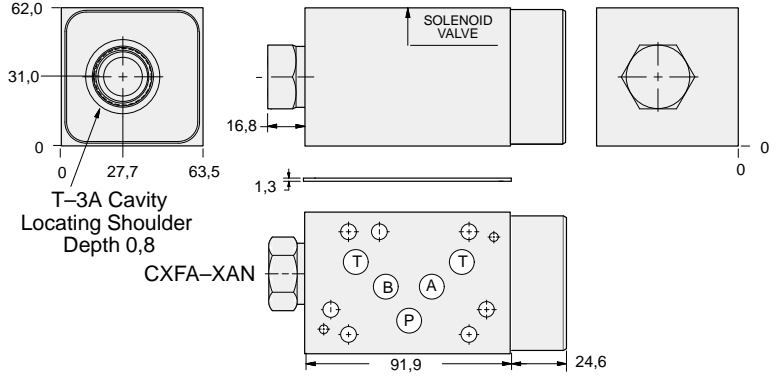
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



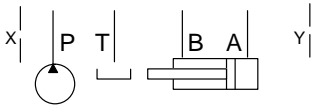
FUNCTION

A to T
FF Check T to B

Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CJ2		CJ2/S	

05xy RELIEF

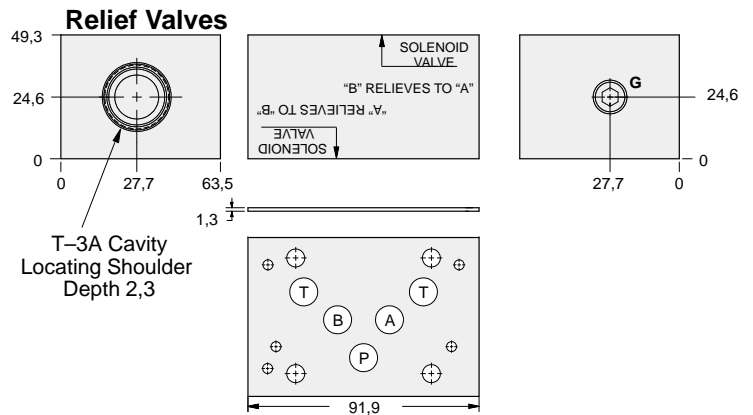
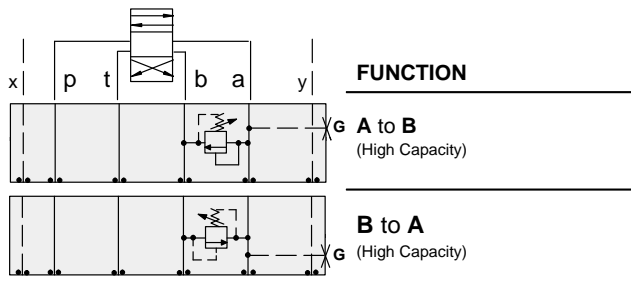
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i> RPGC Page 1.06		<i>Pilot Operated "Kick-Down" Relief Valve</i> RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i> RPGE Page 1.08		<i>Air Controlled, Pilot Operated Relief Valve</i> RPGD Page 1.14
	<i>Direct Acting Relief Valve</i> RDFA Page 1.10		
OTHER VALVES:			



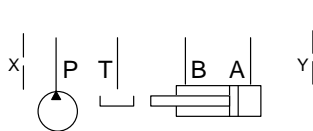
ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CJC		CJC/S	
.25 BSPP	CJC/M		CJC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			

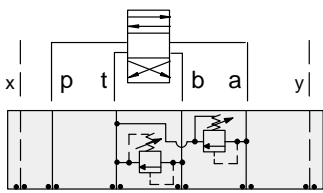


ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

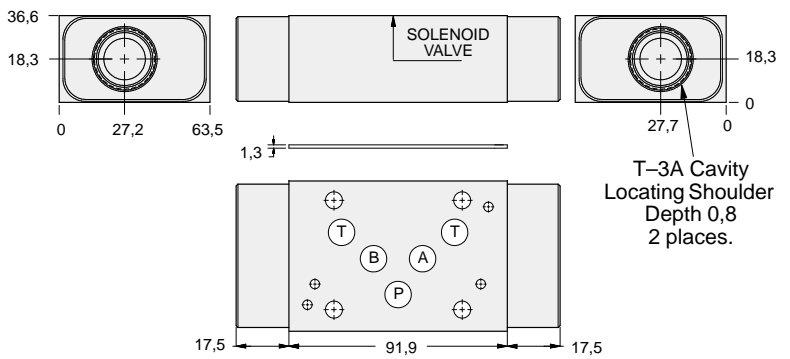
05xy RELIEF



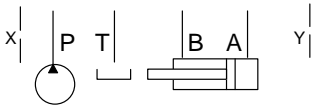
FUNCTION

A and B to T
(High Capacity)

Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CJX		CJX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

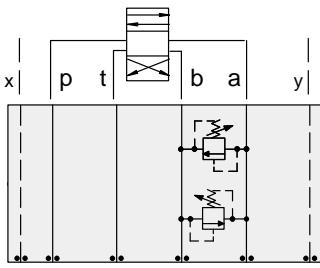
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



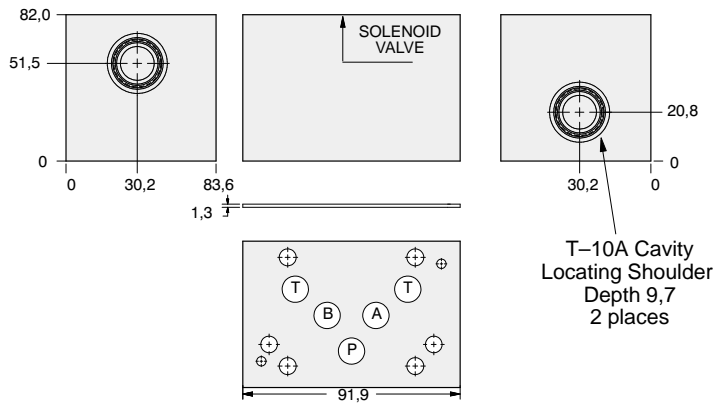
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



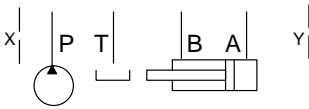
FUNCTION

A to B and B to A
(Cross Port)

Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CJY		CJY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPEC Page 1.06		RQEB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		
	RPEE Page 1.08		
	<i>Direct Acting Relief Valve</i>		
	RDDA Page 1.10		
OTHER VALVES:			

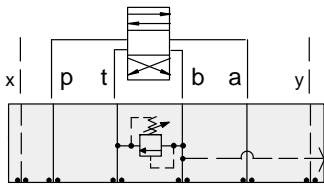


ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

05xy RELIEF

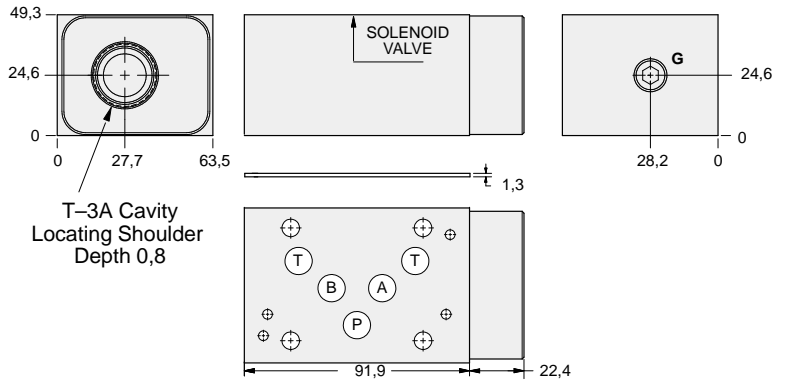


FUNCTION

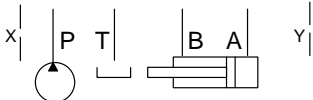
B to T

G (High Capacity)

Relief Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CJB		CJB/S	
.25 BSPP	CJB/M		CJB/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPGC Page 1.06		RQGB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RPGE Page 1.08		RPGD Page 1.14
	Direct Acting Relief Valve		
	RDFA Page 1.10		
OTHER VALVES:			



NOTES

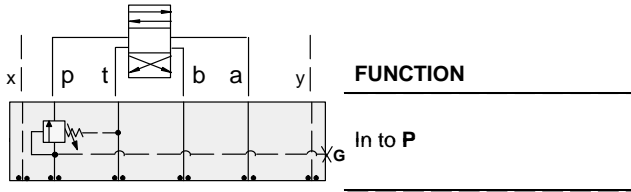




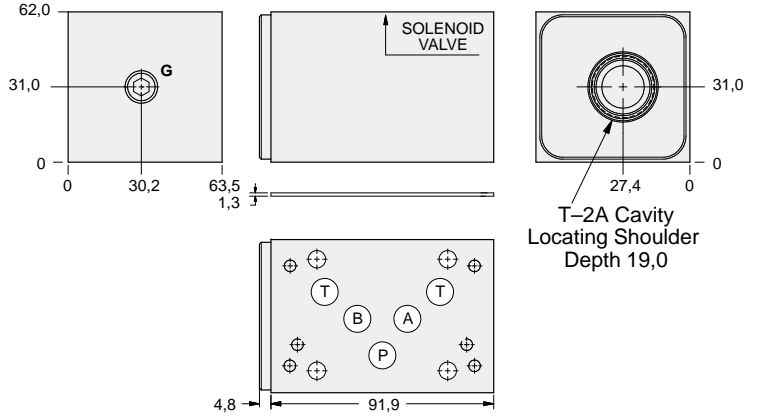
ISO 05 X,Y SANDWICH BODIES



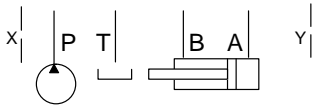
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Sequence Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJW		BJW/S	
.25 BSPP	BJW/M		BJW/T	

05xy SEQUENCE

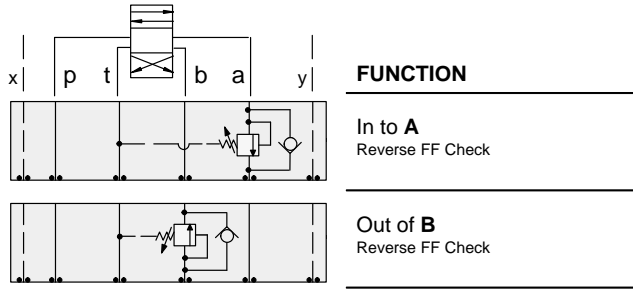
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Sequence Valve</i>		<i>Direct Acting Sequence Valve with Reverse Free Flow Check</i>
	RSFC Page 2.06		SCEA Page 2.12
	<i>Pilot Operated "Kick-Down" Sequence Valve</i>		
	SQFB Page 2.08		
	<i>Air Controlled, Pilot Operated Sequence Valve</i>		
	RSFE Page 2.10		
OTHER VALVES:			



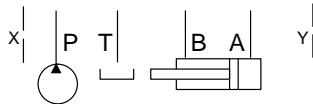
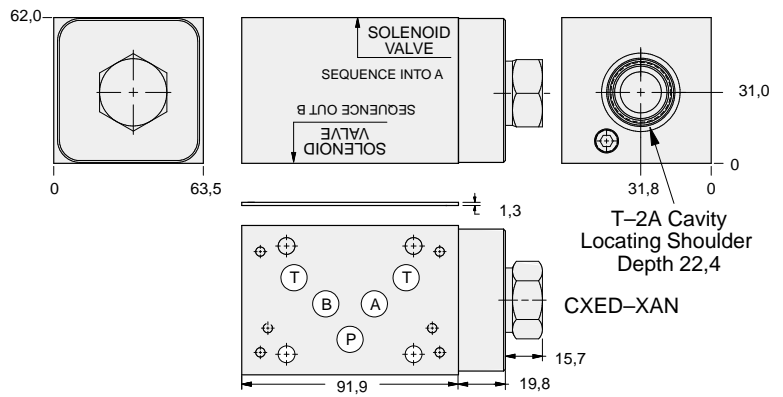
ISO 05 X,Y SANDWICH BODIES



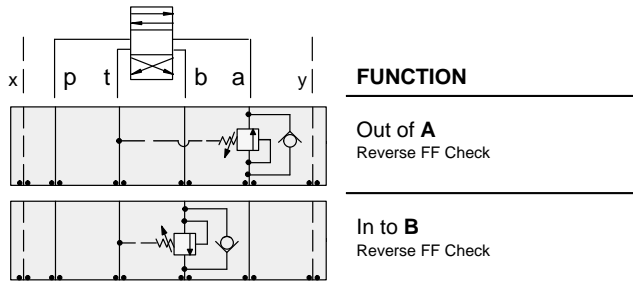
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



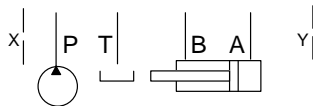
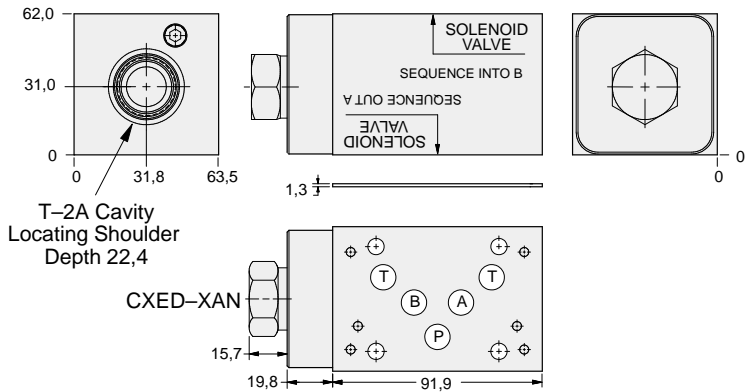
Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJ4		BJ4/S	



Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BJ5		BJ5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

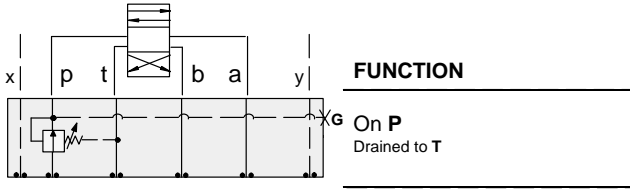
	<i>Pilot Operated Sequence Valve</i>		
	RSFC Page 2.06		
	<i>Pilot Operated "Kick-Down" Sequence Valve</i>		
	SQFB Page 2.08		
	<i>Air Controlled, Pilot Operated Sequence Valve</i>		
	RSFE Page 2.10		
OTHER VALVES:			



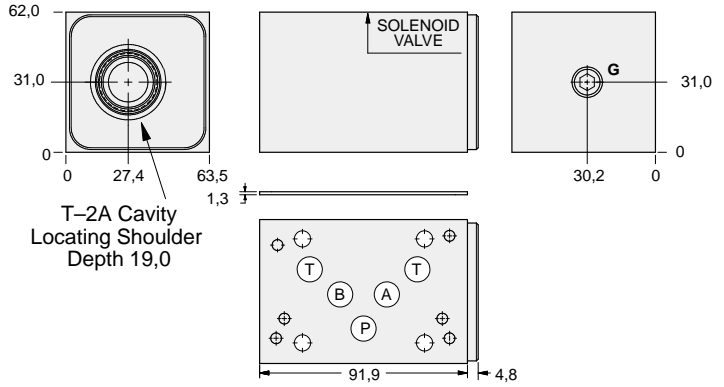
ISO 05 X,Y SANDWICH BODIES



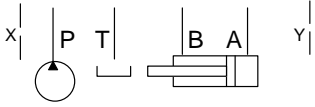
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJP		BJP/S	
.25 BSPP	BJP/M		BJP/T	

05xy REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

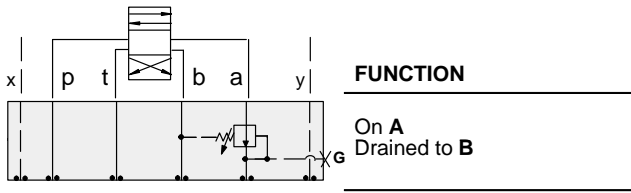
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
	<i>Air Controlled, Pilot Operated Reducing Valve</i>		
	PBFC Page 3.08		
OTHER VALVES:			



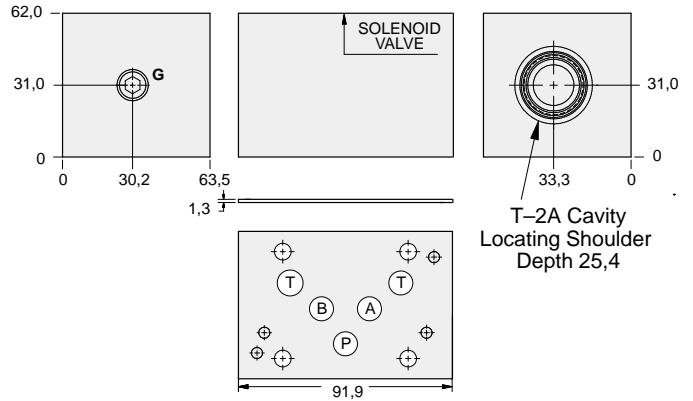
ISO 05 X,Y SANDWICH BODIES



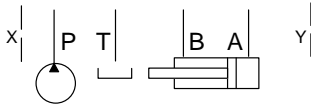
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJA		BJA/S	
.25 BSPP	BJA/M		BJA/T	

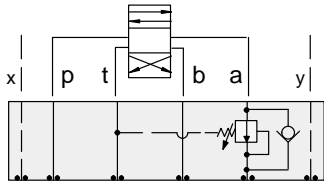
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



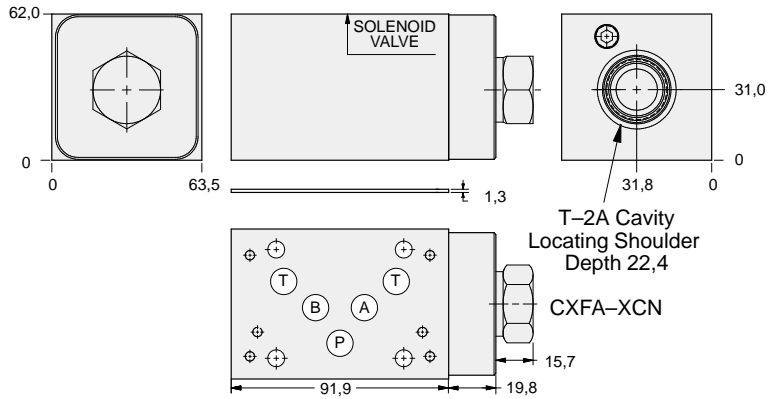
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



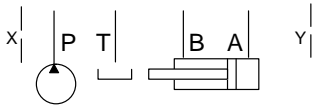
FUNCTION

On A Drain to T
Reverse FF Check

Reducing Valves

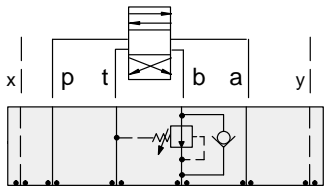


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJ2		BJ2/S	

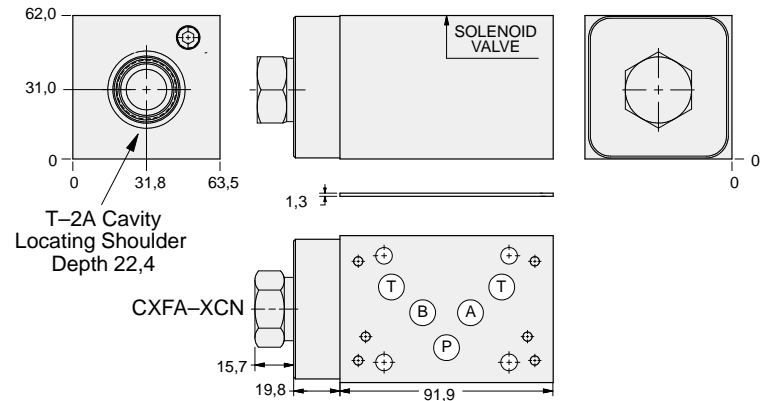
05xy REDUCING



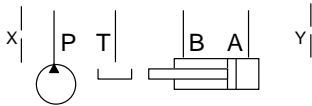
FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BJ3		BJ3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

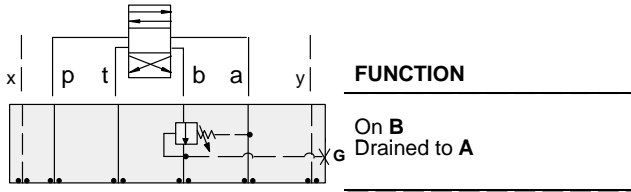
	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PBFC Page 3.08		
OTHER VALVES:			



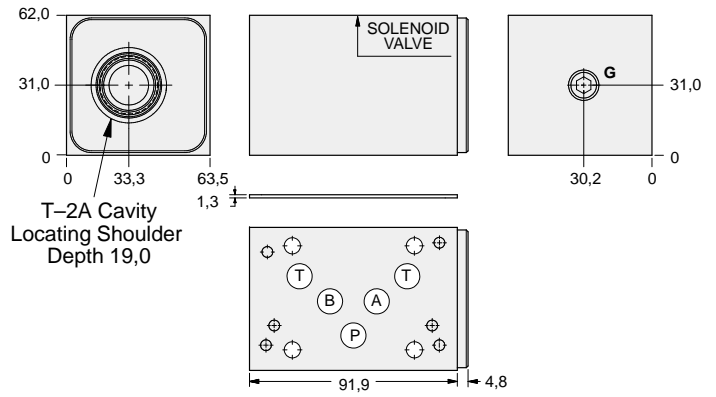
ISO 05 X,Y SANDWICH BODIES



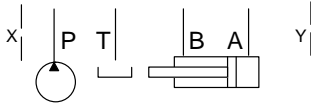
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJB		BJB/S	
.25 BSPP	BJB/M		BJB/T	



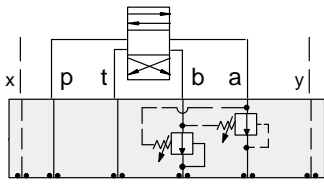
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBFB Page 3.06		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



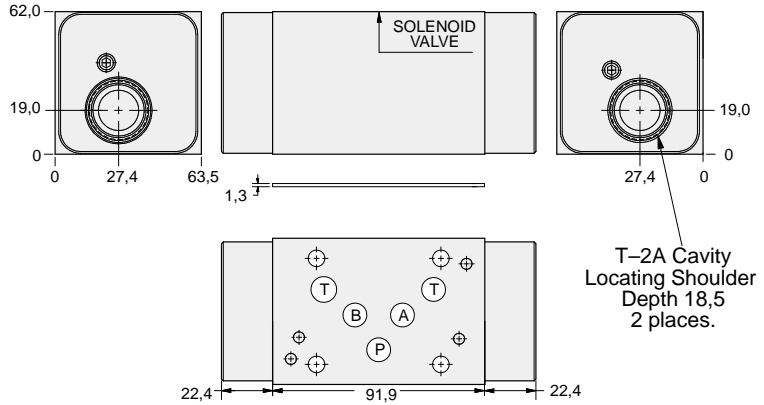
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



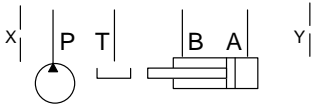
FUNCTION

On **A** and **B**
Drains to Opposite Port

Reducing Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJY		BJY/S	

05_{xy} REDUCING

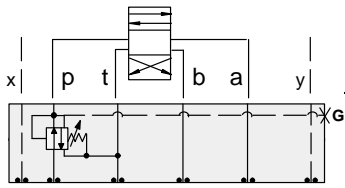
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing Valve</i>		
	PBFB Page 3.06		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



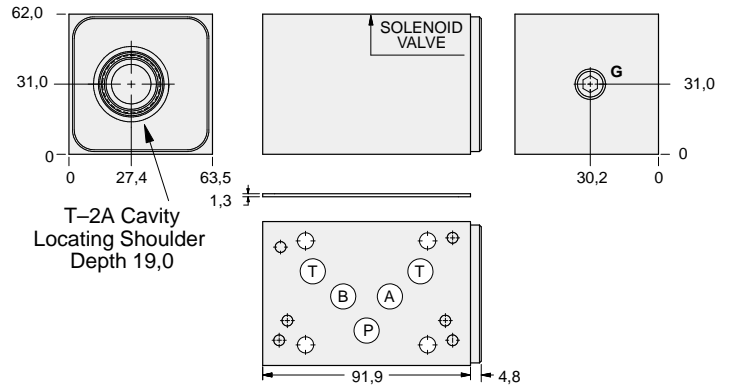
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



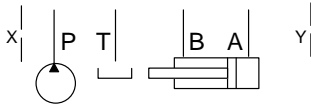
FUNCTION

On P Tank to T
Drained to T

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJP		BJP/S	
.25 BSPP	BJP/M		BJP/T	

05xy REDUCING/RELIEVING

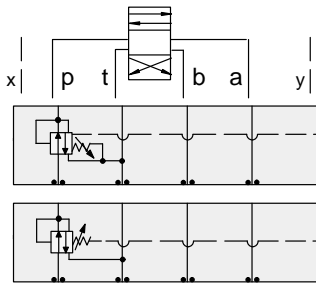
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
	<i>Air Controlled, Pilot Operated Reducing/Relieving Valve</i>		
	PPFC Page 3.12		
OTHER VALVES:			



ISO 05 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

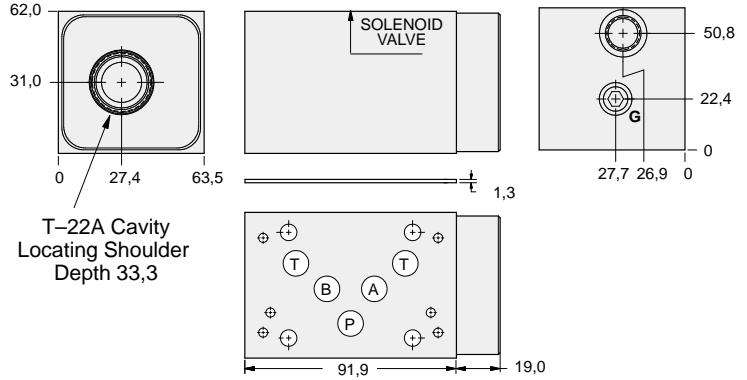


FUNCTION

On P Tank to T
Vented Externally

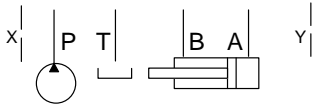
On P Tank to T
Drained Externally

Reducing/Relieving Valves



T-22A Cavity
Locating Shoulder
Depth 33,3

Order Retainer and Seal Kits separately.
(See Page 12.002)



External Port	Gauge Port (Plugged)	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
SAE-6	.25 NPTF	NJP		NJP/S	
.25 BSPP	.25 BSPP	NJP/M		NJP/T	

05xyREDUCING/RELIEVING

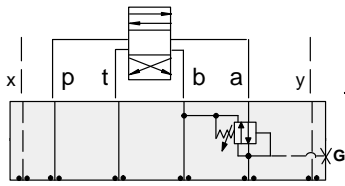
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVFA Page 3.14		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVFB Page 3.16		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



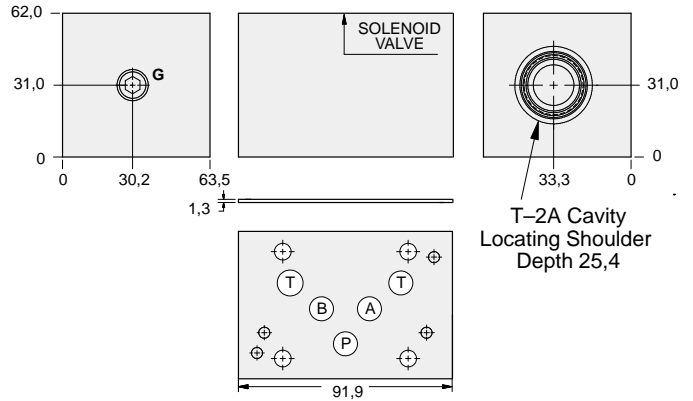
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



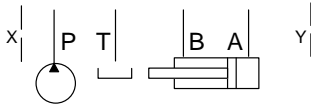
FUNCTION

On A Tank to B
Drained to B

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJA		BJA/S	
.25 BSPP	BJA/M		BJA/T	

05xy REDUCING/RELIEVING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

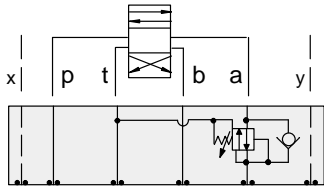
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



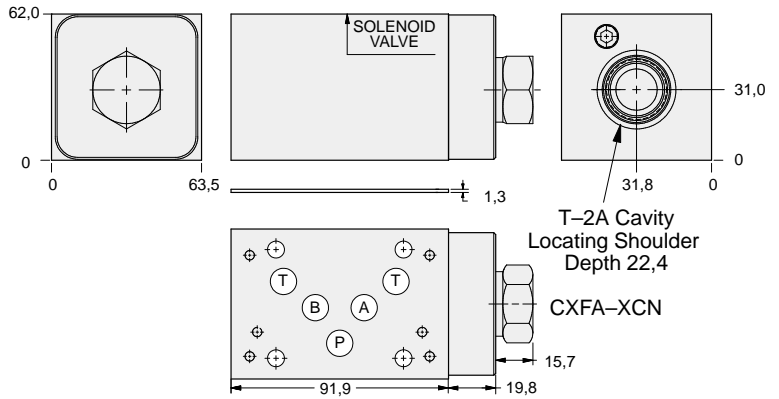
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



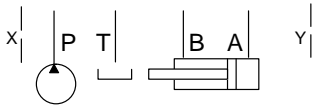
FUNCTION

On A Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves

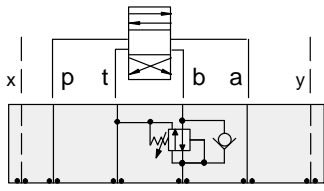


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJ2		BJ2/S	

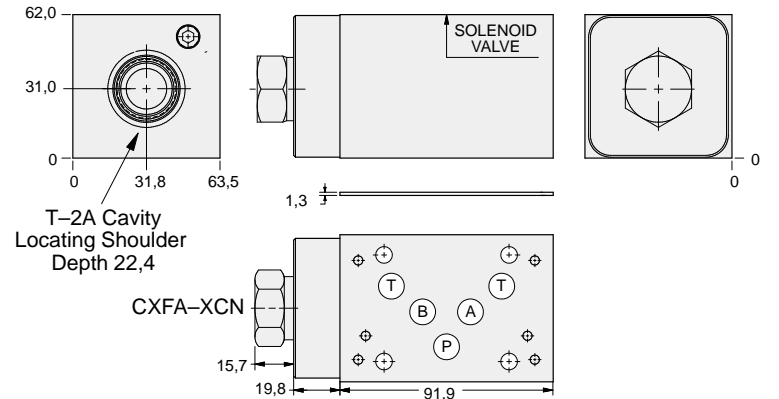
05xyREDUCING/RELIEVING



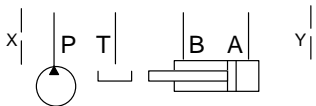
FUNCTION

On B Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BJ3		BJ3/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

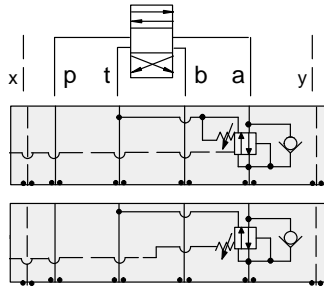
	Pilot Operated Reducing/Relieving Valve		
	PPFB Page 3.10		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PPFC Page 3.12		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

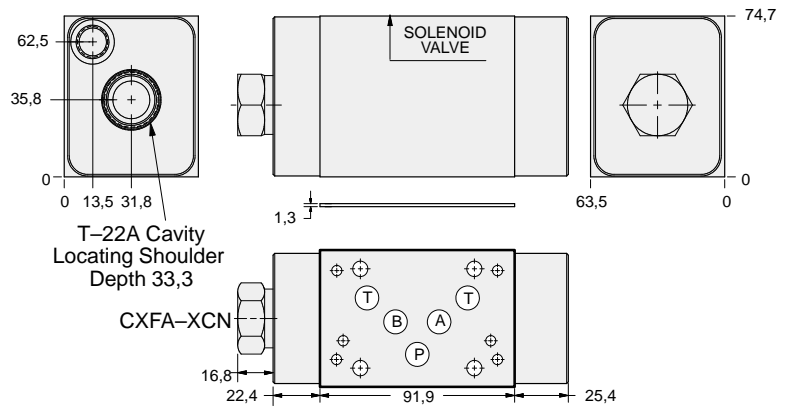


FUNCTION

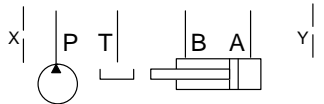
On A tank to T
Vented Externally
Reverse FF Check

On A tank to T
Drained Externally
Reverse FF Check

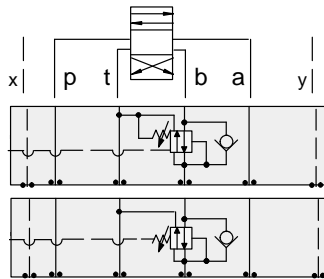
Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



External Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	NJ2		NJ2/S	
.25 BSPP	NJ2/M		NJ2/T	

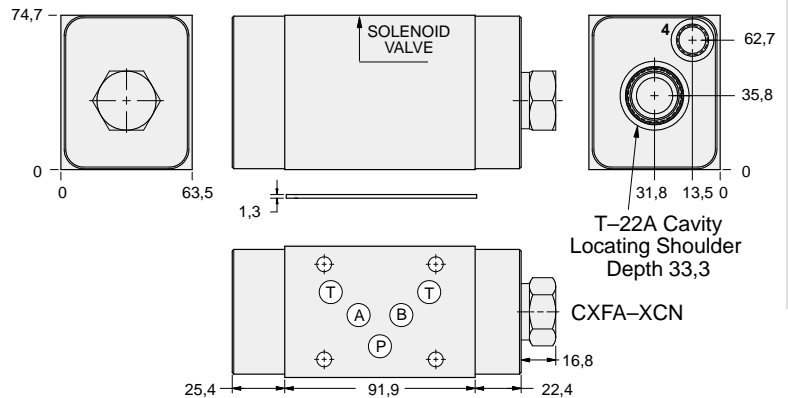


FUNCTION

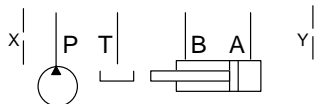
On B Tank to T
Vented Externally
Reverse FF Check

On B Tank to T
Drained Externally
Reverse FF Check

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Mounting Holes	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
SAE-6	NJ3		NJ3/S	
.25 BSPP	NJ3/M		NJ3/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVFA Page 3.14		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVFB Page 3.16		
OTHER VALVES:			

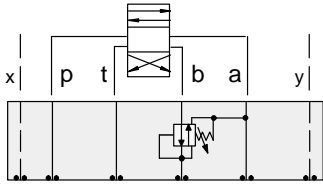
05xy REDUCING/RELIEVING



ISO 05 X,Y SANDWICH BODIES



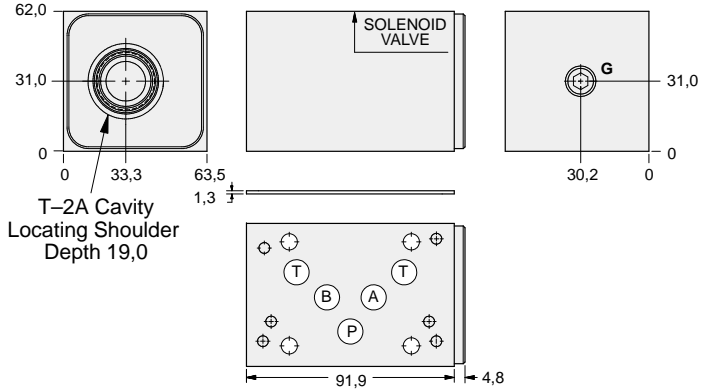
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



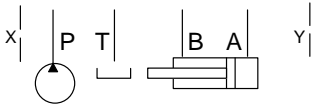
FUNCTION

On B Tank to A
Drained to A

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJB		BJB/S	
.25 BSPP	BJB/M		BJB/T	

05xy REDUCING/RELIEVING

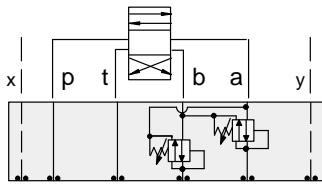
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve		
	PPFB Page 3.10		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



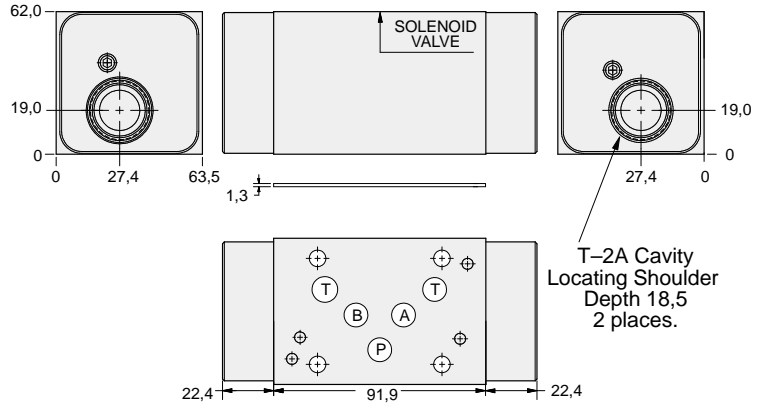
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



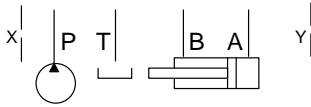
FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port

Reducing/Relieving Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
BJY		BJY/S	

05xy REDUCING/RELIEVING

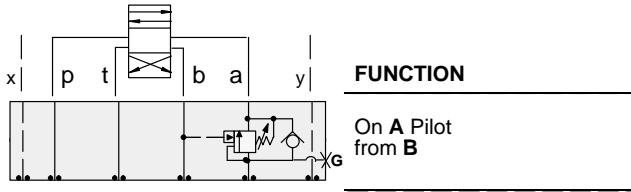
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPFB Page 3.10		
OTHER VALVES:			



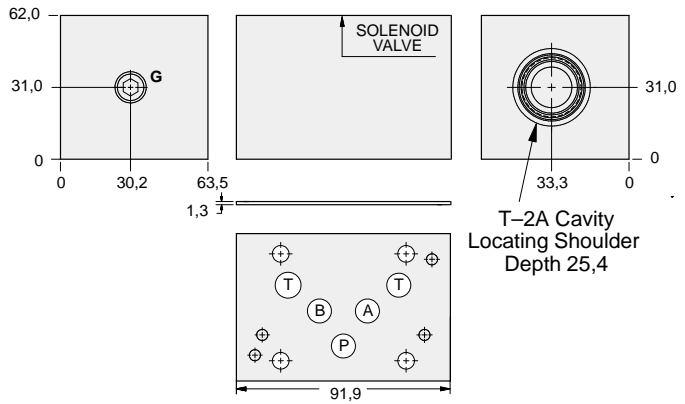
ISO 05 X,Y SANDWICH BODIES



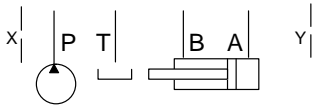
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJA		BJA/S	
.25 BSPP	BJA/M		BJA/T	

05_{xy} COUNTERBALANCE

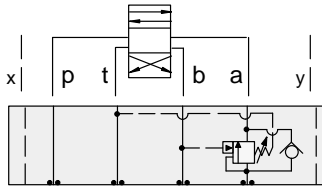
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



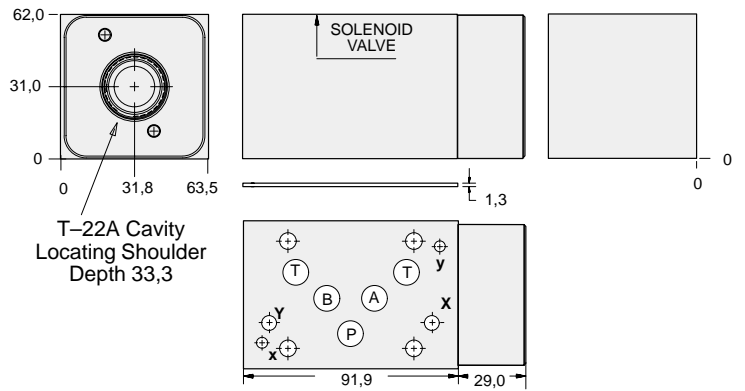
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



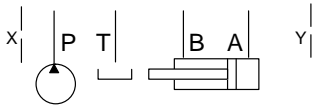
FUNCTION

On A Pilot from B
Vent to T

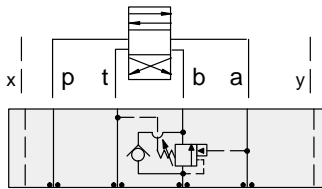
Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



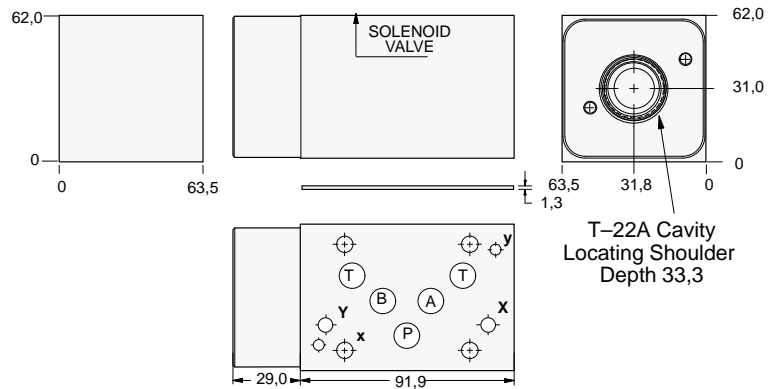
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NJA		NJA/S	



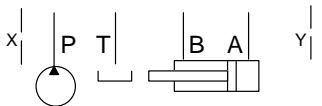
FUNCTION

On B Pilot from A
Vent to T

Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
NJB		NJB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWEA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWEG Page 4.20		
OTHER VALVES:			

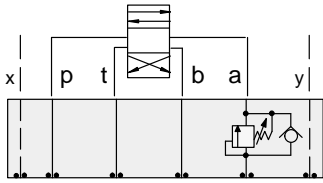
05xy COUNTERBALANCE



ISO 05 X,Y SANDWICH BODIES



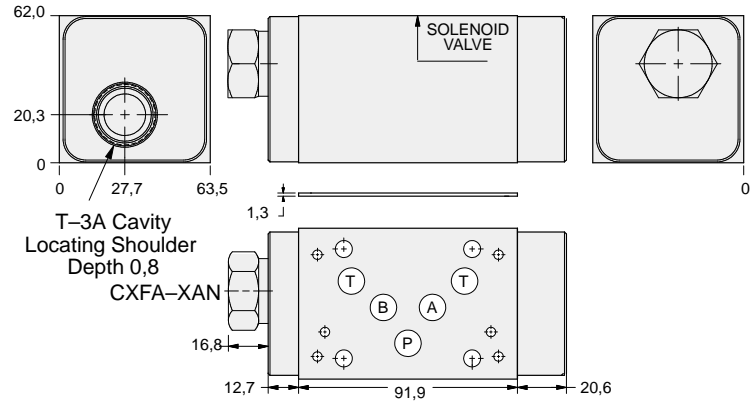
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



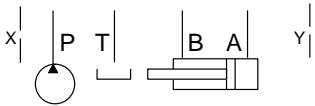
FUNCTION

On A
No Pilot Assist

Counterbalance Valves

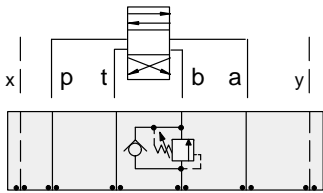


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CJ4		CJ4/S	

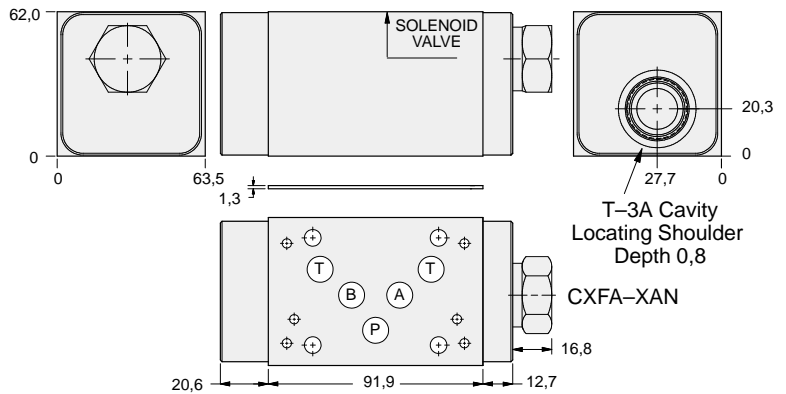
05xy COUNTERBALANCE



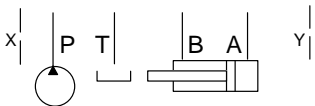
FUNCTION

On B
No pilot assist

Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CJ5		CJ5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

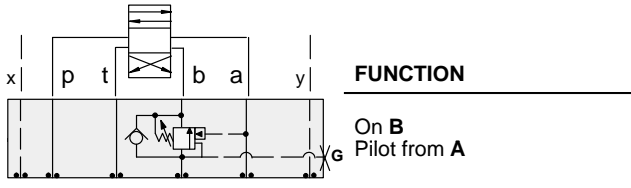
	Direct Acting Relief Valve		
	RDFA Page 1.10		
OTHER VALVES:			



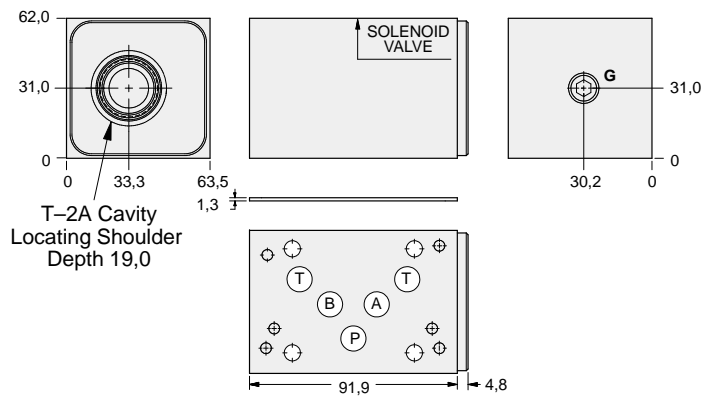
ISO 05 X,Y SANDWICH BODIES



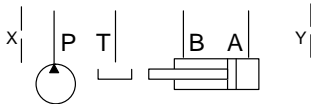
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJB		BJB/S	
.25 BSPP	BJB/M		BJB/T	

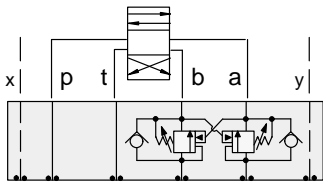
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



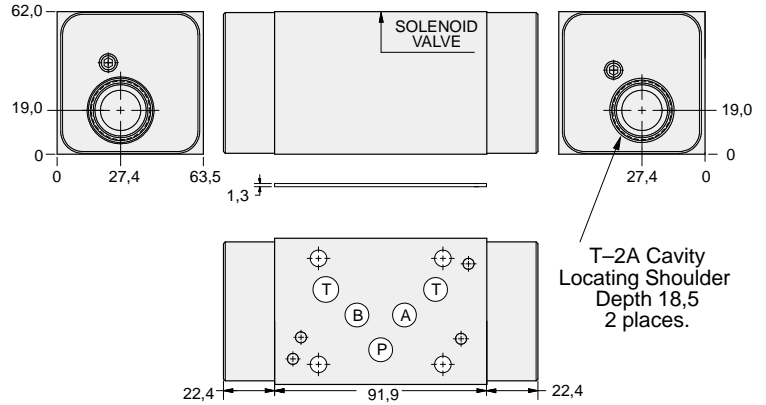
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



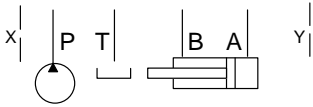
FUNCTION

On A and B
Cross-Piloted

Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJY		BJY/S	

05_{xy} COUNTERBALANCE

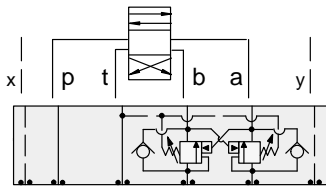
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



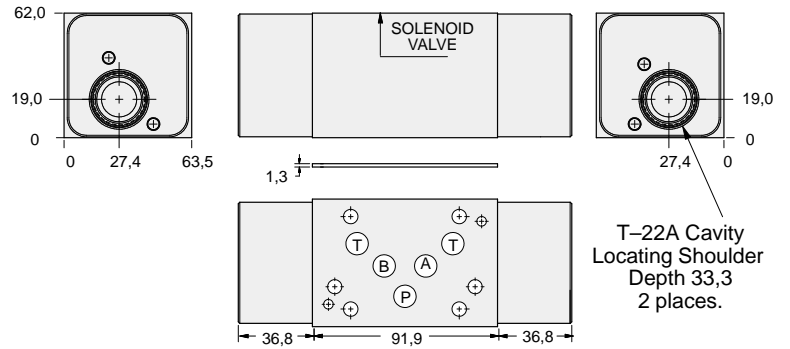
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



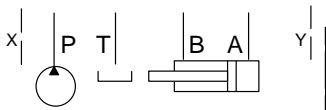
FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NJY		NJY/S	

05xy COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

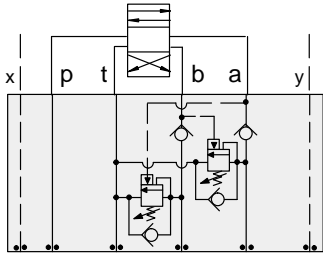
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWEA Page 4.18		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWEG Page 4.20		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



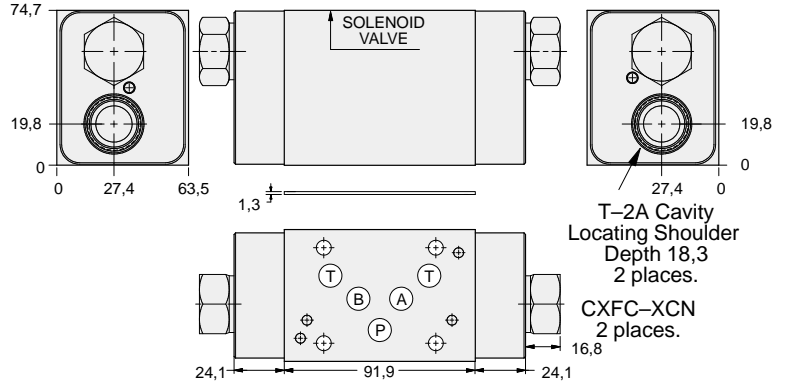
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



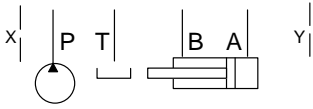
FUNCTION

Cushion Lock
Circuit
On A and B

Counterbalance Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJ8		BJ8/S	

05_{xy} COUNTERBALANCE

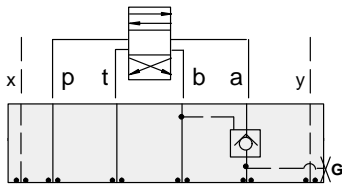
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBEA Page 4.10		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBEG Page 4.12		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBEH Page 4.14		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



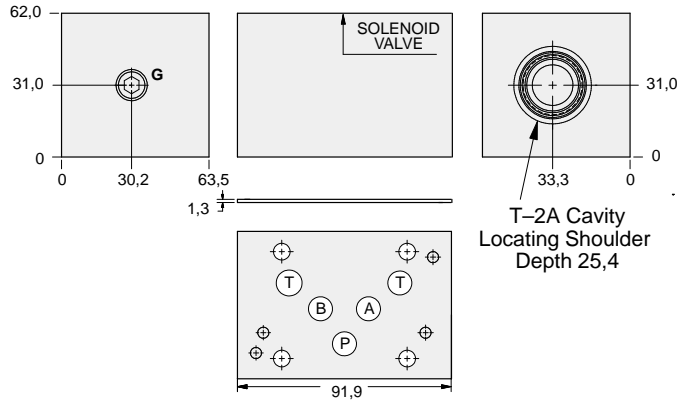
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



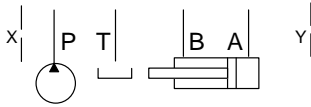
FUNCTION

On A
Pilot from B

Pilot Operated Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJA		BJA/S	
.25 BSPP	BJA/M		BJA/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKEB Page 4.16		
OTHER VALVES:			

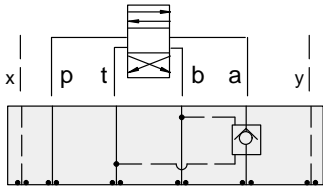


ISO 05 X,Y SANDWICH BODIES



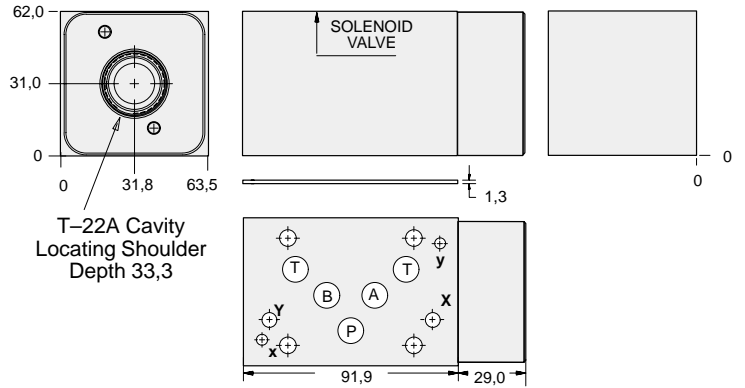
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves

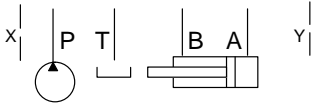


FUNCTION

On A
Pilot from B
Vent to T

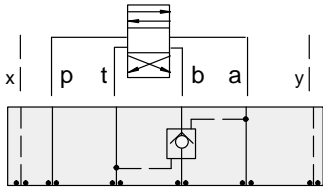


Order Retainer and Seal Kits separately.
(See Page 12.002)



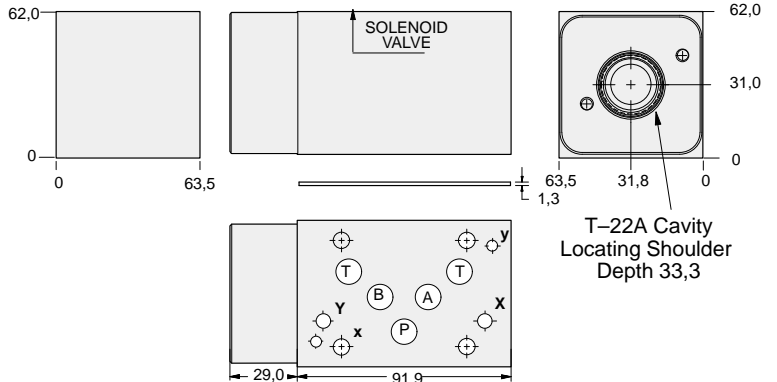
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
NJA		NJA/S	

Pilot Operated Check Valves

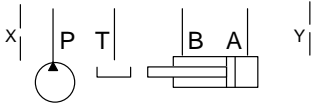


FUNCTION

On B
Pilot from A
Vent to T



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
NJB		NJB/S	

05xy P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

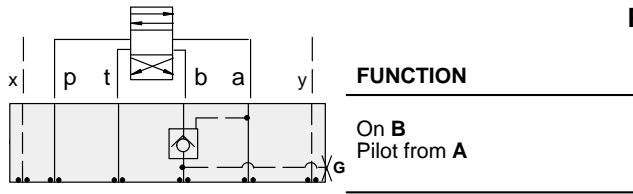
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVEV Page 4.22		
OTHER VALVES:			



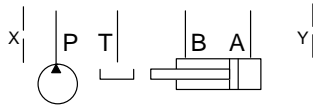
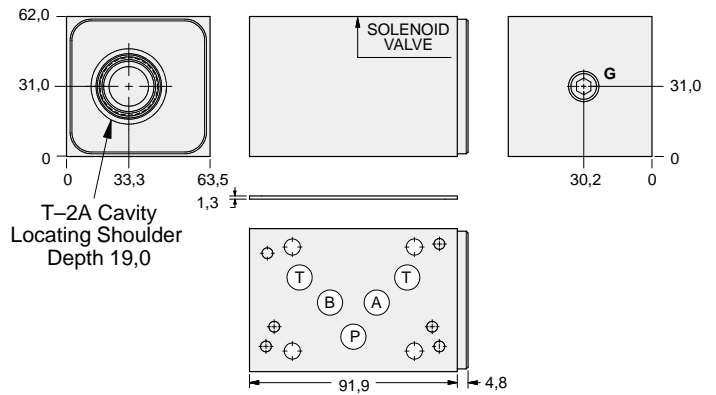
ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Pilot Operated Check Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BJB		BJB/S	
.25 BSPP	BJB/M		BJB/T	



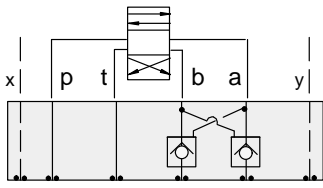
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CKEB Page 4.16		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



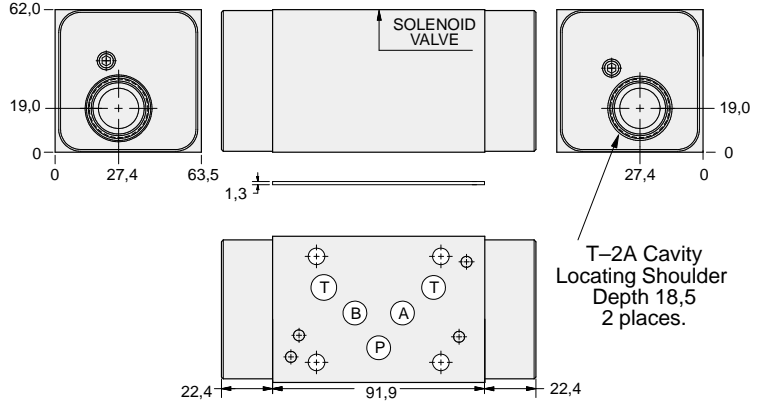
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



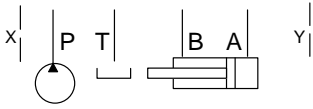
FUNCTION

On A and B
Cross-Piloted

Pilot Operated Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BJY		BJY/S	

05xy P.O. CHECK

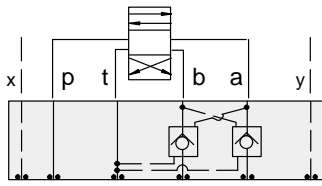
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKEB Page 3.16		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



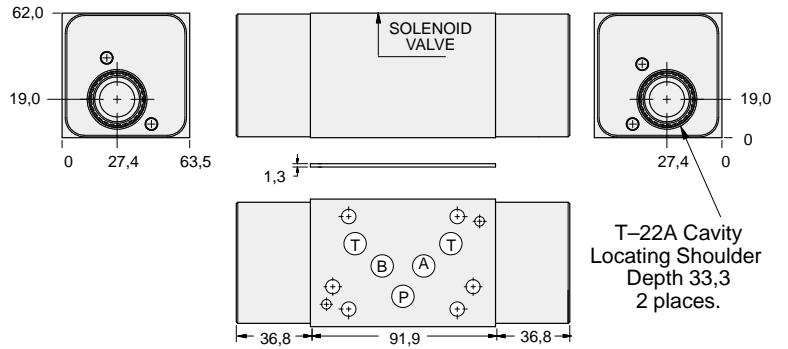
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



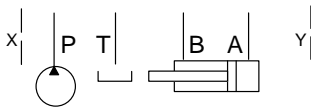
FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Pilot Operated Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NJY		NJY/S	



05xy P.O. CHECK

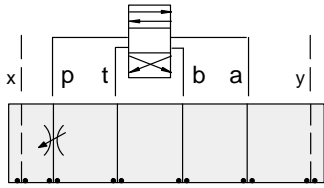
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVEV Page 4.22		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



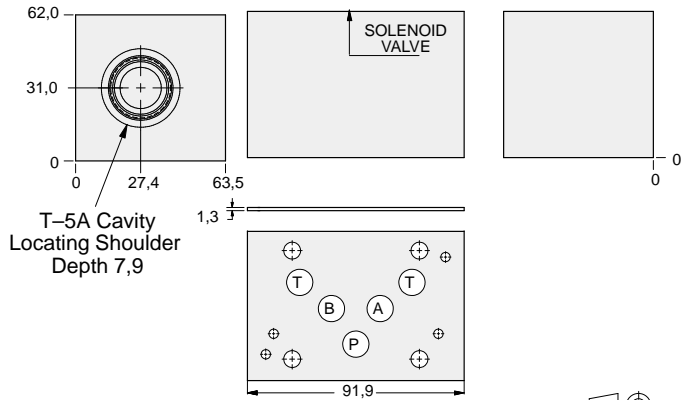
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

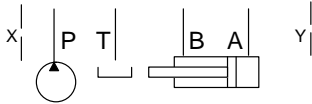
Meter-In P

Flow Control Valves



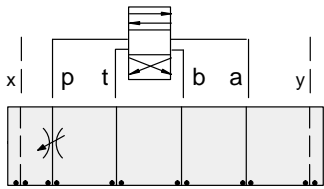
T-5A Cavity
Locating Shoulder
Depth 7,9

Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJP		DJP/S	

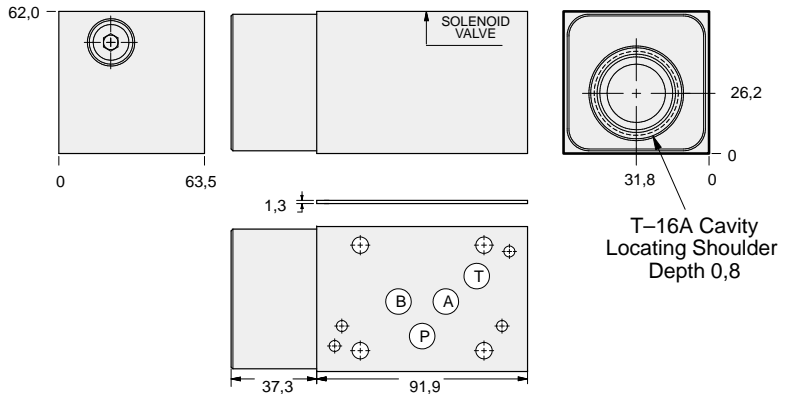
05xy FLOW CONTROL



FUNCTION

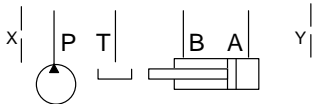
Meter-In P
(High Capacity)

Flow Control Valves



T-16A Cavity
Locating Shoulder
Depth 0,8

Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJO		DJO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

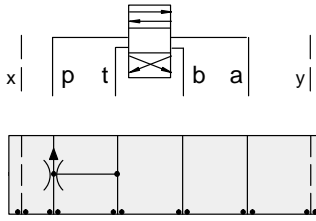
	Fully Adjustable Needle Valve		
	NF*C Page 5.12, 5.13		
	Fixed Orifice, Pressure-Compensated Flow Control		
	FX*A Page 5.20, 5.21		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



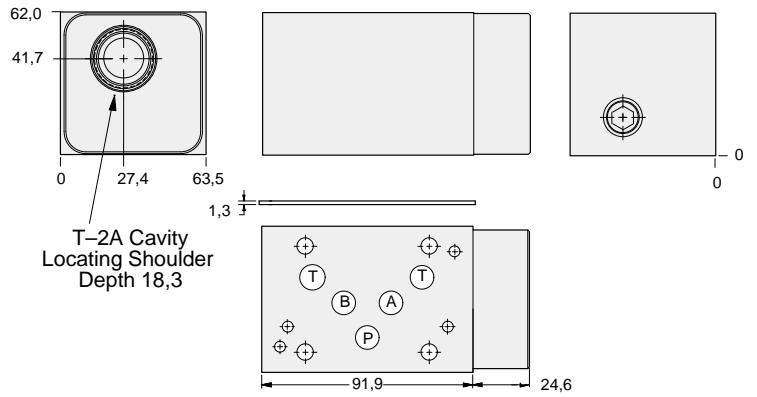
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



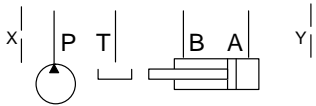
FUNCTION

Priority Flow on P

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJN		DJN/S	

05xy FLOW CONTROL

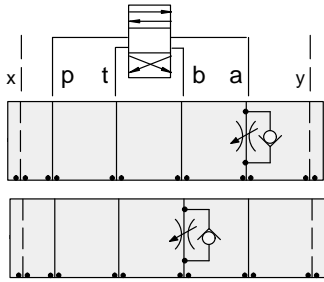
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Priority Flow Control, Bypass/Restrictive, Fixed Orifice		
	FRDA Page 6.02		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

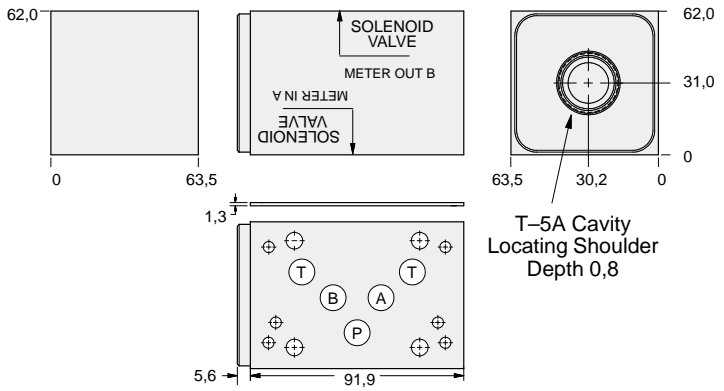


FUNCTION

Meter-In A

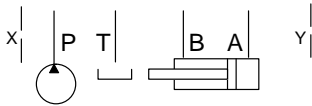
Meter-Out B

Flow Control Valves



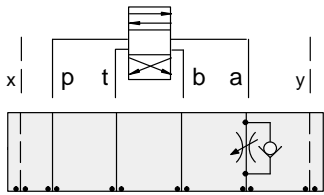
T-5A Cavity
Locating Shoulder
Depth 0,8

Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJB		DJB/S	

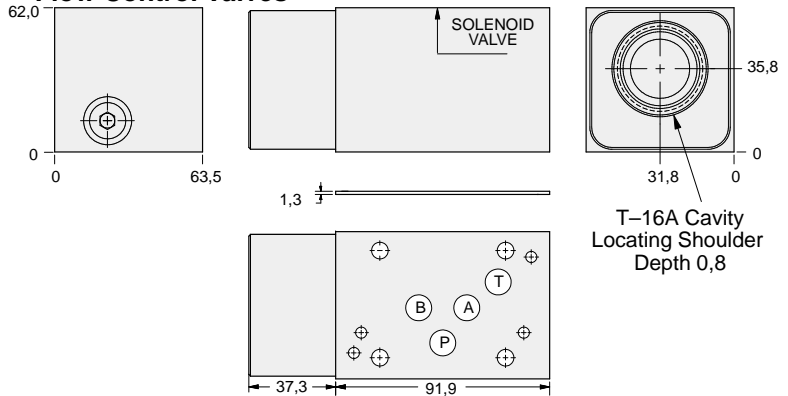
05xy FLOW CONTROL



FUNCTION

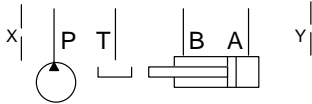
Meter-In A
(High Capacity)

Flow Control Valves



T-16A Cavity
Locating Shoulder
Depth 0,8

Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJC		DJC/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

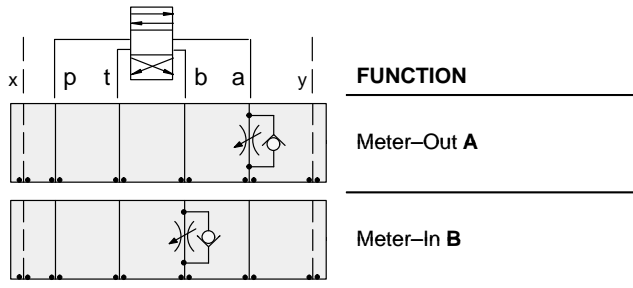
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12, 5.13		FX*A Page 5.20, 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16, 5.17		FC*B Page 5.22, 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18, 5.19		FDCB Page 5.24, FDEA Page 5.25
OTHER VALVES:	CNEC, CNGC		



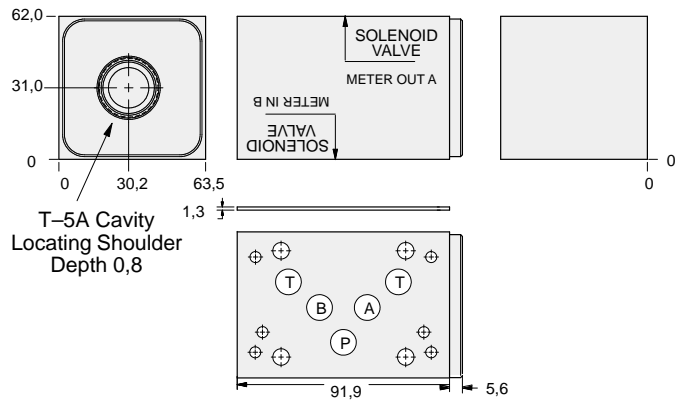
ISO 05 X,Y SANDWICH BODIES



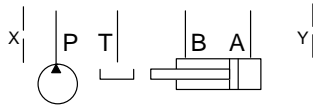
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



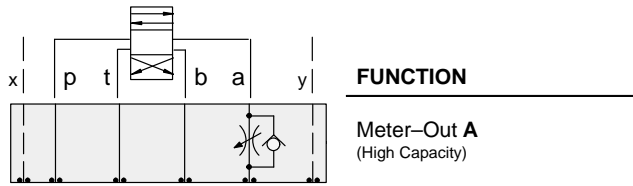
Flow Control Valves



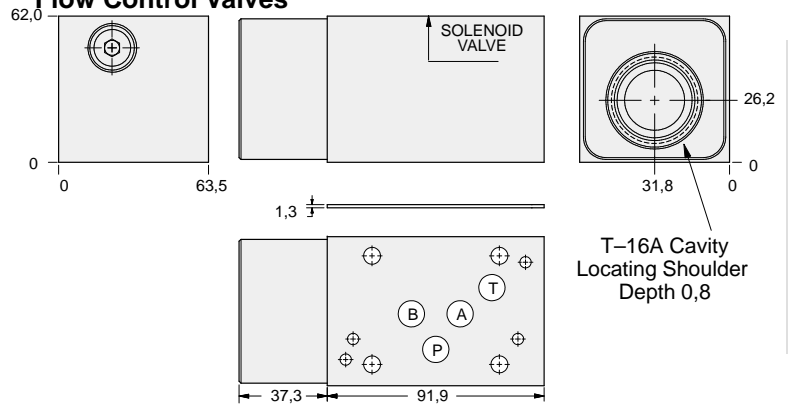
Order Retainer and Seal Kits separately.
(See Page 12.002)



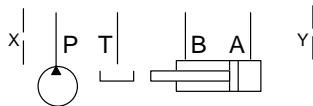
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJA		DJA/S	



Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJD		DJD/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

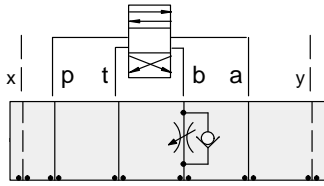
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12, 5.13		FX*A Page 5.20, 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16, 5.17		FC*B Page 5.22, 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18, 5.19		FDCB Page 5.24, FDEA Page 5.25
OTHER VALVES:	CNEC, CNGC		



ISO 05 X,Y SANDWICH BODIES



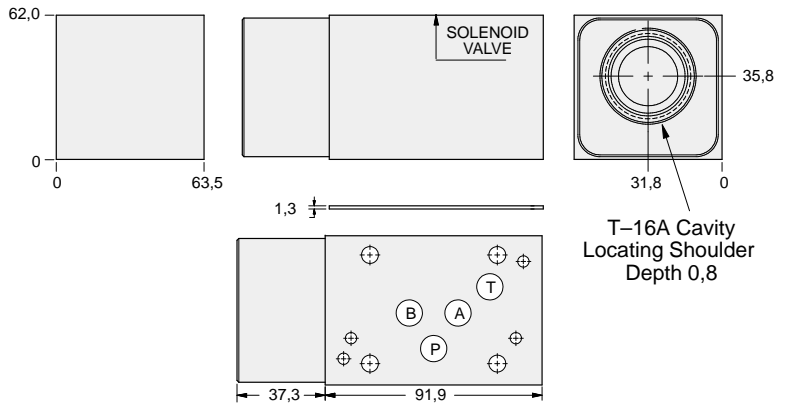
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



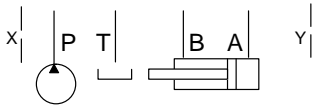
FUNCTION

Meter-In B
(High Capacity)

Flow Control Valves

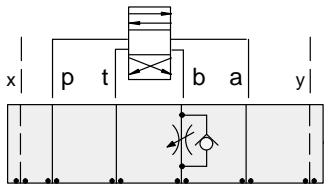


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJE		DJE/S	

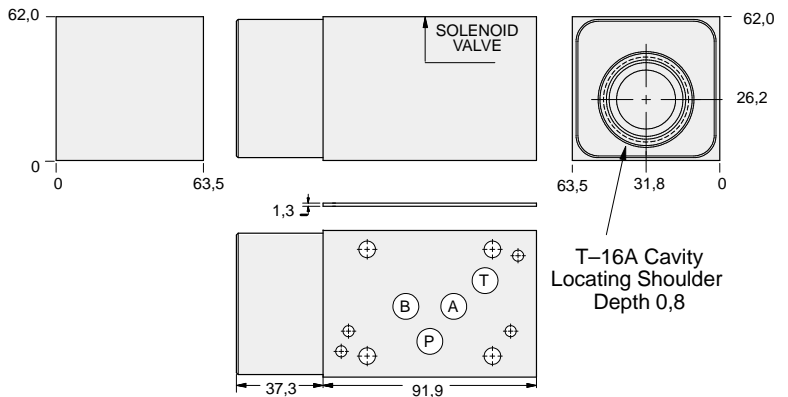
05xy FLOW CONTROL



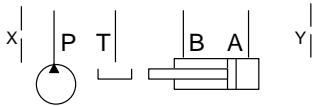
FUNCTION

Meter-Out B
(High Capacity)

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJF		DJF/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

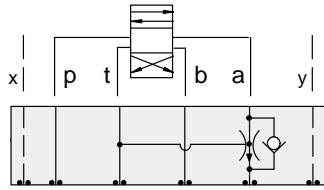
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFEC Page 5.13		FXEA Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFB Page 5.17		FCEB Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFC Page 5.19		FDEA Page 5.25
OTHER VALVES:	CNGC		



ISO 05 X,Y SANDWICH BODIES



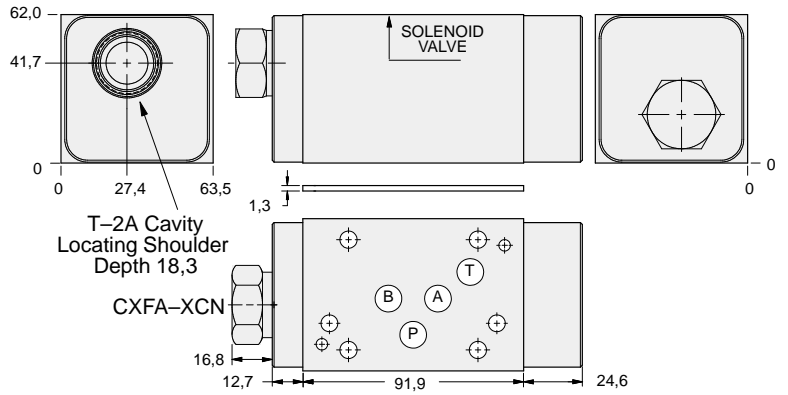
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



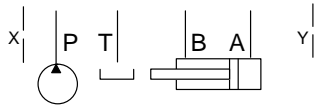
FUNCTION

Priority Flow
On **A**, Bypass to **T**
Reverse FF Check

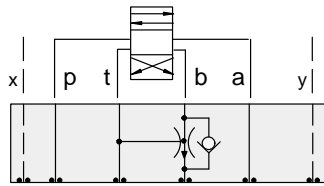
Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



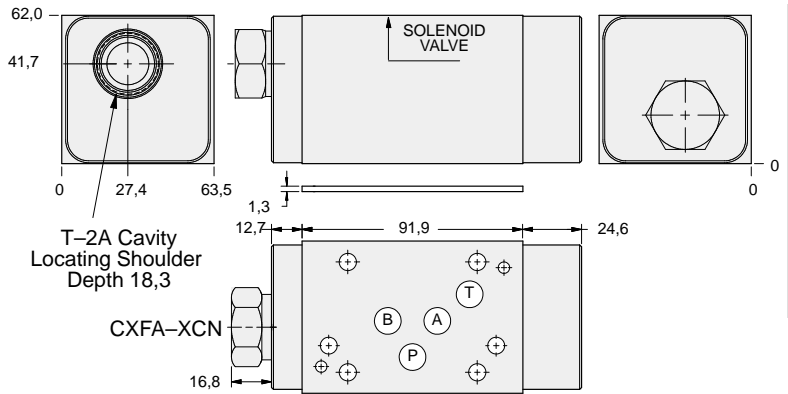
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
WHY		WHY/S	



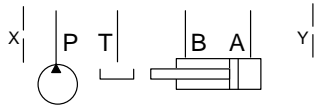
FUNCTION

Priority Flow
On **B**, Bypass to **T**
Reverse FF Check

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
WHZ		WHZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Priority Flow Control, Bypass/Restrictive, Fixed Orifice		
	FRDA Page 6.02		
OTHER VALVES:			

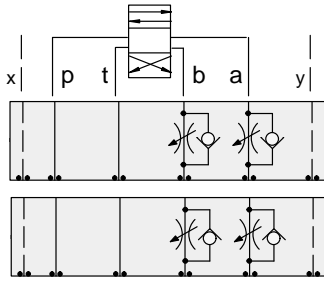
05xy FLOW CONTROL



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

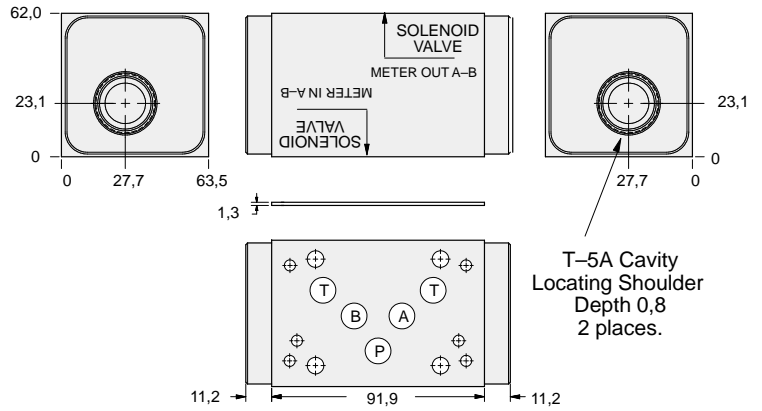


FUNCTION

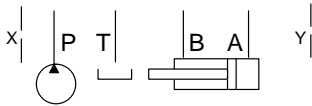
Meter-In
A and B

Meter-Out
A and B

Flow Control Valves

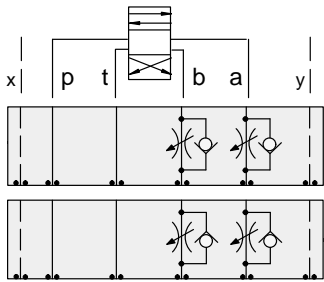


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJY		DJY/S	

05xy FLOW CONTROL

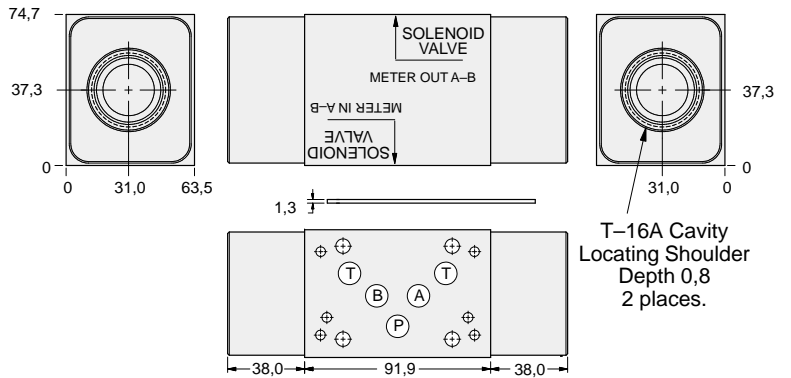


FUNCTION

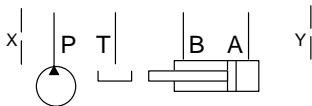
Meter-In
A and B
(High Capacity)

Meter-Out
A and B
(High Capacity)

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJZ		DJZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

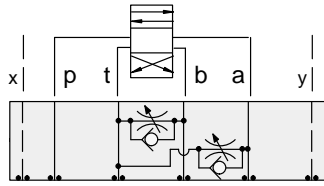
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.12, 5.13		FX*A Page 5.20, 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.16, 5.17		FC*B Page 5.22, 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.18, 5.19		FDCB Page 5.24, FDEA Page 5.25
OTHER VALVES:	CNEC, CNGC		



ISO 05 X,Y SANDWICH BODIES



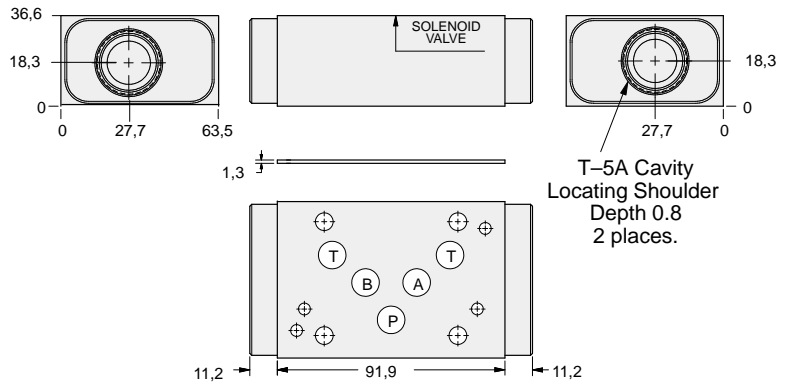
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



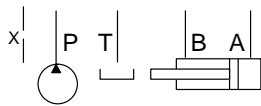
FUNCTION

Bleed-Off
A and B to T

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJX		DJX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

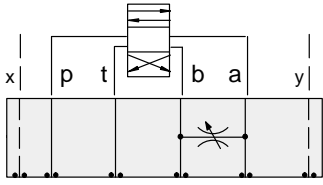
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC, CNGC		



ISO 05 X,Y SANDWICH BODIES



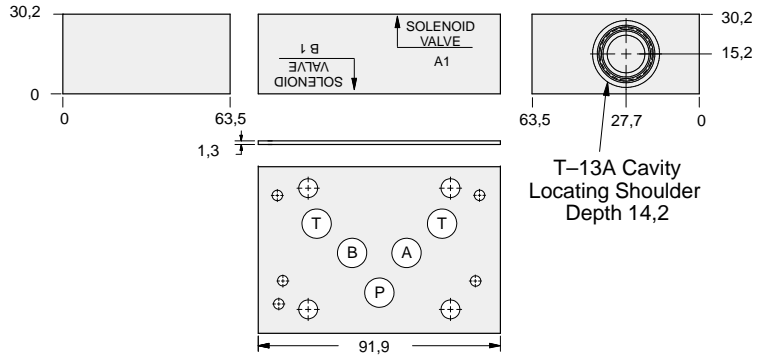
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



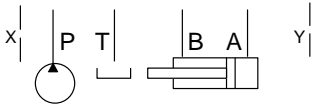
FUNCTION

Bleed-Off
A to B and
B to A

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJS		DJS/S	

05xy FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

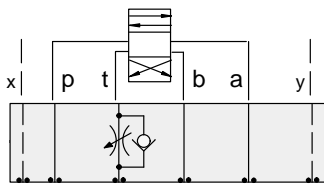
	Fixed Orifice Restrictor Valve with Reverse Free Flow Check		
	NFCC Page 5.12		
OTHER VALVES:	CNCC		



ISO 05 X,Y SANDWICH BODIES



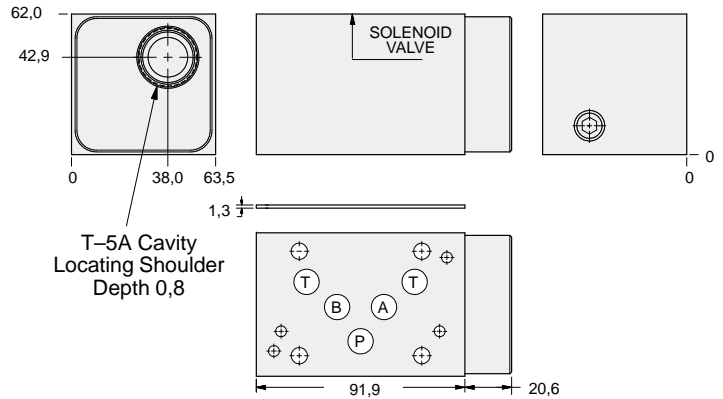
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



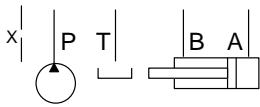
FUNCTION

Meter-Out T

Flow Control Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJT		DJT/S	

05xy FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFDC Page 5.12		FXDA Page 5.20
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEB Page 5.16		FCDB Page 5.22
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCEC Page 5.18		FDCB Page 5.24
OTHER VALVES:	CNEC		

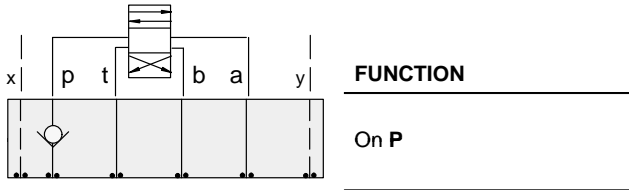




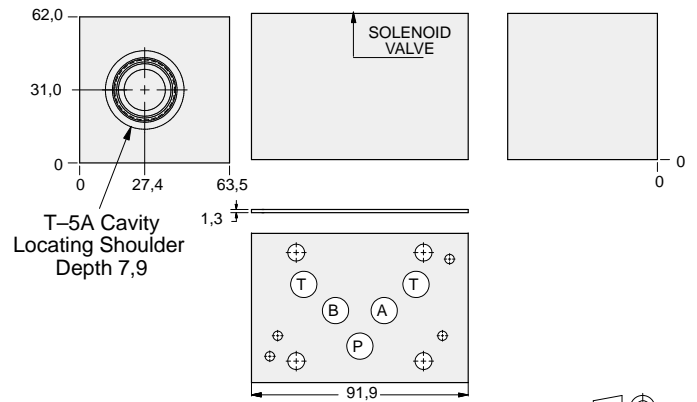
ISO 05 X,Y SANDWICH BODIES



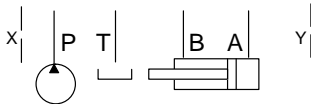
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



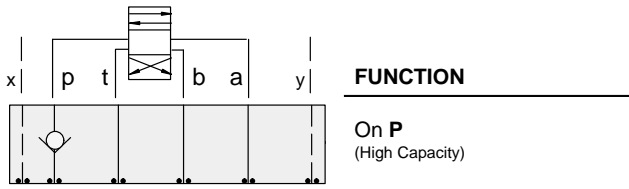
Check Valves



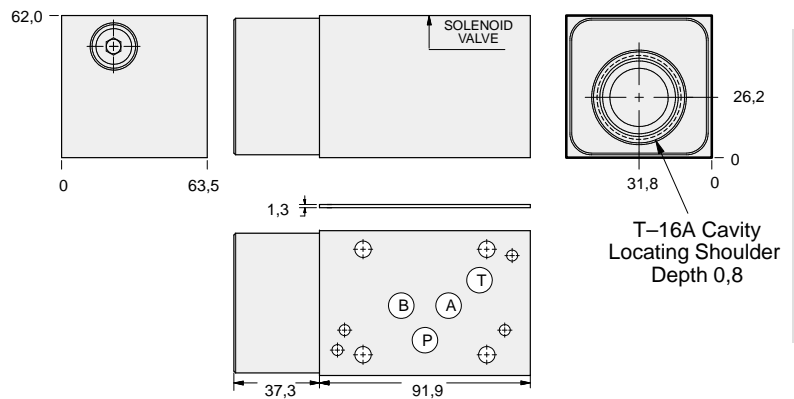
Order Retainer and Seal Kits separately.
(See Page 12.002)



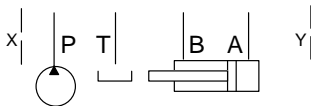
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJP		DJP/S	



Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJO		DJO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with DJP)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09 (use with DJO)		
OTHER VALVES:			

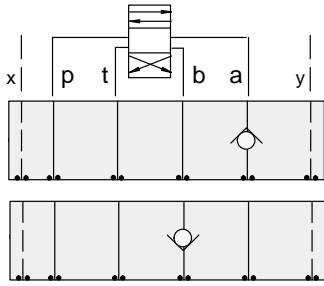
05xy CHECK



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

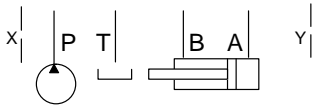
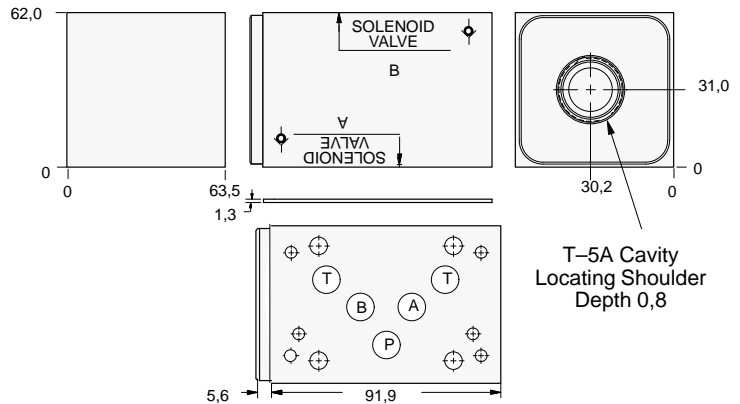


FUNCTION

On A
Free Flow Out
of Valve

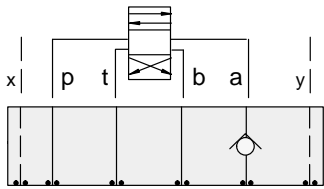
On B
Free Flow Into Valve

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
DJK		DJK/S	

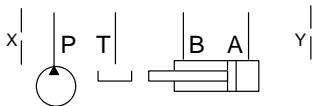
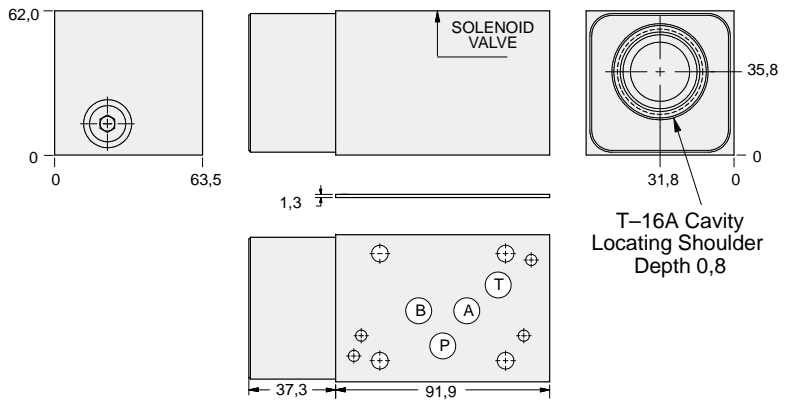
05xy CHECK



FUNCTION

On A
Free Flow Out of Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
DJC		DJC/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

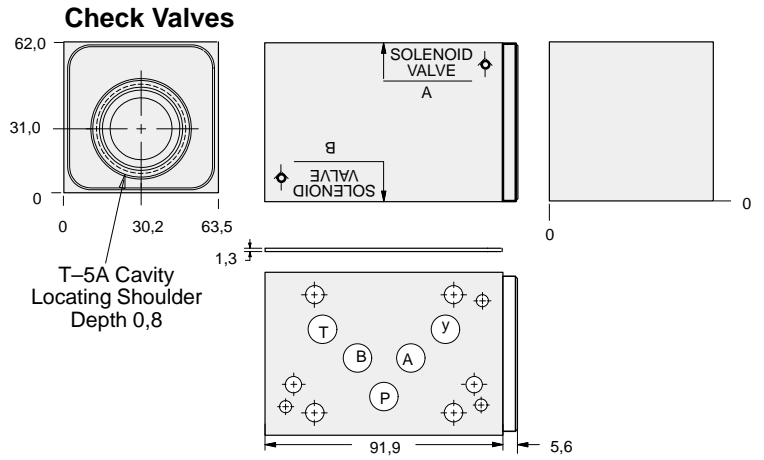
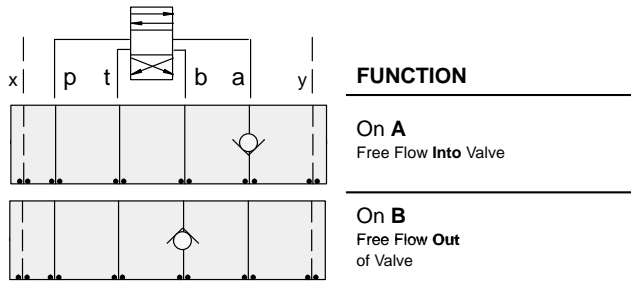
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08, (use with DJK)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09 (use with DJC)		
OTHER VALVES:			



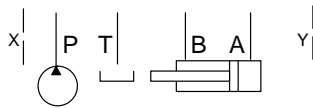
ISO 05 X,Y SANDWICH BODIES



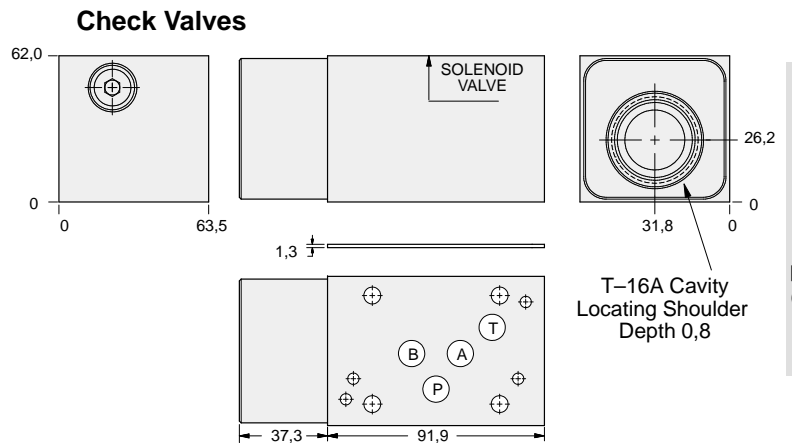
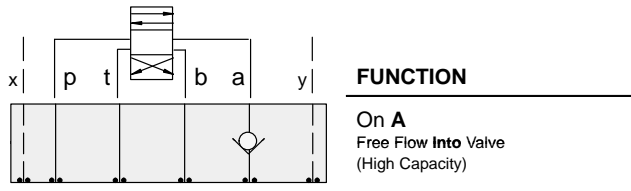
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



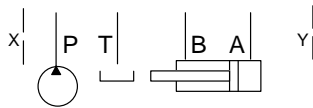
Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJJ		DJJ/S	



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJD		DJD/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with DJJ)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09 (use with DJJ)		
OTHER VALVES:			

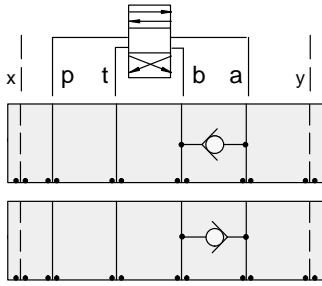
05xy CHECK



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

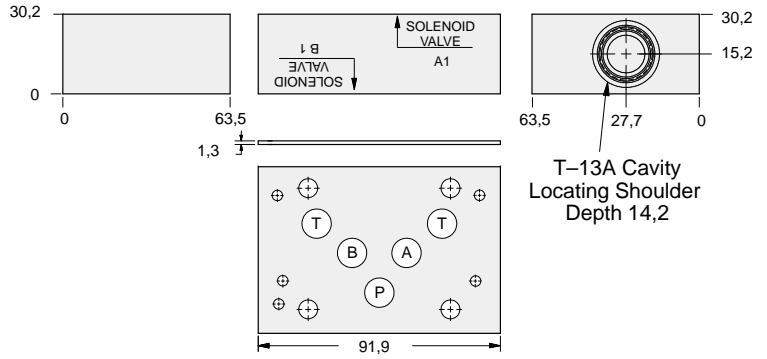


FUNCTION

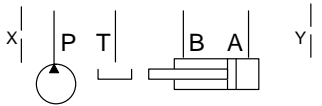
B to A

A to B

Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJS		DJS/S	

05xy CHECK

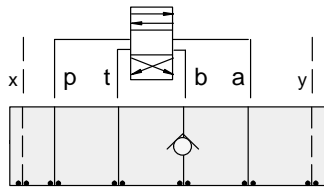
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXDA Page 3.08		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



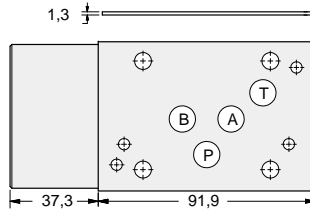
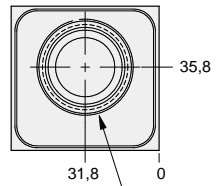
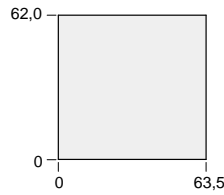
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

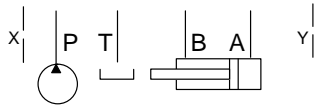
On B
Free Flow **Out** of Valve
(High Capacity)

Check Valves

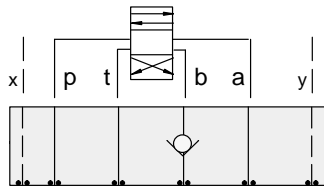


T-16A Cavity
Locating Shoulder
Depth 0,8

Order Retainer and Seal Kits separately.
(See Page 12.002)



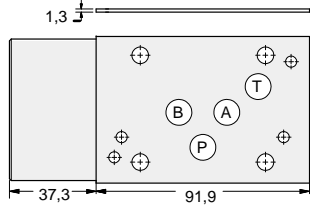
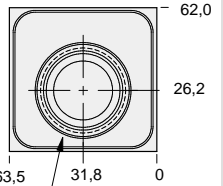
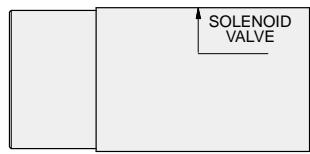
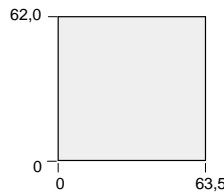
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJE		DJE/S	



FUNCTION

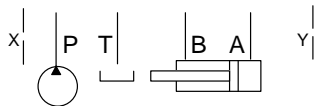
On B
Free Flow **Into** Valve
(High Capacity)

Check Valves



T-16A Cavity
Locating Shoulder
Depth 0,8

Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJF		DJF/S	

05xy CHECK

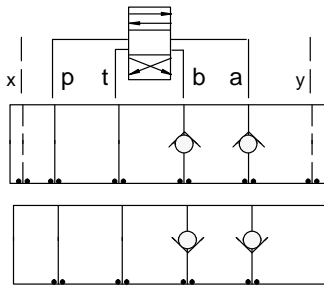
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

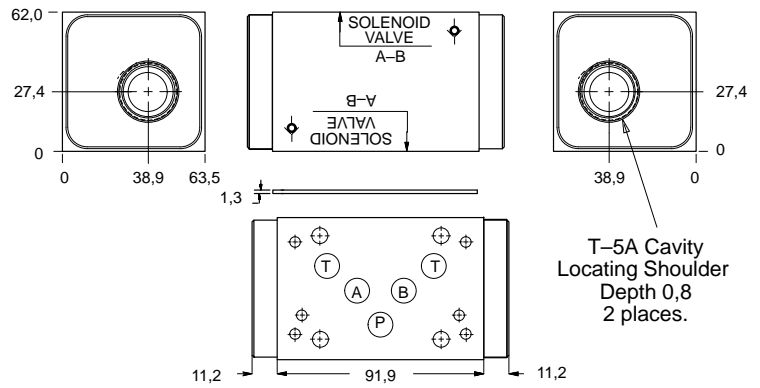


FUNCTION

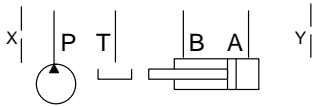
On A and B
Free Flow **Out**
of Valve

On A and B
Free Flow **Into** Valve

Check Valves

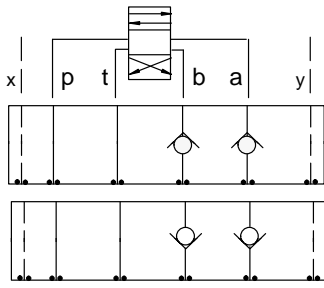


Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJL		DJL/S	

05xy CHECK

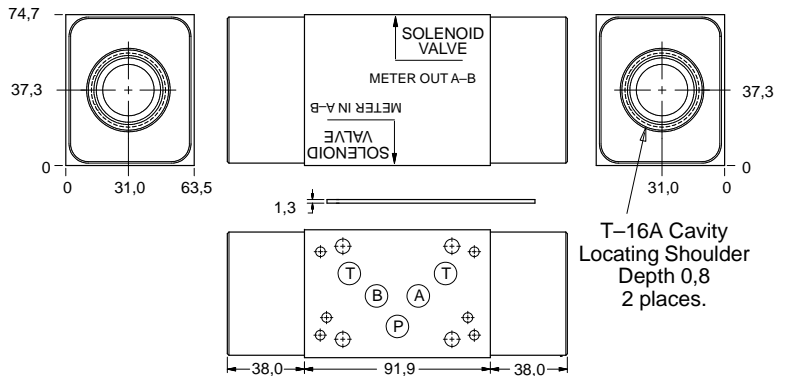


FUNCTION

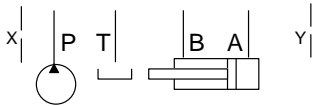
On A and B
Free Flow **Out** of Valve
(High Capacity)

On A and B
Free Flow **Into** Valve
(High Capacity)

Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DJZ		DJZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

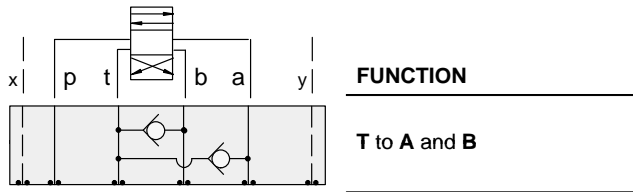
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08 (use with DJL)		
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09 (use with DJZ)		
OTHER VALVES:	NFEC, FXEA		



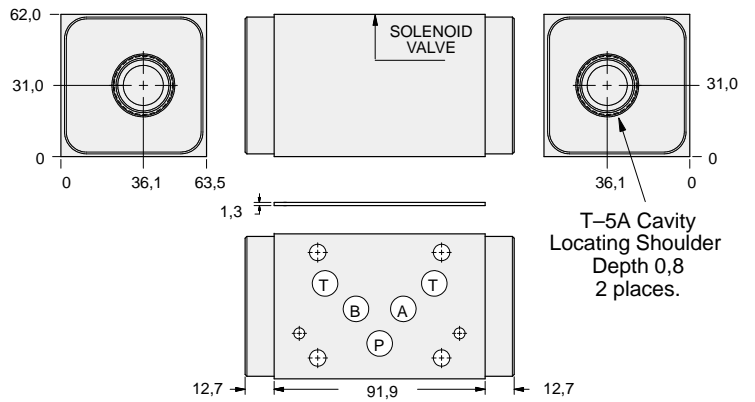
ISO 05 X,Y SANDWICH BODIES



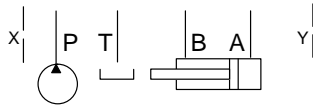
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJW		DJW/S	

05xy CHECK

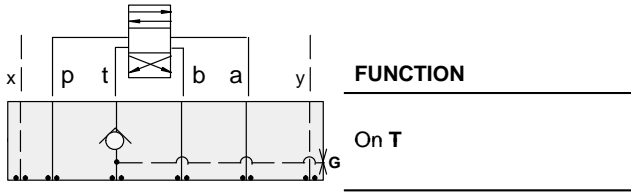
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			



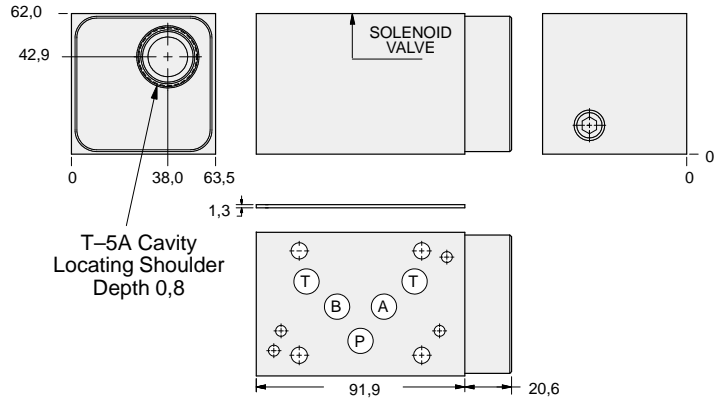
ISO 05 X,Y SANDWICH BODIES



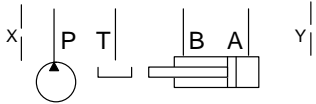
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Check Valves



Order Retainer and Seal Kits separately.
(See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	DJT		DJT/S	
.25 BSPP	DJT/M		DJT/T	

05xy CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXFA Page 5.08		
OTHER VALVES:			

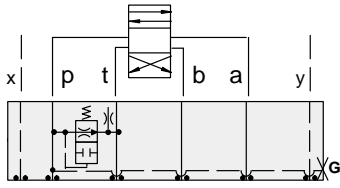




ISO 05 X,Y SANDWICH BODIES



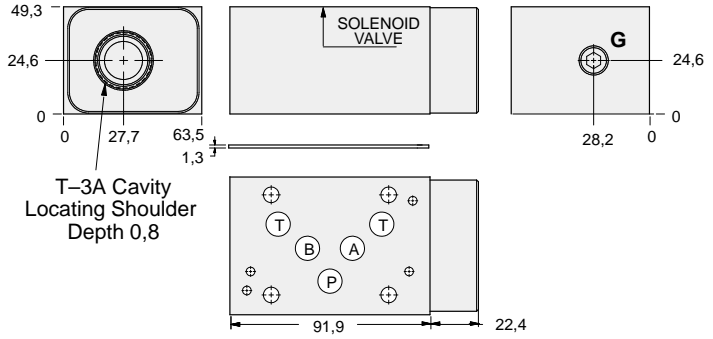
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



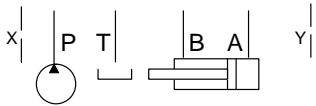
FUNCTION

Air-Bleed and Start-Up

Circuit Savers



Order Retainer and Seal Kits separately. (See Page 12.002)



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CJP		CJP/S	
.25 BSPP	CJP/M		CJP/T	

05_{xy} CIRCUIT SAVER

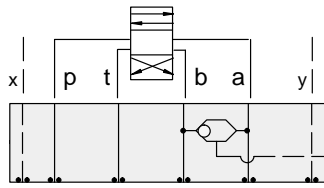
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Air Bleed and Start-up Valve		
	NQEB Page 10.16		
OTHER VALVES:			



ISO 05 X,Y SANDWICH BODIES



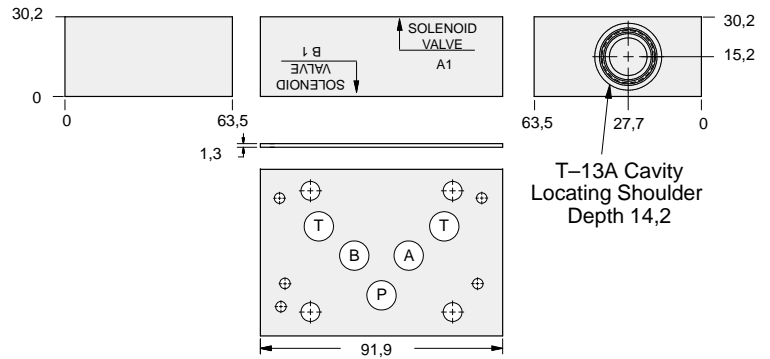
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



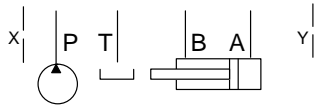
FUNCTION

Shuttle
A and B
Output External

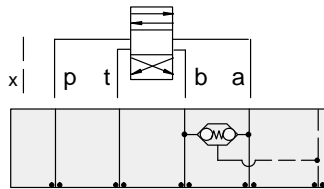
Circuit Savers



Order Retainer and Seal Kits separately.
(See Page 12.002)



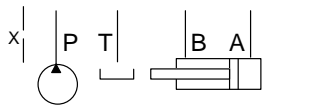
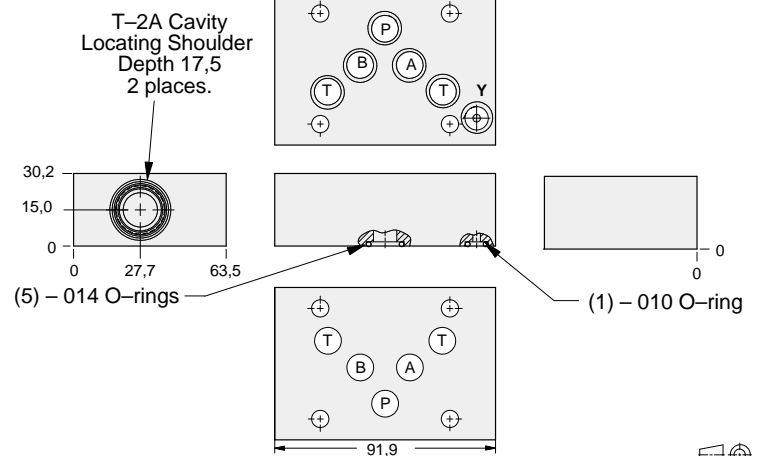
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DJS		DJS/S	



FUNCTION

Checks from
A and B—Adapter
to ISO 05 w/Y Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BJS		BJS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	2 Port Shuttle Valve, Signal External		
	CSAA Page 10.09 (use with DJS)		
	3 Port Back-to-Back Check Valve, Signal at Port 3		
	CDAB Page 10.10 (use with BJS)		
OTHER VALVES:			

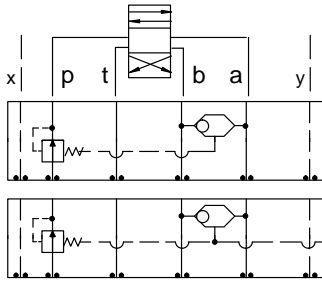
05xy CIRCUIT SAVER



ISO 05 X,Y SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

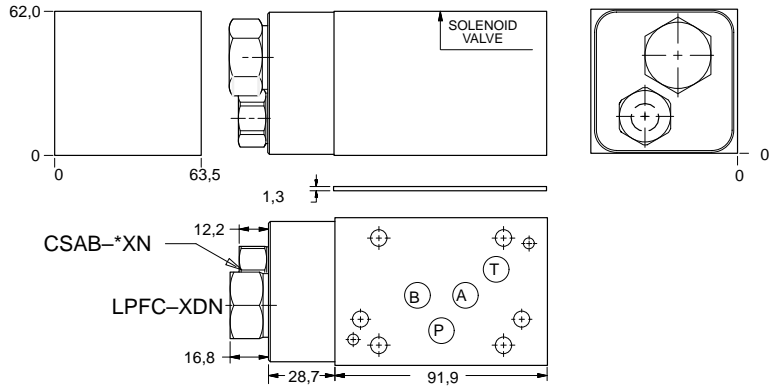


FUNCTION

Pressure Compensator (Restrictive)

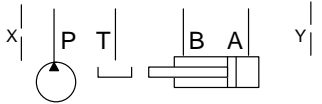
Pressure Compensator (Restrictive) w/Load-Sensing Port

Circuit Savers

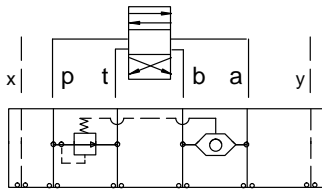


Order Retainer and Seal Kits separately. (See Page 12.002)

Shuttle Cartridge	Load-Sensing Port in Shuttle	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
CSAB-XXN	None	YFEK-XHN-BB		YFEK-XHN-BB/S	
CSAB-AXN	SAE-4	YFEQ-XHN-BB		YFEQ-XHN-BB/S	
CSAB-BXN	.25 BSPP	YFEQ-XHN-BB/M		YFEQ-XHN-BB/T	



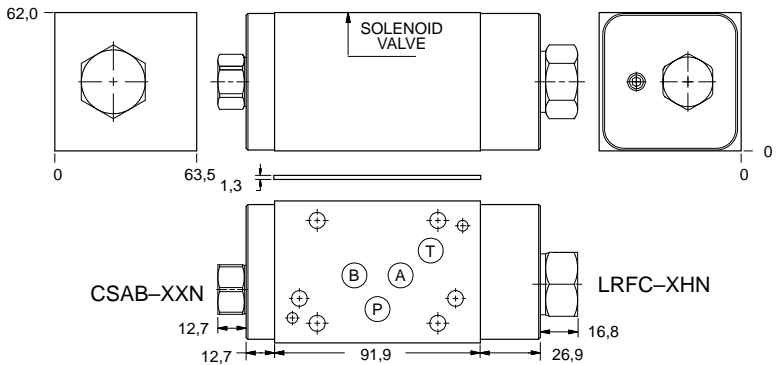
05xy CIRCUIT SAVER



FUNCTION

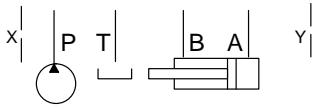
Pressure Compensator (Bypass)

Circuit Savers



Order Retainer and Seal Kits separately. (See Page 12.002)

ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YFEW-XHN-BB		YFEW-XHN-BB/S	

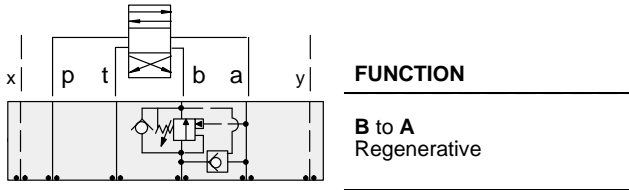




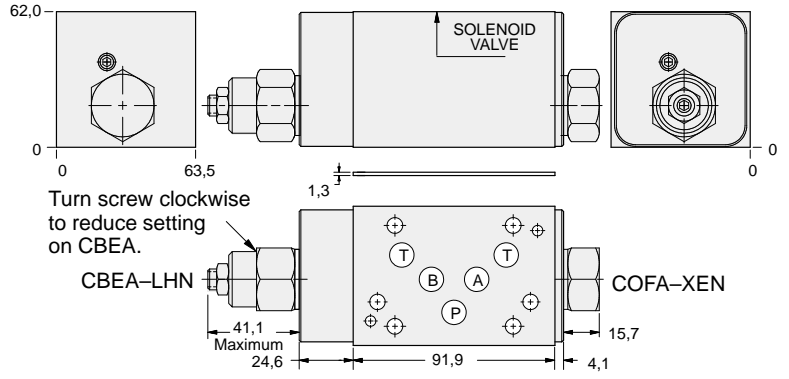
ISO 05 X,Y SANDWICH BODIES



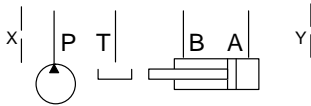
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Circuit Savers



Order Retainer and Seal Kits separately.
(See Page 12.002)



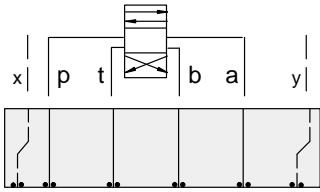
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDEL-LHN-BB		YDEL-LHN-BB/S	



ISO 05 X,Y SANDWICH BODIES



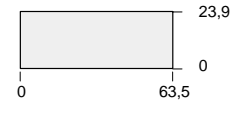
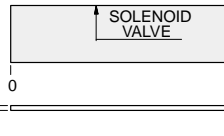
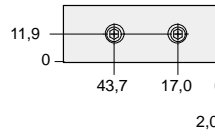
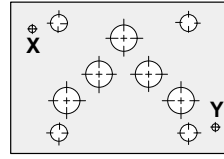
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



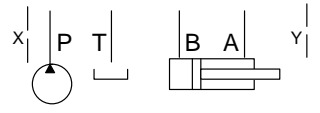
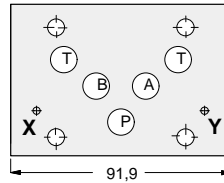
FUNCTION

ISO 05 with X and Y
Amer to Euro

Circuit Savers

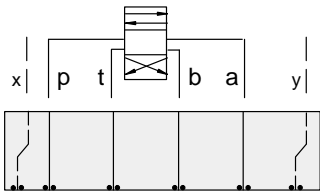


Order Seal Kit
#990-120-009
separately.



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZSX		ZSX/S	

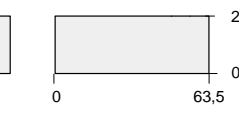
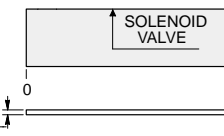
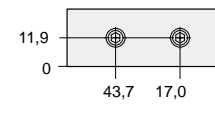
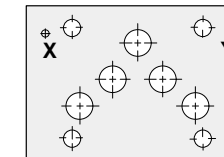
05xy CIRCUIT SAVER



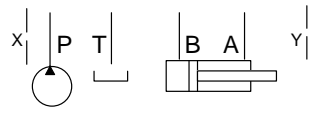
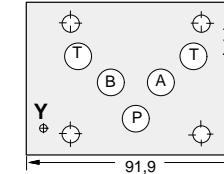
FUNCTION

ISO 05 with X and Y
Euro to Amer

Circuit Savers



Order Seal Kit
#990-120-012
separately.



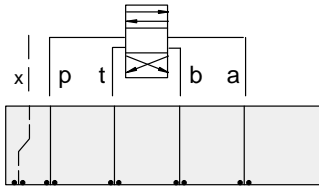
ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
ZSW		ZSW/S	



ISO 05 X,Y SANDWICH BODIES



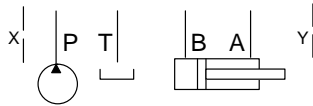
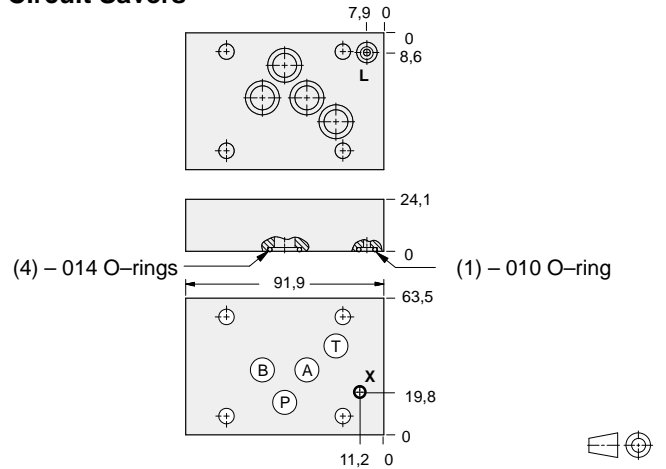
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



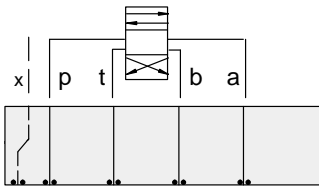
FUNCTION

Bosch L Port to ISO 05 X Port (European)

Circuit Savers



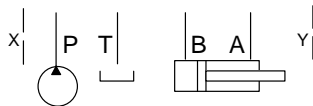
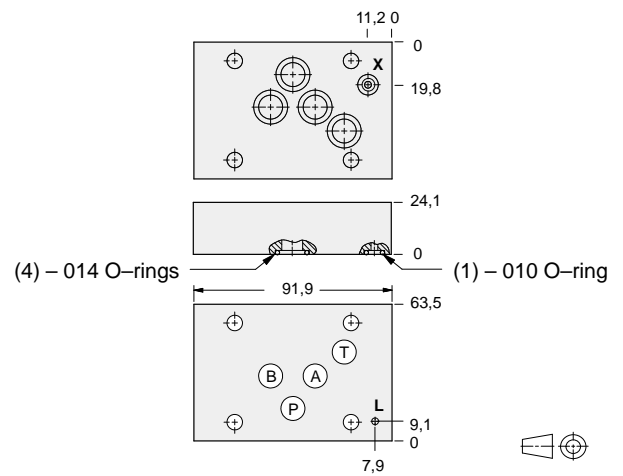
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJA		ZJA/S	



FUNCTION

ISO 05 X Port (European) to Bosch L Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
ZJB		ZJB/S	

05xy CIRCUIT SAVER



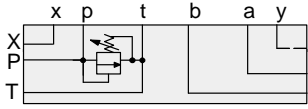
ISO 05 X,Y SANDWICH BODIES



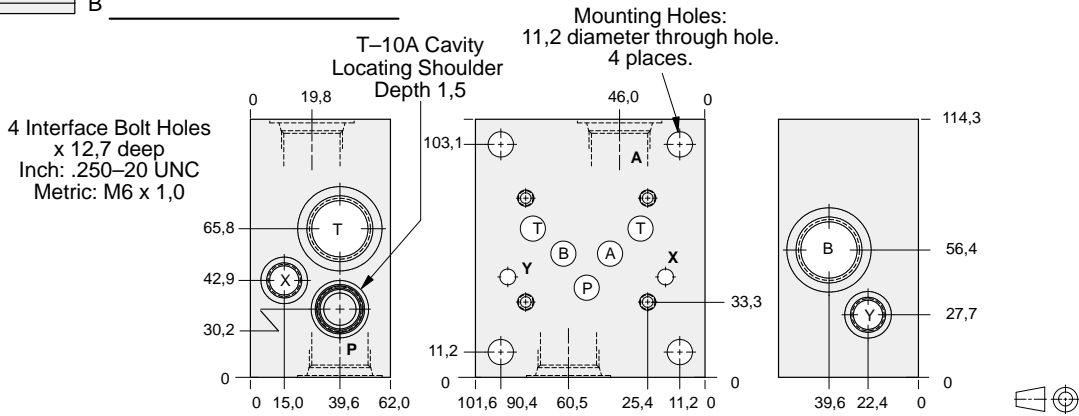
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

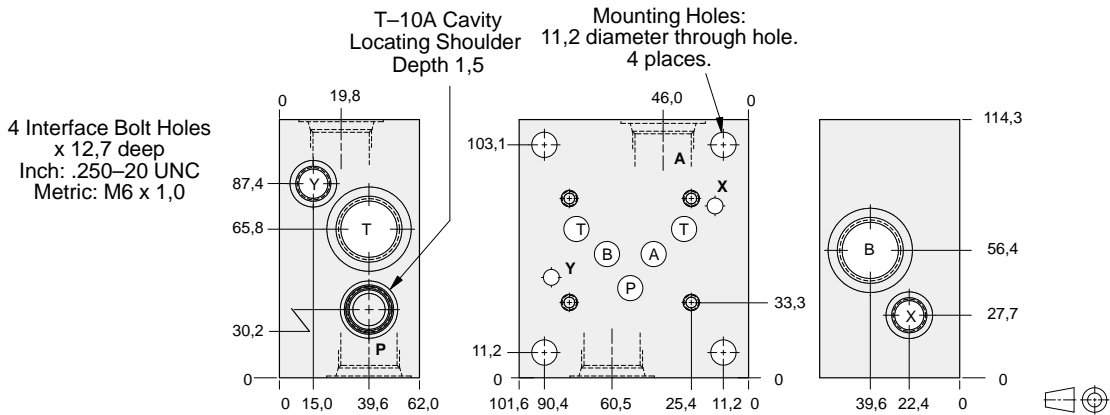
FUNCTION



Relief P to T



CETOP VERSION



U.S. VERSION

Bolt Hole Interface	Port A,B,P,T	Port X,Y	ALUMINIUM			SG IRON		
			Model Code U.S.	Model Code CETOP	List Price	Model Code U.S.	Model Code CETOP	List Price
Inch	.50 NPTF	.25 NPTF	ZHH	ZHP		ZHH/S	ZHP/S	
Inch	.75 NPTF	.25 NPTF	ZHJ	ZHQ		ZHJ/S	ZHQ/S	
Inch	SAE-10	SAE-6	ZHK	ZHR		ZHK/S	ZHR/S	
Inch	SAE-12	SAE-6	ZHL	ZHS		ZHL/S	ZHS/S	
Metric	.50 BSPP	.25 BSPP	ZHM	ZHT		ZHM/S	ZHT/S	
Metric	.75 BSPP	.25 BSPP	ZHN	ZHV		ZHN/S	ZHV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPEC Page 1.06		RDDA Page 1.10
	Pilot Operated, Rapid Response Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPEE Page 1.08		RQEB Page 1.12

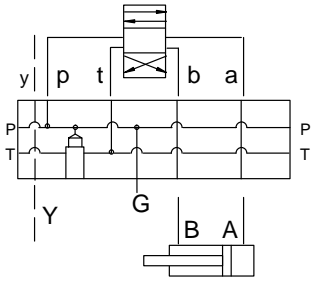


BAR MANIFOLDS



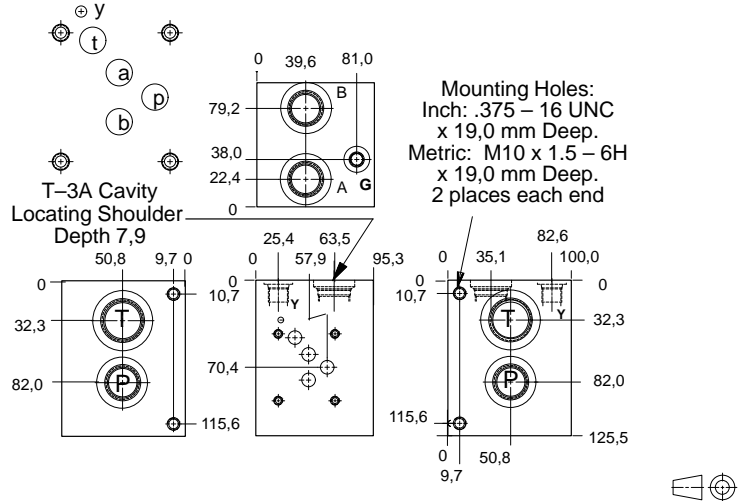
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 H (U.S) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

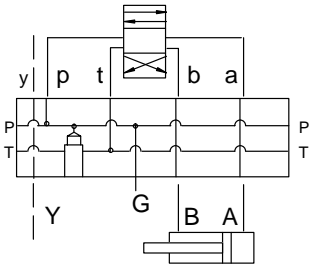
One Station
(U.S. Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VMC		VMC/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VMJ		VMJ/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VMR		VMR/S	

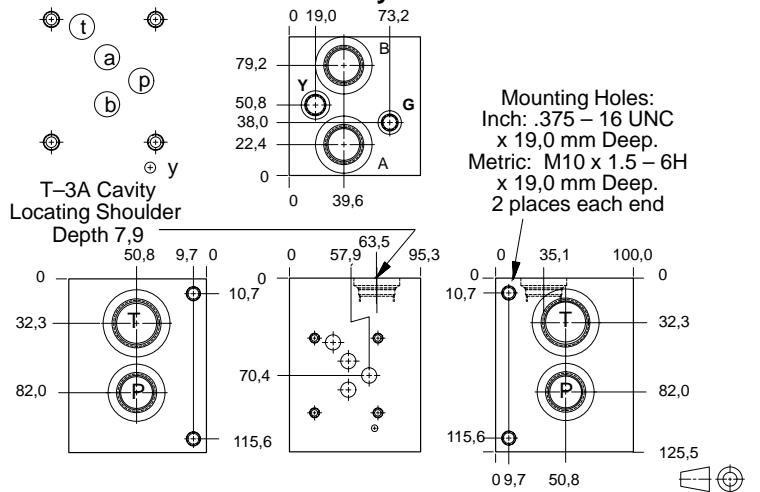
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 H (CETOP) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

One Station
(CETOP Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VRE		VRE/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VRL		VRL/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VRT		VRT/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

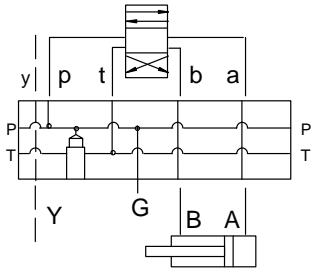


BAR MANIFOLDS



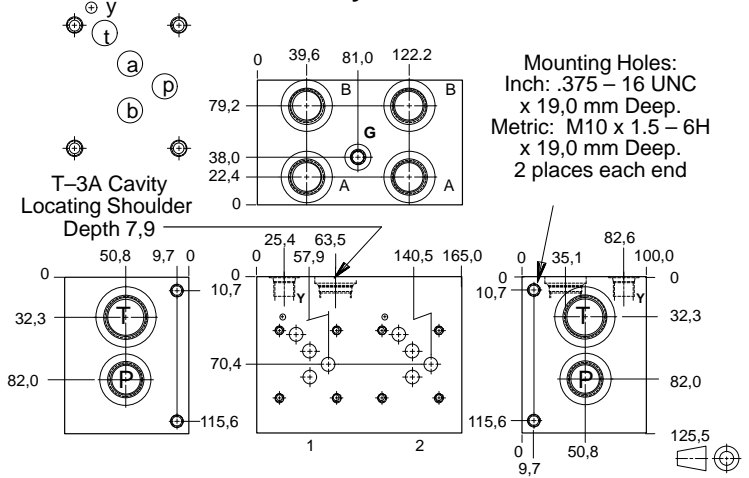
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 H (U.S.) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

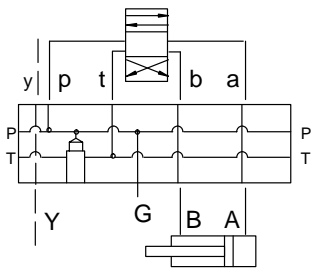
Two Station
(U.S. Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VMD		VMD/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VMK		VMK/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VMT		VMT/S	

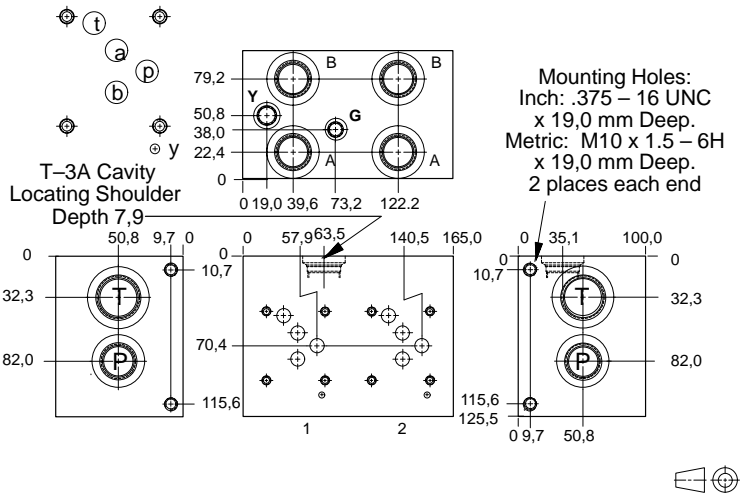
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 H (CETOP) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Two Station
(CETOP Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VRF		VRF/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VRM		VRM/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VRV		VRV/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

OTHER VALVES:	Pilot Operated Relief Valve RPGC Page 1.06	Direct Acting Relief Valve RDFA Page 1.10

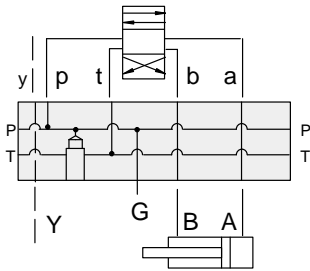


BAR MANIFOLDS



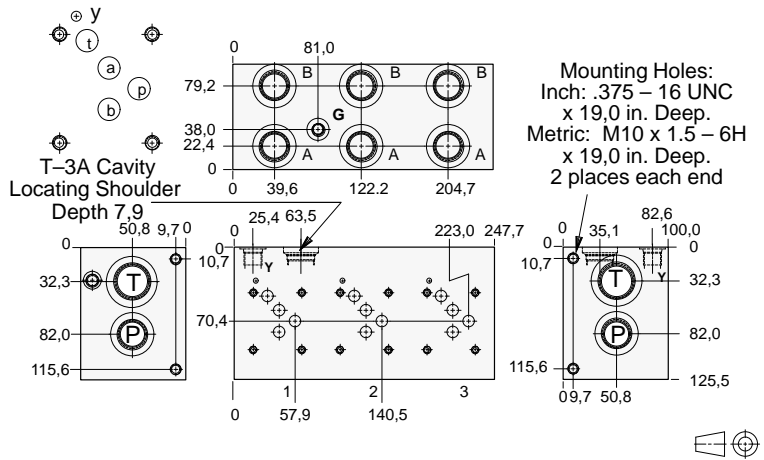
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 H (U.S.) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

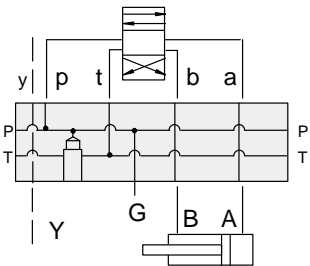
Three Station
(U.S. Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VME		VME/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VML		VML/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VMW		VMW/S	

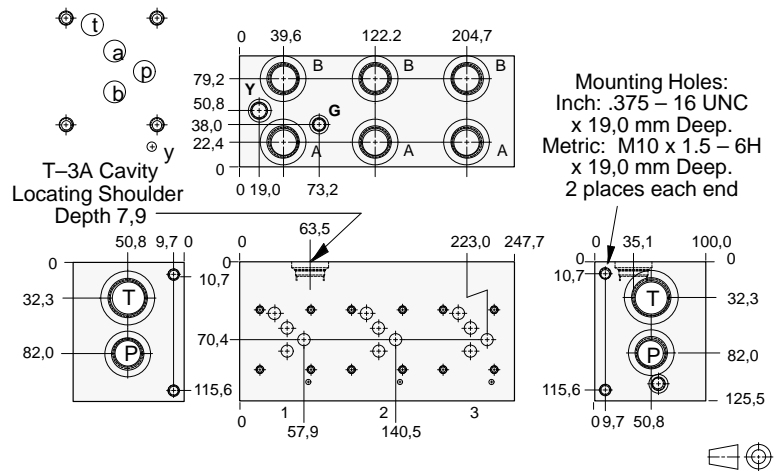
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 H (CETOP) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Three Station
(CETOP Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VRG		VRG/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VRN		VRN/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VRW		VRW/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

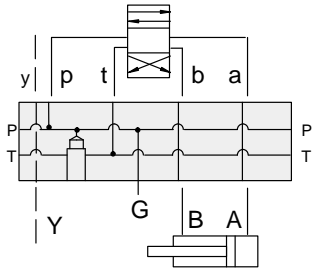


BAR MANIFOLDS



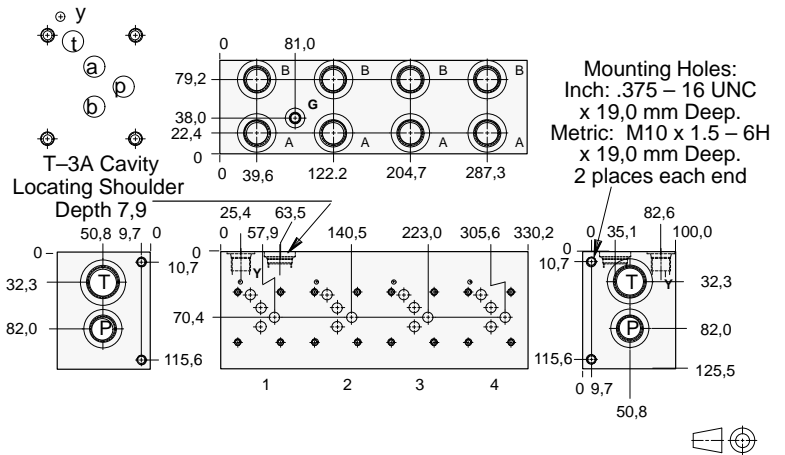
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 H (U.S.) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

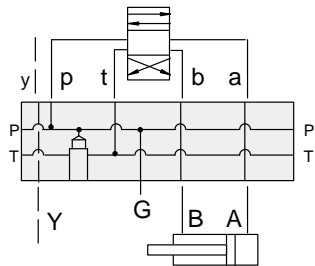
Four Station
(U.S. Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VMF		VMF/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VMM		VMM/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VMX		VMX/S	

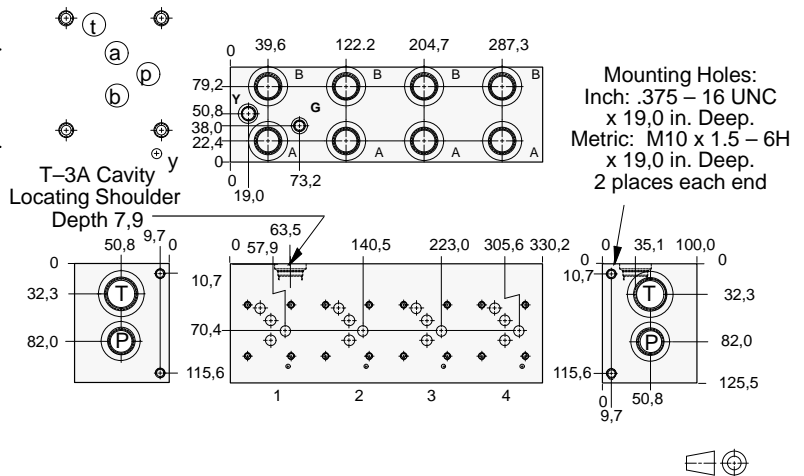
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 H (CETOP) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Four Station
(CETOP Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VRH		VRH/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VRP		VRP/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VRX		VRX/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

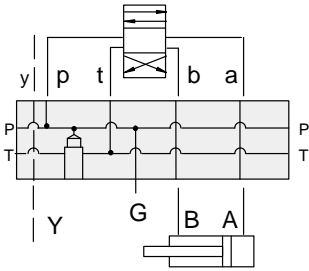


BAR MANIFOLDS



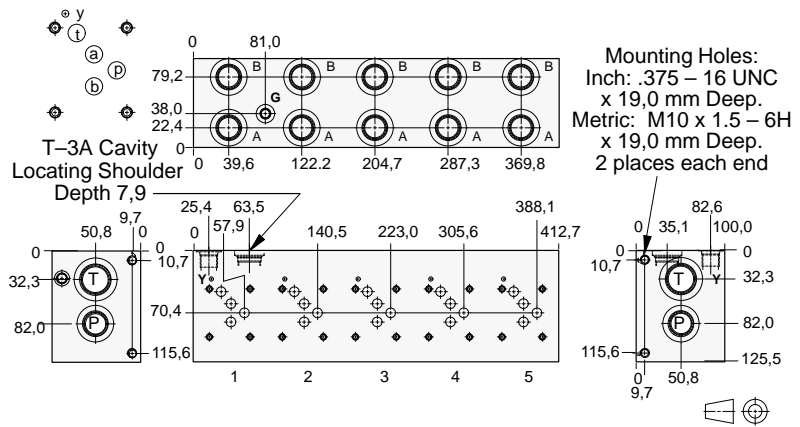
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 05 H (U.S.) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

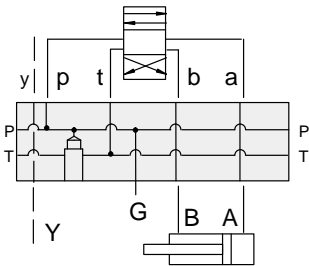
Five Station
(U.S. Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VMG		VMG/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VMN		VMN/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VMY		VMY/S	

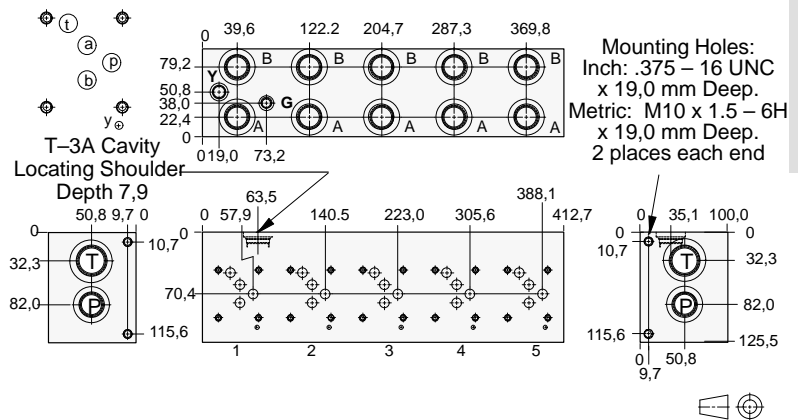
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 05 H (CETOP) Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Five Station
(CETOP Version)



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VRJ		VRJ/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VRR		VRR/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VRY		VRY/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			



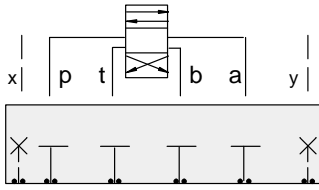


ISO 05 X,Y SANDWICH BODIES



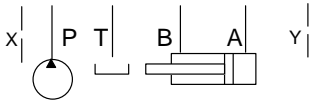
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Cover Plates

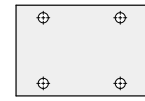


FUNCTION

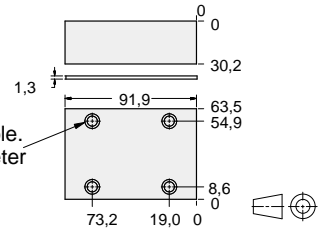
All Ports
Blocked



Order Retainer and
Seal Kits separately.
See page 12.002

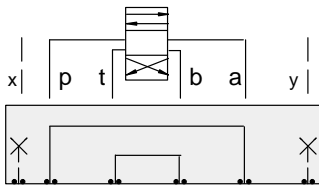


Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



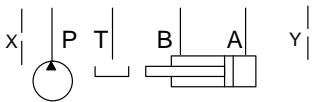
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJP		ZJP/S	

Cover Plates

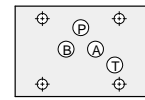


FUNCTION

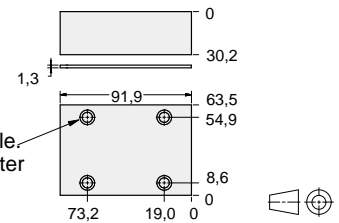
P to A and
B to T



Order Retainer and
Seal Kits separately.
See page 12.002

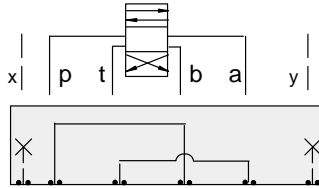


Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



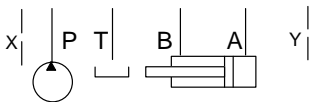
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJM		ZJM/S	

Cover Plates

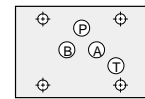


FUNCTION

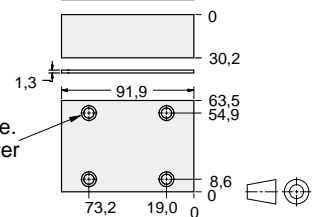
P to B and
A to T



Order Retainer and
Seal Kits separately.
See page 12.002



Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJJ		ZJJ/S	

05xy COVER PLATE

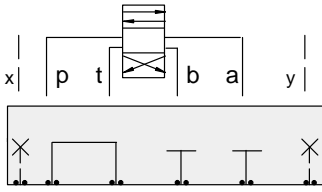


ISO 05 X,Y SANDWICH BODIES



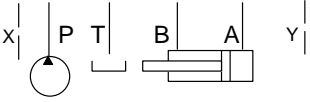
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Cover Plates



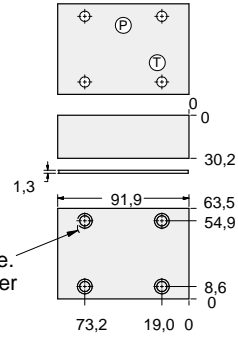
FUNCTION

P to T
A and B blocked



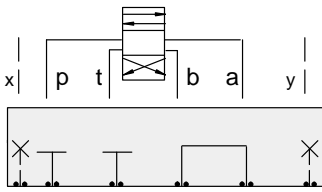
Order Retainer and Seal Kits separately. See page 12.002

Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



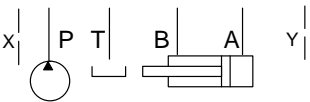
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJN		ZJN/S	

Cover Plates



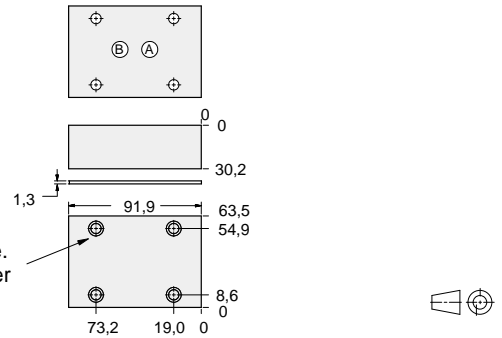
FUNCTION

A to B
P and T blocked



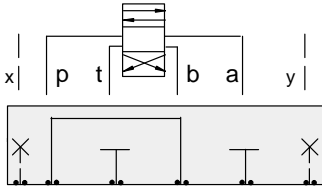
Order Retainer and Seal Kits separately. See page 12.002

Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



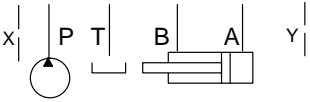
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJL		ZJL/S	

Cover Plates



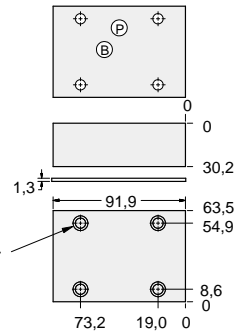
FUNCTION

P to B
A and T blocked



Order Retainer and Seals Kits separately. See page 12.002

Mounting Holes:
7,1 diameter through hole.
Counterbore 10,4 diameter
x 20,6 deep.
4 places.



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
ZJK		ZJK/S	

05xy COVER PLATE



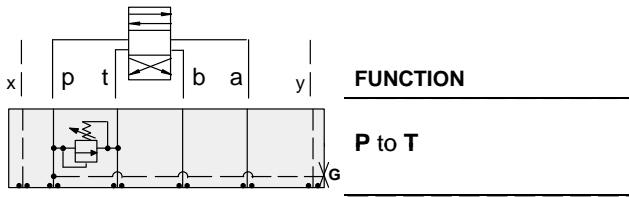




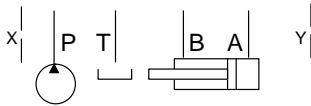
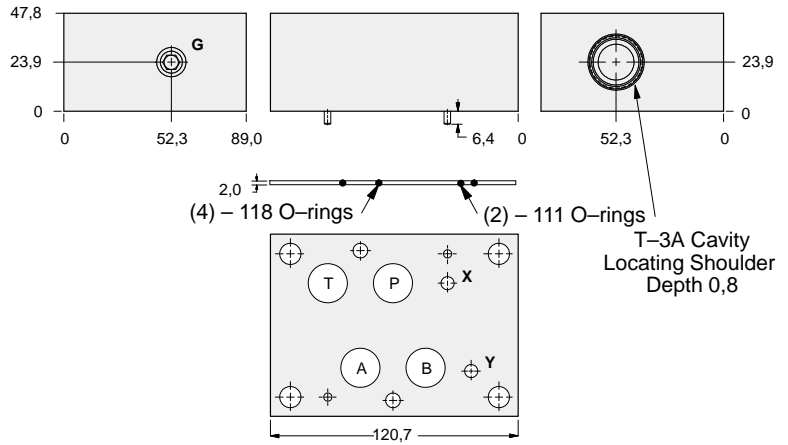
ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CKP		CKP/S	
.25 BSPP	CKP/M		CKP/T	

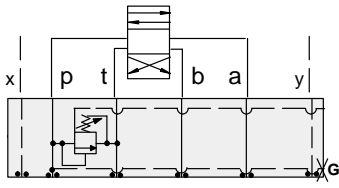
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



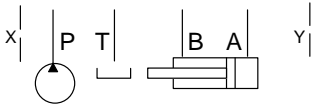
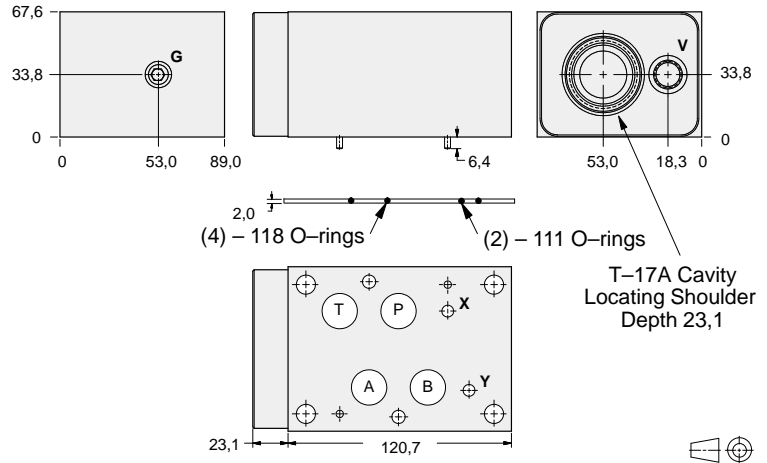
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

P to T
Externally Vented

Relief Valves



Vent Port	Gauge Port (Plugged)	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
SAE-6	.25 NPTF	CKQ		CKQ/S	
.25 BSPP	.25 BSPP			CKQ/T	

07 RELIEF

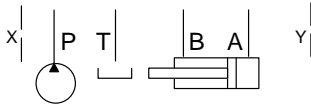
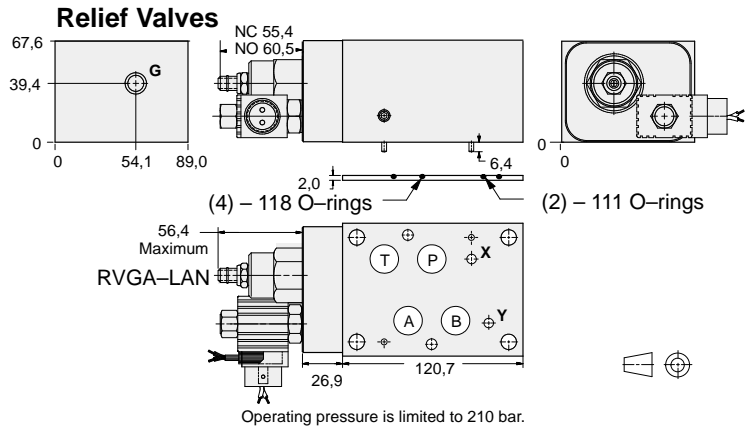
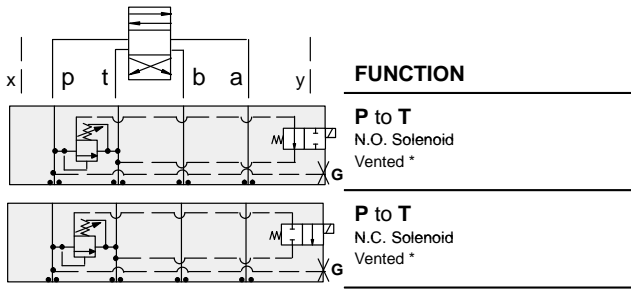
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Vented Relief Valve</i>		
	RVGA Page 1.19		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Solenoid Type	Gauge Port (Plugged)	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
N.O.	.25 NPTF	YRFI-LAN-*B		YRFI-LAN-*B/S	
N.O.	.25 BSPP	YRFI-LAN-*B/M		YRFI-LAN-*B/T	
N.C.	.25 NPTF	YRFJ-LAN-*B		YRFJ-LAN-*B/S	
N.C.	.25 BSPP	YRFJ-LAN-*B/M		YRFJ-LAN-*B/T	

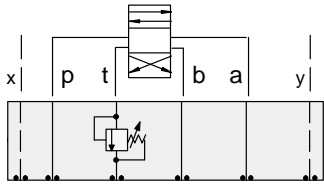
* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.



ISO 07 SANDWICH BODIES



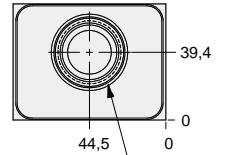
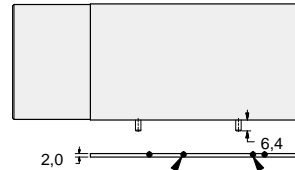
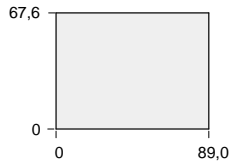
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



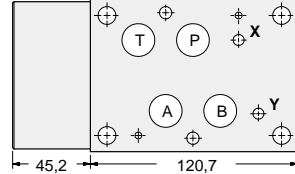
FUNCTION

Out of T

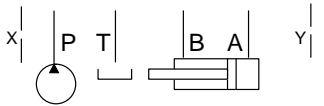
Relief Valves



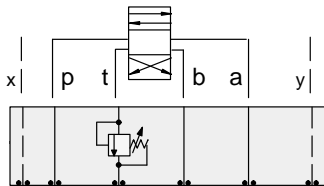
(4) - 118 O-rings (2) - 111 O-rings



T-16A Cavity Locating Shoulder Depth 0,8



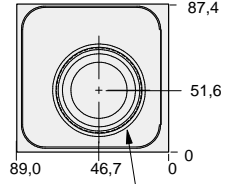
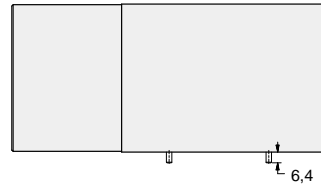
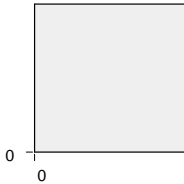
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKT		DKT/S	



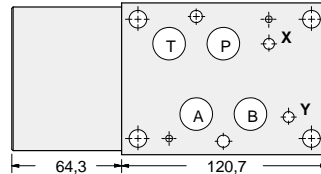
FUNCTION

Out of T
(High Capacity)

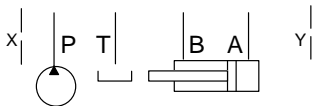
Relief Valves



(4) - 118 O-rings (2) - 111 O-rings



T-18A Cavity Locating Shoulder Depth 0,8



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKV		DKV/S	

07 RELIEF

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

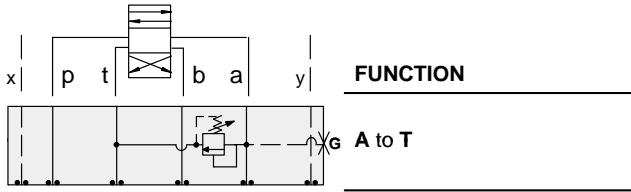
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.07		RQ*B Page 1.13
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.09		RP*D Page 1.15
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.11		
OTHER VALVES:			



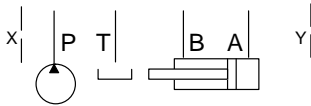
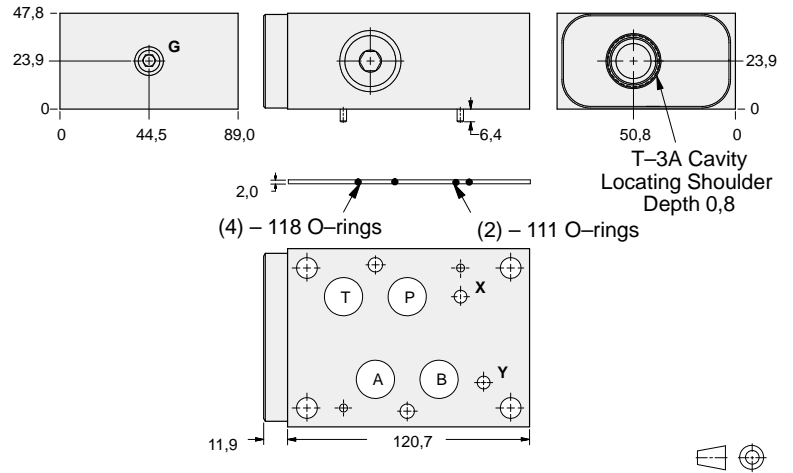
ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CKA		CKA/S	
.25 BSPP	CKA/M		CKA/T	

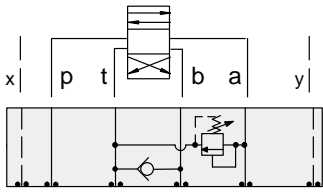
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



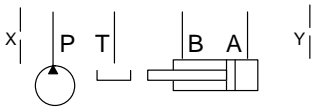
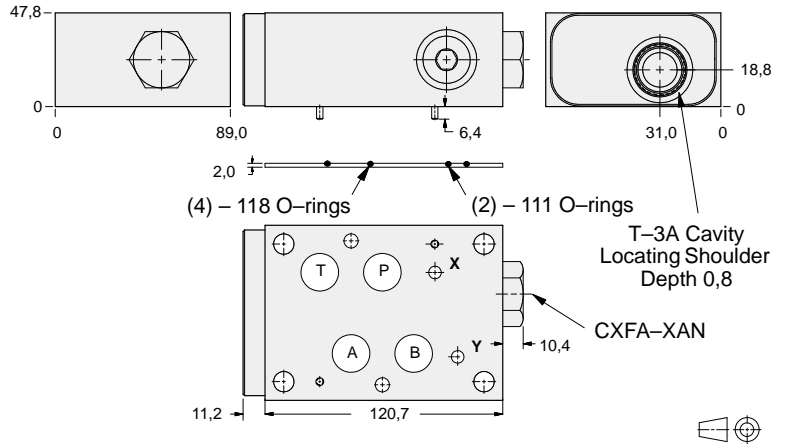
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

A to T
FF Check T to B

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CKJ		CKJ/S	

07 RELIEF

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

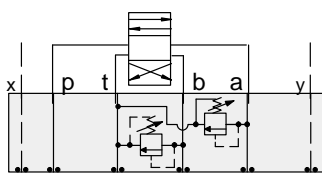
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



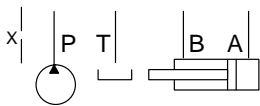
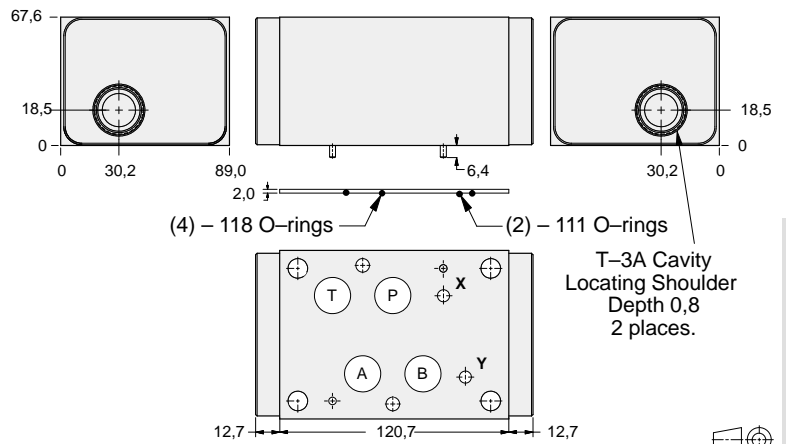
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

A and B to T
(High Capacity)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CKX		CKX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

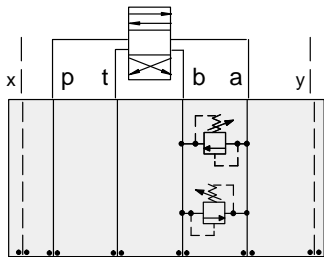
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



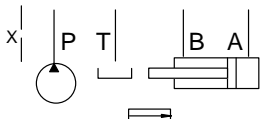
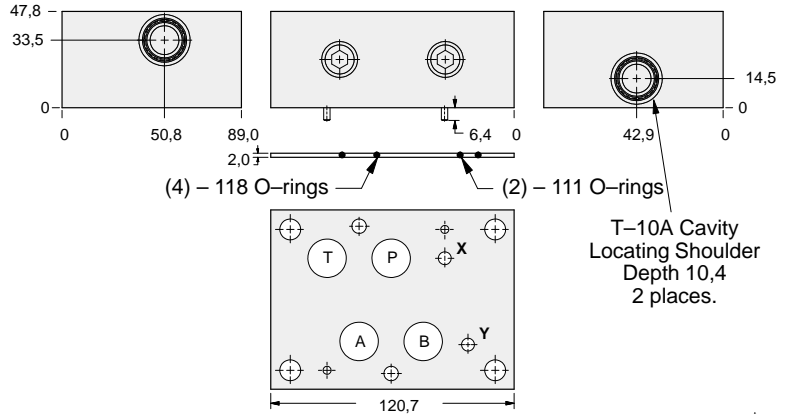
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

**A to B and
B to A**
(Cross Port)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CKY		CKY/S	

07 RELIEF

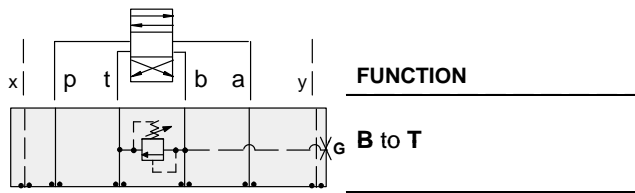
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPEC Page 1.06		RQEB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		
	RPEE Page 1.08		
	<i>Direct Acting Relief Valve</i>		
	RDDA Page 1.10		
OTHER VALVES:			



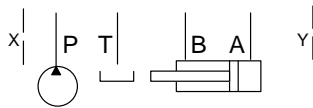
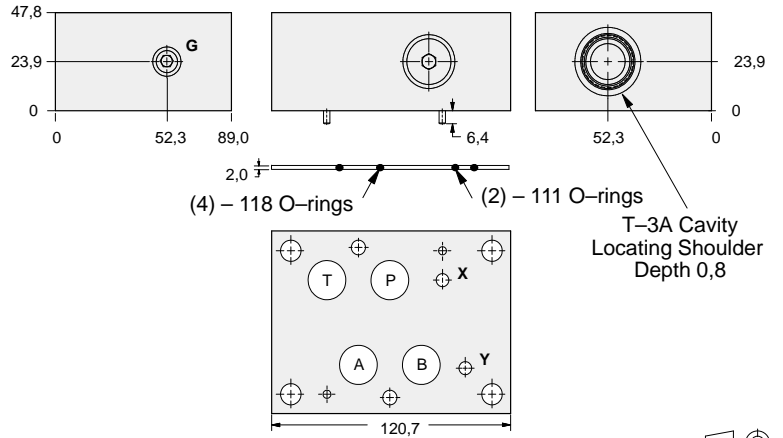
ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CKB		CKB/S	
.25 BSPP	CKB/M		CKB/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

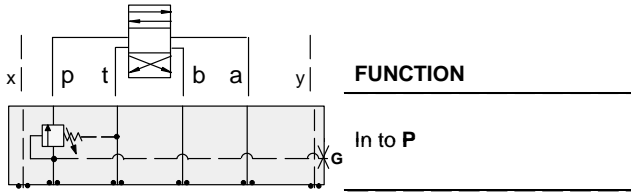
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RPGC Page 1.06		RQGB Page 1.12
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RPGE Page 1.08		RPGD Page 1.14
	<i>Direct Acting Relief Valve</i>		
	RDFA Page 1.10		
OTHER VALVES:			



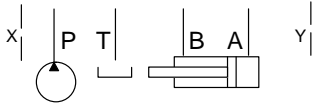
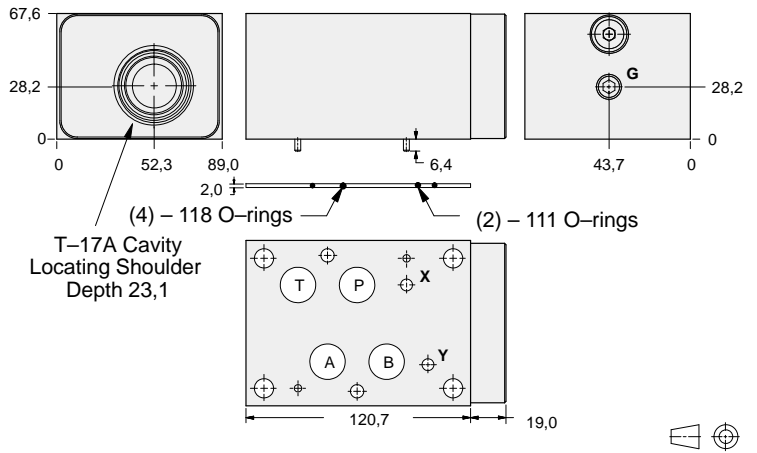
ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BKW		BKW/S	
.25 BSPP	BKW/M		BKW/T	

07 SEQUENCE

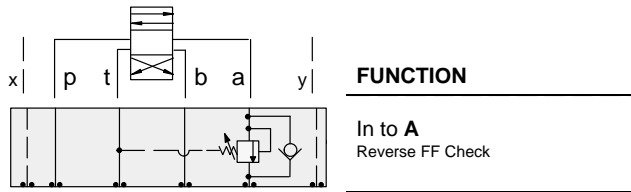
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Sequence Valve		
	RSHC Page 2.07		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQHB Page 2.09		
	Air Controlled, Pilot Operated Sequence Valve		
	RSHE Page 2.11		
OTHER VALVES:			



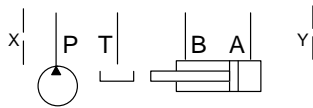
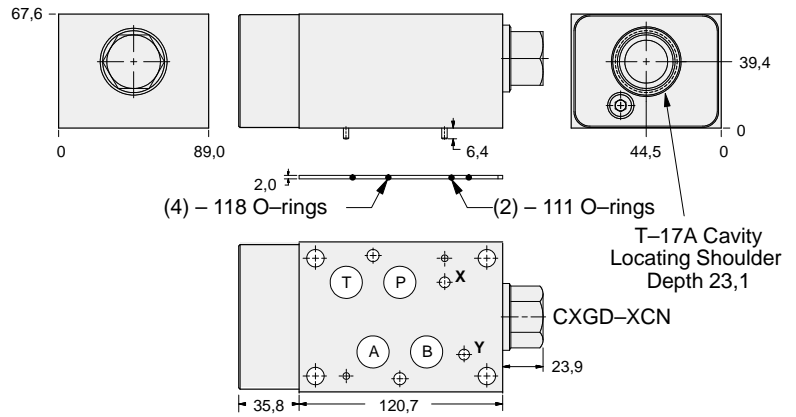
ISO 07 SANDWICH BODIES



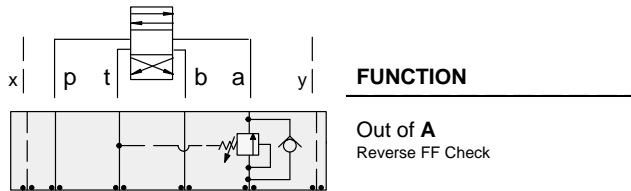
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



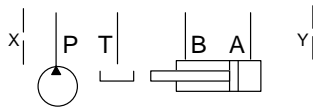
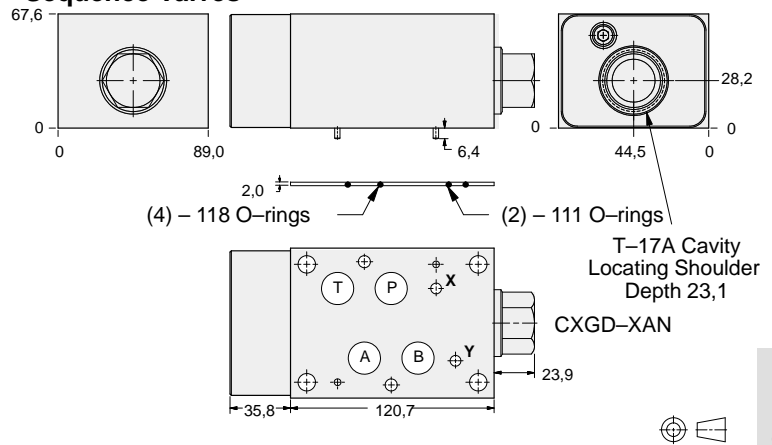
Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BK4		BK4/S	



Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BK6		BK6/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

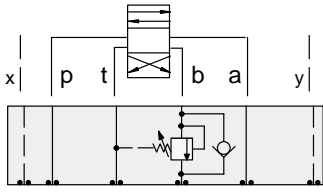
	Pilot Operated Sequence Valve		
	RSHC Page 2.07		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQHB Page 2.09		
	Air Controlled, Pilot Operated Sequence Valve		
	RSHE Page 2.11		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



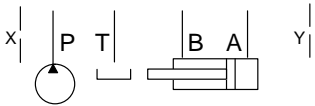
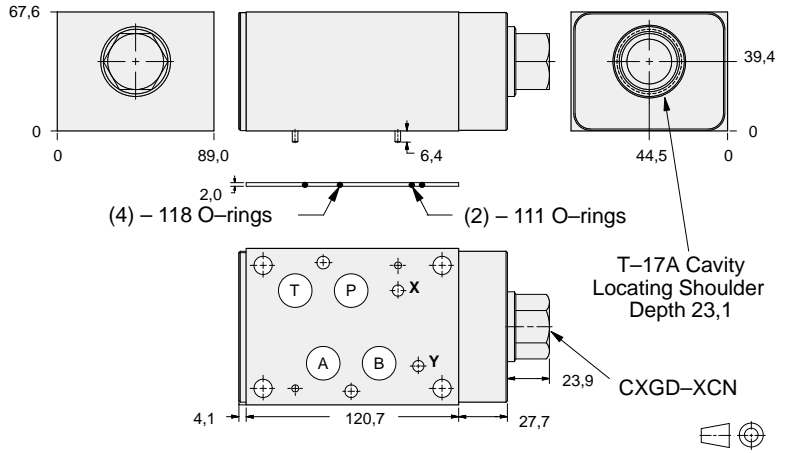
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



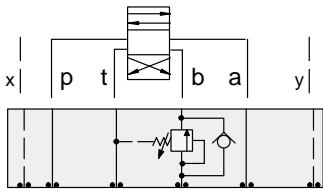
FUNCTION

In to B
Reverse FF Check

Sequence Valves



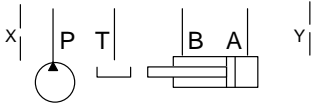
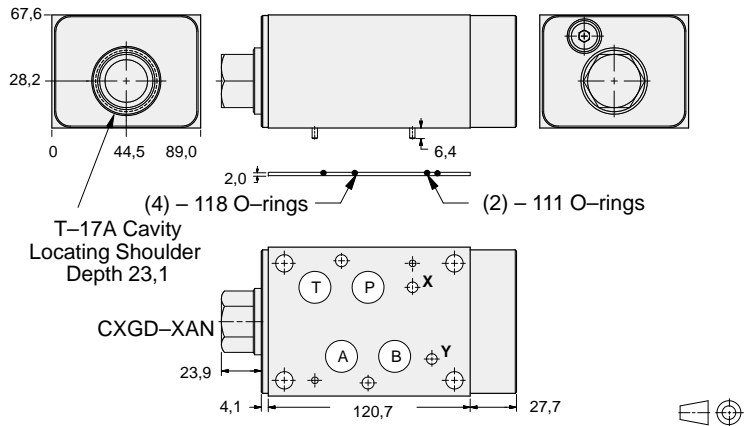
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BK5		BK5/S	



FUNCTION

Out of B
Reverse FF Check

Sequence Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BK7		BK7/S	

07 REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

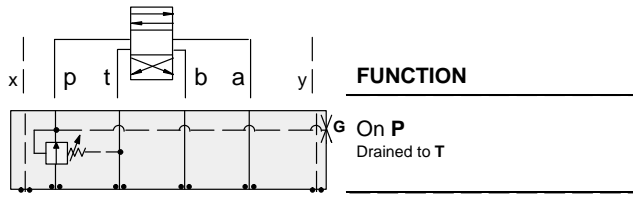
	Pilot Operated Sequence Valve		
	RSHC Page 2.07		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQHB Page 2.09		
	Air Controlled, Pilot Operated Sequence Valve		
	RSHE Page 2.11		
OTHER VALVES:			



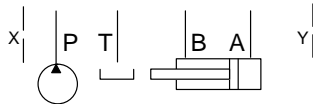
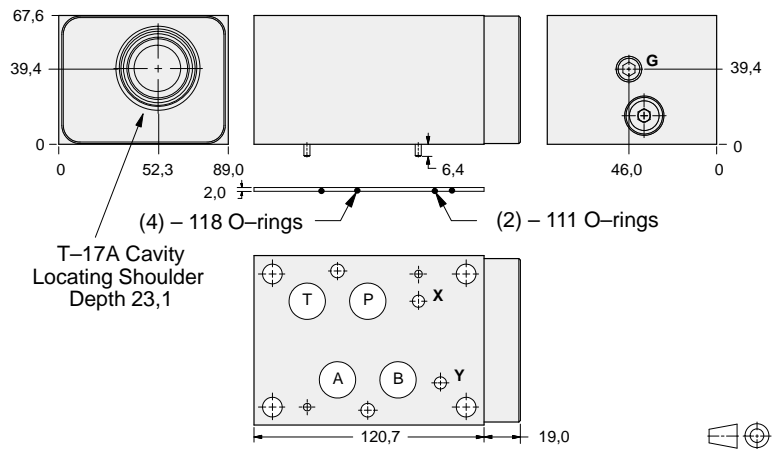
ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Reducing Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BKP		BKP/S	
.25 BSPP	BKP/M		BKP/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

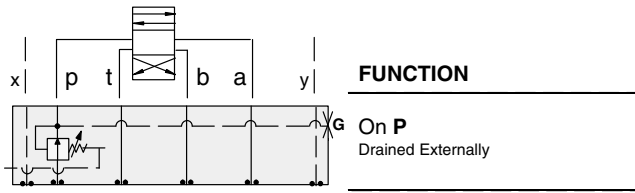
	<i>Pilot Operated Reducing Valve</i>		
	PBHB Page 3.07		
	<i>Air Controlled, Pilot Operated Reducing Valve</i>		
	PBHC Page 3.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



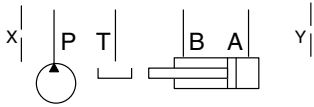
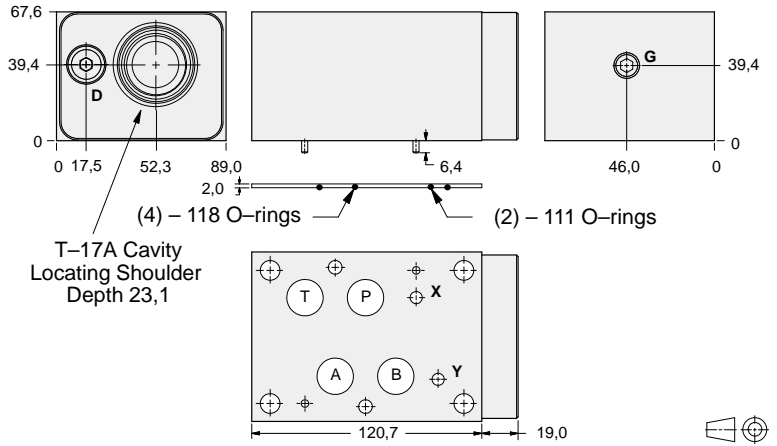
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On P
Drained Externally

Reducing Valves



Gauge Port (Plugged)	Drain Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
.25 NPTF	SAE-6	BKQ		BKQ/S	
.25 BSPP	.25 BSPP	BKQ/M		BKQ/T	

07 REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

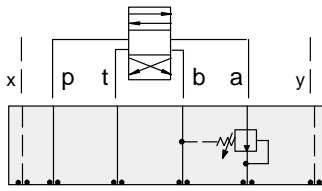
	Pilot Operated Reducing Valve		
	PBHB Page 3.07		
	Air Controlled, Pilot Operated Reducing Valve		
	PBHC Page 3.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



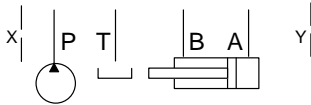
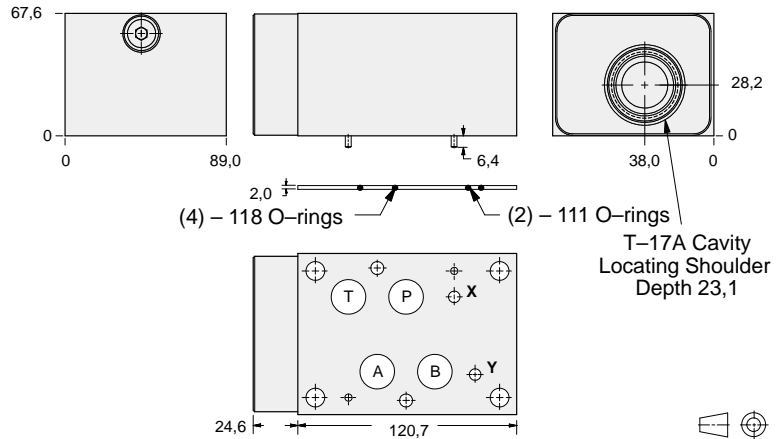
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On A
Drained to B

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BAK		BAK/S	

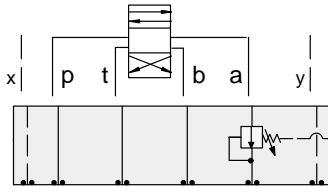
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBHB Page 3.07		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



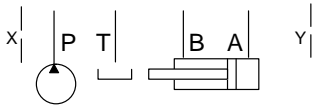
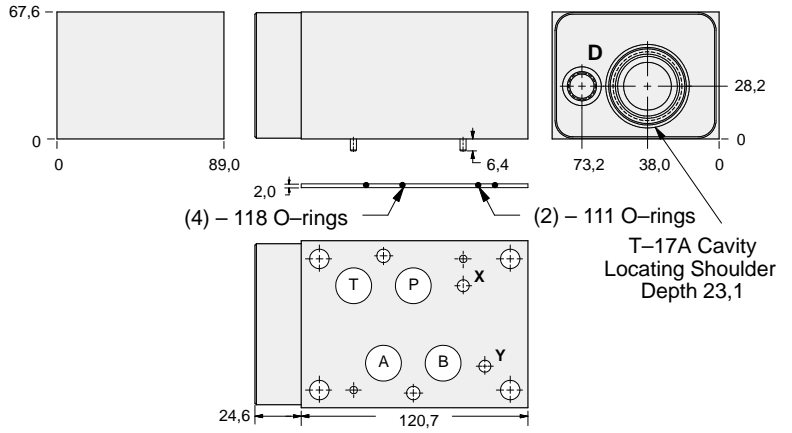
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On A
Drained Externally

Reducing Valves



Drain Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	BKC		BKC/S	
.25 BSPP	BKC/M		BKC/T	

07 REDUCING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

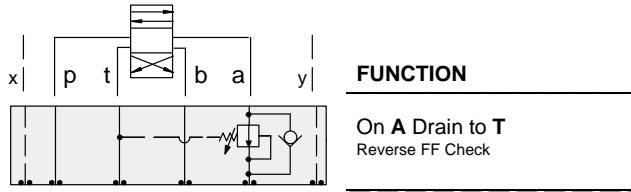
	Pilot Operated Reducing Valve		
	PBHB Page 3.07		
	Air Controlled, Pilot Operated Reducing Valve		
	PBHC Page 3.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



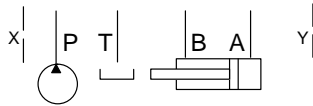
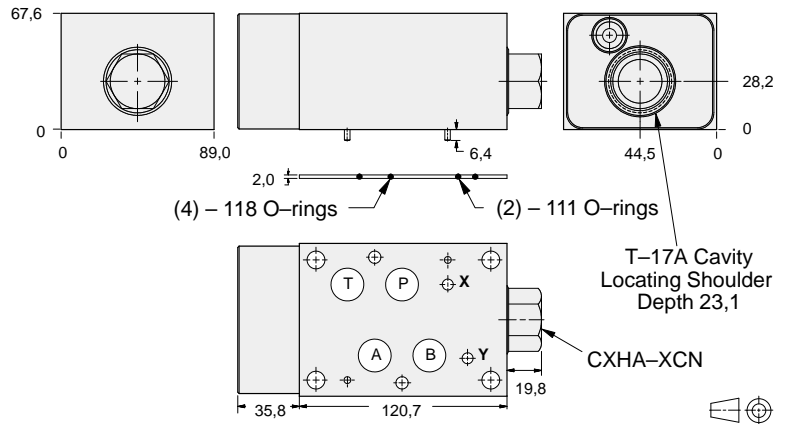
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



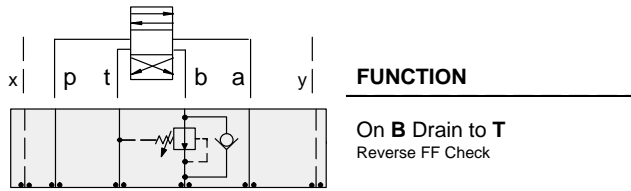
FUNCTION

On A Drain to T
Reverse FF Check

Reducing Valves



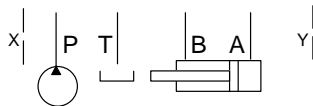
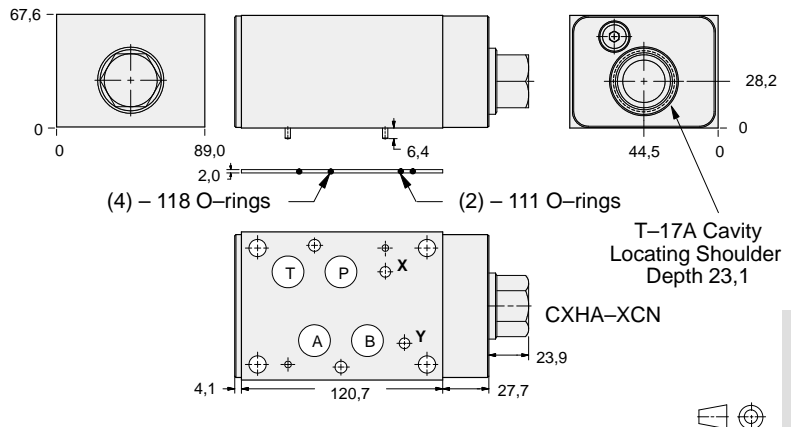
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BK2		BK2/S	



FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BKJ		BKJ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

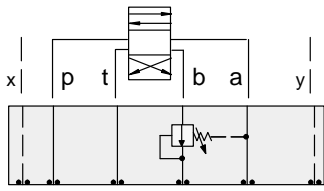
	<i>Pilot Operated Reducing Valve</i>		
	PBHB Page 3.07		
	<i>Air Controlled, Pilot Operated Reducing Valve</i>		
	PBHC Page 3.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



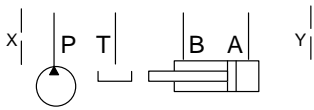
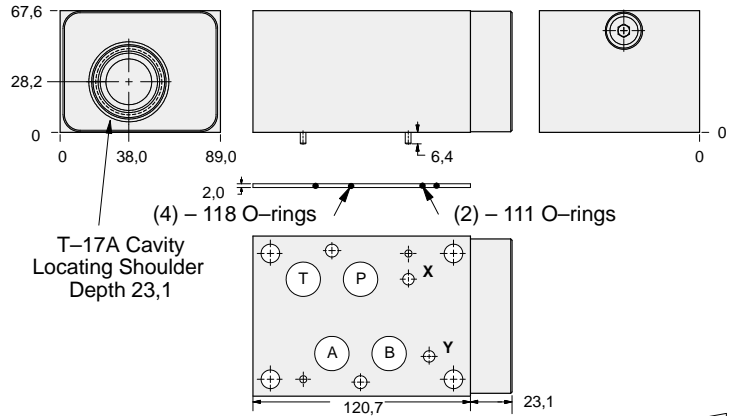
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On B
Drained to A

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKB		BKB/S	

07 REDUCING

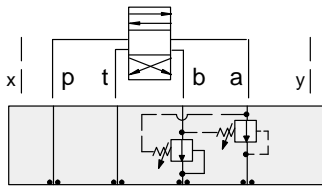
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing Valve</i>		
	PBHB Page 3.07		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



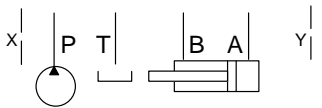
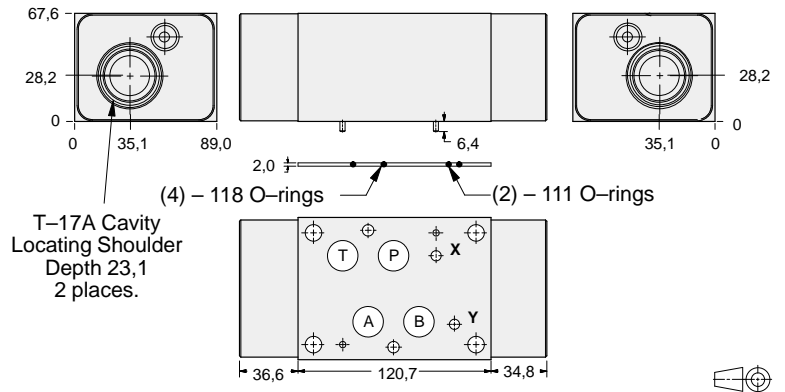
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Drains to Opposite Port

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKY		BKY/S	

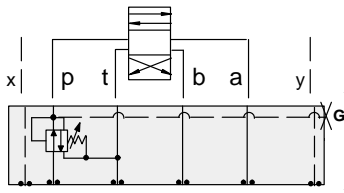
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBHB Page 3.07		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



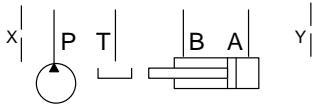
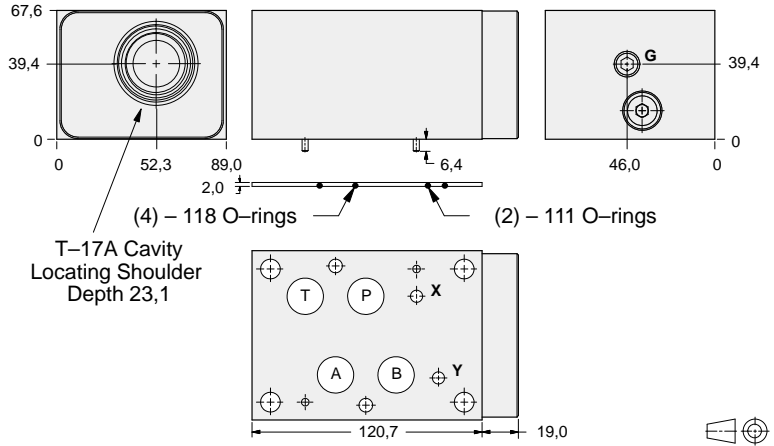
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On P Tank to T
Drained to T

Reducing/Relieving Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	BKP		BKP/S	
.25 BSPP	BKP/M		BKP/T	

07 REDUCING/RELIEVING

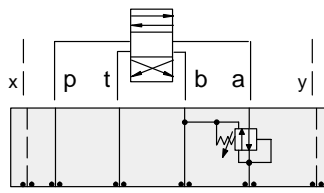
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve		
	PPHB Page 3.11		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PPHC Page 3.13		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



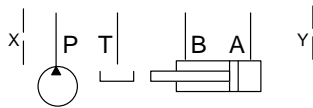
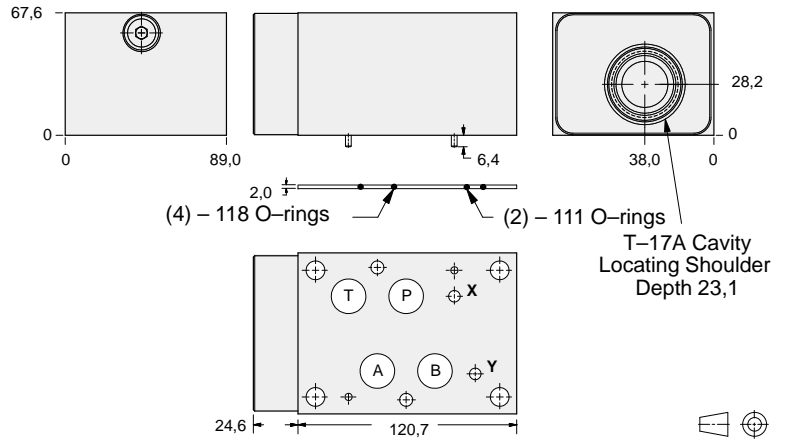
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On A Tank to B
Drained to B

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKA		BKA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPHB Page 3.11		
OTHER VALVES:			

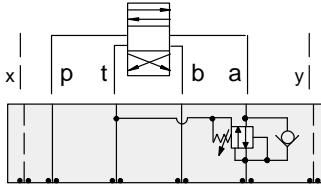


ISO 07 SANDWICH BODIES



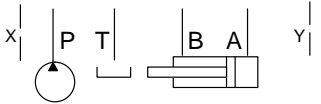
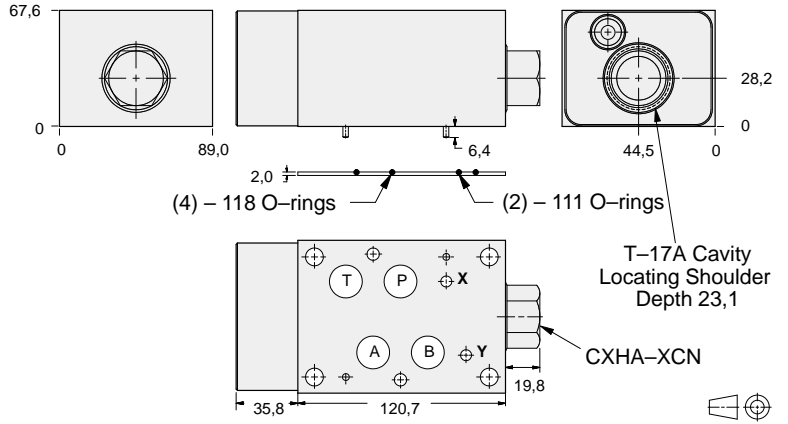
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Reducing/Relieving Valves



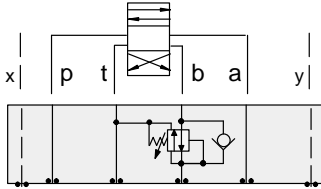
FUNCTION

On A Tank to T
Drained to T
Reverse FF Check



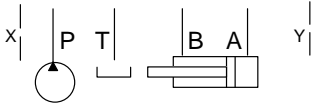
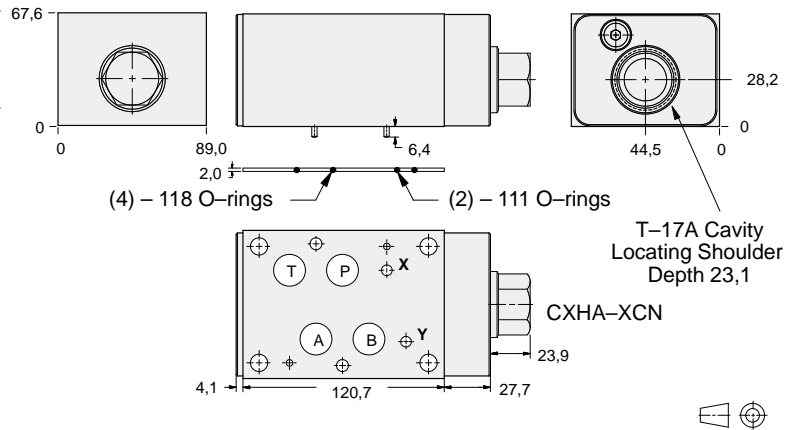
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BK2		BK2/S	

Reducing/Relieving Valves



FUNCTION

On B Tank to T
Drained to T
Reverse FF Check



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BKJ		BKJ/S	

07 REDUCING/RELIEVING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

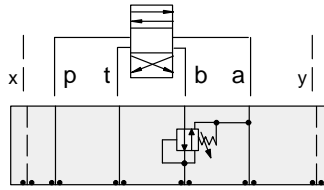
	Pilot Operated Reducing/Relieving Valve		
	PPHB Page 3.11		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PPHC Page 3.13		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



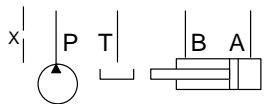
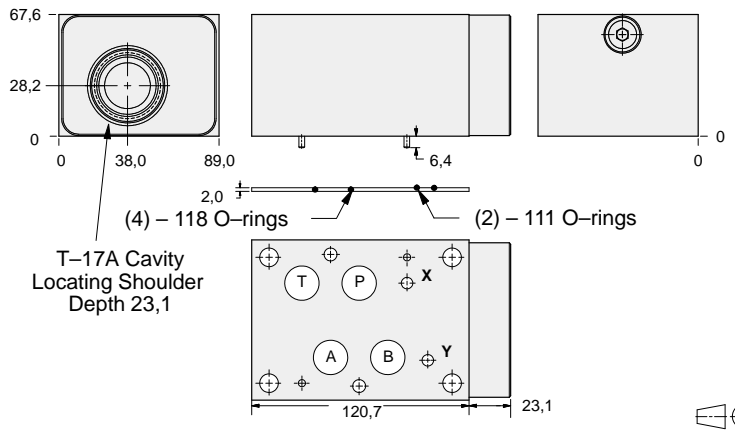
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **B** Tank to **A**
Drained to **A**

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKB		BKB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

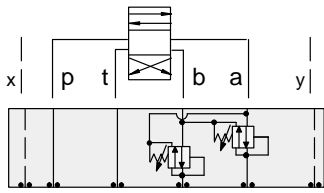
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PPHB Page 3.11		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



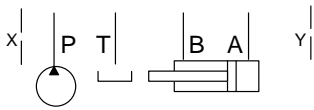
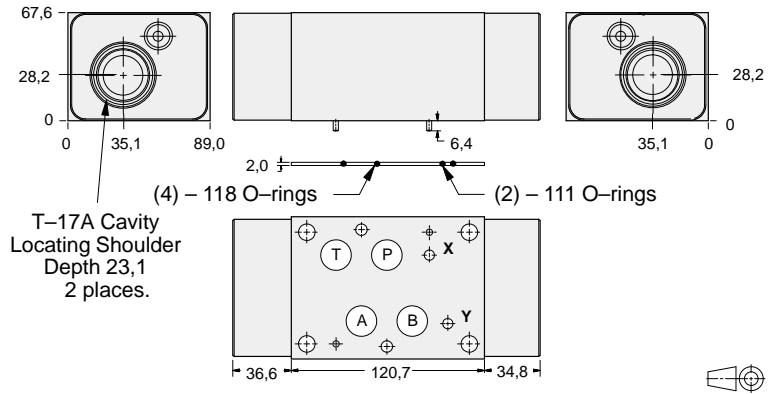
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKY		BKY/S	

07 REDUCING/RELIEVING

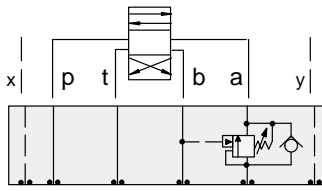
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve		
	PPHB Page 3.11		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



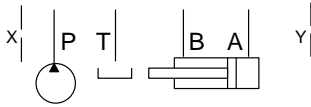
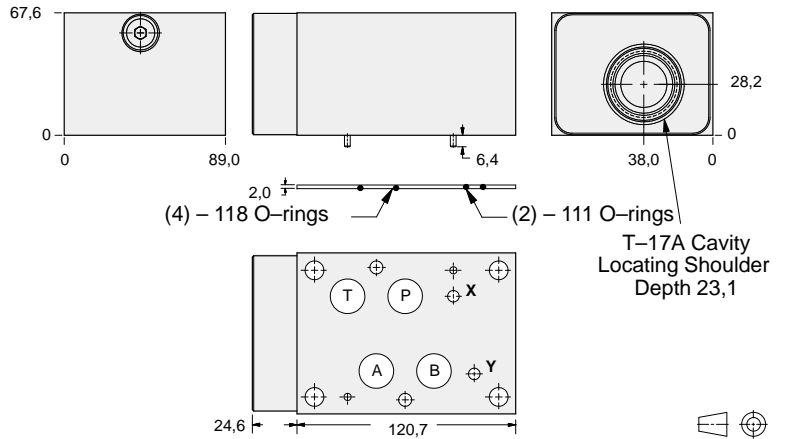
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On A Pilot from B

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKA		BKA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Counterbalance Valve, 3:1 Pilot Ratio		
	CBGAP Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBGG Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBGHP Page 4.15		
OTHER VALVES:			

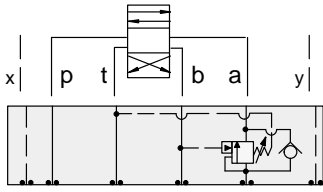


ISO 07 SANDWICH BODIES



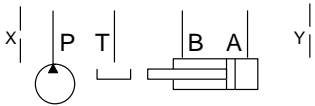
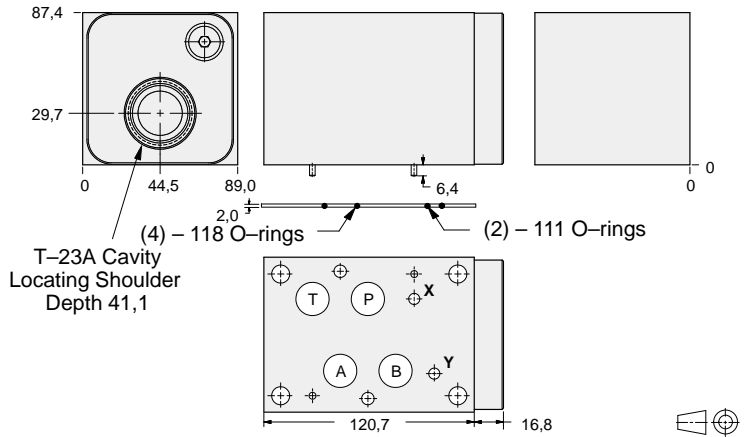
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Counterbalance Valves



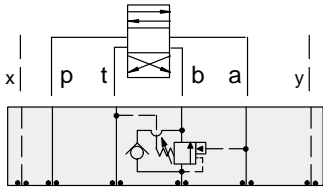
FUNCTION

On **A** Pilot
from **B**
Vent to **T**



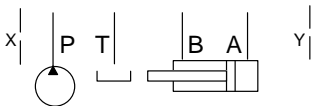
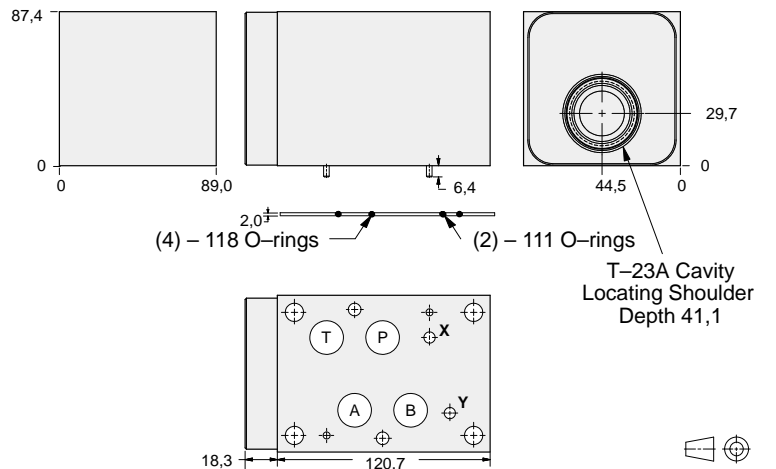
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NKA		NKA/S	

Counterbalance Valves



FUNCTION

On **B** Pilot
from **A**
Vent to **T**



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
NKB		NKB/S	

07 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

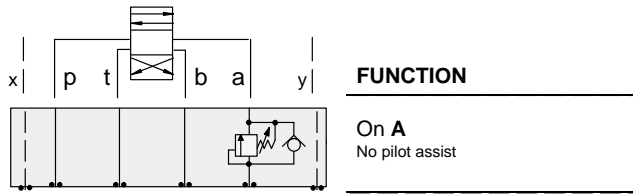
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWGA Page 4.19		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWGG Page 4.21		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



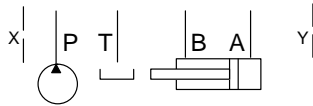
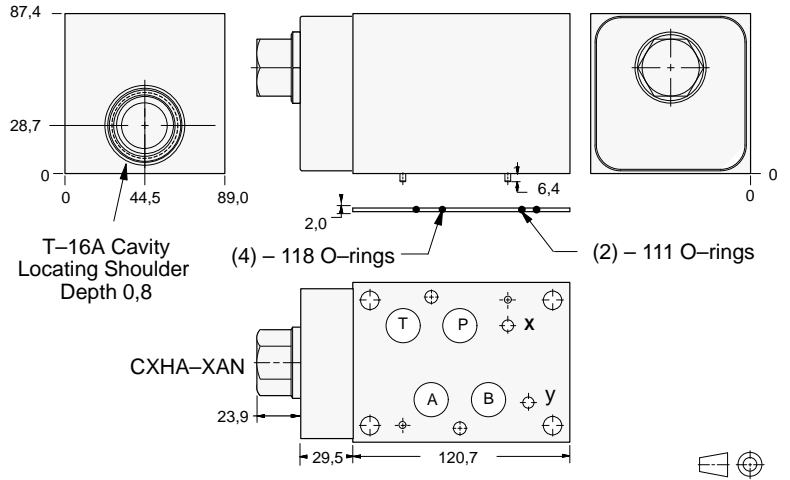
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



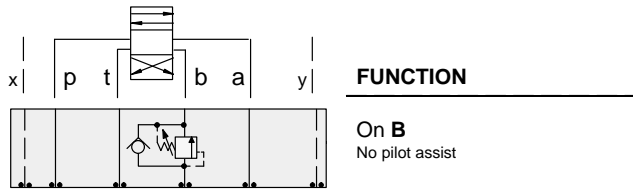
FUNCTION

On A
No pilot assist

Counterbalance Valves



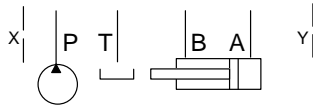
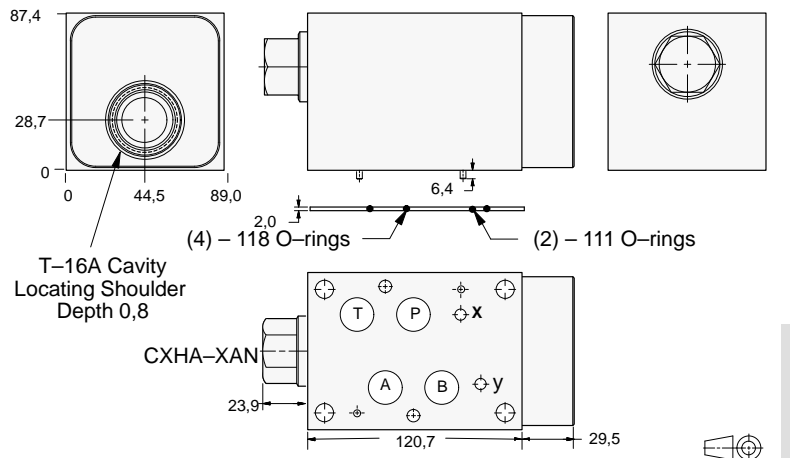
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CK4		CK4/S	



FUNCTION

On B
No pilot assist

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CK5		CK5/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

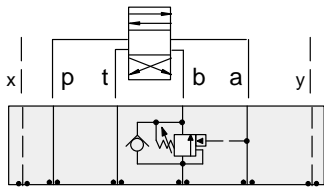
	Direct Acting Relief Valve		
	RDHA Page 1.11		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



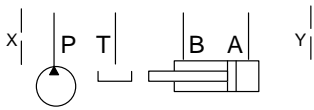
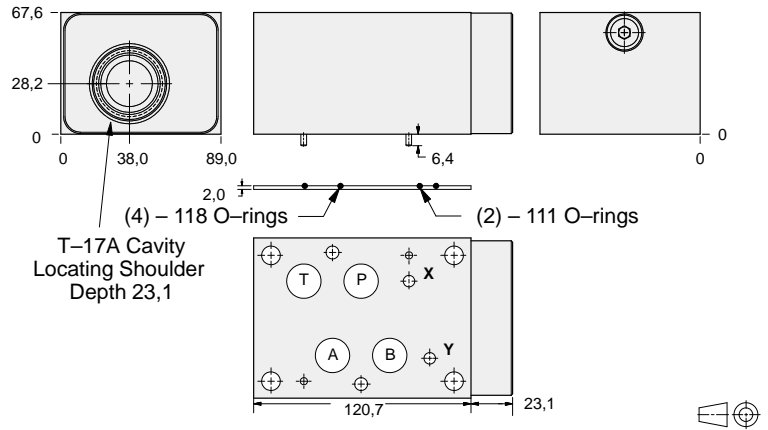
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On B
Pilot from A

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKB		BKB/S	

07 COUNTERBALANCE

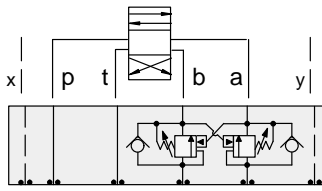
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBGAP Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBGG Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBGHP Page 4.15		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



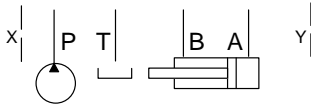
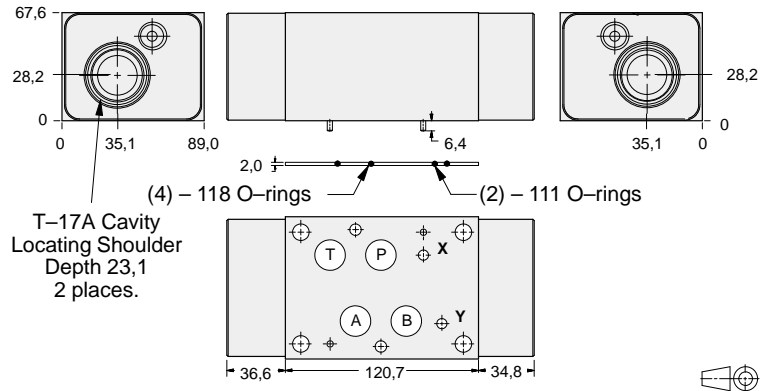
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKY		BKY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

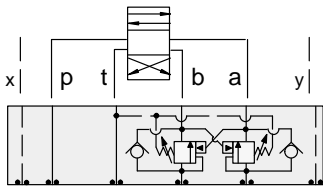
	Counterbalance Valve, 3:1 Pilot Ratio		
	CBGAP Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CBGG Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CBGHP Page 4.15		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



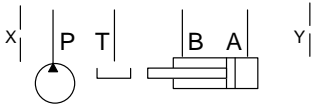
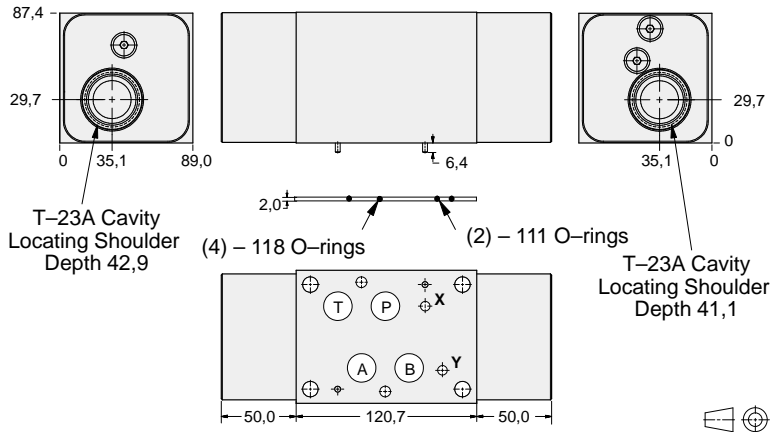
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NKY		NKY/S	

07 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWGA Page 4.19		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWGG Page 4.21		
OTHER VALVES:			

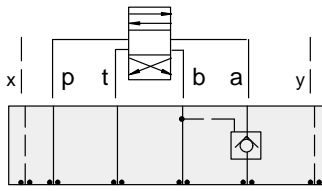


ISO 07 SANDWICH BODIES



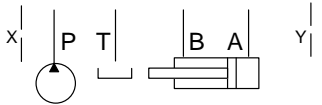
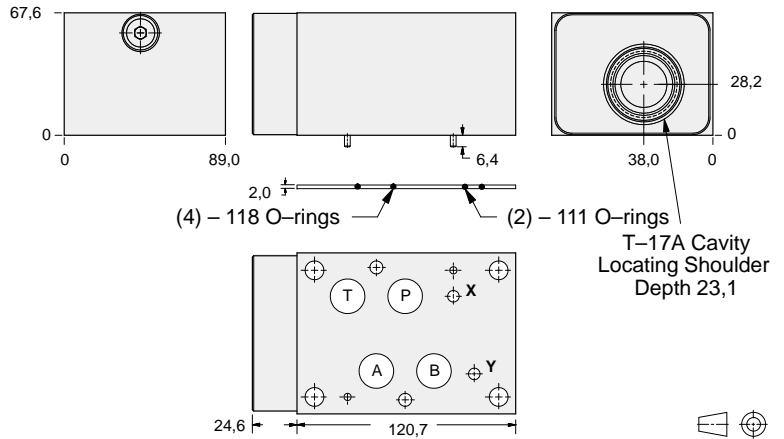
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On A
Pilot from B



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKA		BKA/S	

07 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKGBP Page 4.17		
OTHER VALVES:			

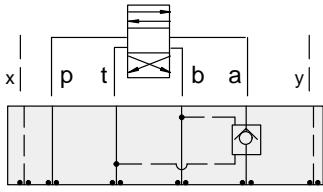


ISO 07 SANDWICH BODIES



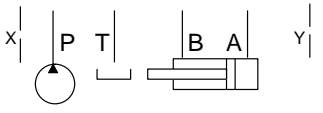
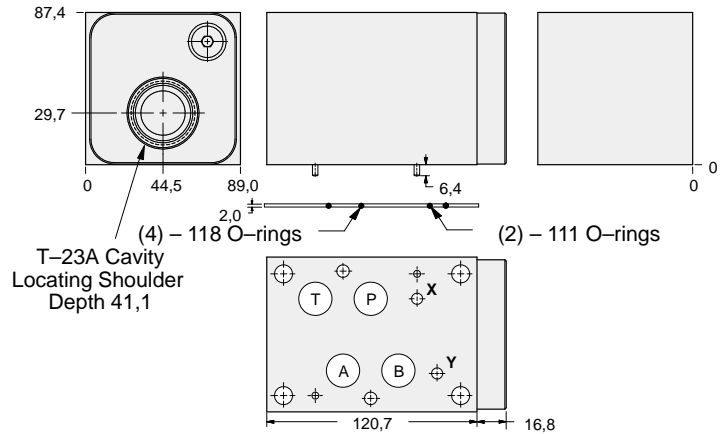
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



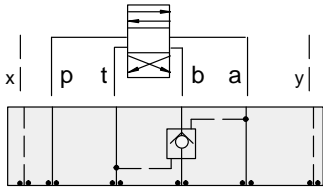
FUNCTION

On A
Pilot from B
Vent to T



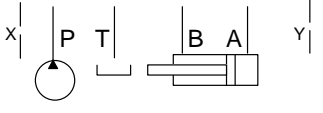
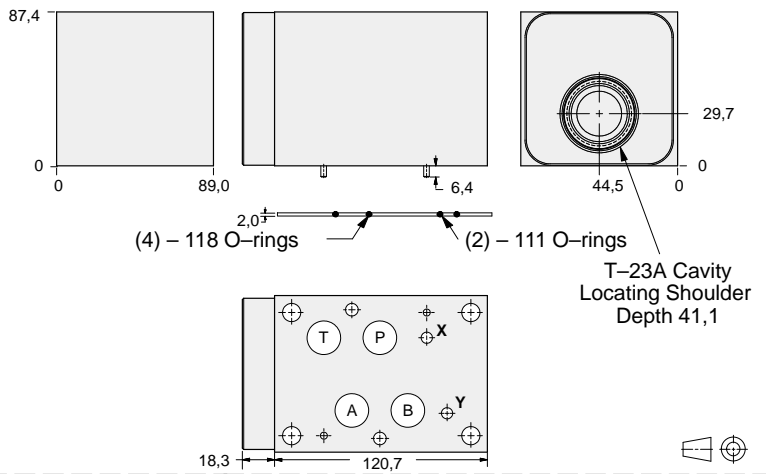
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NKA		NKA/S	

Pilot Operated Check Valves



FUNCTION

On B
Pilot from A
Vent to T



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
NKB		NKB/S	

07 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVGV Page 4.23		
OTHER VALVES:			

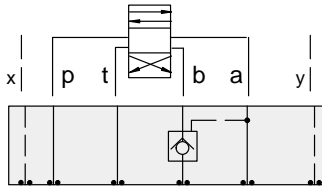


ISO 07 SANDWICH BODIES



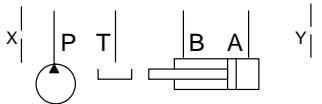
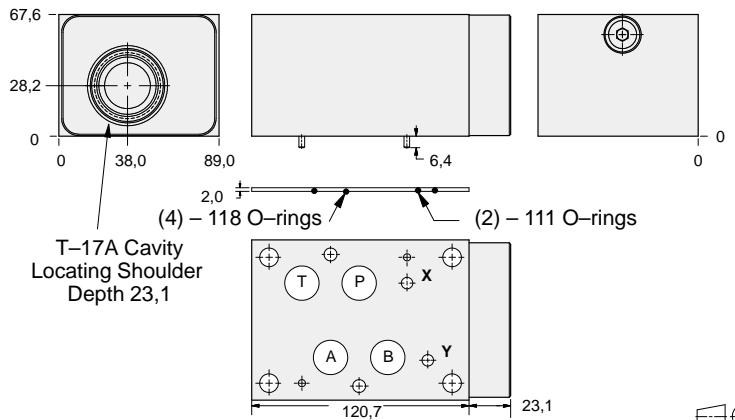
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On B
Pilot from A



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKB		BKB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CKGB Page 4.17		
OTHER VALVES:			

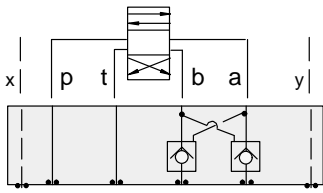


ISO 07 SANDWICH BODIES



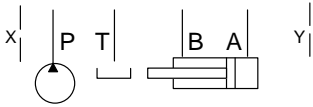
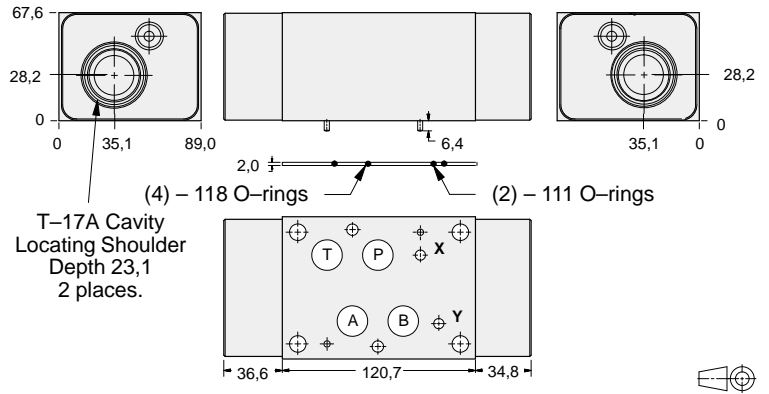
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On A and B
Cross-Piloted



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
BKY		BKY/S	

07 P.O. CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CKGB Page 4.17		
OTHER VALVES:			

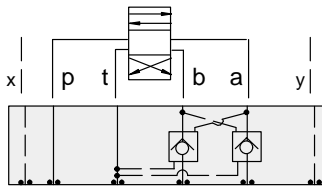


ISO 07 SANDWICH BODIES



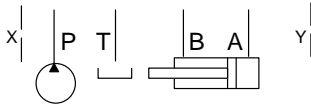
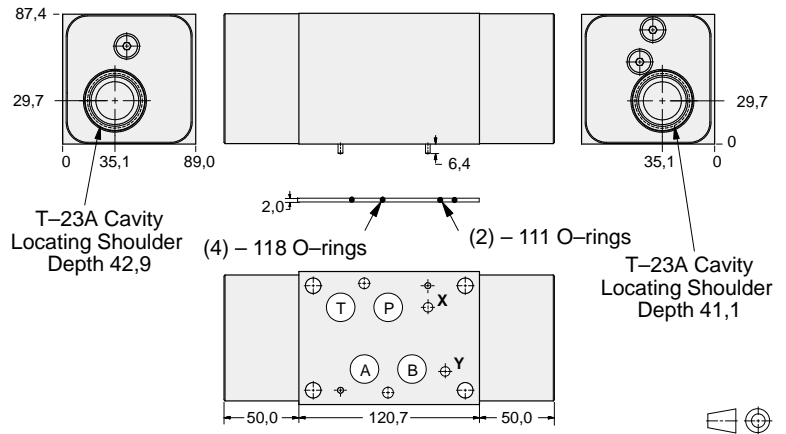
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
NKY		NKY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

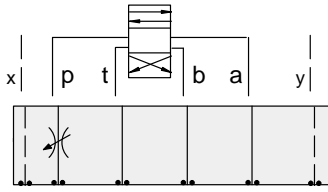
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVGV Page 4.23		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



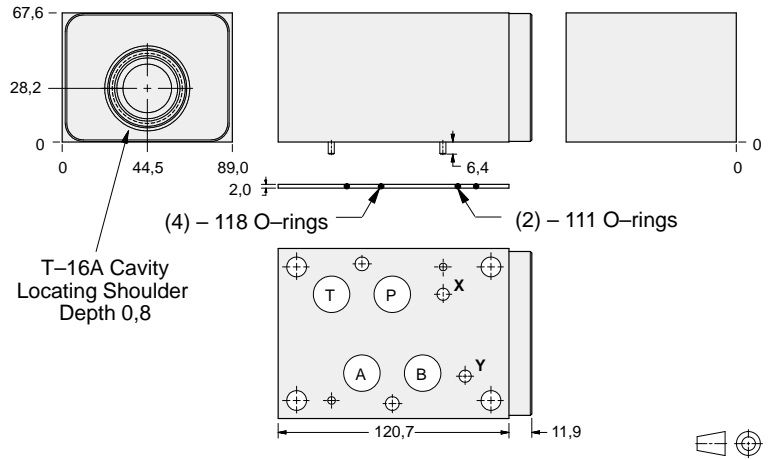
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



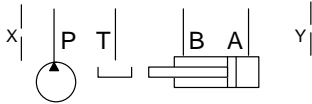
FUNCTION

Meter-In P

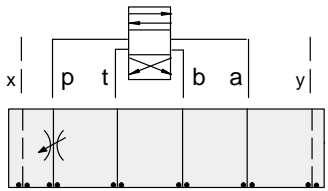
Flow Control Valves



T-16A Cavity Locating Shoulder Depth 0,8



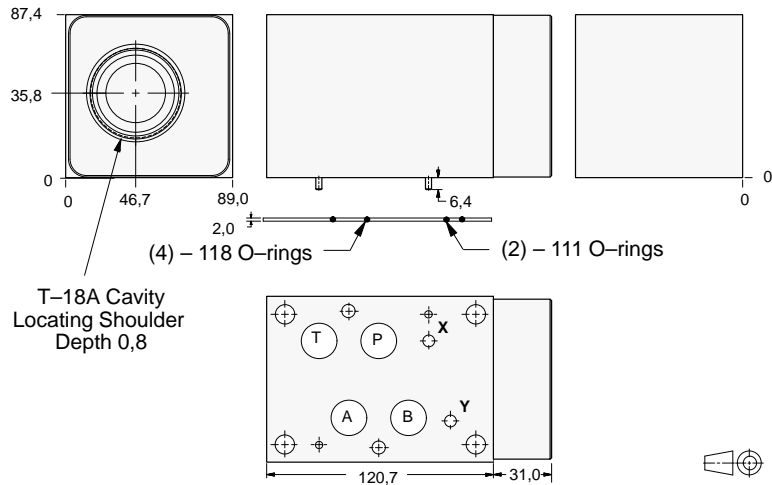
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKP		DKP/S	



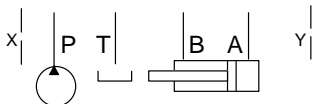
FUNCTION

Meter-In P
(High Capacity)

Flow Control Valves



T-18A Cavity Locating Shoulder Depth 0,8



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKO		DKO/S	

07 FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

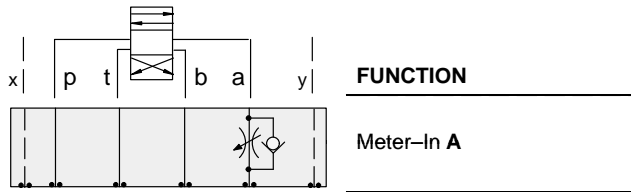
	Fully Adjustable Needle Valve		
	NF*C Page 5.13		
	Fixed Orifice, Pressure-Compensated Flow Control		
	FX*A Page 5.21		
OTHER VALVES:			



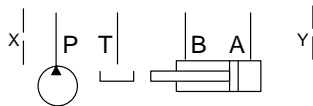
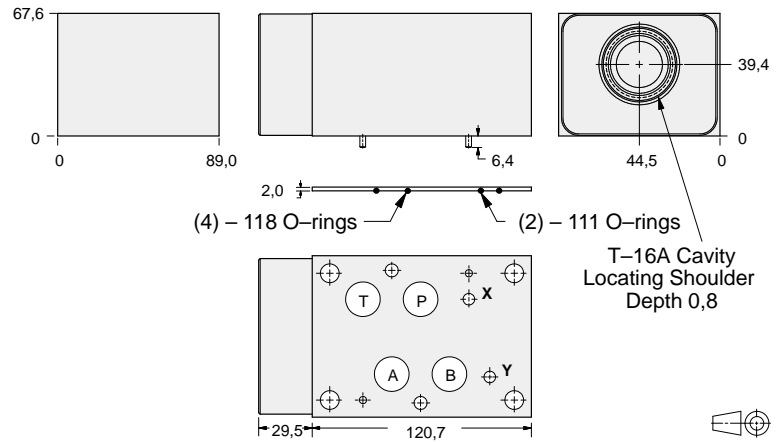
ISO 07 SANDWICH BODIES



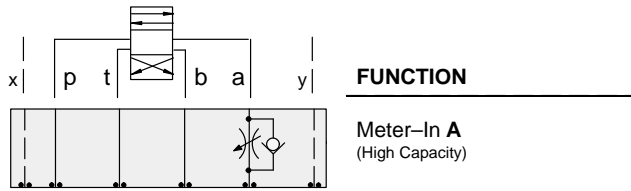
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



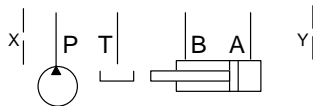
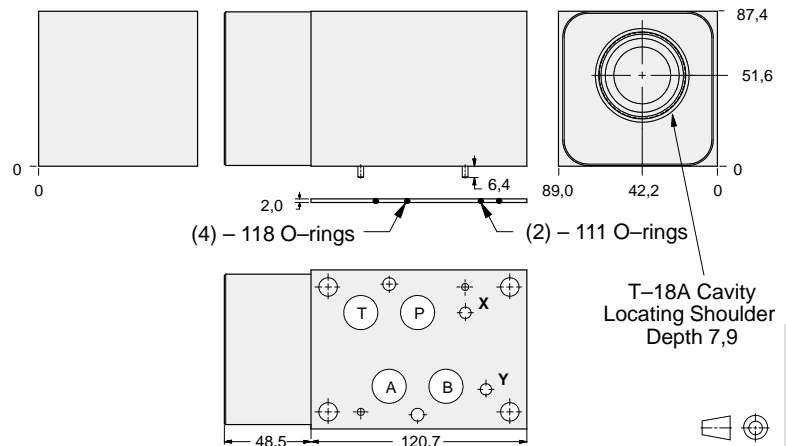
Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKC		DKC/S	



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKG		DKG/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

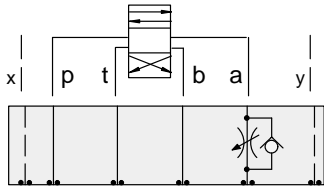
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



ISO 07 SANDWICH BODIES



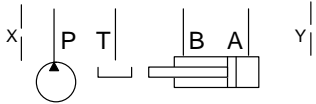
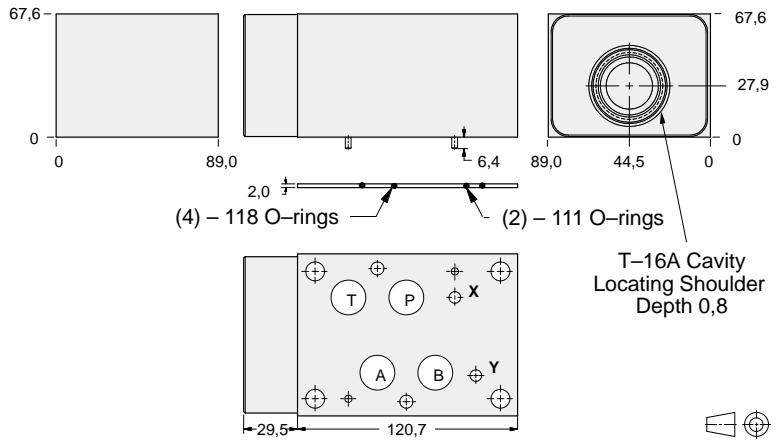
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



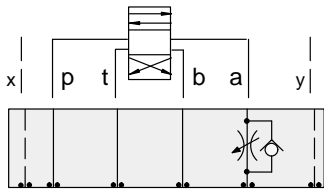
FUNCTION

Meter-Out A

Flow Control Valves



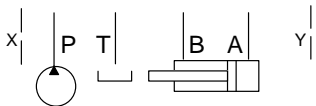
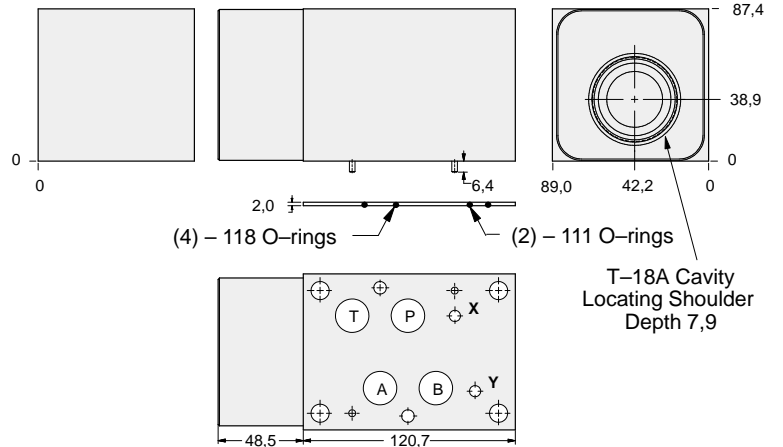
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKA		DKA/S	



FUNCTION

Meter-Out A
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKE		DKE/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		

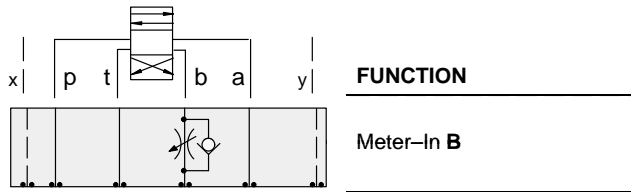
07 FLOW CONTROL



ISO 07 SANDWICH BODIES



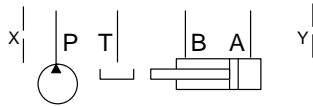
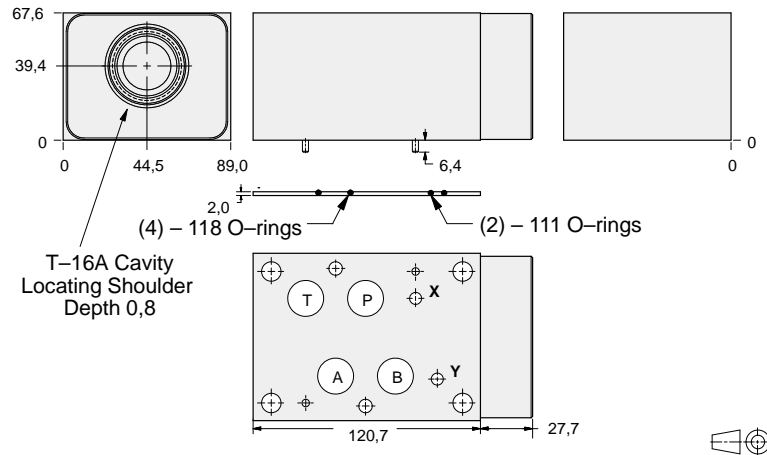
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



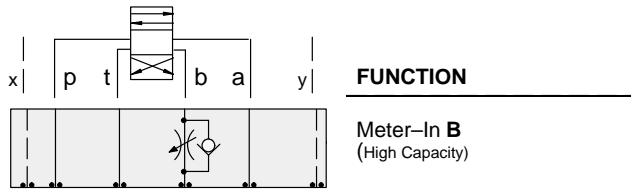
FUNCTION

Meter-In B

Flow Control Valves



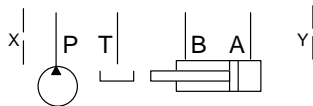
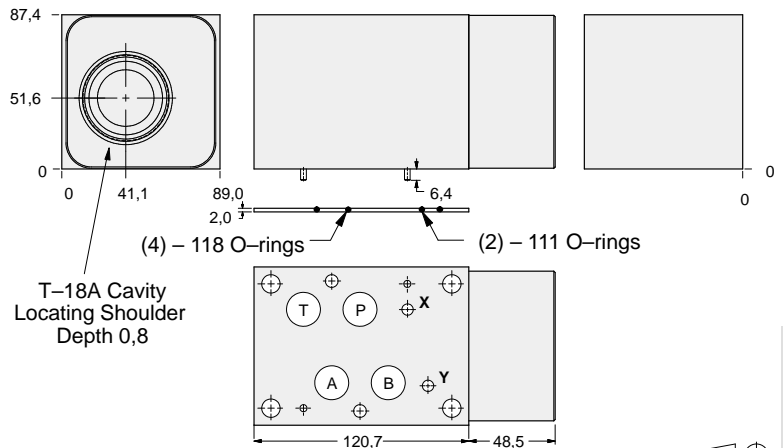
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKD		DKD/S	



FUNCTION

Meter-In B
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKI		DKI/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

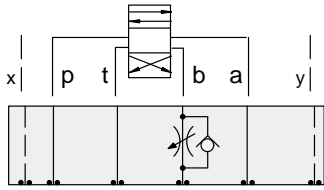
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



ISO 07 SANDWICH BODIES



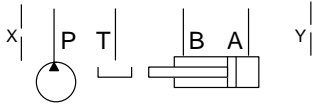
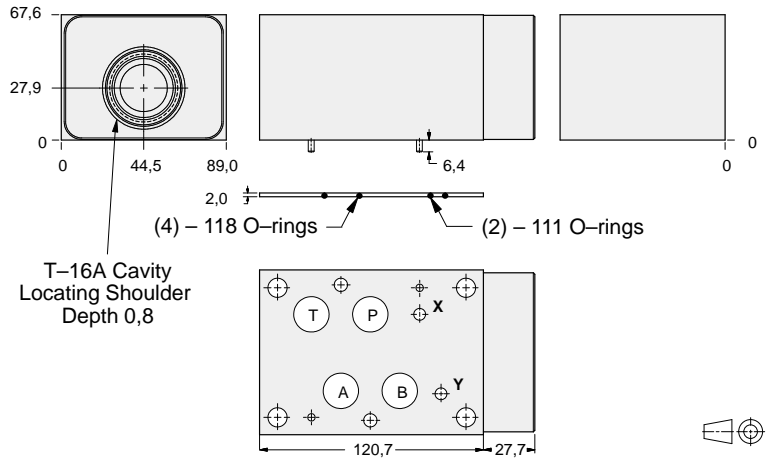
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



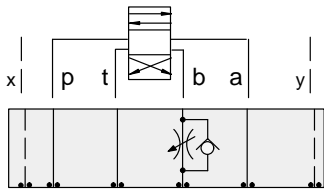
FUNCTION

Meter-Out B

Flow Control Valves



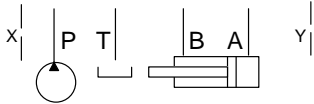
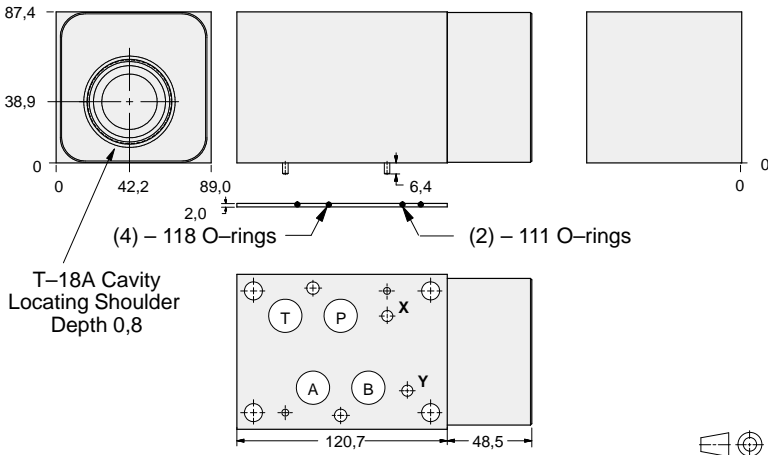
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKB		DKB/S	



FUNCTION

Meter-Out B
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKF		DKF/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

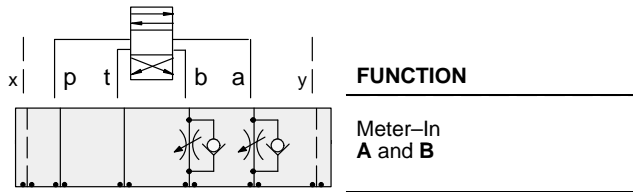
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



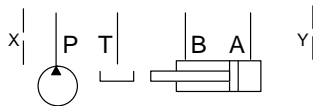
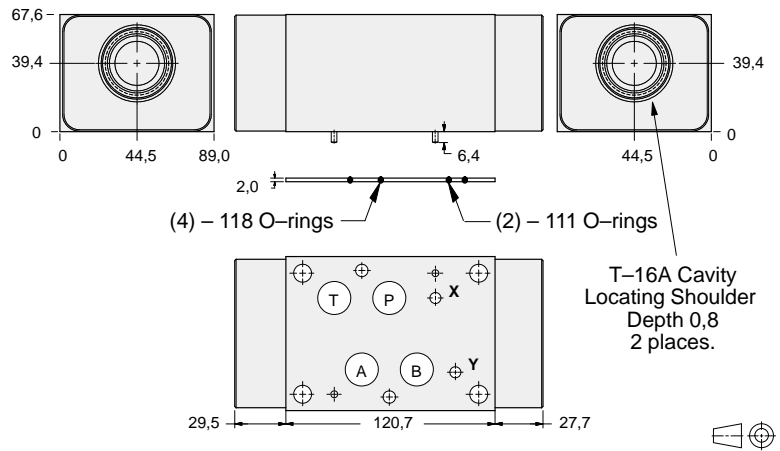
ISO 07 SANDWICH BODIES



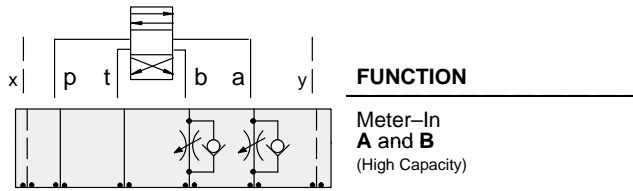
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



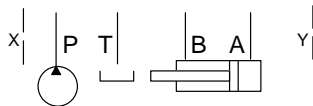
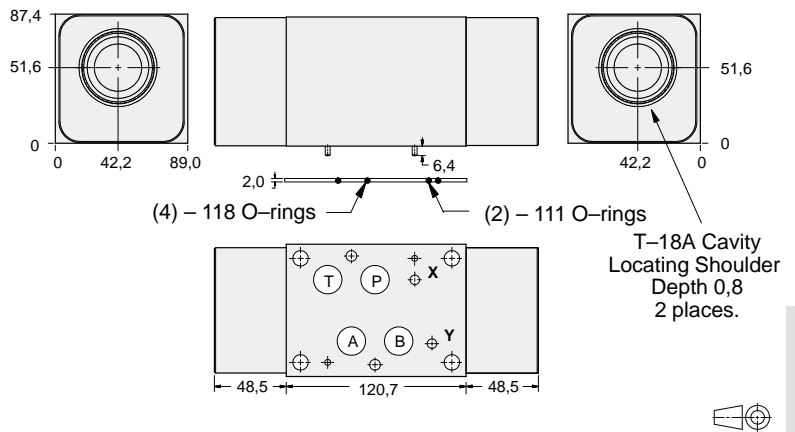
Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKZ		DKZ/S	



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKU		DKU/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

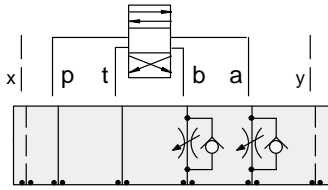
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CNGC, CNIC		



ISO 07 SANDWICH BODIES



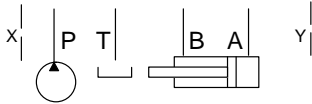
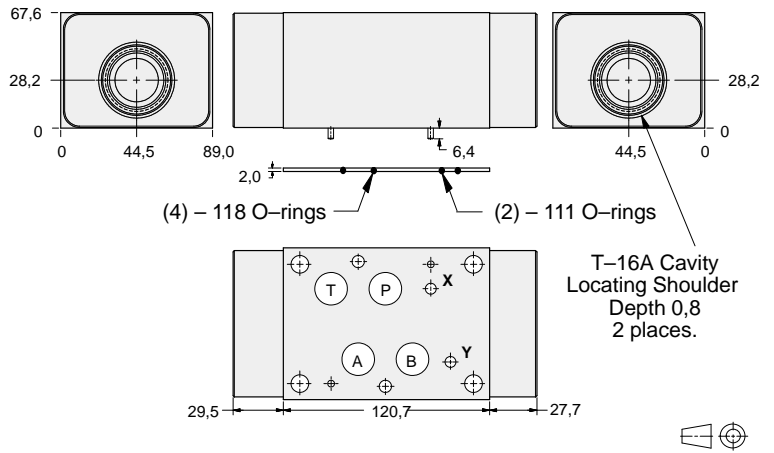
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Meter-Out
A and B

Flow Control Valves

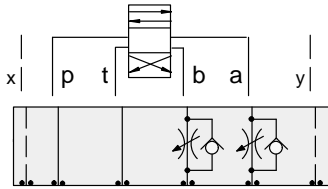


FUNCTION

Meter-Out
A and B
(High Capacity)

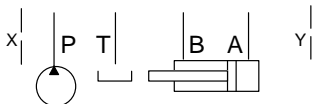
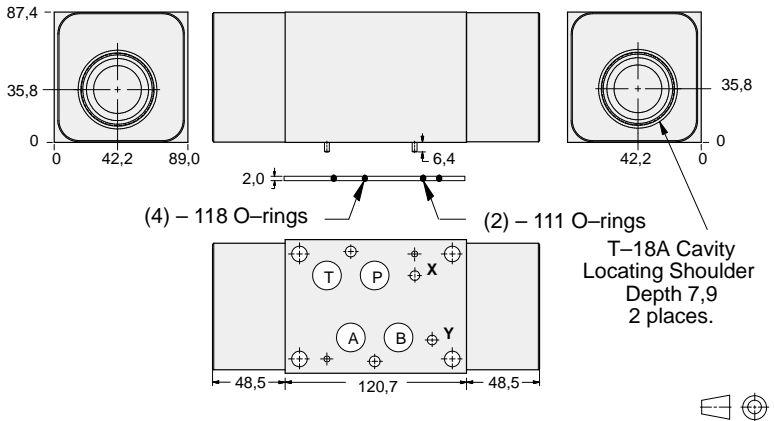
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKY		DKY/S	

Flow Control Valves



FUNCTION

Meter-Out
A and B
(High Capacity)



FUNCTION

Meter-Out
A and B
(High Capacity)

ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKW		DKW/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Flow Control Valves

FUNCTION

Meter-Out T

(4) - 118 O-rings (2) - 111 O-rings

T-16A Cavity Locating Shoulder Depth 0,8

39.4
44.5
0

ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKT		DKT/S	

Flow Control Valves

FUNCTION

Meter-Out T
(High Capacity)

(4) - 118 O-rings (2) - 111 O-rings

T-18A Cavity Locating Shoulder Depth 0,8

87.4
51.6
89.0
46.7
0

ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKV		DKV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve NF*C Page 5.13		Fixed Orifice, Pressure-Compensated Flow Control FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check NC*B Page 5.17		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow NC*C Page 5.19		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check FD*A Page 5.25
OTHER VALVES:	CN*C		

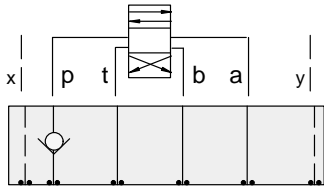
07 FLOW CONTROL



ISO 07 SANDWICH BODIES



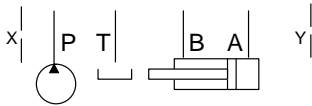
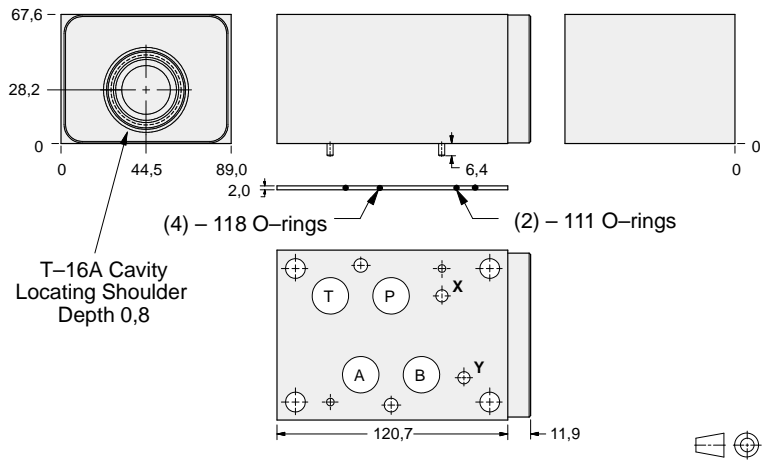
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On P

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKP		DKP/S	

07 CHECK

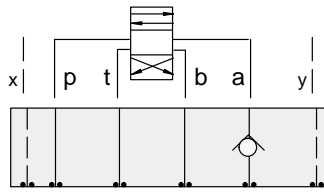
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



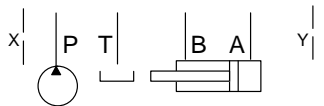
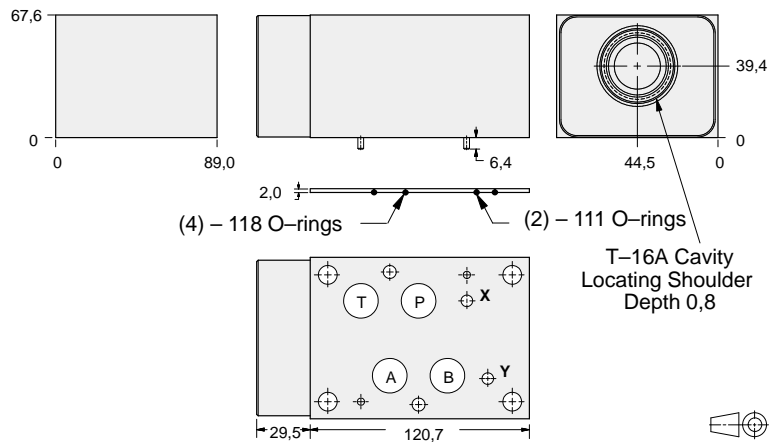
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



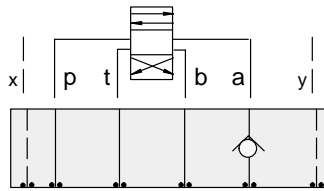
FUNCTION

On A
Free Flow Out
of Valve

Check Valves



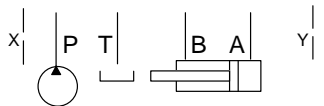
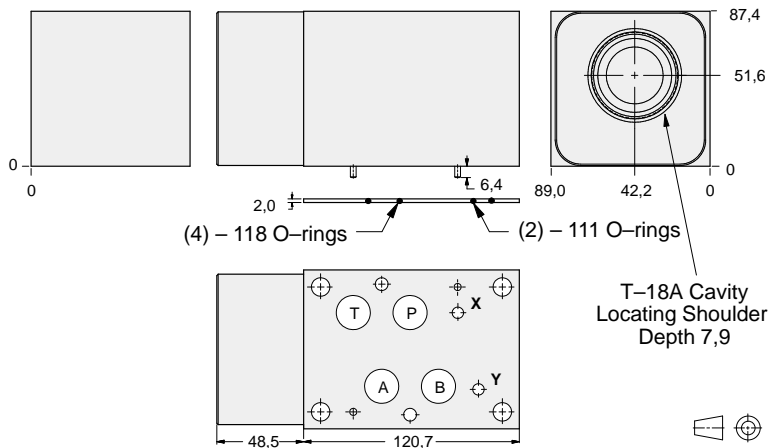
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKC		DKC/S	



FUNCTION

On A
Free Flow Out
of Valve (High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKG		DKG/S	

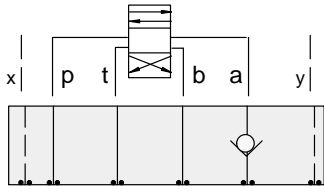
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



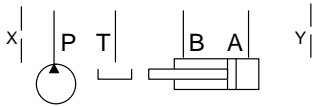
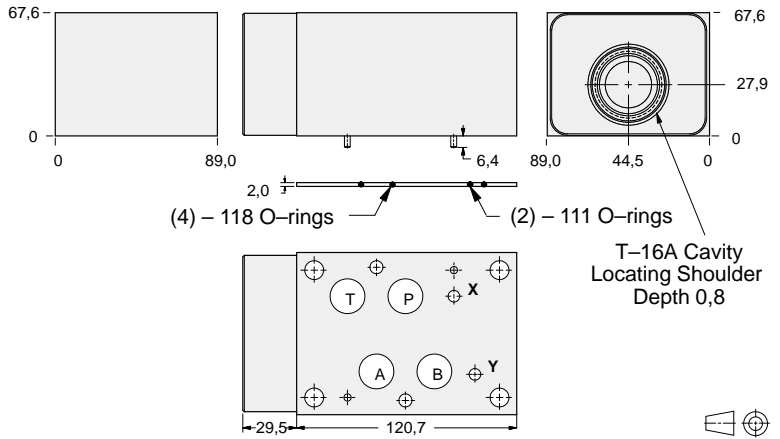
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



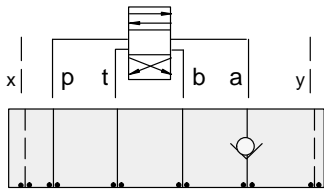
FUNCTION

On A
Free Flow Into Valve

Check Valves



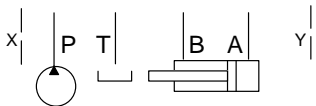
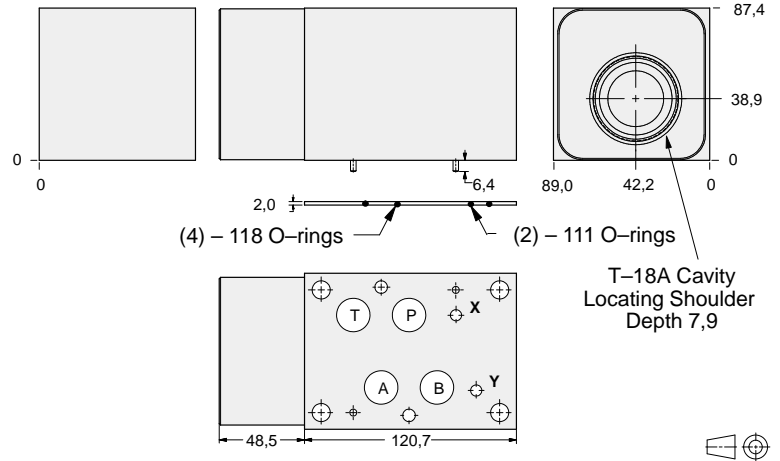
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
DKA		DKA/S	



FUNCTION

On A
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
DKE		DKE/S	

07 CHECK

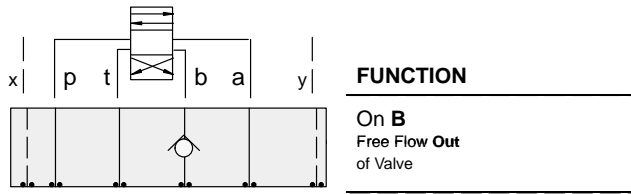
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



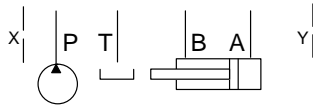
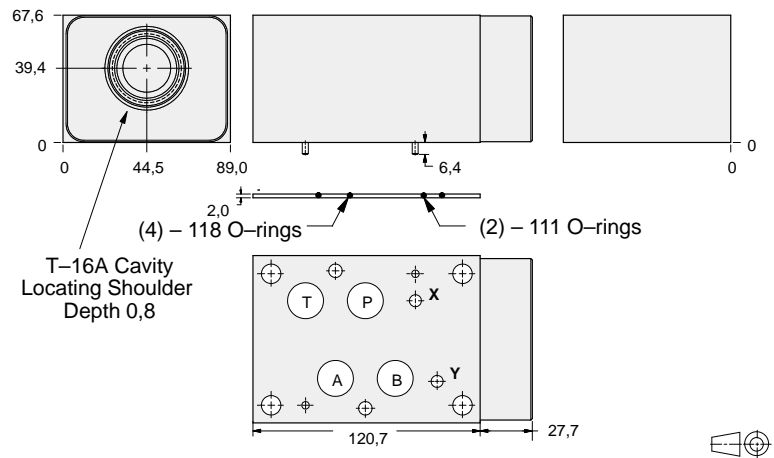
ISO 07 SANDWICH BODIES



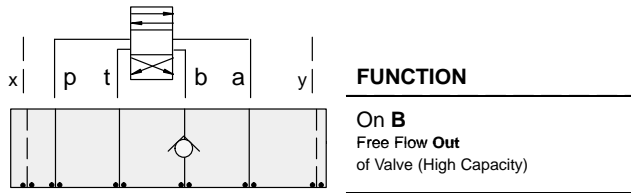
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



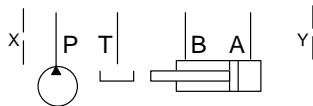
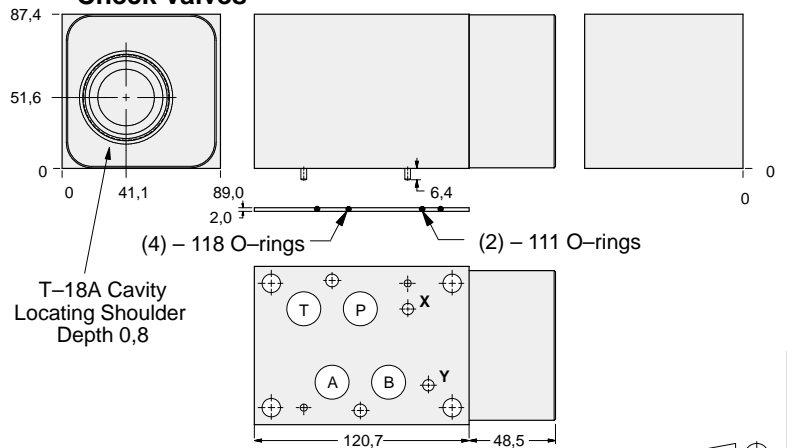
Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKD		DKD/S	



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKI		DKI/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

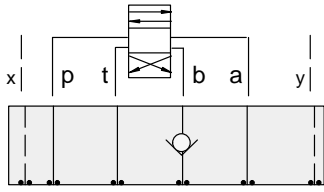
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



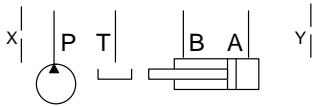
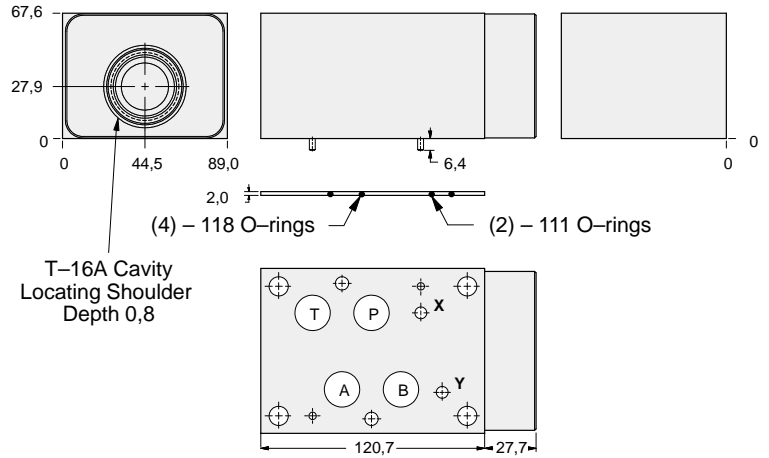
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



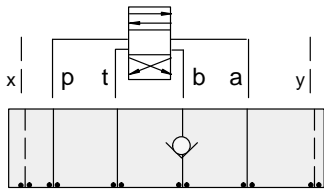
FUNCTION

On B
Free Flow Into Valve

Check Valves



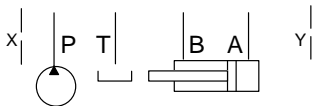
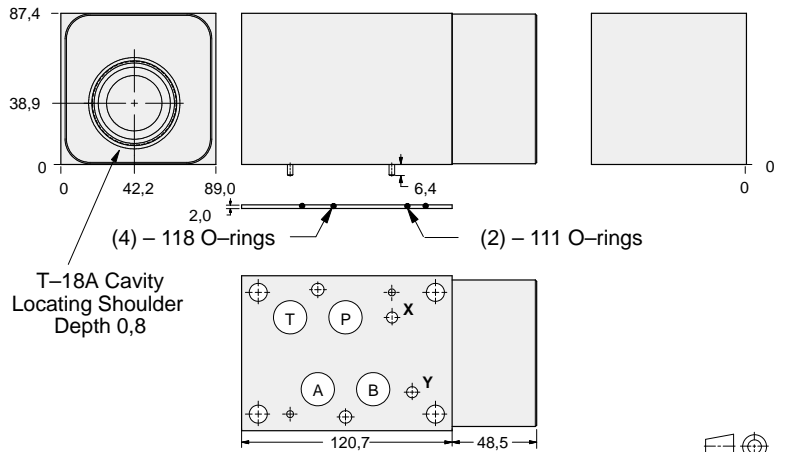
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
DKB		DKB/S	



FUNCTION

On B
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
DKF		DKF/S	

07 CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

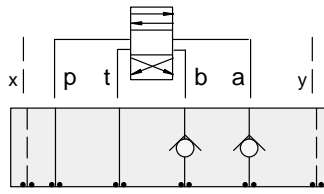
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



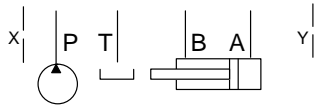
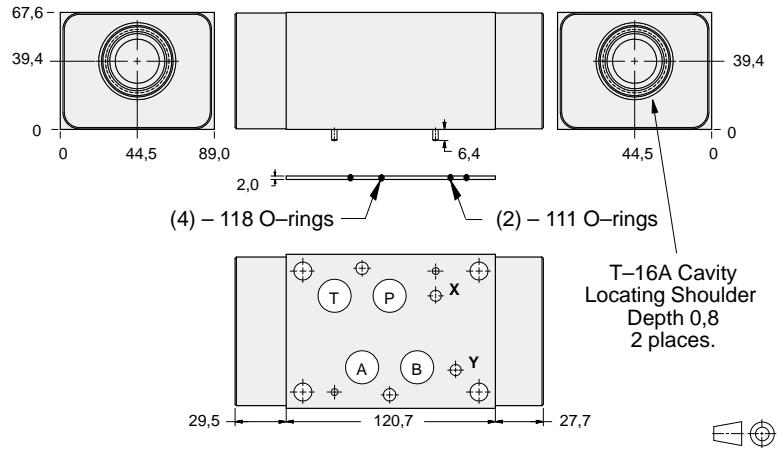
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



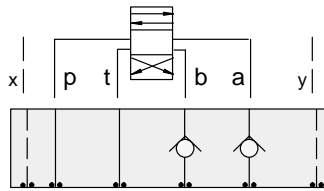
FUNCTION

On **A** and **B**
Free Flow Out
of Valve

Check Valves



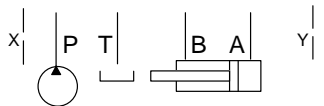
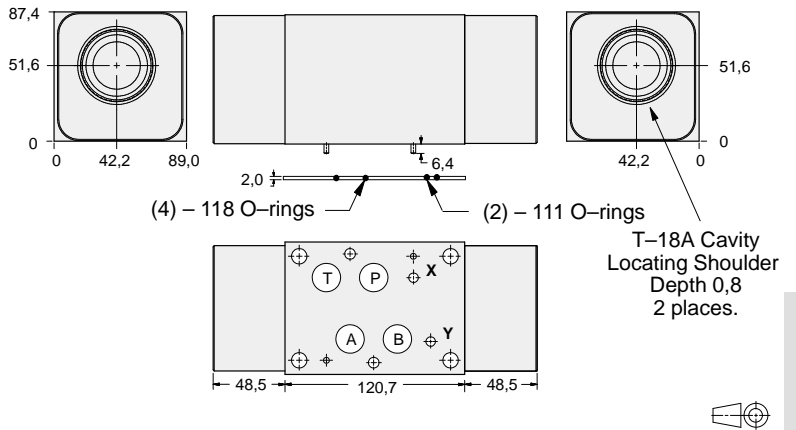
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKZ		DKZ/S	



FUNCTION

On **A** and **B**
Free Flow Out
of Valve (High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKU		DKU/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

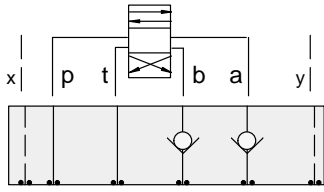
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



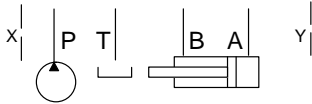
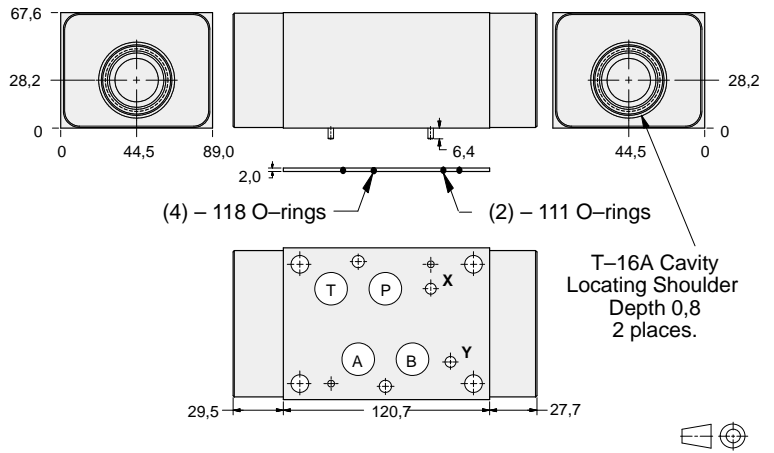
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



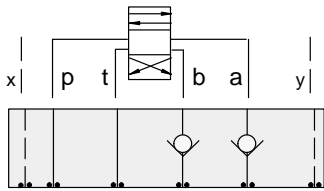
FUNCTION

On **A** and **B**
Free Flow Into Valve

Check Valves



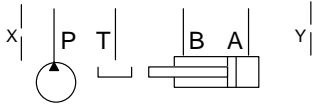
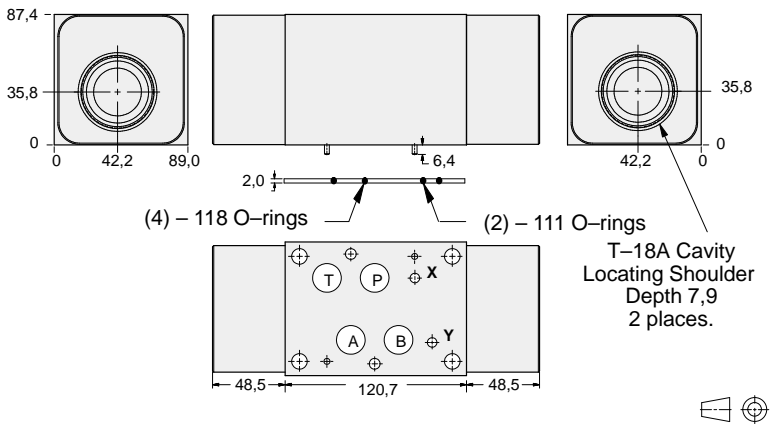
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKY		DKY/S	



FUNCTION

On **A** and **B**
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
DKW		DKW/S	

07 CHECK

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			

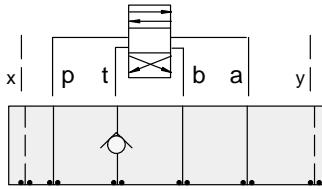


ISO 07 SANDWICH BODIES



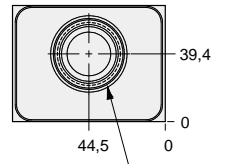
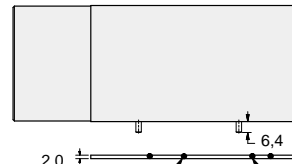
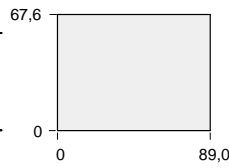
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Check Valves

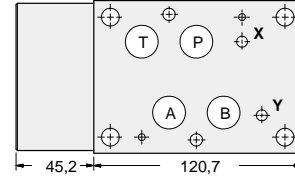


FUNCTION

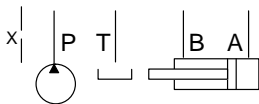
On T



(4) – 118 O-rings (2) – 111 O-rings



T-16A Cavity
Locating Shoulder
Depth 0,8



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKT		DKT/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

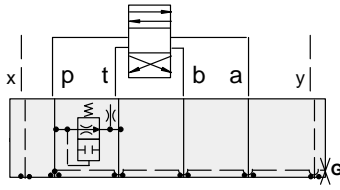
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CXHA Page 5.09		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



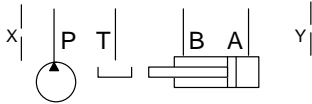
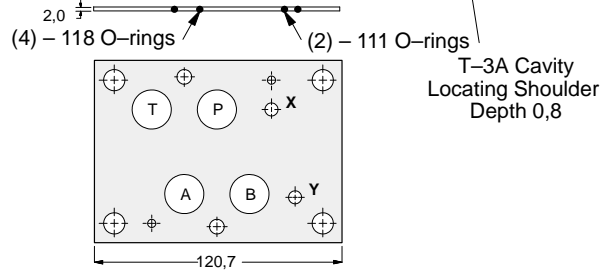
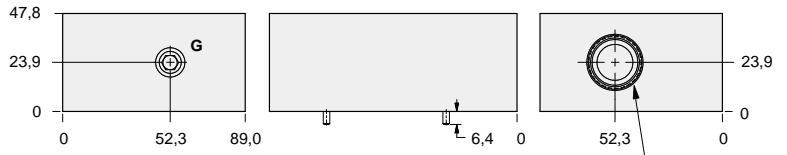
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Air-Bleed and Start-Up

Circuit Savers



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CKP		CKP/S	
.25 BSPP	CKP/M		CKP/T	

07 CIRCUIT SAVER

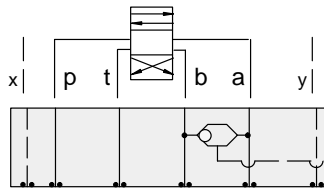
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Air Bleed and Start-up Valve		
	NQEB Page 10.16		
OTHER VALVES:			



ISO 07 SANDWICH BODIES



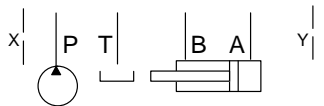
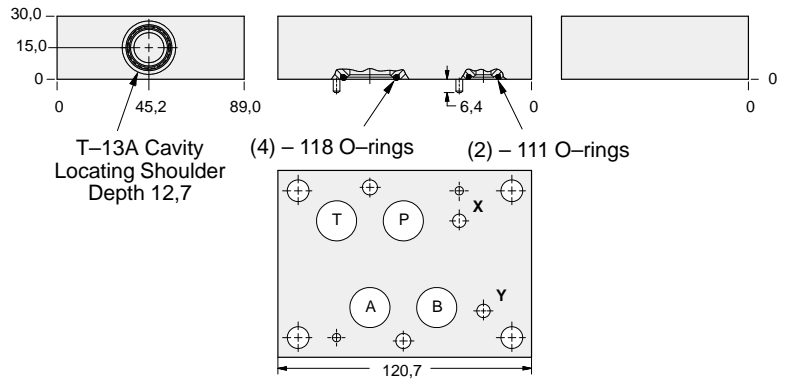
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



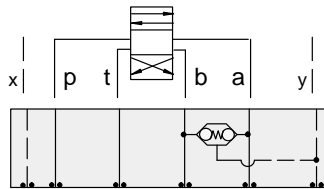
FUNCTION

Shuttle
A and B
Output External

Circuit Savers



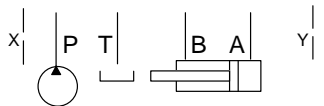
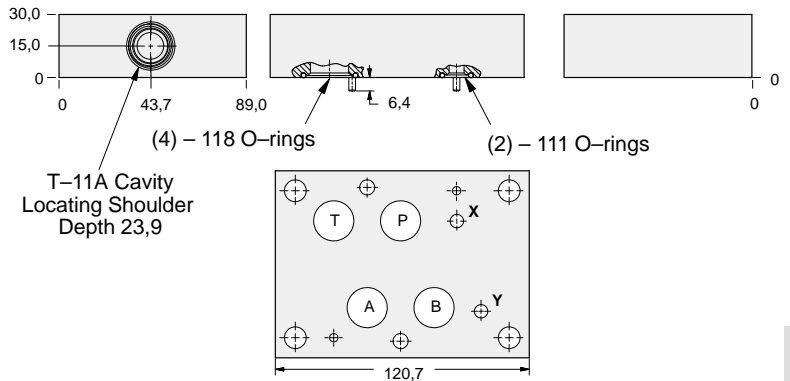
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
DKS		DKS/S	



FUNCTION

Checks from
A and B
Output to Y Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
BKS		BKS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	2 Port Shuttle Valve, Signal External		
	CSAA Page 10.09 (use with DKS)		
	3 Port Back-to-Back Check Valve, Signal at Port 3		
	CDAB Page 10.10 (use with BKS)		
OTHER VALVES:			

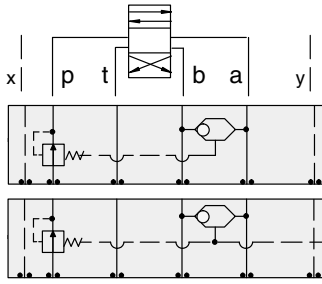
07 CIRCUIT SAVER



ISO 07 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

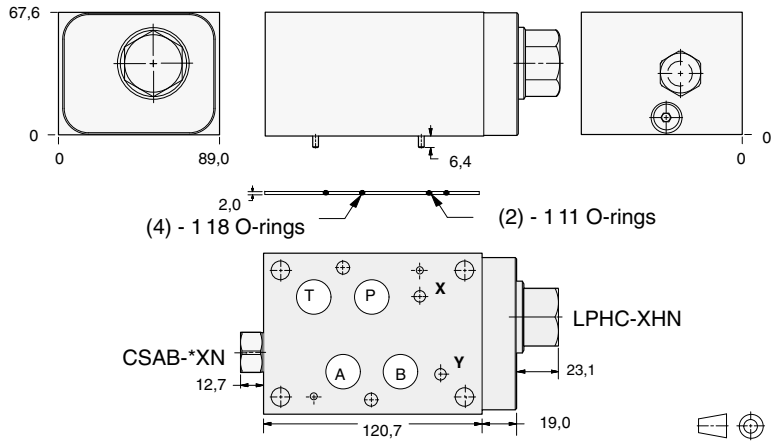


FUNCTION

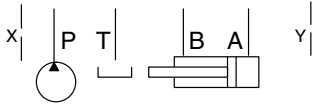
Pressure Compensator (Restrictive)

Pressure Compensator (Restrictive) w/Load-Sensing Port

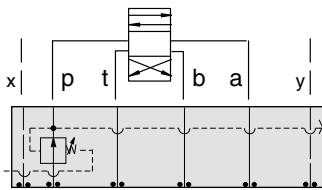
Circuit Savers



Shuttle Cartridge	External Shuttle Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
CSAB-XXN	None	YFFE-XHN-AB		YFFE-XHN-AB/S	
CSAB-AXN	SAE-4	YFFF-XHN-AB		YFFF-XHN-AB/S	
CSAB-BXN	.25 BSPP	YFFF-XHN-AB/M		YFFF-XHN-AB/T	

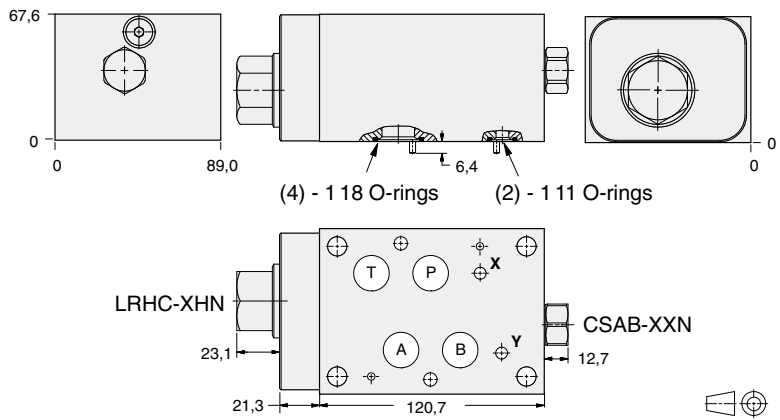


Circuit Savers

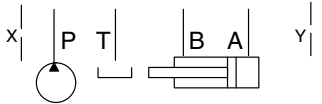


FUNCTION

Pressure Compensator (Bypass)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YFFG-XHN-AB		YFFG-XHN-AB/S	



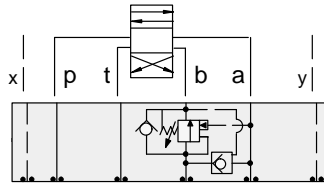
07 CIRCUIT SAVER



ISO 07 SANDWICH BODIES



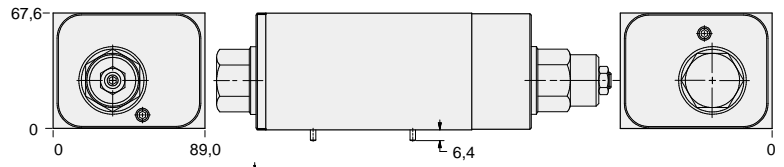
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



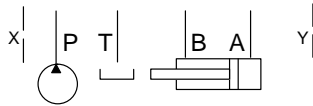
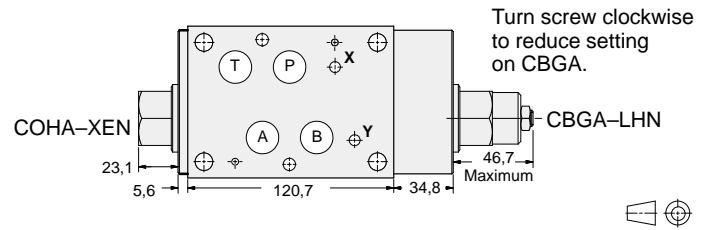
FUNCTION

B to A
Regenerative

Circuit Savers



(4) – 118 O-rings (2) – 111 O-rings



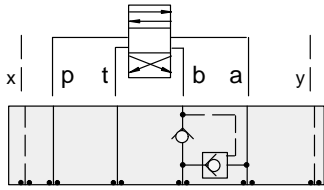
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDFG-LHN-AB		YDFG-LHN-AB/S	



ISO 07 SANDWICH BODIES



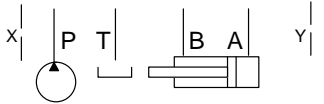
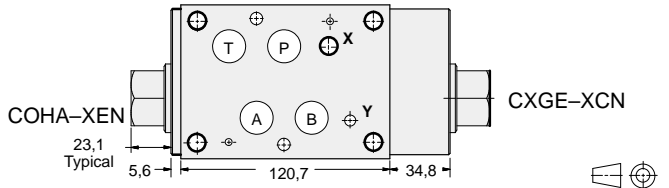
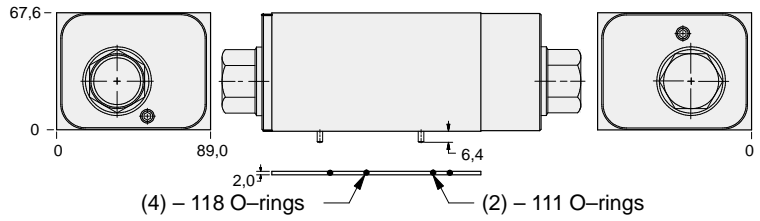
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



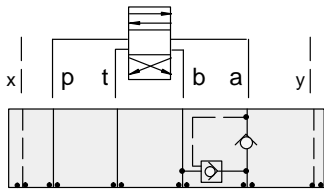
FUNCTION

**B to A
Regenerative
(Full Time)**

Circuit Savers



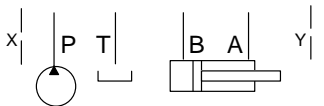
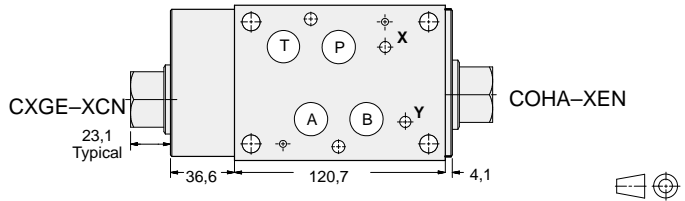
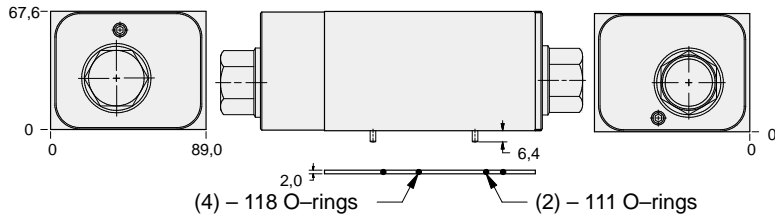
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
YDFH-XCN-AB		YDFH-XCN-AB/S	



FUNCTION

**A to B
Regenerative
(Full Time)**

Circuit Savers



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
YDFI-XCN-AB		YDFI-XCN-AB/S	

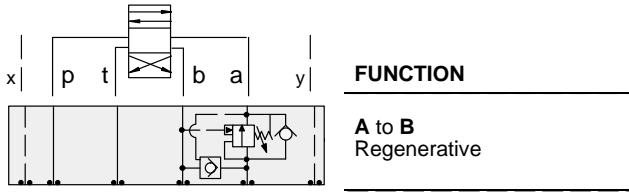
07 CIRCUIT SAVER



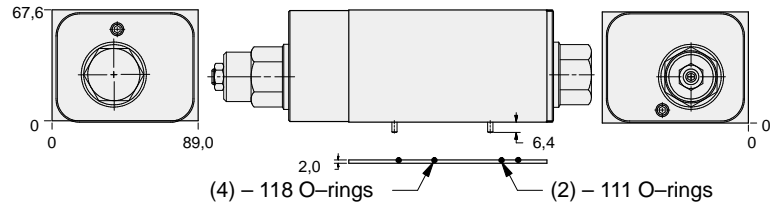
ISO 07 SANDWICH BODIES



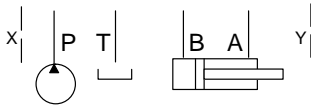
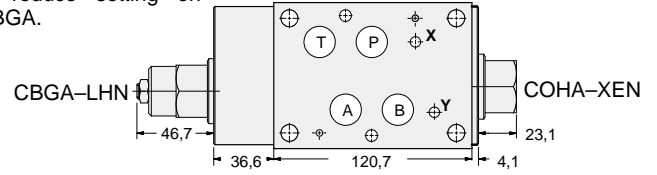
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Circuit Savers



Turn screw clockwise to reduce setting on CBGA.



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDFE-LHN-AB		YDFE-LHN-AB/S	





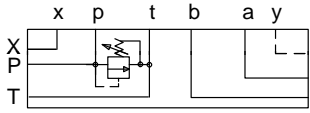
ISO 07 SANDWICH BODIES



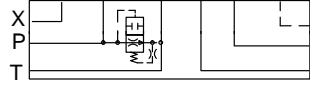
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates

FUNCTION



Y Relief P to T
A
B

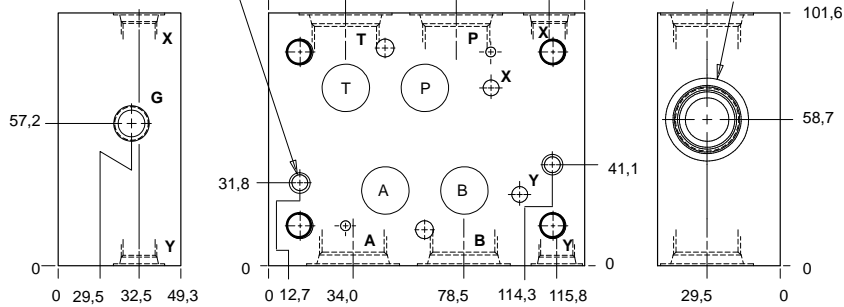


Y Air - B l e e d
A and Start-Up
B

Mounting Holes:
10,4 diameter through hole.
Counterbore 15,0 diameter
x 14,2 deep.
2 places.

T-3A Cavity
Locating Shoulder
Depth 4,1

6 Interface Bolt Holes
x 14,2 deep
Inch: (4)-.375-16 UNC
(2)-.250-20 UNC
Metric: (4)-M20 x 1.5
(2)-M6 x 1.0



Bolt Hole Interface	Gauge Port	Port P,T,A,B	Port X,Y	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	SAE-12	SAE-6	ZLX		ZLX/S	
Inch	.25 NPTF	.75 NPTF	.25 NFPT	ZLW		ZLW/S	
Metric	.25 BSPP	.75 BSPP	.25 BSPP	ZLZ		ZLZ/S	

07 SUBPLATE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

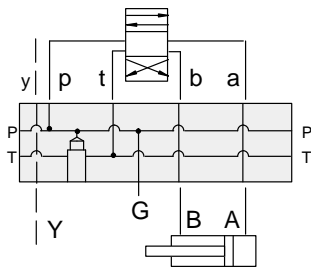
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPGC Page 1.06		RQGB Page 1.12
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RPGE Page 1.08		RPGD Page 1.14
	Direct Acting Relief Valve		Air Bleed and Start-up Valve
	RDFA Page 1.10		NQEB Page 10.16
OTHER VALVES:			



BAR MANIFOLDS



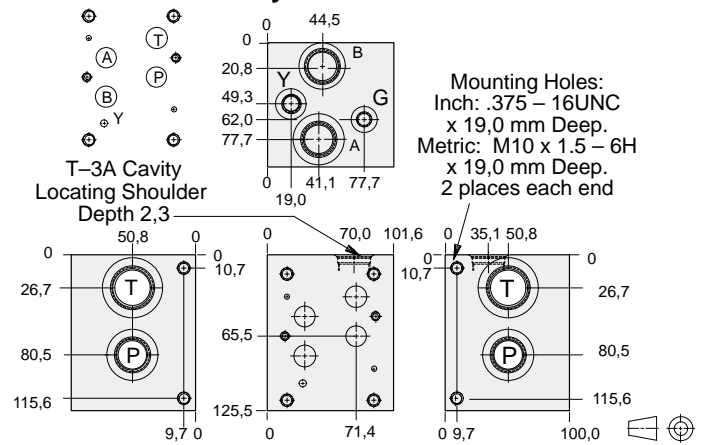
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



ISO 07 Parallel Circuit with Relief Cavity and Y Port

FUNCTION

 One Station



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VLA		VLA/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VLE		VLE/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VLJ		VLJ/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

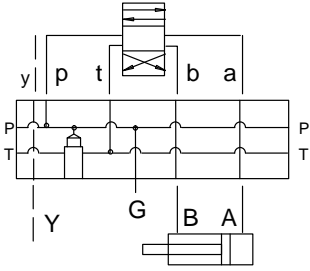


BAR MANIFOLDS



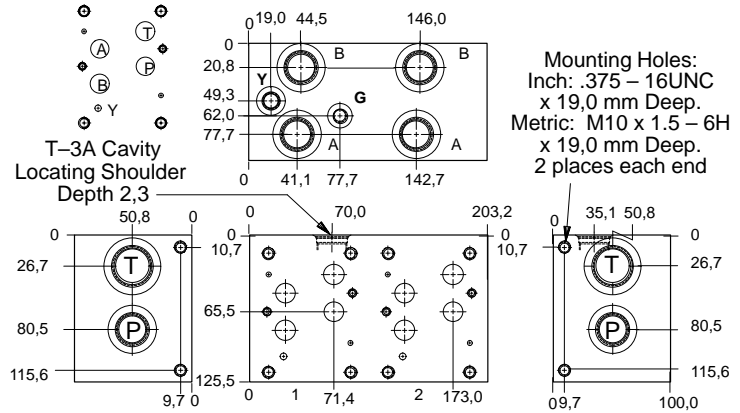
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 07 Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Two Station

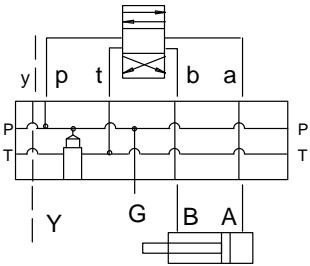


Mounting Holes:
Inch: .375 – 16UNC
x 19,0 mm Deep.
Metric: M10 x 1.5 – 6H
x 19,0 mm Deep.
2 places each end

Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VLB		VLB/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VLF		VLF/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VLK		VLK/S	

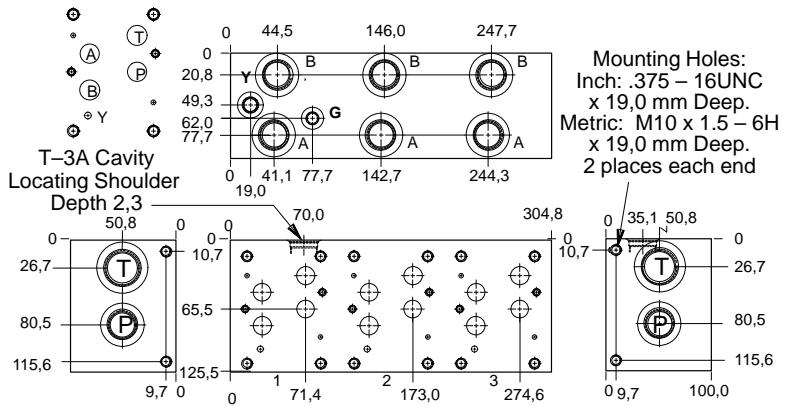
Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 07 Parallel Circuit with Relief Cavity and Y Port



FUNCTION

Three Station



Mounting Holes:
Inch: .375 – 16UNC
x 19,0 mm Deep.
Metric: M10 x 1.5 – 6H
x 19,0 mm Deep.
2 places each end

Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.00 NPTF	.75 NPTF	.25 NPTF	.25 NPTF	VLC		VLC/S	
inch	SAE-16	SAE-12	SAE-6	SAE-4	VLG		VLG/S	
metric	1.00 BSPP	.75 BSPP	.25 BSPP	.25 BSPP	VLL		VLL/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

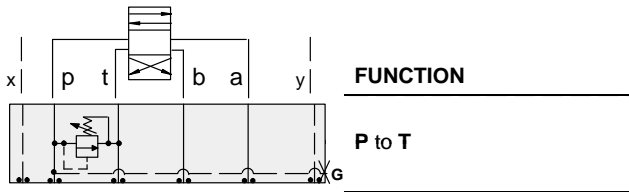
	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			



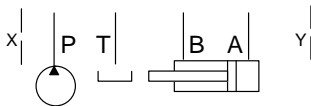
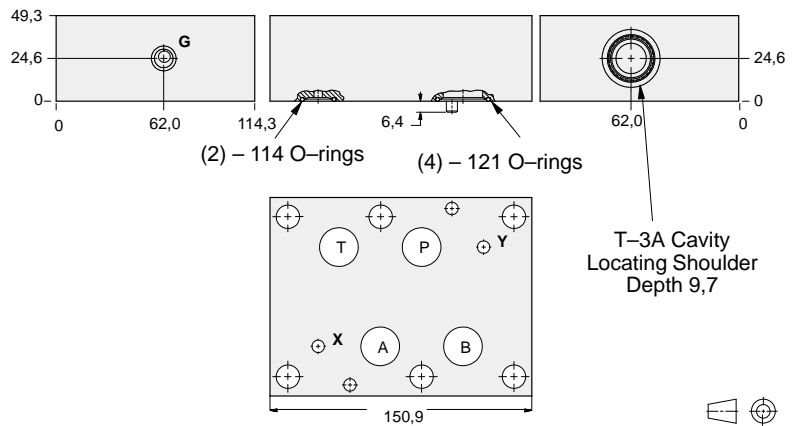
ISO 08 SANDWICH BODIES



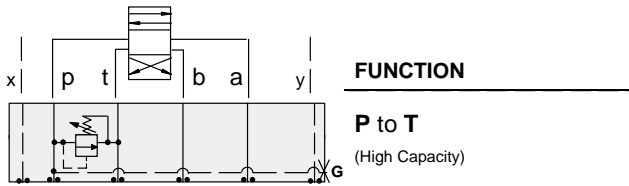
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



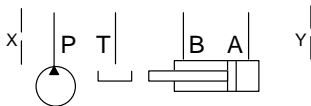
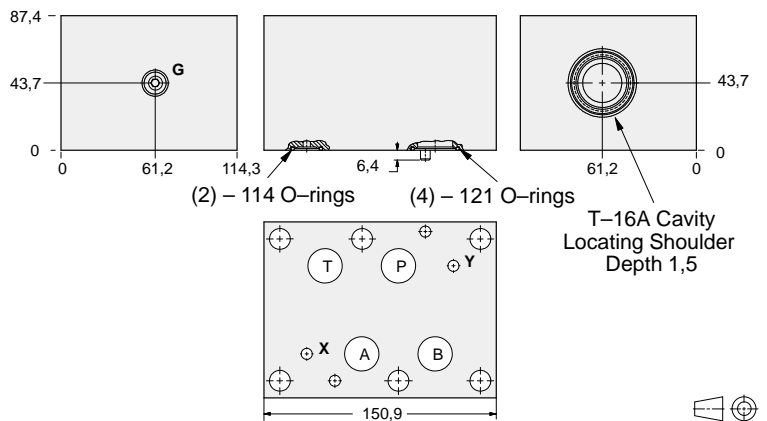
Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDP		CDP/S	
.25 BSPP	CDP/M		CDP/T	



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CDO		CDO/S	
.25 BSPP	CDO/M		CDO/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

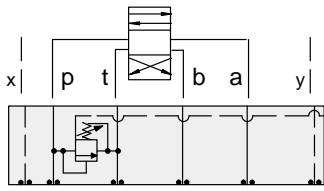
	Pilot Operated Relief Valve RP*C Page 1.06, 1.07		Pilot Operated "Kick-Down" Relief Valve RQ*B Page 1.12, 1.13
	Pilot Operated, Rapid Response Relief Valve RP*E Page 1.08, 1.09		Air Controlled, Pilot Operated Relief Valve RP*D Page 1.14, 1.15
	Direct Acting Relief Valve RD*A Page 1.10, 1.11		
	OTHER VALVES:		



ISO 08 SANDWICH BODIES



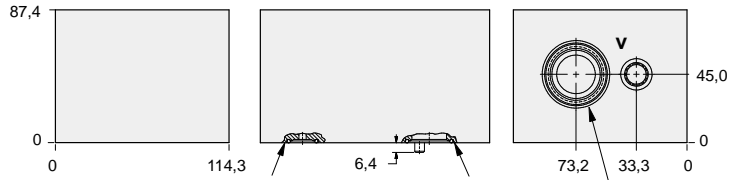
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



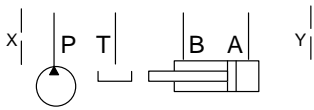
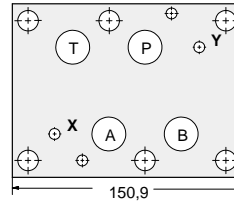
FUNCTION

P to T
Externally Vented

Relief Valves



(2) – 114 O-rings (4) – 121 O-rings
T-17A Cavity
Locating Shoulder
Depth 23,1



Vent Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	HBV		HBV/S	
.25 BSPP	HBV/M		HBV/T	

08 RELIEF

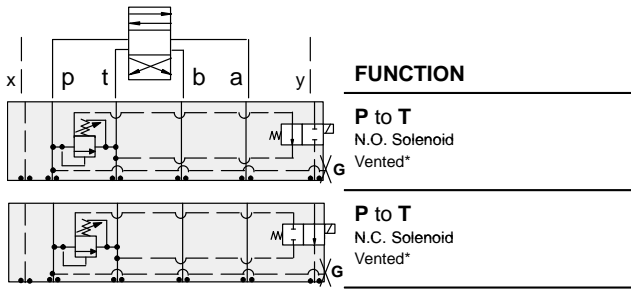
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Vented Relief Valve		
	RVGA Page 1.19		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

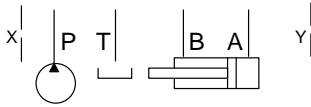
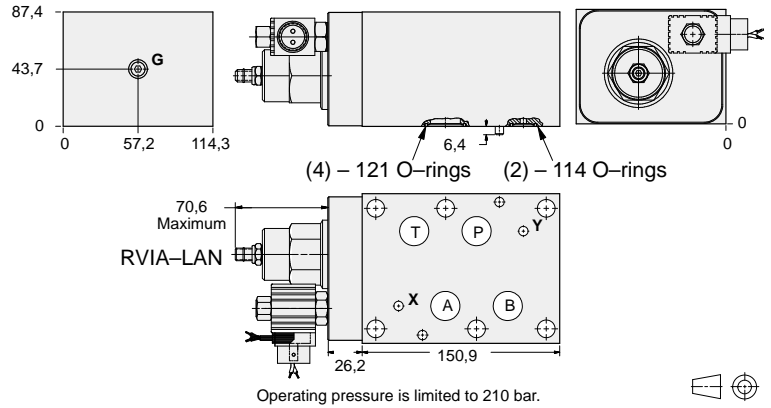


FUNCTION

P to T
N.O. Solenoid
Vented*

P to T
N.C. Solenoid
Vented*

Relief Valves



Solenoid Type	Gauge Port (Plugged)	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
N.O.	.25 NPTF	YRHI-LAN-*A		YRHI-LAN-*A/S	
N.O.	.25 BSPP	YRHI-LAN-*A/M		YRHI-LAN-*A/T	
N.C.	.25 NPTF	YRHJ-LAN-*A		YRHJ-LAN-*A/S	
N.C.	.25 BSPP	YRHJ-LAN-*A/M		YRHJ-LAN-*A/T	

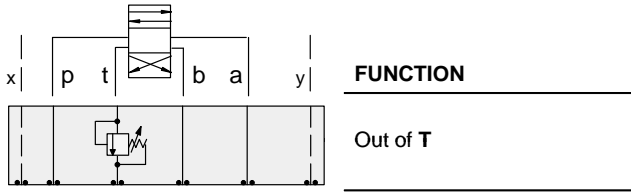
* Select solenoid connection/voltage option from page 14.16 and add option price to List Price.



ISO 08 SANDWICH BODIES



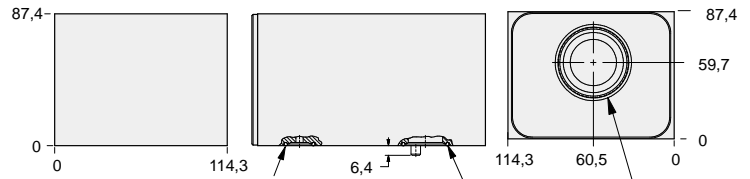
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

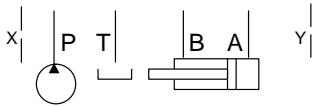
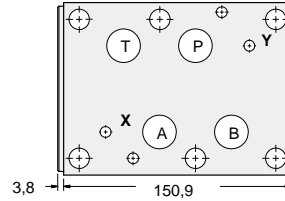
Out of T

Relief Valves

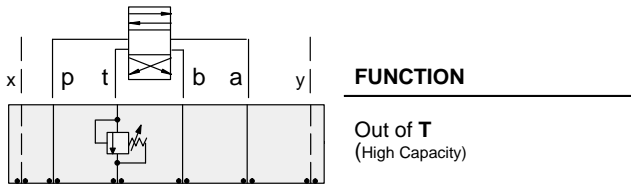


(2) -114 O-rings (4) -121 O-rings

T-16A Cavity Locating Shoulder Depth 1,5



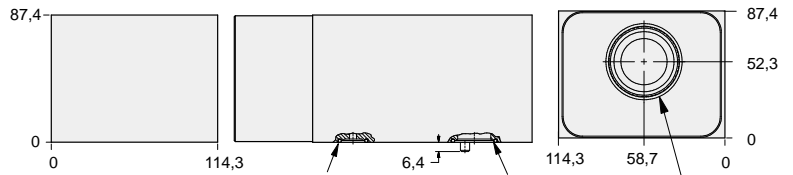
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBT		IBT/S	



FUNCTION

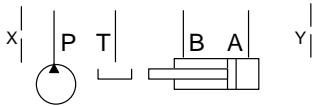
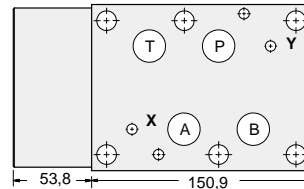
Out of T
(High Capacity)

Relief Valves



(2) -114 O-rings (4) -121 O-rings

T-18A Cavity Locating Shoulder Depth 0,8



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBV		IBV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

 2 1	Pilot Operated Relief Valve	 2 1	Pilot Operated "Kick-Down" Relief Valve
	RP*C Page 1.07		RQ*B Page 1.13
 2 1	Pilot Operated, Rapid Response Relief Valve	 Air Pilot 2 1	Air Controlled, Pilot Operated Relief Valve
	RP*E Page 1.09		RP*D Page 1.15
 2 1	Direct Acting Relief Valve		
	RD*A Page 1.11		
OTHER VALVES:			

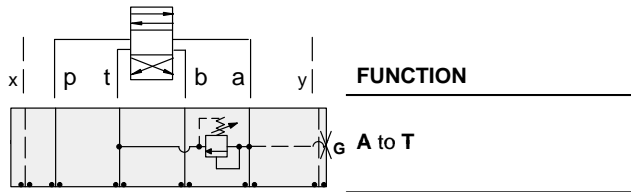
08 RELIEF



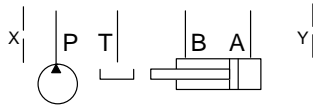
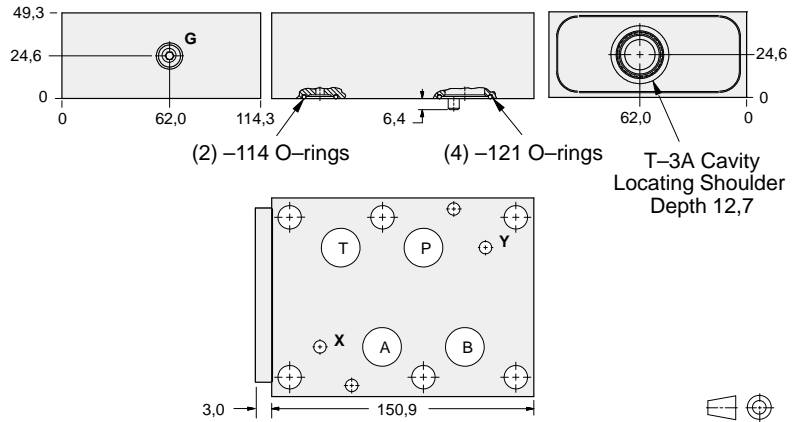
ISO 08 SANDWICH BODIES



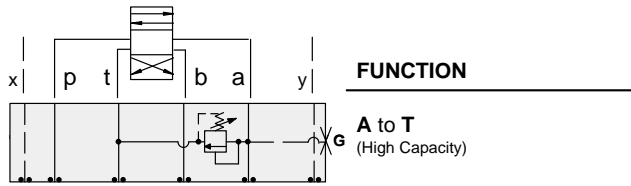
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



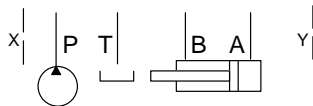
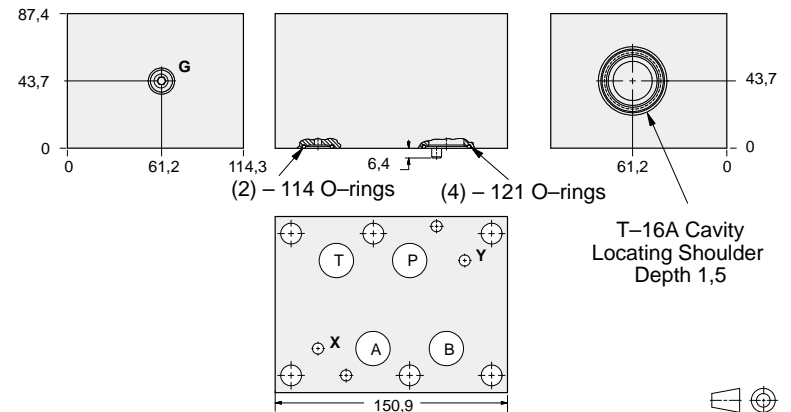
Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDA		CDA/S	
.25 BSPP	CDA/M		CDA/T	



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CDC		CDC/S	
.25 BSPP	CDC/M		CDC/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

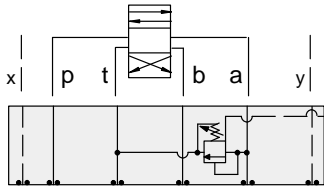
	<i>Pilot Operated Relief Valve</i>		<i>Pilot Operated "Kick-Down" Relief Valve</i>
	RP*C Page 1.06, 1.07		RQ*B Page 1.12, 1.13
	<i>Pilot Operated, Rapid Response Relief Valve</i>		<i>Air Controlled, Pilot Operated Relief Valve</i>
	RP*E Page 1.08, 1.09		RP*D Page 1.14, 1.15
	<i>Direct Acting Relief Valve</i>		
	RD*A Page 1.10, 1.11		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



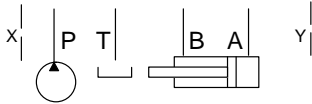
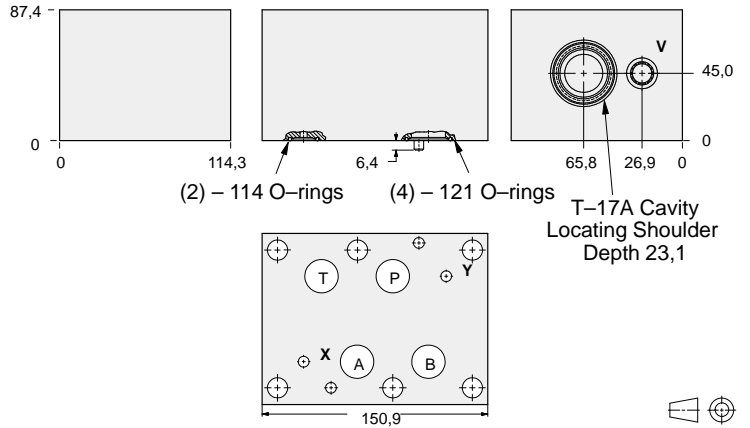
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



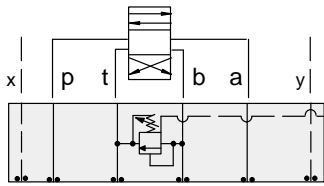
FUNCTION

A to T
Externally Vented

Relief Valves



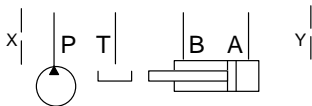
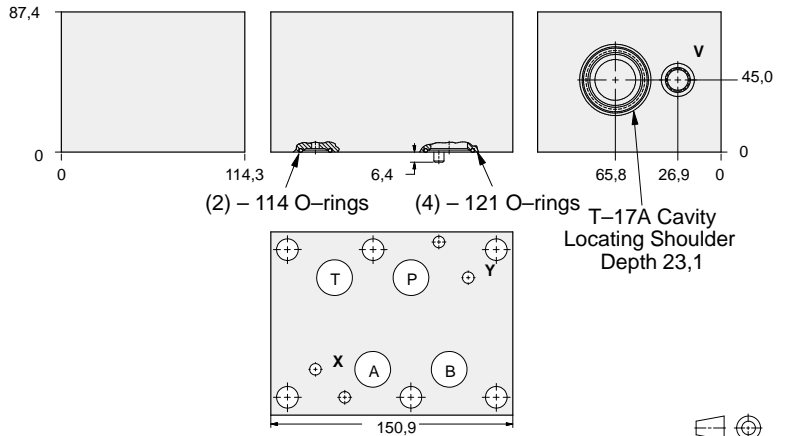
Vent Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
SAE-6	HBE		HBE/S	
.25 BSPP	HBE/M		HBE/T	



FUNCTION

B to T
Externally Vented

Relief Valves



Vent Port	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
SAE-6	HBF		HBF/S	
.25 BSPP	HBF/M		HBF/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

Cartridge Diagram	Cartridge Name	Material	Part Number	List Price
	Pilot Operated Vented Relief Valve			
	RVGA Page 1.19			
OTHER VALVES:				

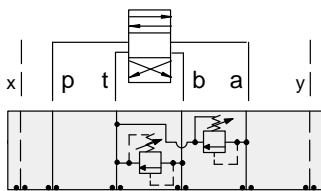
08 RELIEF



ISO 08 SANDWICH BODIES



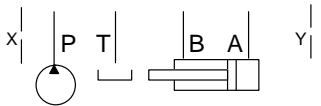
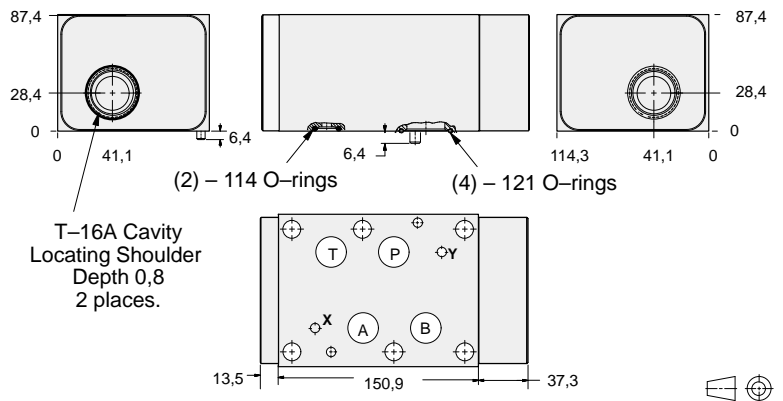
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

A and B to T
(High Capacity)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CDZ		CDZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RPIC Page 1.07		RQIB Page 1.13
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RPIE Page 1.09		RPID Page 1.15
	Direct Acting Relief Valve		
	RDHA Page 1.11		
OTHER VALVES:			

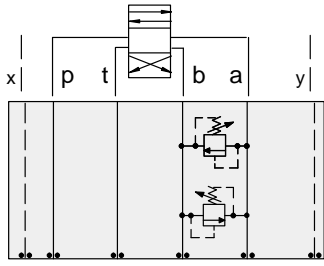
08 RELIEF



ISO 08 SANDWICH BODIES



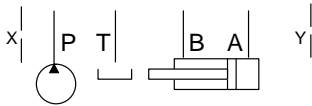
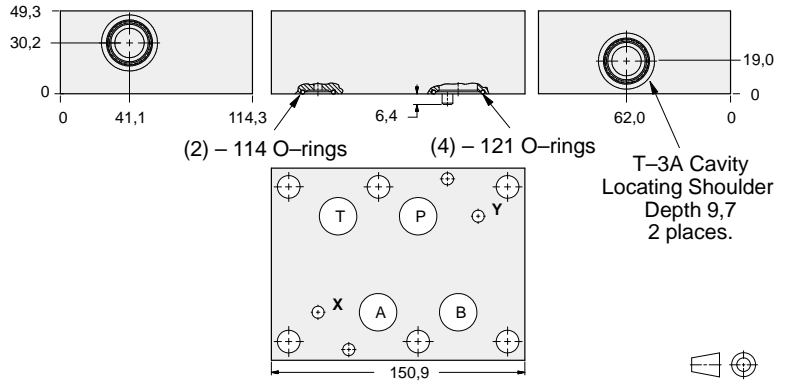
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



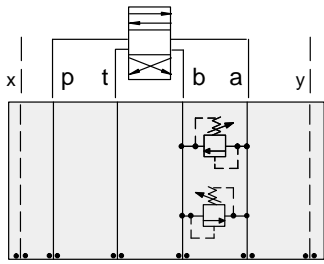
FUNCTION

A to B and B to A
(Cross Port)

Relief Valves



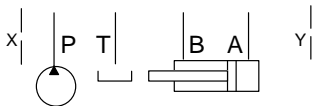
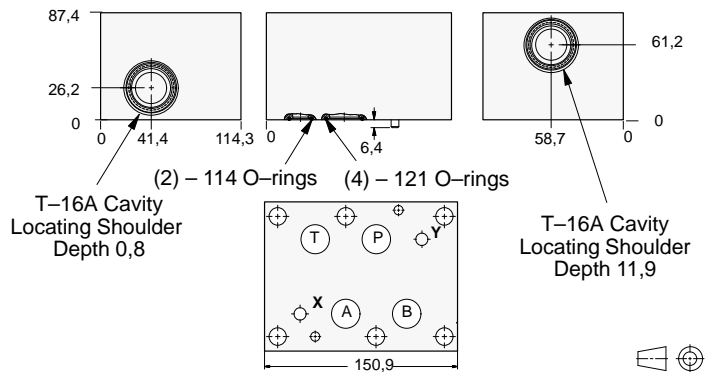
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CDY		CDY/S	



FUNCTION

A to B and B to A
(High Capacity)
(Cross Port)

Relief Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CDW		CDW/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RP*C Page 1.06, 1.07		RQ*B Page 1.12, 1.13
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RP*E Page 1.08, 1.09		RP*D Page 1.14, 1.15
	Direct Acting Relief Valve		
	RD*A Page 1.10, 1.11		
OTHER VALVES:			

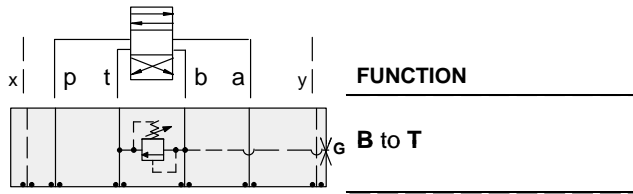
08 RELIEF



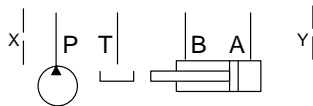
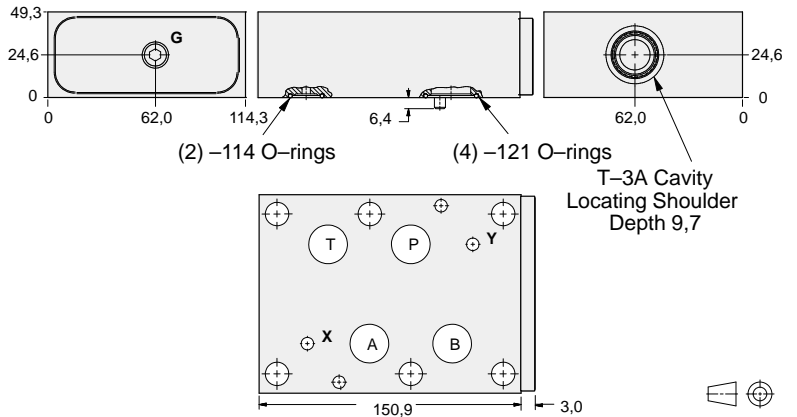
ISO 08 SANDWICH BODIES



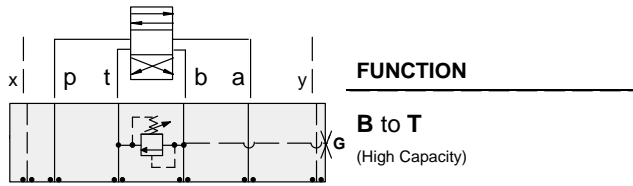
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



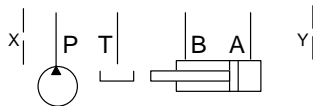
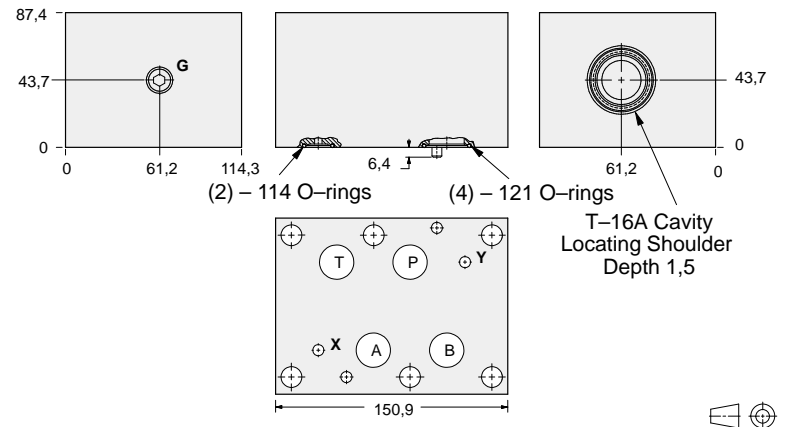
Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDB		CDB/S	
.25 BSPP	CDB/M		CDB/T	



Relief Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CDD		CDD/S	
.25 BSPP	CDD/M		CDD/T	

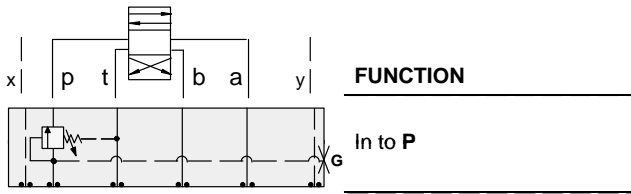
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Relief Valve		Pilot Operated "Kick-Down" Relief Valve
	RP*C Page 1.06, 1.07		RQ*B Page 1.12, 1.13
	Pilot Operated, Rapid Response Relief Valve		Air Controlled, Pilot Operated Relief Valve
	RP*E Page 1.08, 1.09		RP*D Page 1.14, 1.15
	Direct Acting Relief Valve		
	RD*A Page 1.10, 1.11		
OTHER VALVES:			



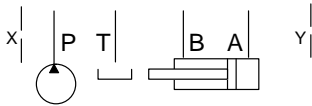
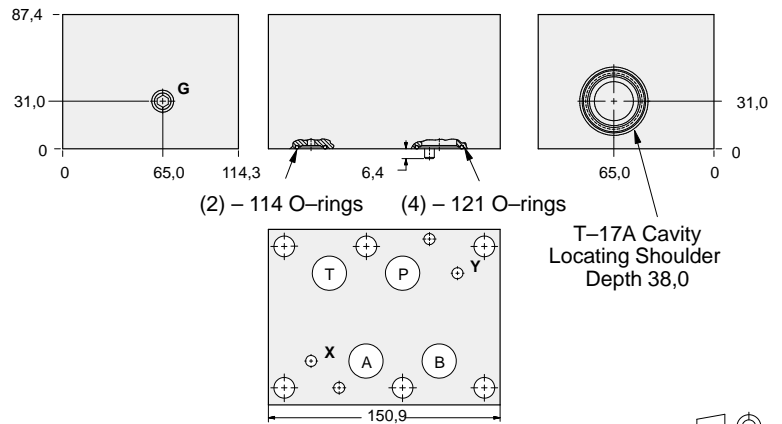
ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HBW		HBW/S	
.25 BSPP	HBW/M		HBW/T	

08 SEQUENCE

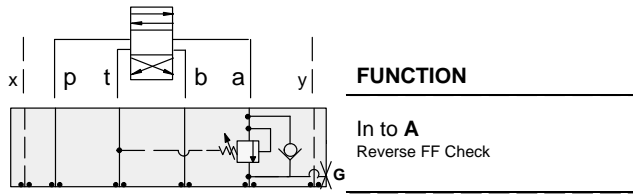
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Sequence Valve</i>		<i>Direct Acting Sequence Valve with Reverse Free Flow Check</i>
	RSHC Page 2.07		SCGA Page 2.13
	<i>Pilot Operated "Kick-Down" Sequence Valve</i>		
	SQHB Page 2.09		
	<i>Air Controlled, Pilot Operated Sequence Valve</i>		
	RSHE Page 2.11		
OTHER VALVES:			



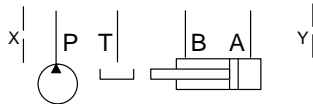
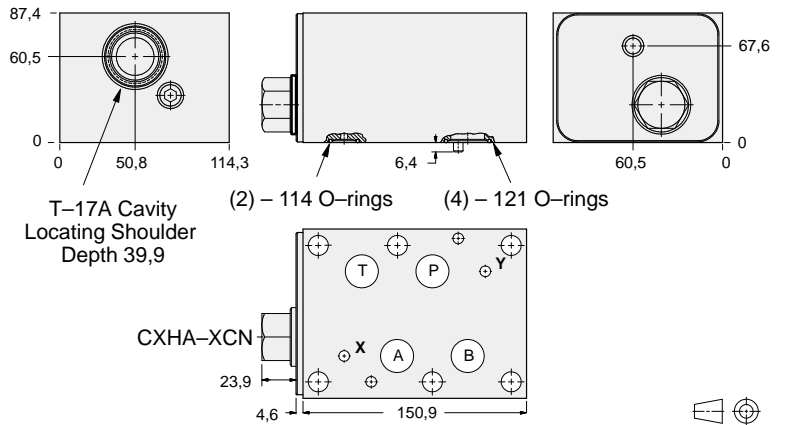
ISO 08 SANDWICH BODIES



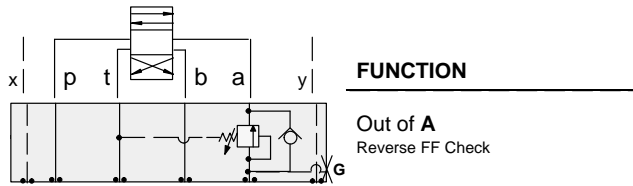
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



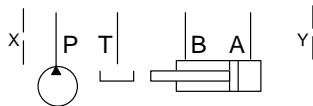
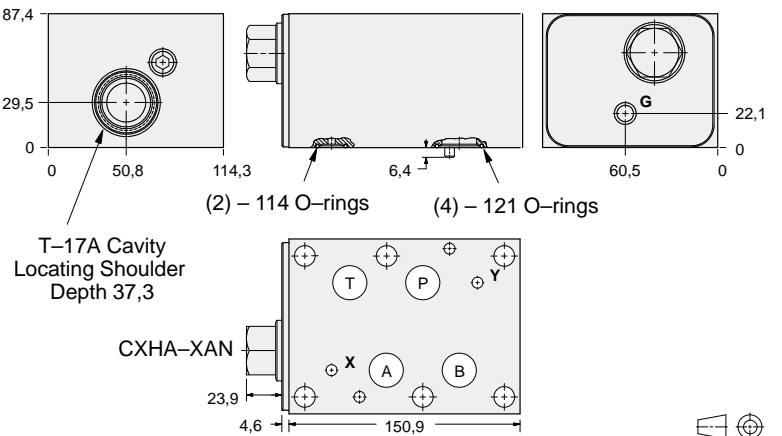
Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HB4		HB4/S	
.25 BSPP	HB4/M		HB4/T	



Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HB6		HB6/S	
.25 BSPP	HB6/M		HB6/T	

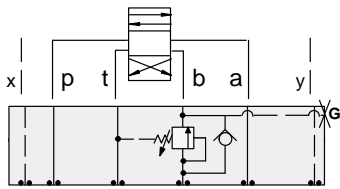
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Sequence Valve		
	RSHC Page 2.07		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQHB Page 2.09		
	Air Controlled, Pilot Operated Sequence Valve		
	RSHE Page 2.11		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



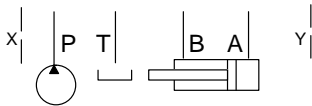
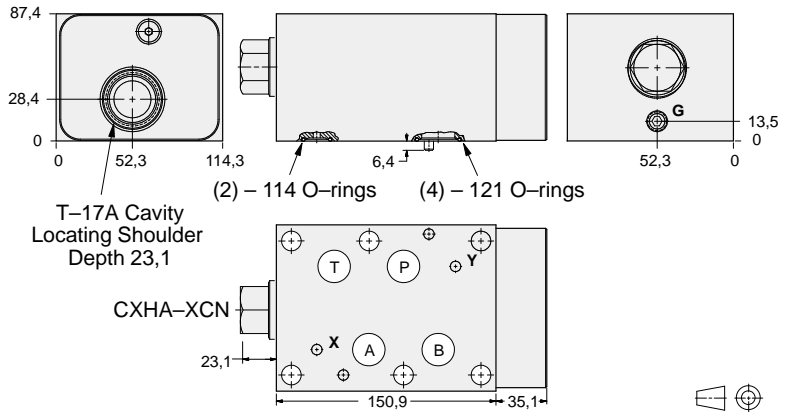
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Out of B
Reverse FF Check

Sequence Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HB7		HB7/S	
.25 BSPP	HB7/M		HB7/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

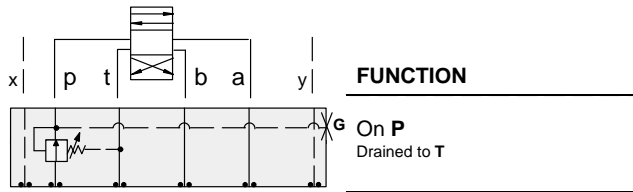
	Pilot Operated Sequence Valve		
	RSHC Page 2.07		
	Pilot Operated "Kick-Down" Sequence Valve		
	SQHB Page 2.09		
	Air Controlled, Pilot Operated Sequence Valve		
	RSHE Page 2.11		
OTHER VALVES:			



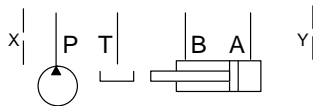
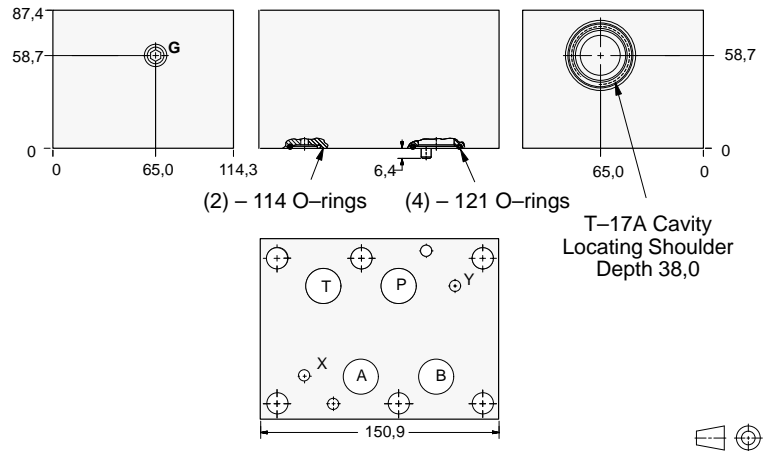
ISO 08 SANDWICH BODIES



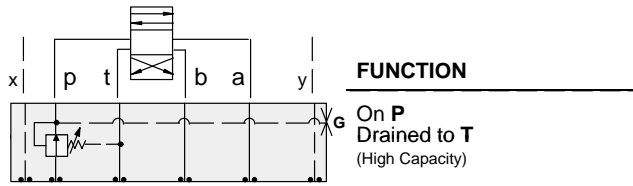
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



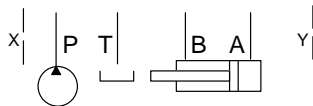
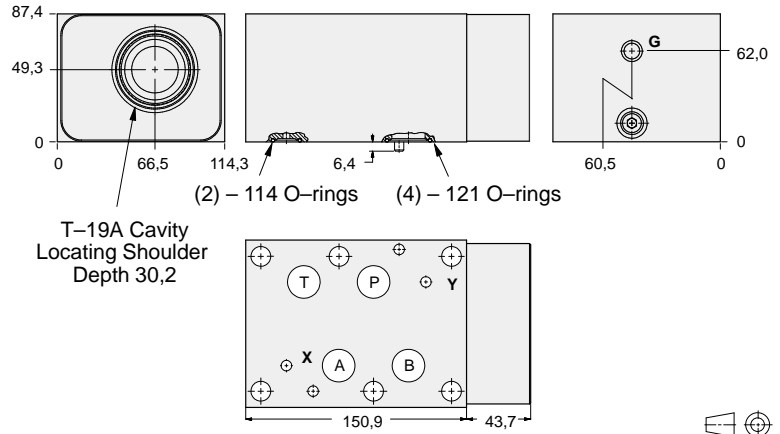
Reducing Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HBP		HBP/S	
.25 BSPP	HBP/M		HBP/T	



Reducing Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HBO		HBO/S	
.25 BSPP	HBO/M		HBO/T	

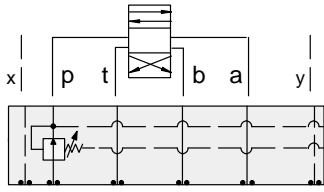
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PB*B Page 3.07		
	Air Controlled, Pilot Operated Reducing Valve		
	PB*C Page 3.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



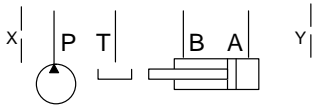
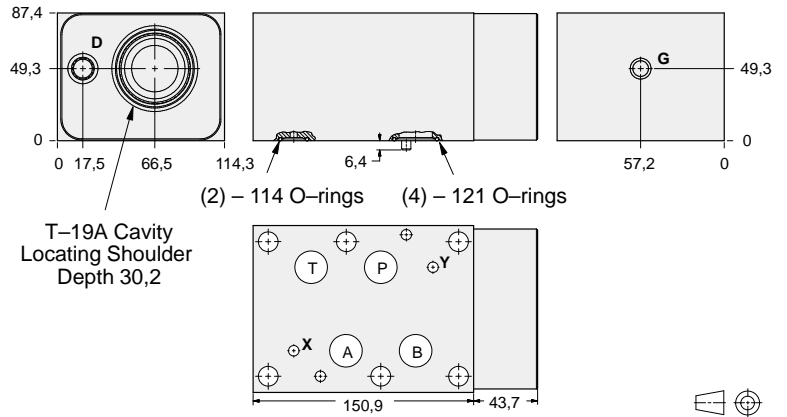
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On P
Drained Externally

Reducing Valves



Drain Port	Gauge Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
SAE-6	.25 NPTF	HBQ		HBQ/S	
.25 BSPP	.25 BSPP	HBQ/M		HBQ/T	

08 REDUCING

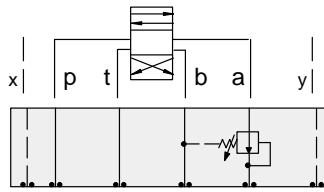
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing Valve		
	PBJB Page 3.07		
	Air Controlled, Pilot Operated Reducing Valve		
	PBJC Page 3.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



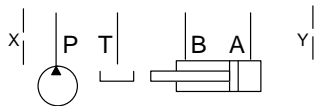
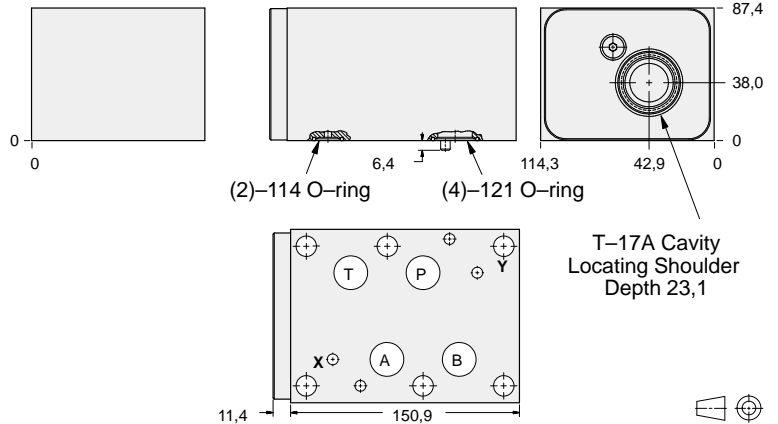
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



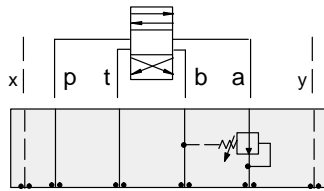
FUNCTION

On **A**
Drained to **B**

Reducing Valves



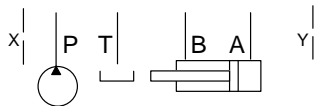
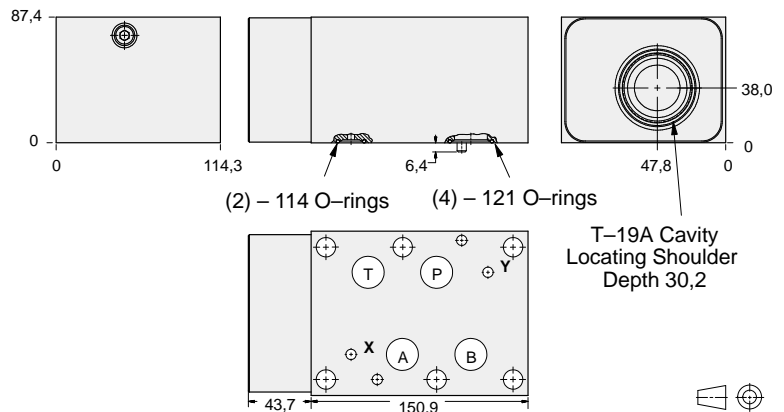
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBL		HBL/S	



FUNCTION

On **A**
Drained to **B**
(High Capacity)

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBA		HBA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

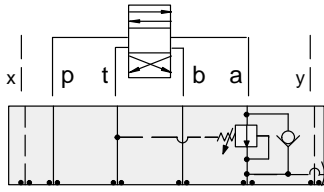
	Pilot Operated Reducing Valve		
	PB*B Page 3.07		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



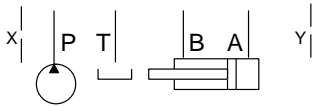
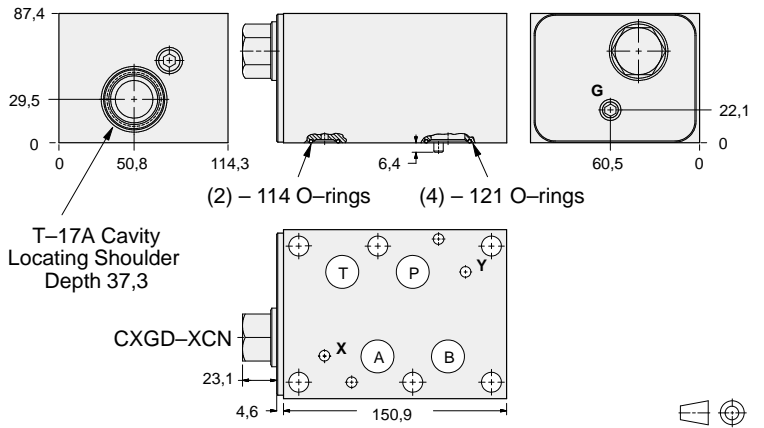
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



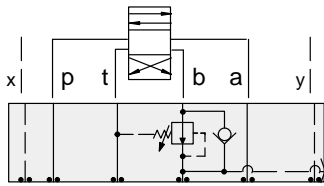
FUNCTION

On A Drain to T
Reverse FF Check

Reducing Valves



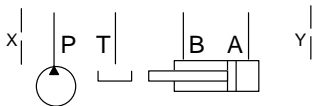
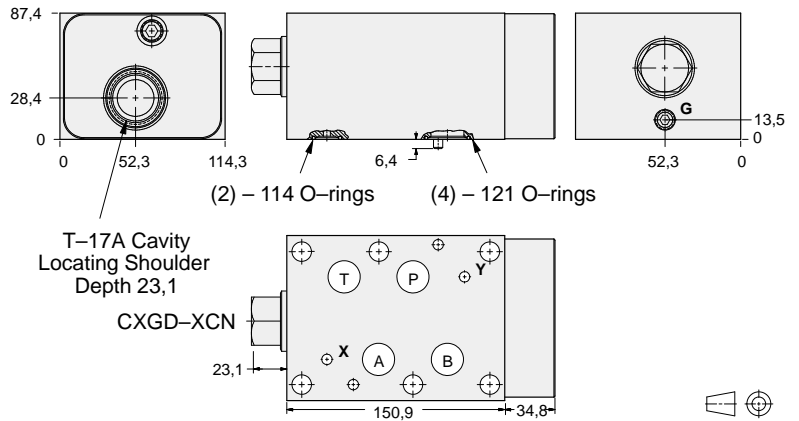
Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HBK		HBK/S	
.25 BSPP	HBK/M		HBK/T	



FUNCTION

On B Drain to T
Reverse FF Check

Reducing Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HBJ		HBJ/S	
.25 BSPP	HBJ/M		HBJ/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

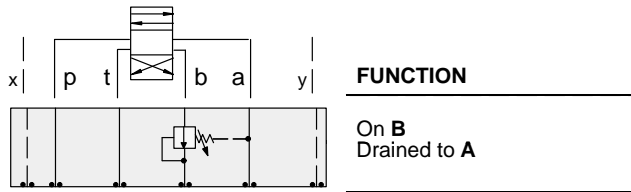
	Pilot Operated Reducing Valve		
	PBHB Page 3.07		
	Air Controlled, Pilot Operated Reducing Valve		
	PBHC Page 3.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



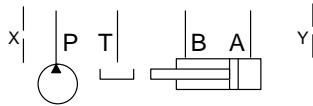
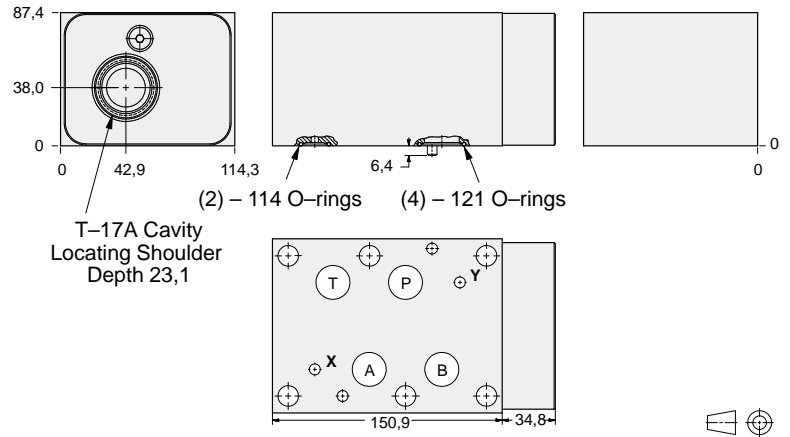
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



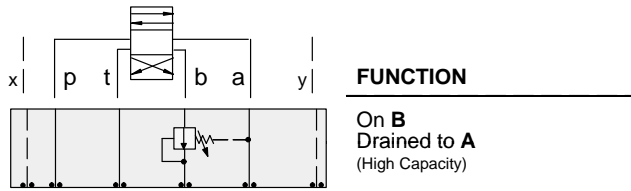
FUNCTION

On **B**
Drained to **A**

Reducing Valves



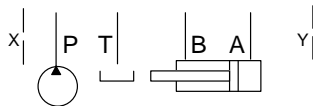
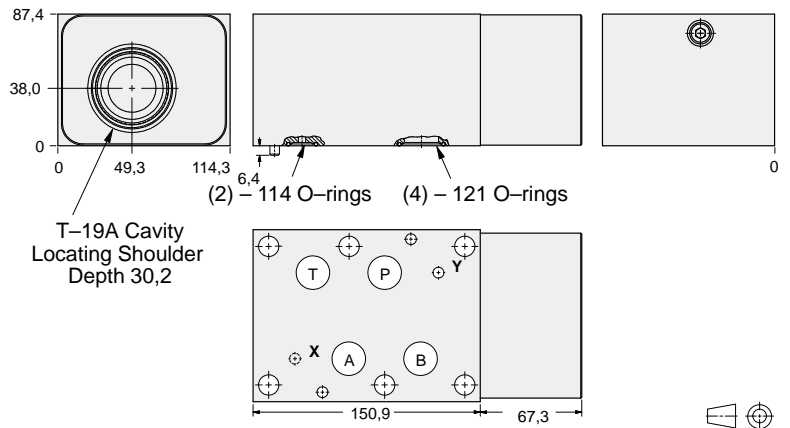
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBM		HBM/S	



FUNCTION

On **B**
Drained to **A**
(High Capacity)

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBB		HBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

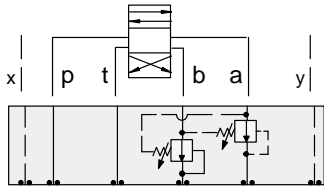
	<i>Pilot Operated Reducing Valve</i>		
	PB*B Page 3.07		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



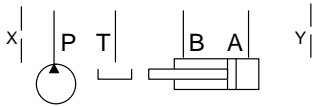
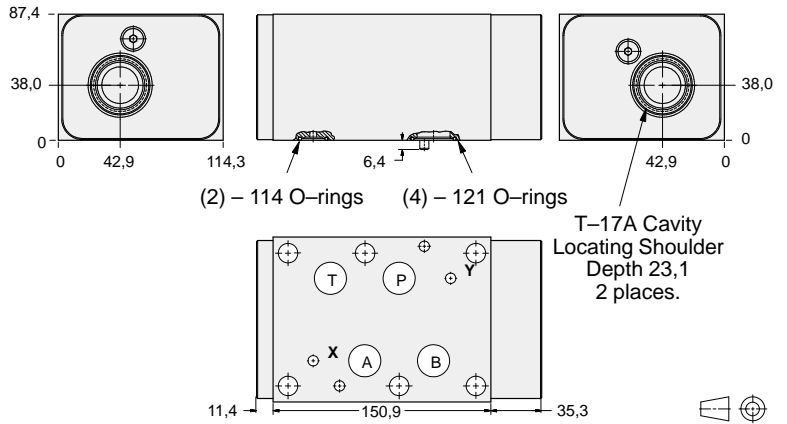
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



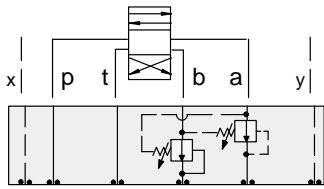
FUNCTION

On **A** and **B**
Drains to Opposite Port

Reducing Valves



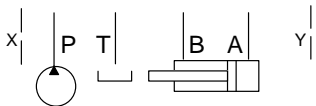
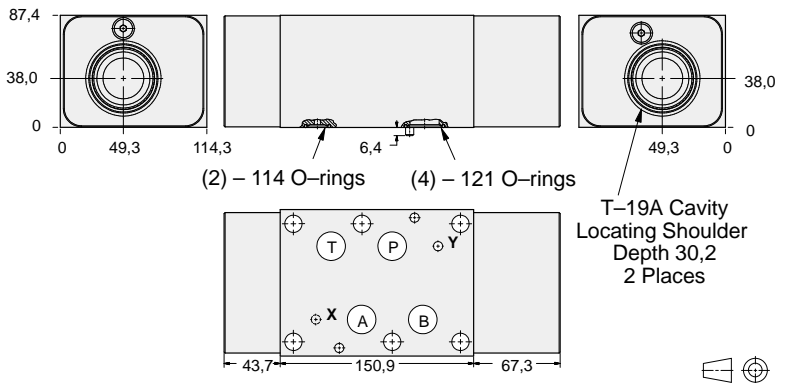
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBN		HBNS	



FUNCTION

On **A** and **B**
Drains to Opposite Port
(High Capacity)

Reducing Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBV		HBV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

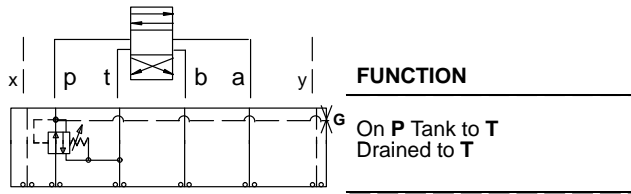
	Pilot Operated Reducing Valve		
	PB*B Page 3.07		
OTHER VALVES:			



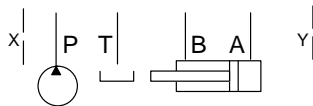
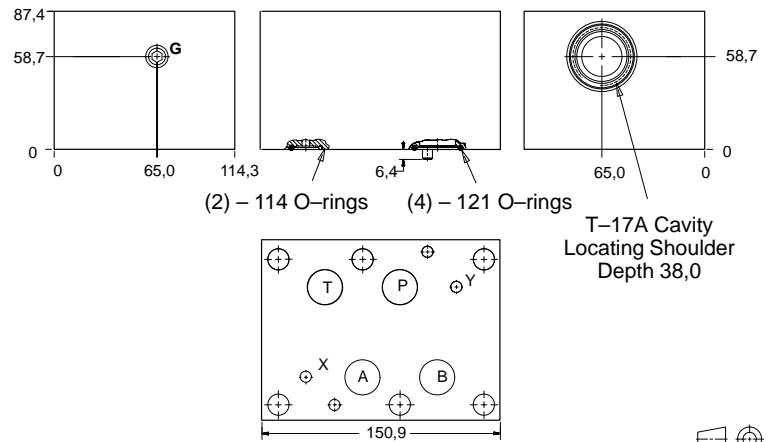
ISO 08 SANDWICH BODIES



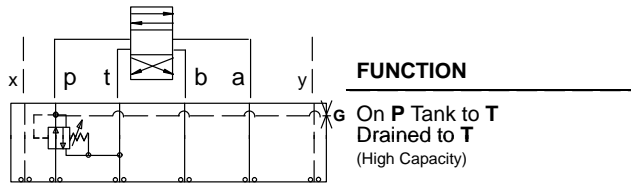
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



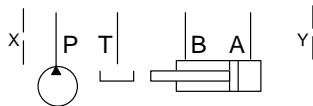
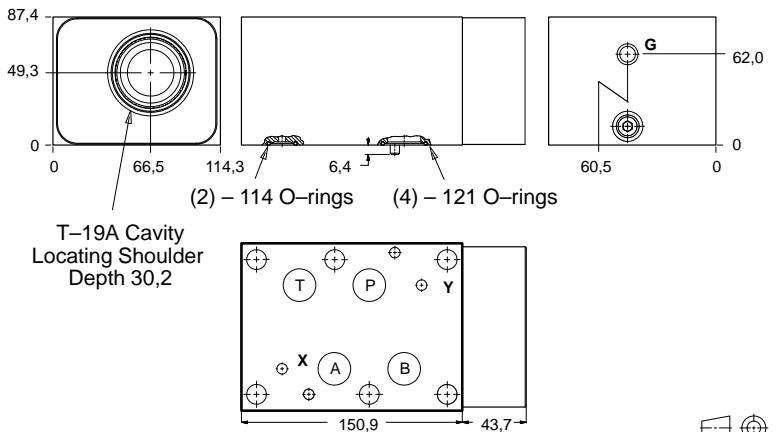
Reducing/Relieving Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HBP		HBP/S	
.25 BSPP	HBP/M		HBP/T	



Reducing/Relieving Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HBO		HBO/S	
.25 BSPP	HBO/M		HBO/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PP*B Page 3.11		
	<i>Air Controlled, Pilot Operated Reducing/Relieving Valve</i>		
	PP*C Page 3.13		
OTHER VALVES:			

08 REDUCING/RELIEVING

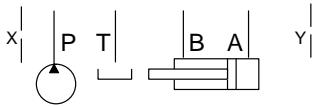
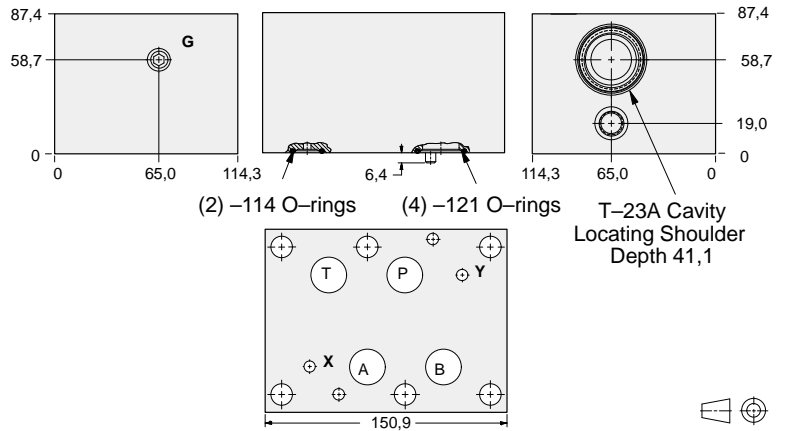
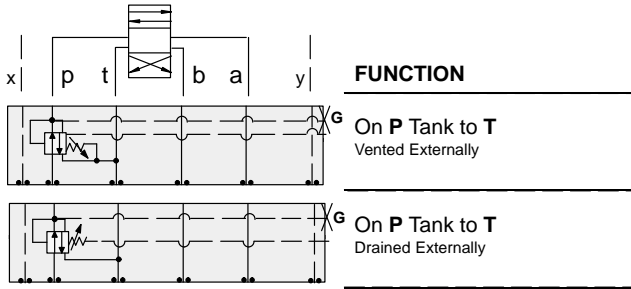


ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Reducing/Relieving Valves



External Port	Gauge Port (Plugged)	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
SAE-6	.25 NPTF	PBP		PBP/S	
.25 BSPP	.25 BSPP			PBP/T	

08 REDUCING/RELIEVING

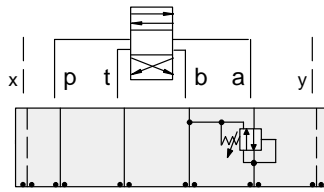
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve with Drain Port		
	PVHA Page 3.15		
	Pilot Operated Reducing/Relieving Valve with Vent Port		
	PVHB Page 3.17		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



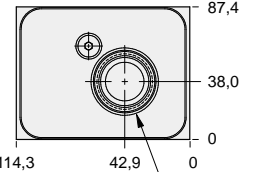
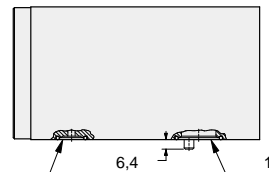
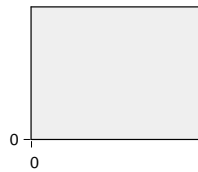
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



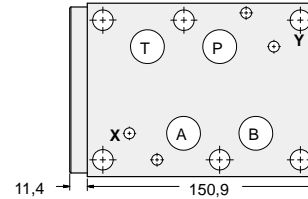
FUNCTION

On **A** Tank to **B**
Drained to **B**

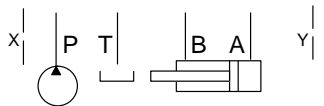
Reducing/Relieving Valves



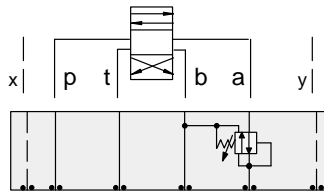
(2)-114 O-ring (4)-121 O-ring



T-17A Cavity
Locating Shoulder
Depth 23,1



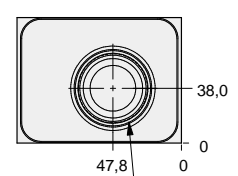
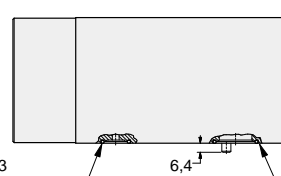
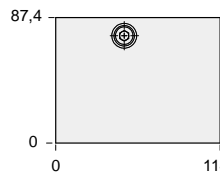
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBL		HBL/S	



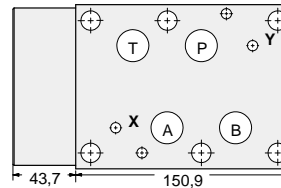
FUNCTION

On **A** Tank to **B**
Drained to **B**
(High Capacity)

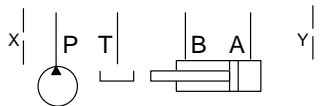
Reducing/Relieving Valves



(2) - 114 O-rings (4) - 121 O-rings



T-19A Cavity
Locating Shoulder
Depth 30,2



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBA		HBA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing/Relieving Valve		
	PP*B Page 3.11		
OTHER VALVES:			

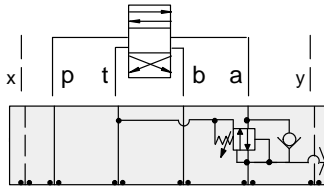
08 REDUCING/RELIEVING



ISO 08 SANDWICH BODIES



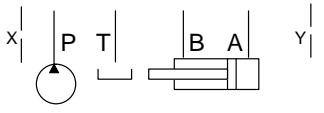
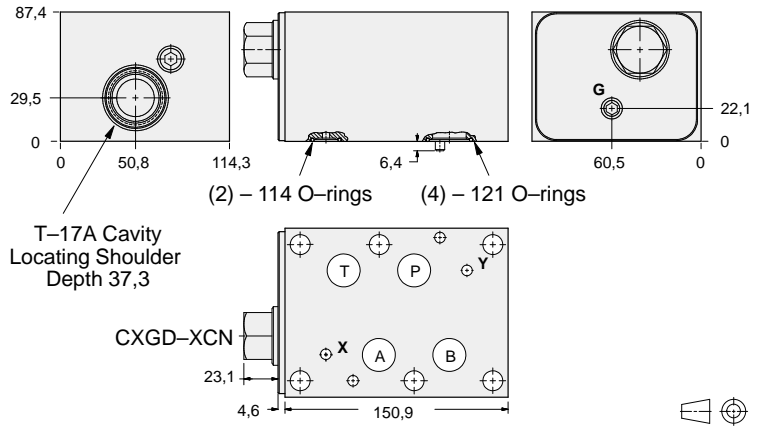
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



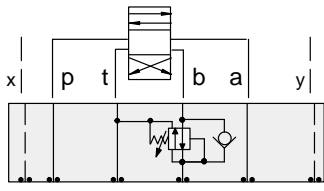
FUNCTION

On A Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves



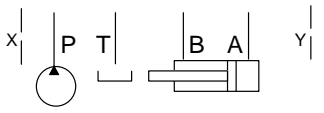
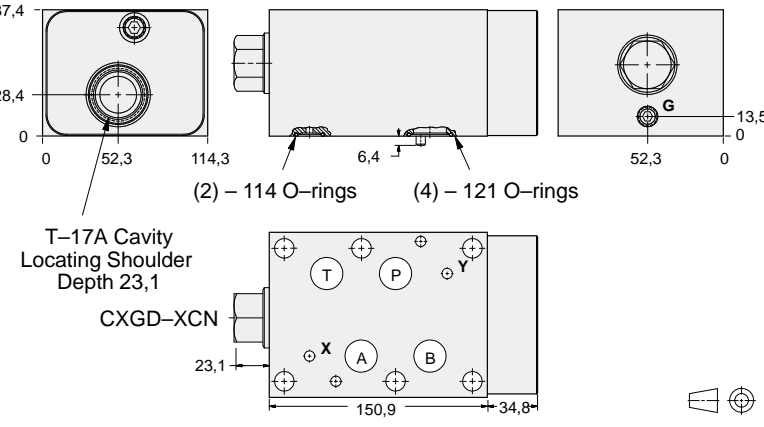
Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	HBK		HBK/S	
.25 BSPP	HBK/M		HBK/T	



FUNCTION

On B Tank to T
Drained to T
Reverse FF Check

Reducing/Relieving Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	HBJ		HBJ/S	
.25 BSPP	HBJ/M		HBJ/T	

08 REDUCING/RELIEVING

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

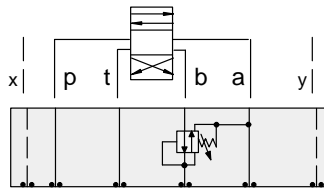
	Pilot Operated Reducing/Relieving Valve		
	PPHB Page 3.11		
	Air Controlled, Pilot Operated Reducing/Relieving Valve		
	PPHC Page 3.13		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



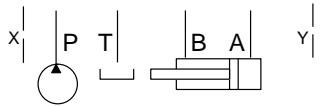
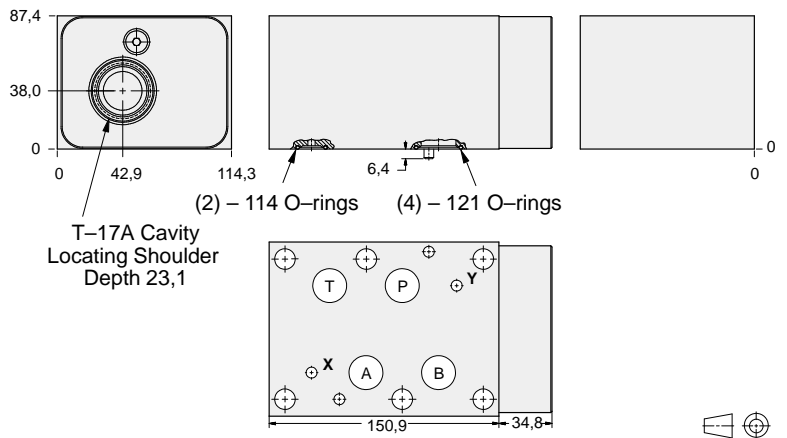
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



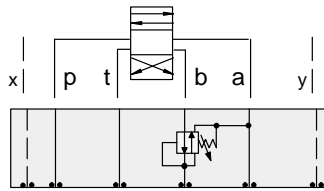
FUNCTION

On **B** Tank to **A**
Drained to **A**

Reducing/Relieving Valves



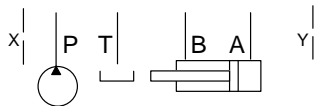
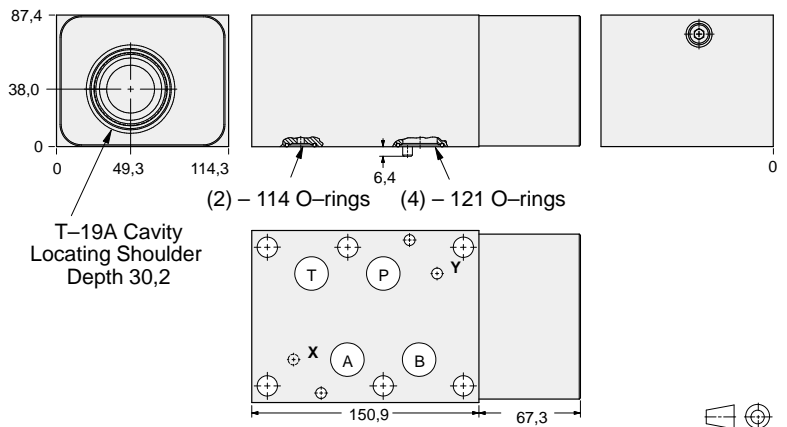
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
HBM		HBM/S	



FUNCTION

On **B** Tank to **A**
Drained to **A**
(High Capacity)

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
HBB		HBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Pilot Operated Reducing/Relieving Valve</i>		
	PP*B Page 3.11		
OTHER VALVES:			

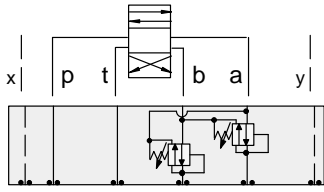
08 REDUCING/RELIEVING



ISO 08 SANDWICH BODIES



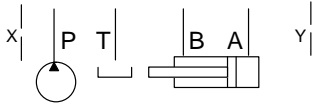
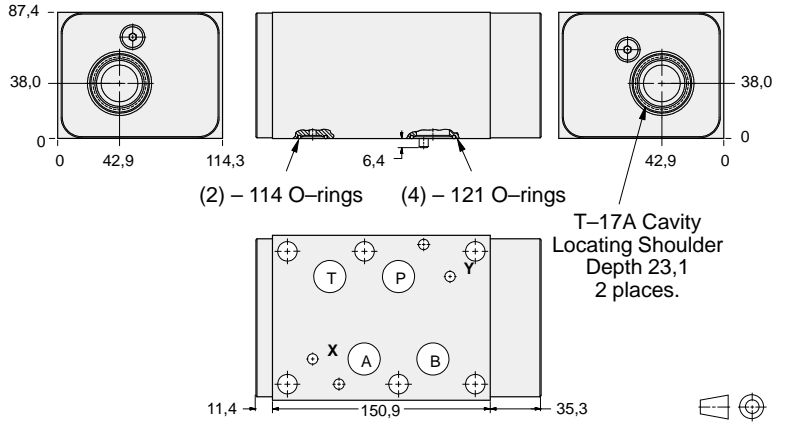
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



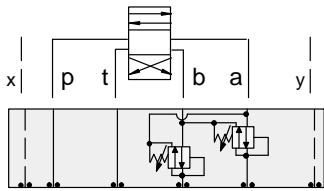
FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port

Reducing/Relieving Valves



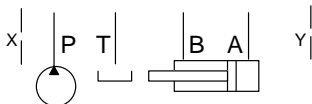
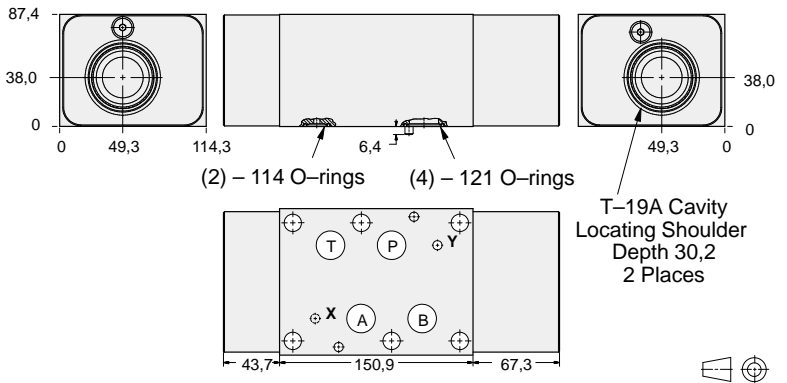
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBN		HBNS	



FUNCTION

On **A** and **B**
Tanks and Drains to
Opposite Port
(High Capacity)

Reducing/Relieving Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBV		HBV/S	

08 REDUCING/RELIEVING

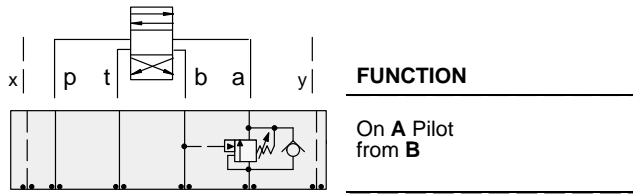
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Pilot Operated Reducing/Relieving Valve		
	PP*B Page 3.11		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



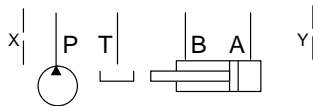
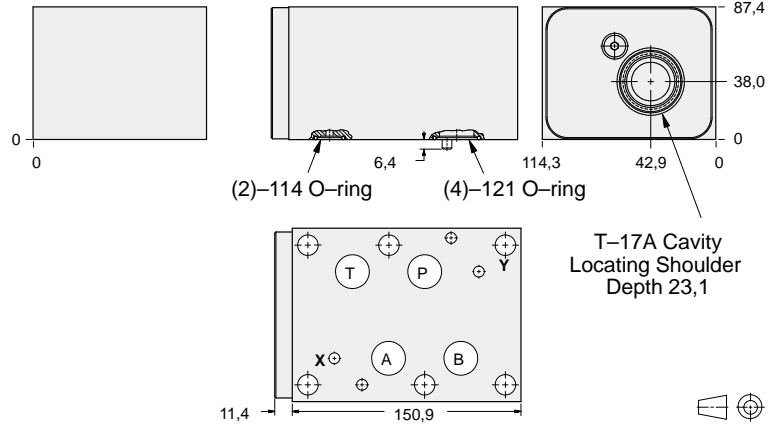
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



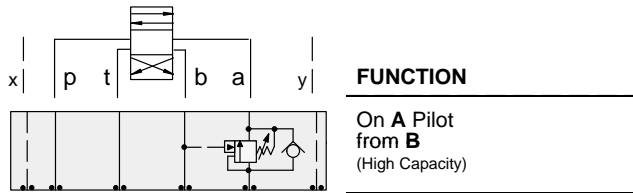
FUNCTION

On A Pilot from B

Counterbalance Valves



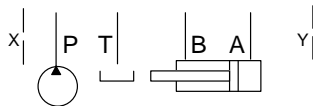
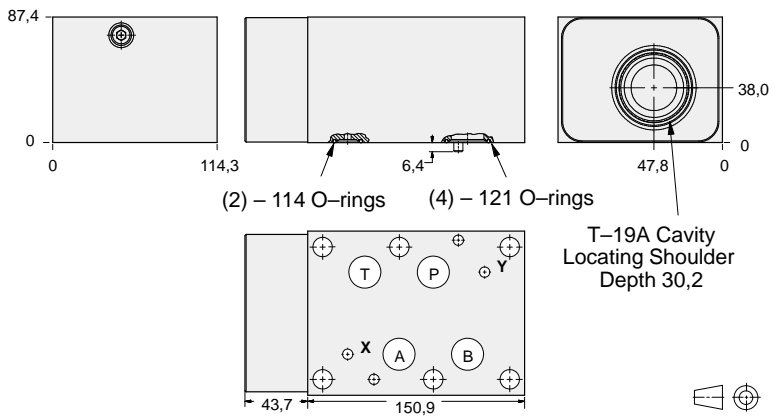
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBL		HBL/S	



FUNCTION

On A Pilot from B
(High Capacity)

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBA		HBA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Counterbalance Valve, 3:1 Pilot Ratio		
	CB*A Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CB*G Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CB*H Page 4.15		
OTHER VALVES:			

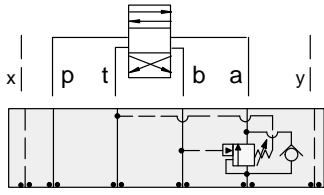
08 COUNTERBALANCE



ISO 08 SANDWICH BODIES



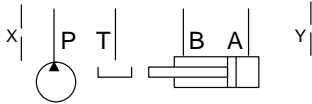
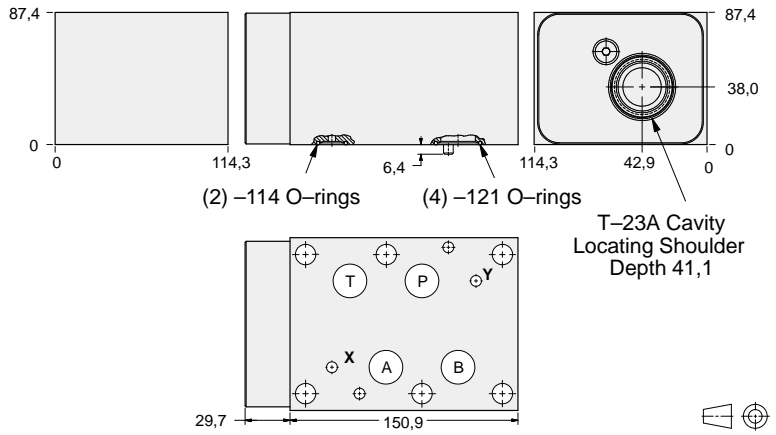
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



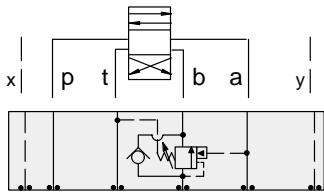
FUNCTION

On **A** Pilot from **B**
Vent to **T**

Counterbalance Valves



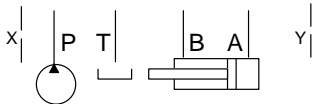
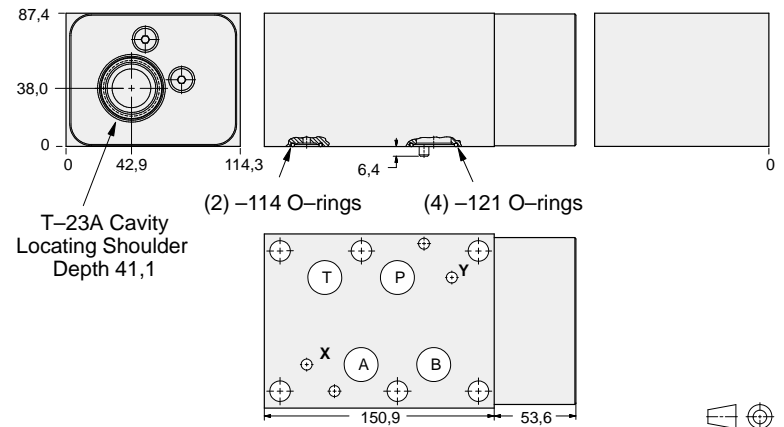
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
PBA		PBA/S	



FUNCTION

On **B** Pilot from **A**
Vent to **T**

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
PBB		PBB/S	

08 COUNTERBALANCE

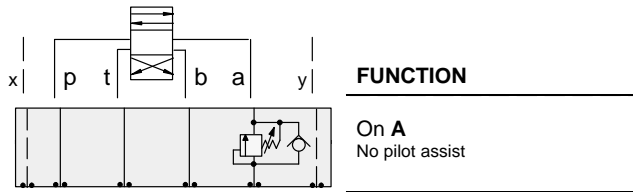
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWGA Page 4.19		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWGG Page 4.21		
OTHER VALVES:			



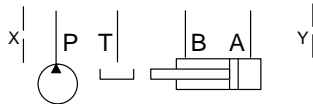
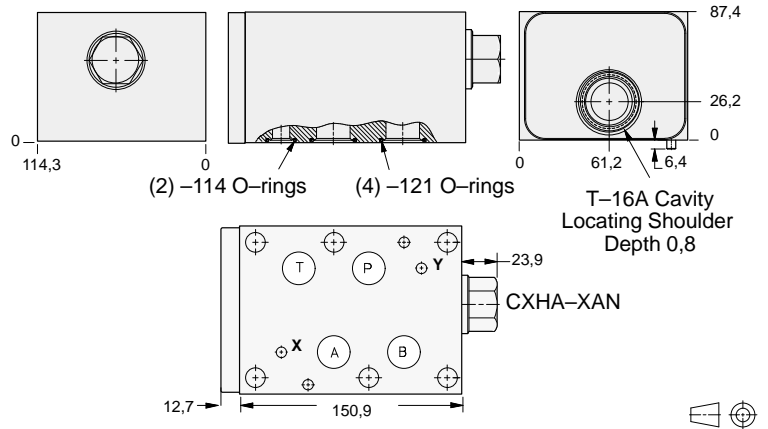
ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CD4		CD4/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Direct Acting Relief Valve		
	RDHA Page 1.09		
OTHER VALVES:			

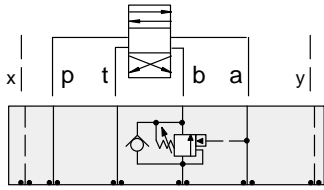
08 COUNTERBALANCE



ISO 08 SANDWICH BODIES



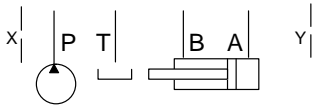
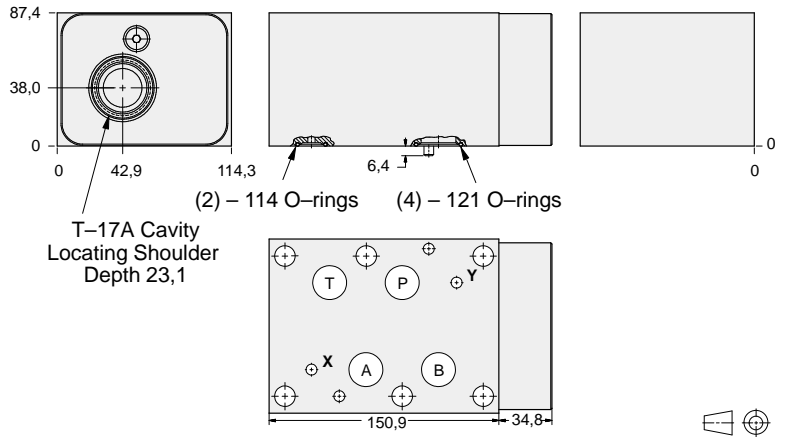
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



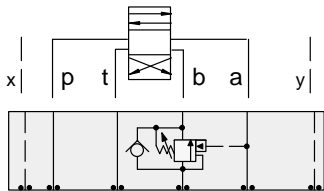
FUNCTION

On B
Pilot from A

Counterbalance Valves



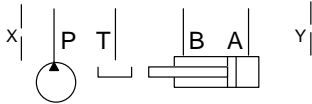
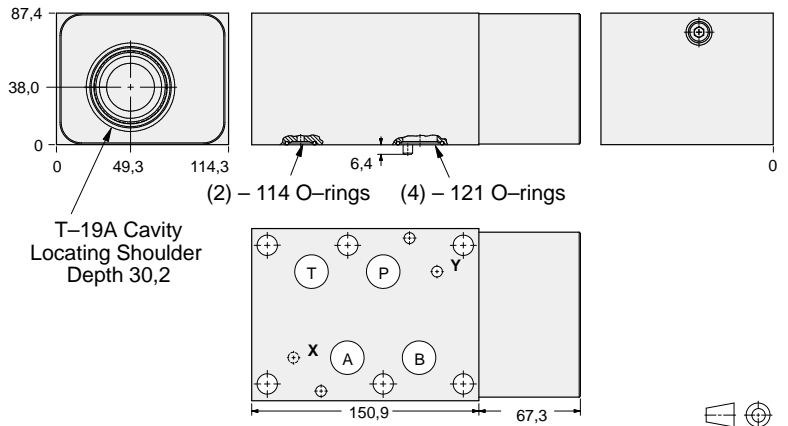
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
HBM		HBM/S	



FUNCTION

On B
Pilot from A
(High Capacity)

Counterbalance Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
HBB		HBB/S	

08 COUNTERBALANCE

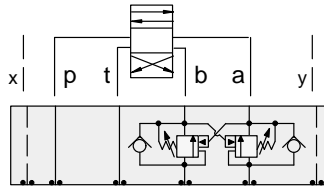
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Counterbalance Valve, 3:1 Pilot Ratio		
	CB*A Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CB*G Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CB*H Page 4.15		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



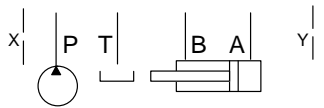
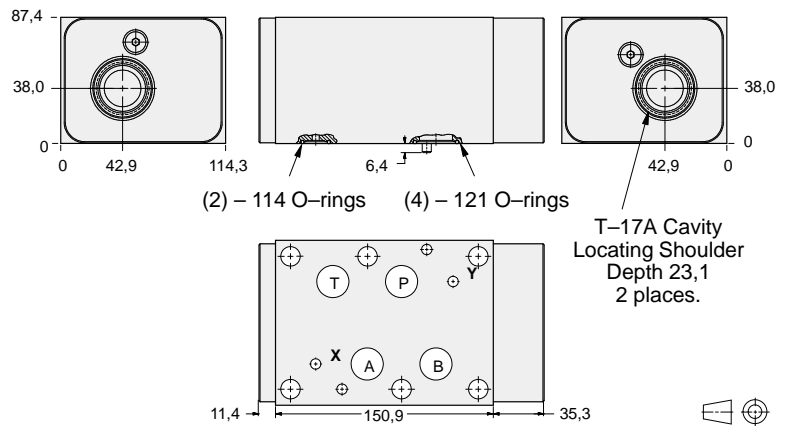
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



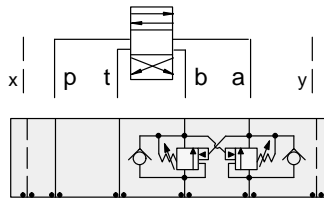
FUNCTION

On **A** and **B**
Cross-Piloted

Counterbalance Valves



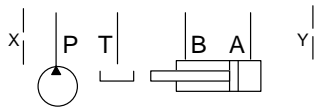
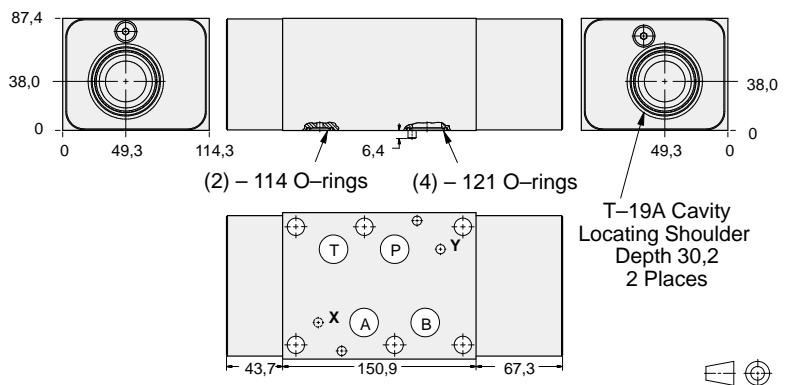
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBN		HBN/S	



FUNCTION

On **A** and **B**
Cross-Piloted
(High Capacity)

Counterbalance Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBV		HBV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Counterbalance Valve, 3:1 Pilot Ratio		
	CB*A Page 4.11		
	Counterbalance Valve, 4.5:1 Pilot Ratio		
	CB*G Page 4.13		
	Counterbalance Valve, 10:1 Pilot Ratio		
	CB*H Page 4.15		
OTHER VALVES:			

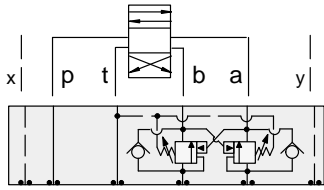
08 COUNTERBALANCE



ISO 08 SANDWICH BODIES



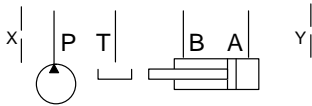
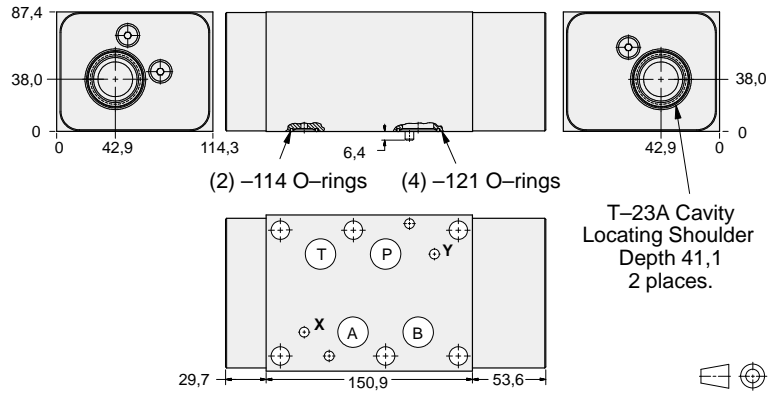
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to T

Counterbalance Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
PBY		PBY/S	

08 COUNTERBALANCE

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Counterbalance Valve, 3:1 Pilot Ratio		
	CWGA Page 4.19		
	Vented Counterbalance Valve, 5:1 Pilot Ratio		
	CWGG Page 4.21		
OTHER VALVES:			

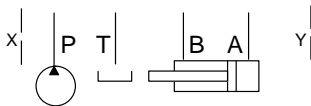
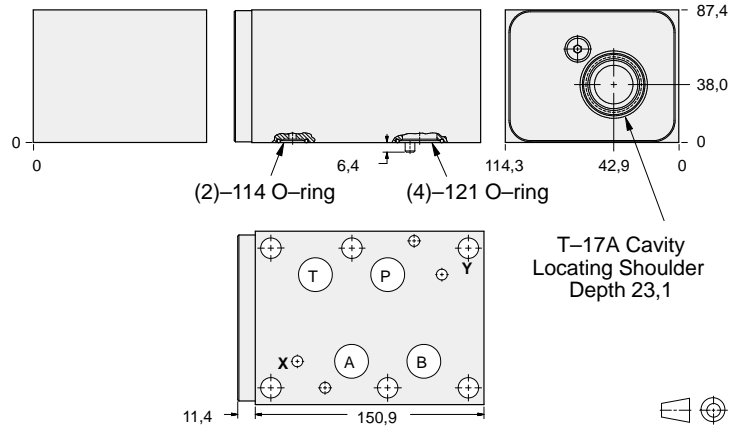
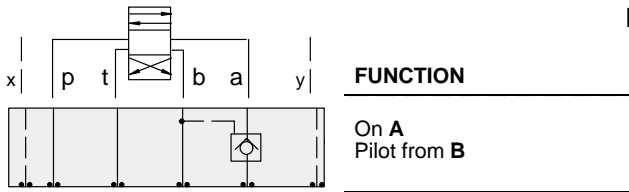


ISO 08 SANDWICH BODIES



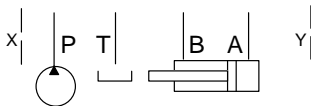
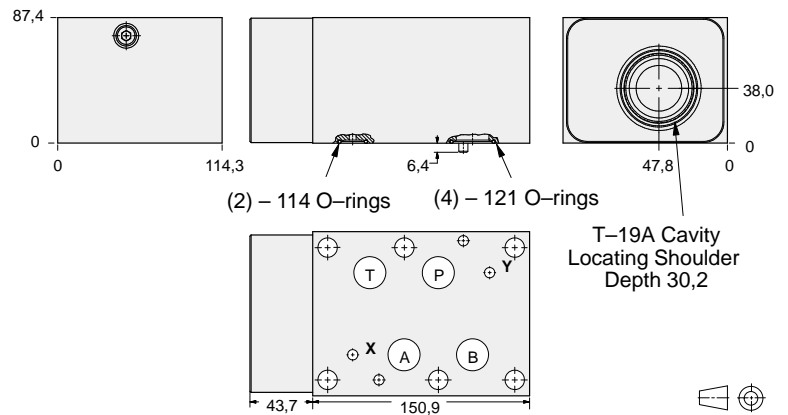
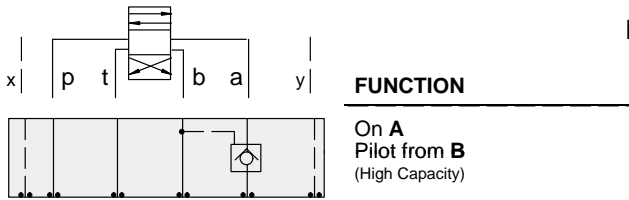
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBL		HBL/S	

Pilot Operated Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBA		HBA/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CK*B Page 4.17		
OTHER VALVES:			

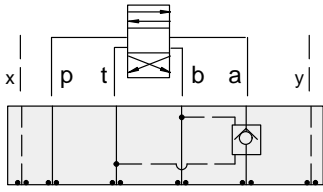


ISO 08 SANDWICH BODIES



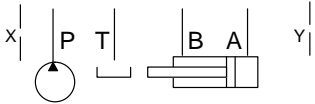
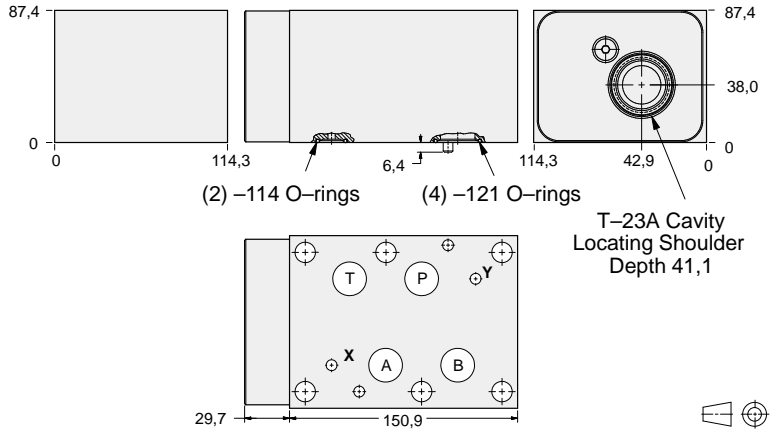
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



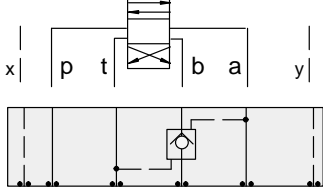
FUNCTION

On A
Pilot from B
Vent to T



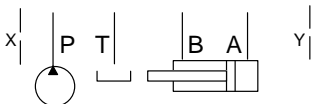
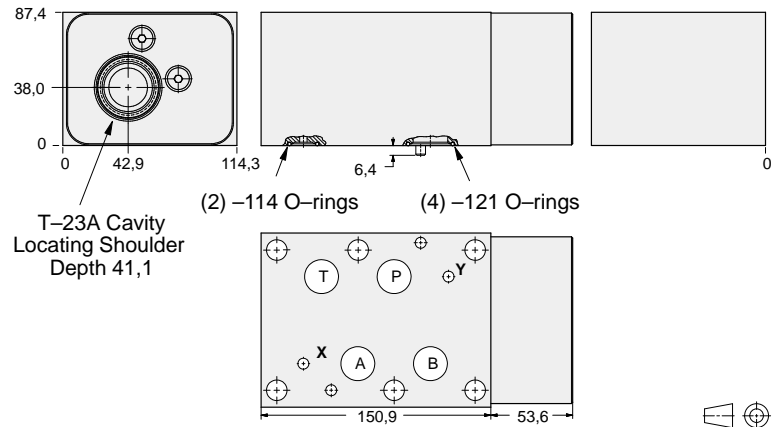
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
PBA		PBA/S	

Pilot Operated Check Valves



FUNCTION

On B
Pilot from A
Vent to T



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
PBB		PBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVGV Page 4.23		
OTHER VALVES:			

08 P.O. CHECK

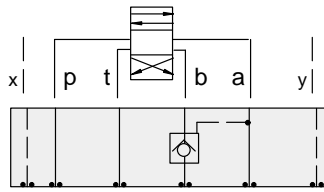


ISO 08 SANDWICH BODIES



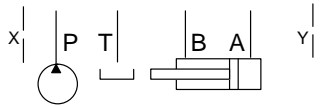
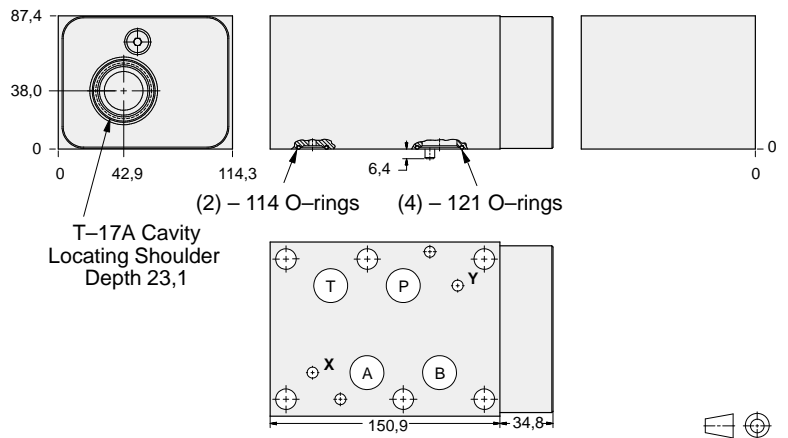
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



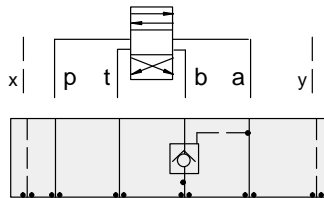
FUNCTION

On B
Pilot from A



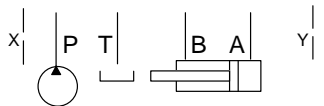
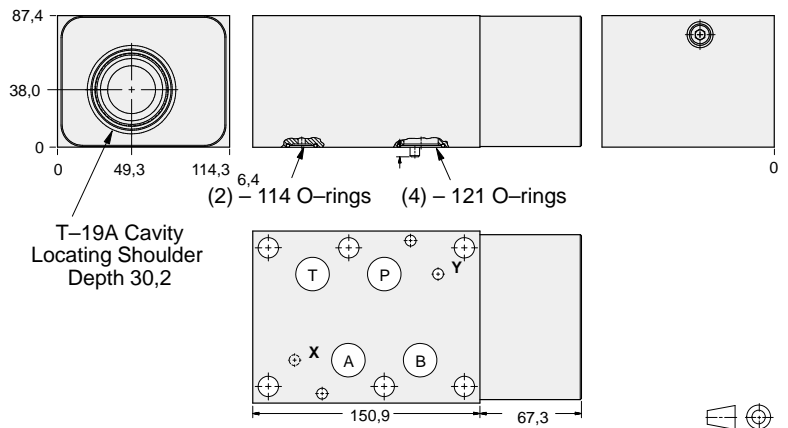
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBM		HBM/S	

Pilot Operated Check Valves



FUNCTION

On B
Pilot from A
(High Capacity)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBB		HBB/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CK*B Page 4.17		
OTHER VALVES:			

08 P.O. CHECK

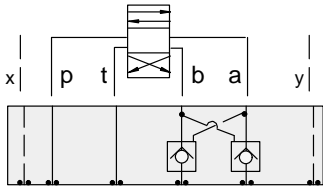


ISO 08 SANDWICH BODIES



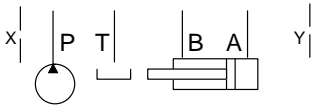
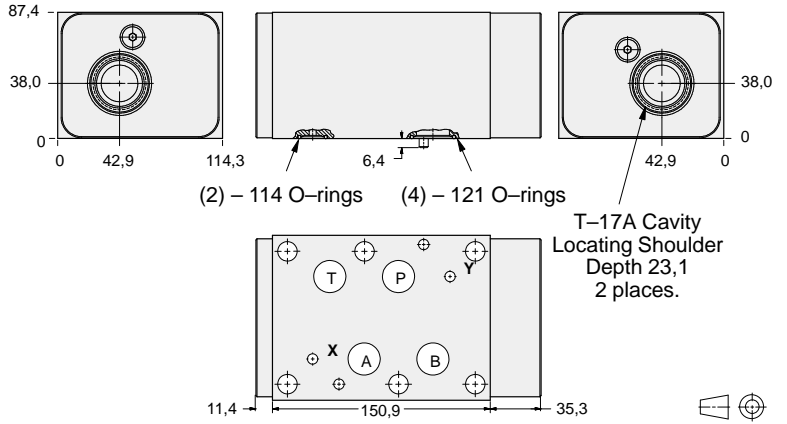
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



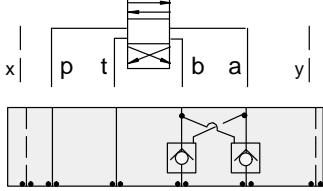
FUNCTION

On A and B
Cross-Piloted



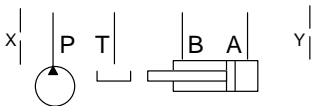
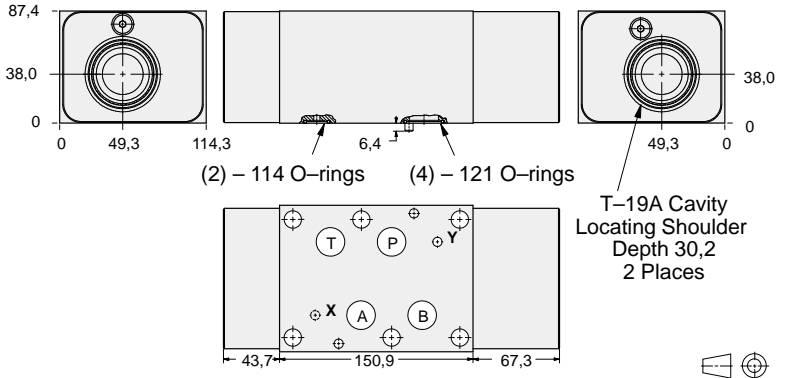
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
HBN		HBNS	

Pilot Operated Check Valves



FUNCTION

On A and B
Cross-Piloted
(High Capacity)



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBY		HBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	<i>Pilot-to-Open Check Valve, 3:1 Pilot Ratio</i>		
	CK*B Page 4.17		
OTHER VALVES:			

08 P.O. CHECK

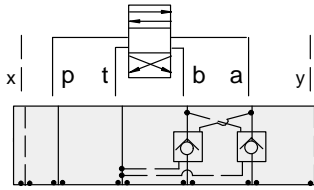


ISO 08 SANDWICH BODIES



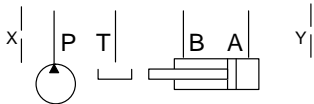
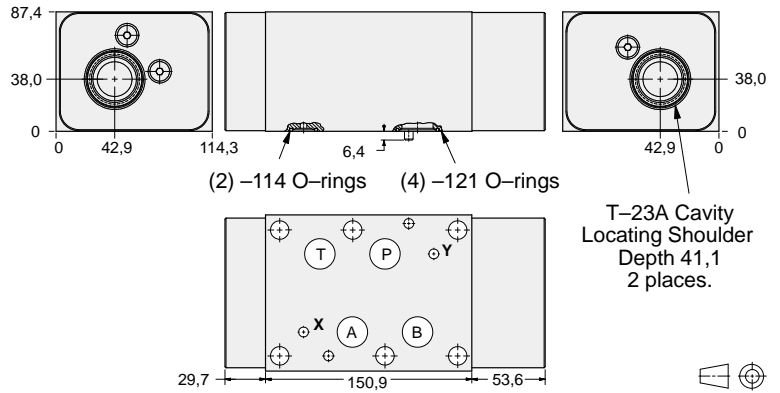
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Pilot Operated Check Valves



FUNCTION

On **A** and **B**
Cross-Piloted
Vents to **T**



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
PBY		PBY/S	

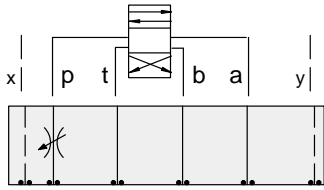
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Vented Pilot-to-Open Check Valve, 3:1 Pilot Ratio		
	CVGV Page 4.23		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



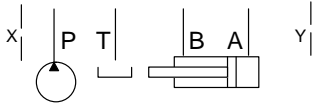
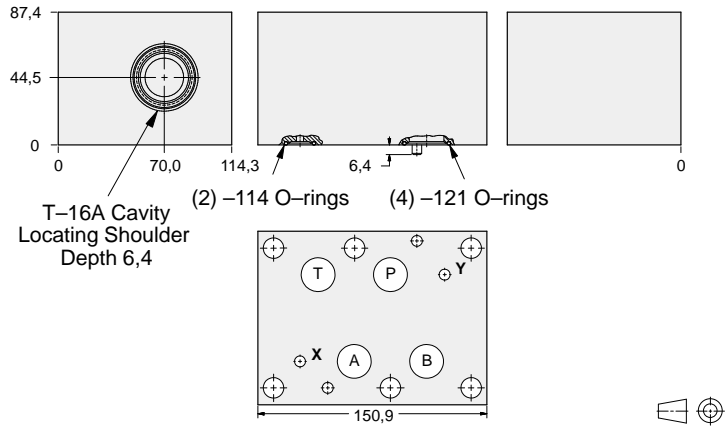
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



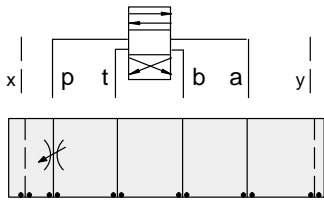
FUNCTION

Meter-In P

Flow Control Valves



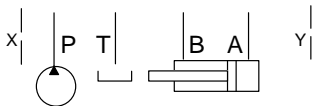
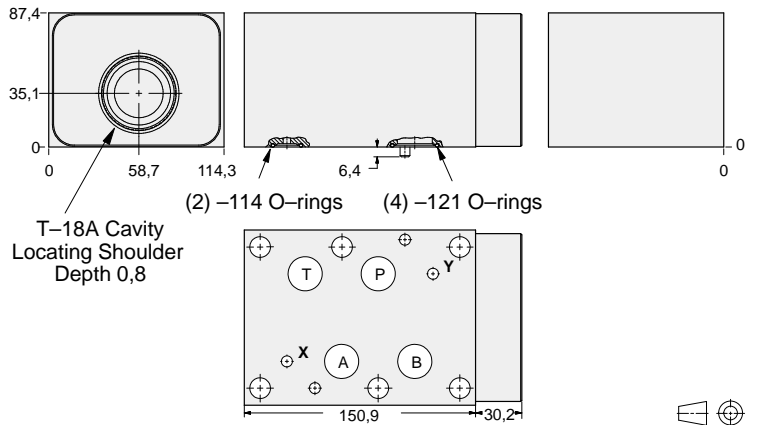
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBP		IBP/S	



FUNCTION

Meter-In P
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBO		IBO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		
	NF*C Page 5.13		
	Fixed Orifice, Pressure-Compensated Flow Control		
	FX*A Page 5.21		
OTHER VALVES:			

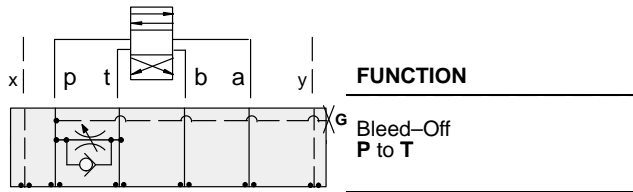
08 FLOW CONTROL



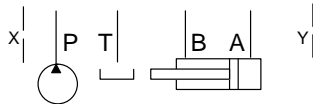
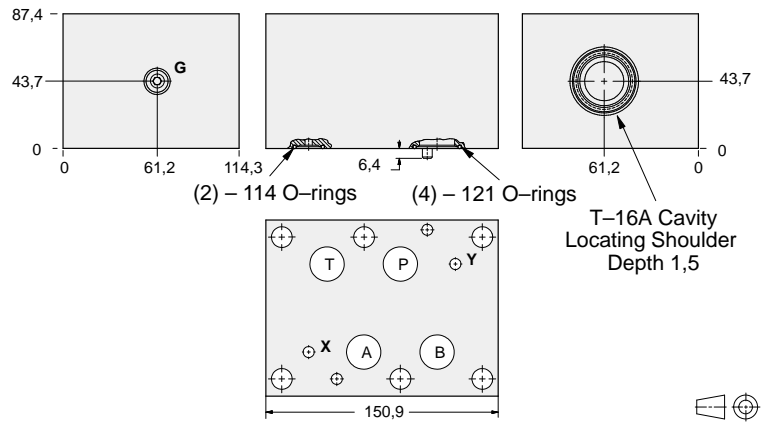
ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Flow Control Valves



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDO		CDO/S	
.25 BSPP	CDO/M		CDO/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFEC Page 5.13		FXEA Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFB Page 5.17		FCEB Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFC Page 5.19		FDEA Page 5.25
OTHER VALVES:	CNGC		

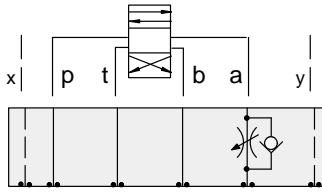
08 FLOW CONTROL



ISO 08 SANDWICH BODIES



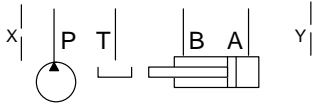
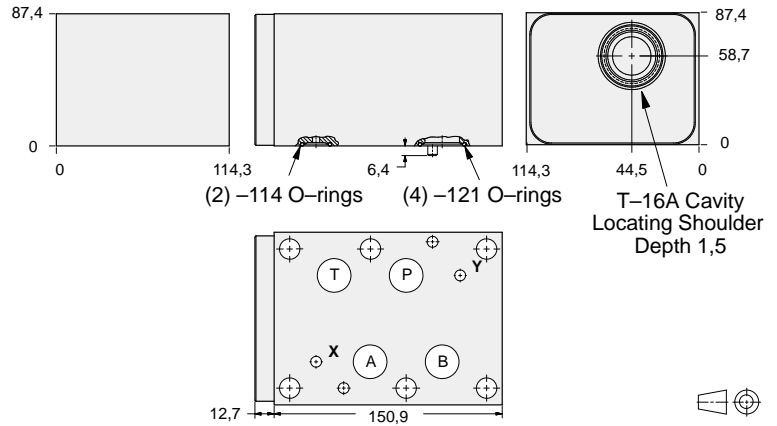
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



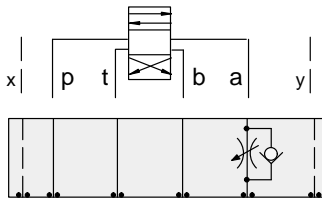
FUNCTION

Meter-In A

Flow Control Valves



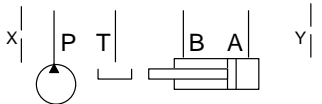
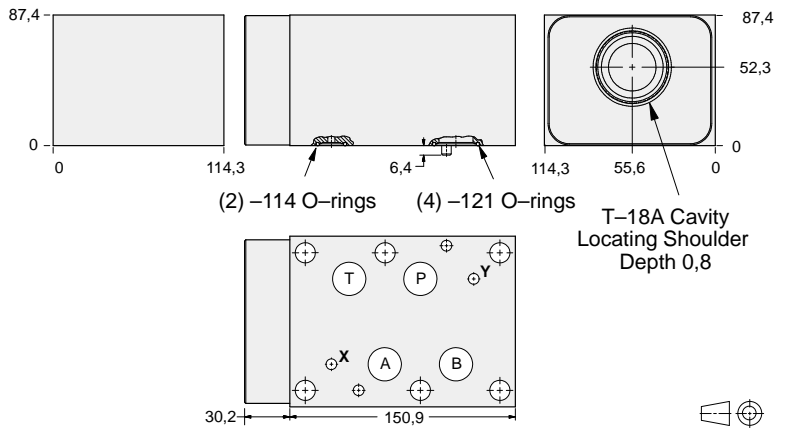
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBC		IBC/S	



FUNCTION

Meter-In A
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBG		IBG/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

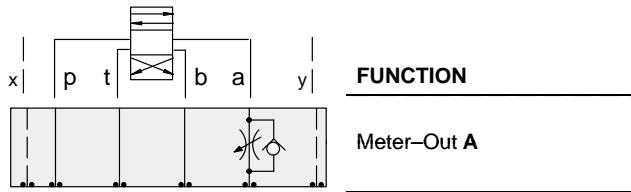
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



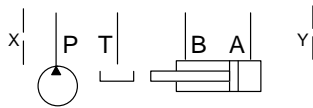
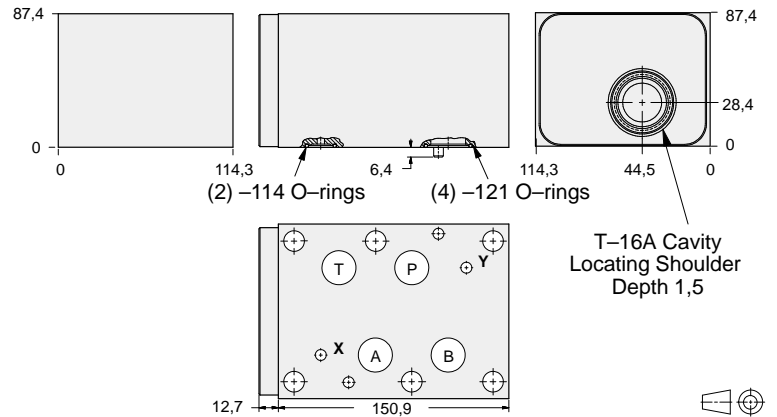
ISO 08 SANDWICH BODIES



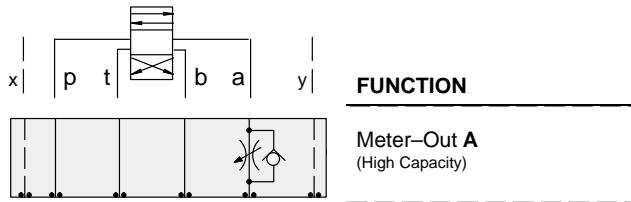
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



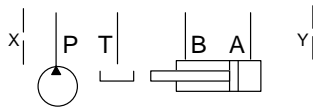
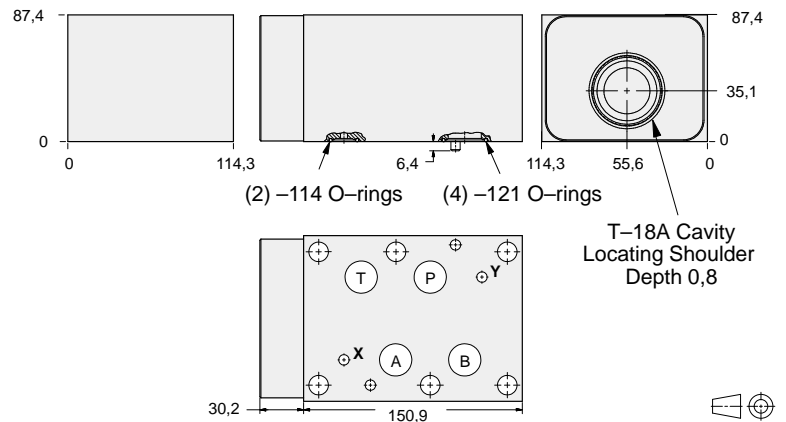
Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBA		IBA/S	



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBE		IBE/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		

08 FLOW CONTROL

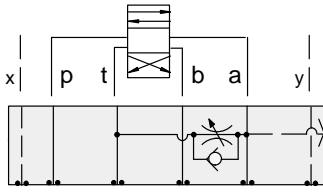


ISO 08 SANDWICH BODIES



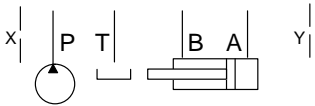
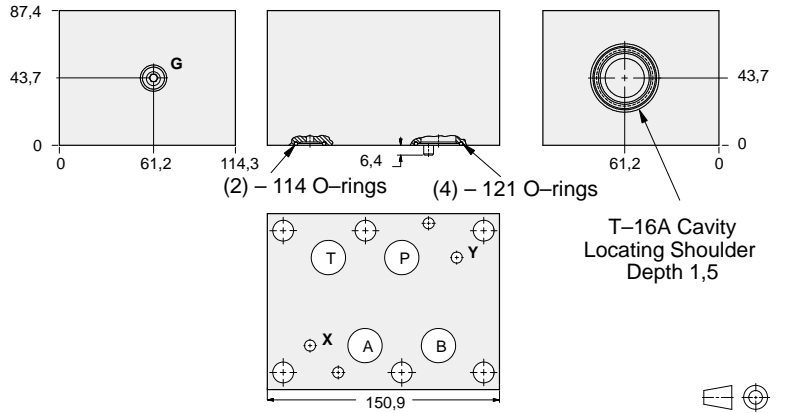
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Flow Control Valves



FUNCTION

Bleed-Off
A to T



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDC		CDC/S	
.25 BSPP	CDC/M		CDC/T	

08 FLOW CONTROL

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

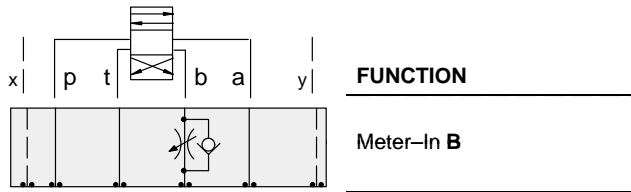
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFEC Page 5.13		FXEA Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFB Page 5.17		FCEB Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFC Page 5.19		FDEA Page 5.25
OTHER VALVES:	CNGC		



ISO 08 SANDWICH BODIES



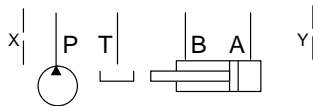
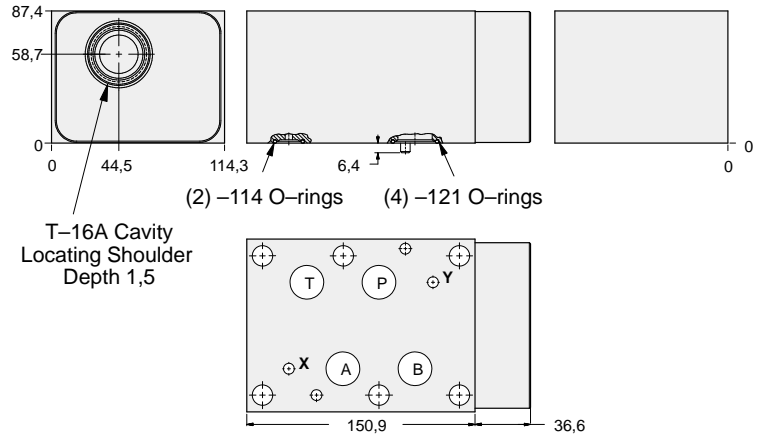
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



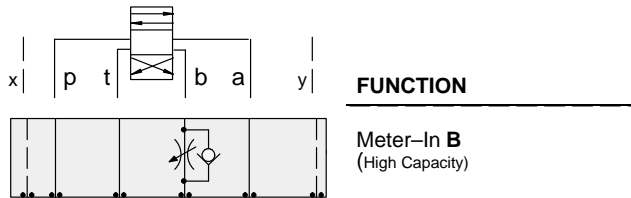
FUNCTION

Meter-In B

Flow Control Valves



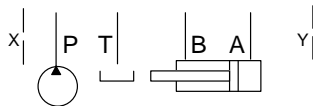
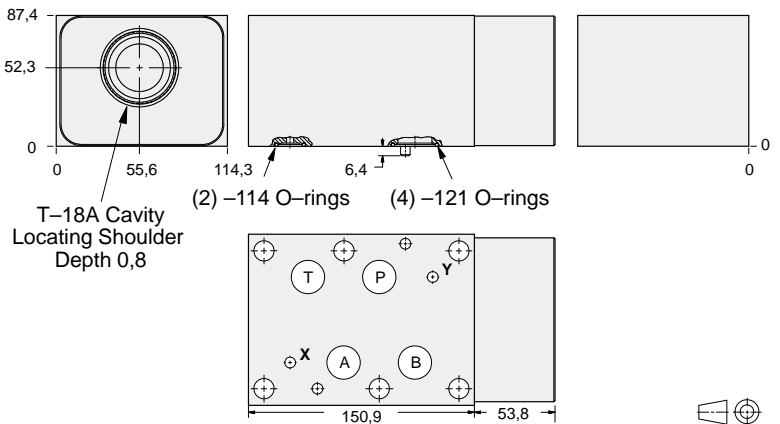
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBD		IBD/S	



FUNCTION

**Meter-In B
(High Capacity)**

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBH		IBH/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		

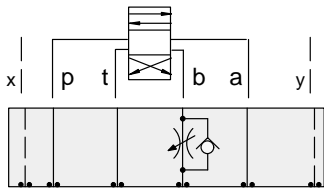
08 FLOW CONTROL



ISO 08 SANDWICH BODIES



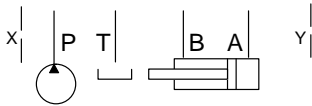
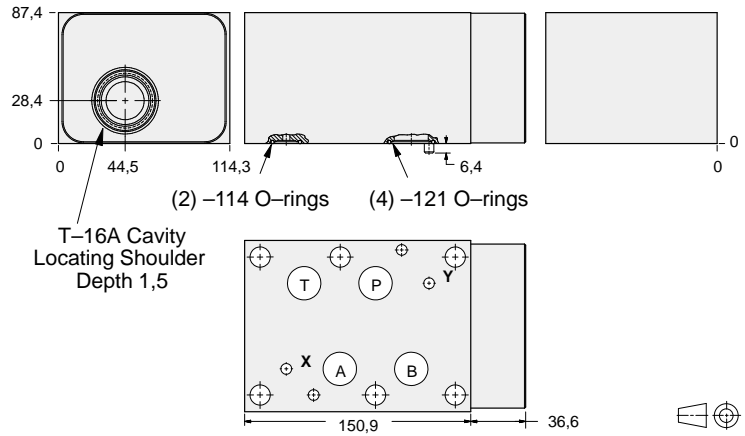
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



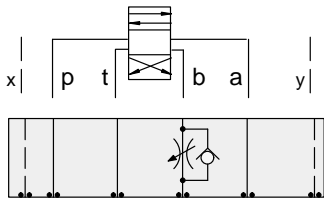
FUNCTION

Meter-Out B

Flow Control Valves



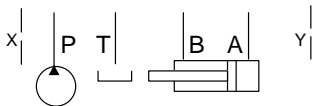
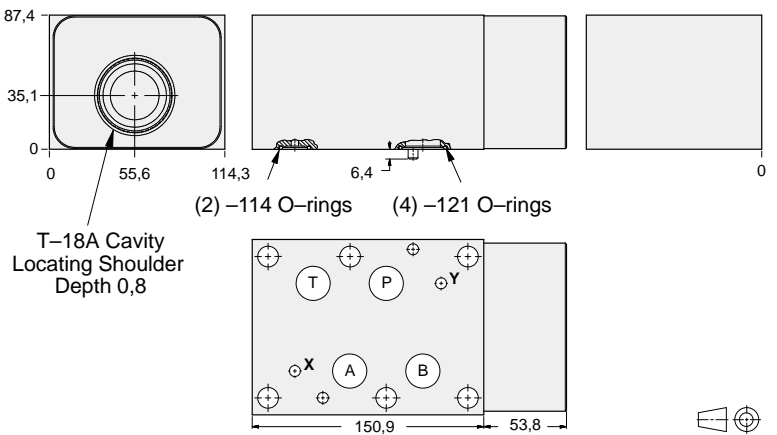
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBB		IBB/S	



FUNCTION

Meter-Out B
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBF		IBF/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

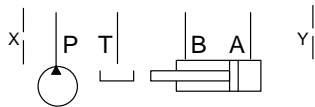
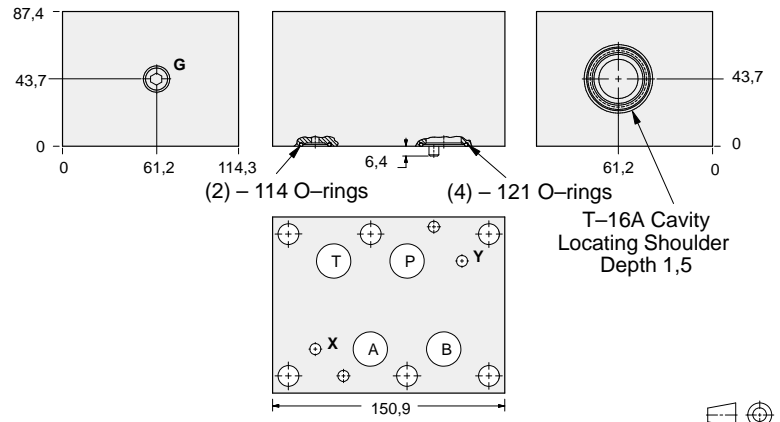
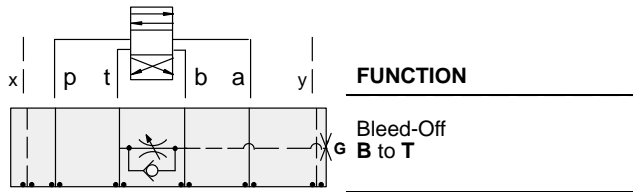
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Part Number	List Price
.25 NPTF	CDD		CDD/S	
.25 BSPP	CDD/M		CDD/T	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NFEC Page 5.13		FXEA Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFB Page 5.17		FCEB Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NCFC Page 5.19		FDEA Page 5.25
OTHER VALVES:	CNGC		

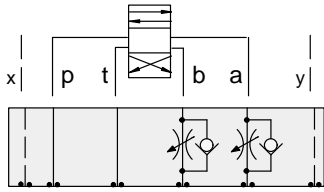
08 FLOW CONTROL



ISO 08 SANDWICH BODIES



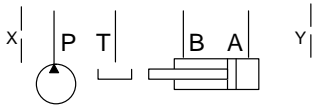
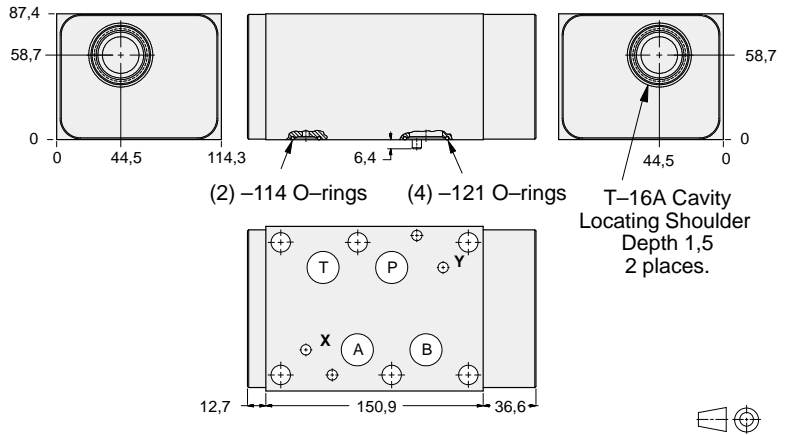
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



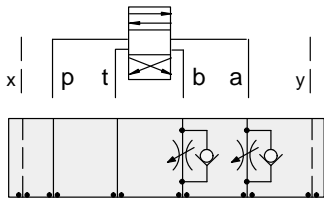
FUNCTION

Meter-In
A and B

Flow Control Valves



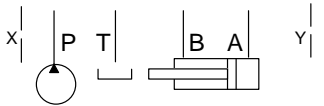
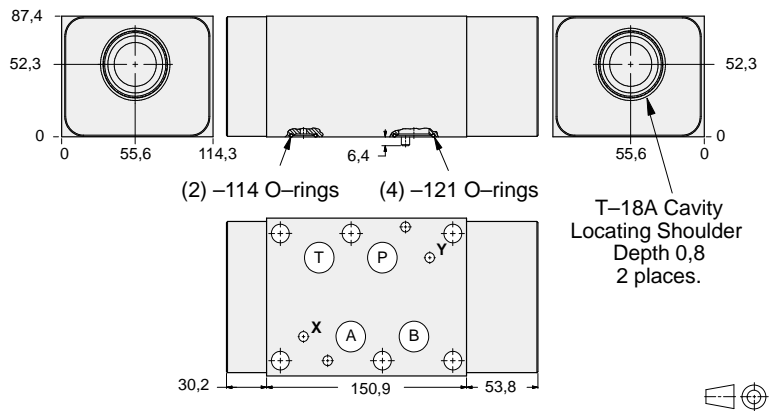
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBX		IBX/S	



FUNCTION

Meter-In
A and B
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBZ		IBZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

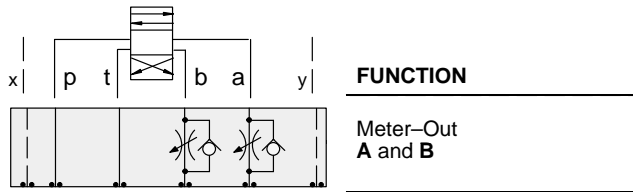
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



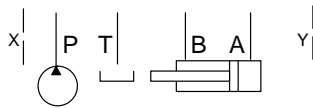
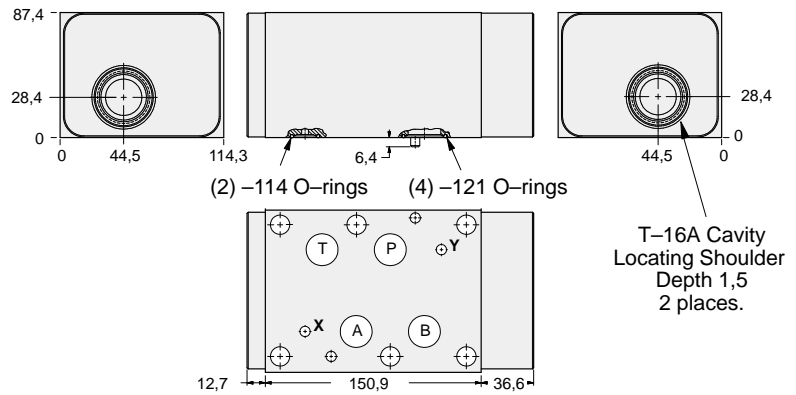
ISO 08 SANDWICH BODIES



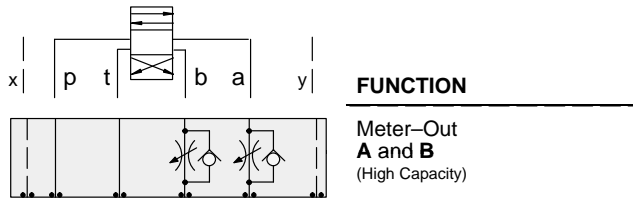
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



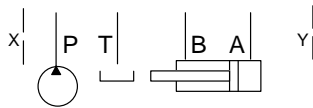
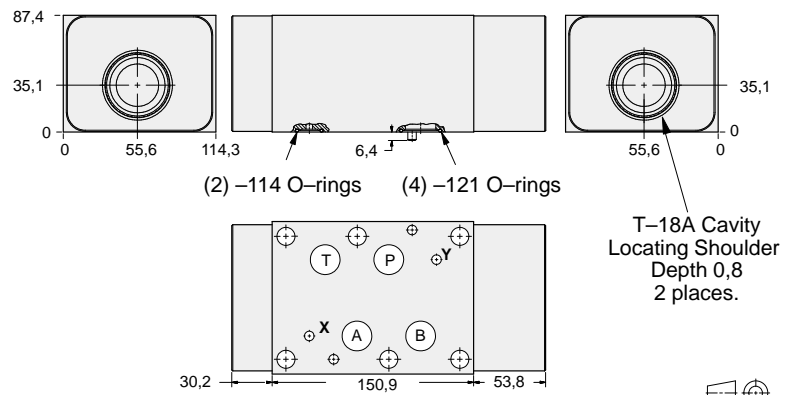
Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBW		IBW/S	



Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBY		IBY/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		

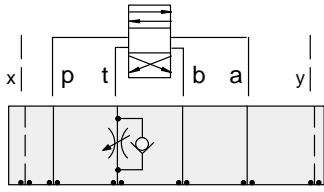
08 FLOW CONTROL



ISO 08 SANDWICH BODIES



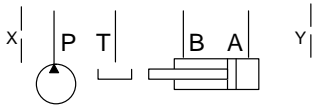
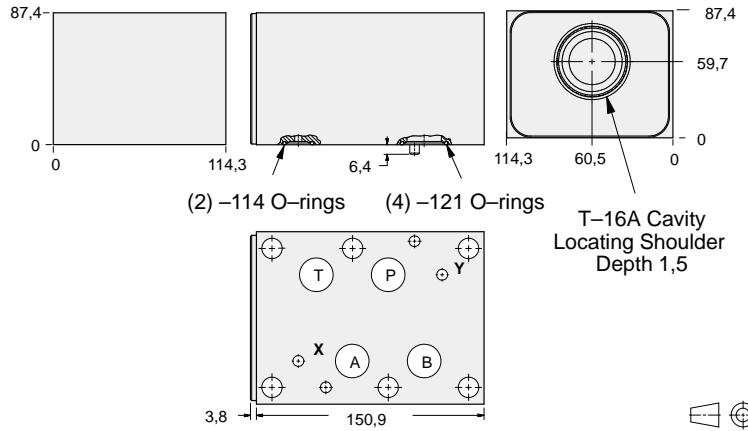
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



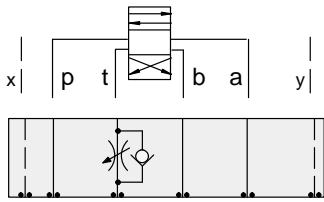
FUNCTION

Meter-Out T

Flow Control Valves



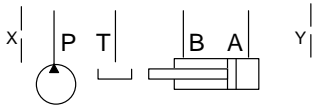
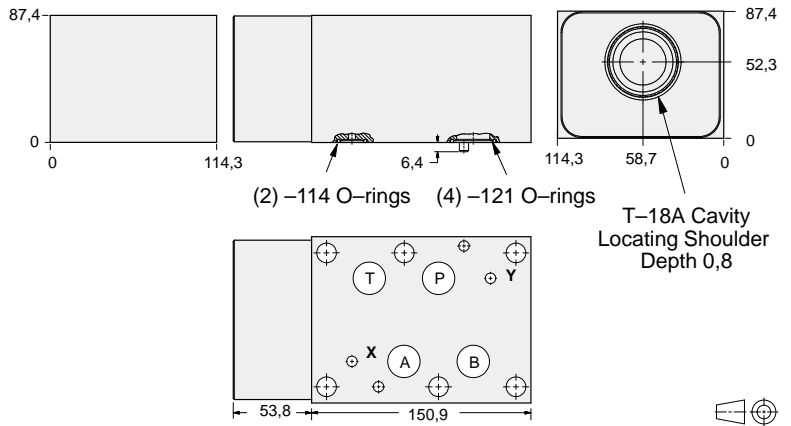
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBT		IBT/S	



FUNCTION

Meter-Out T
(High Capacity)

Flow Control Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBV		IBV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

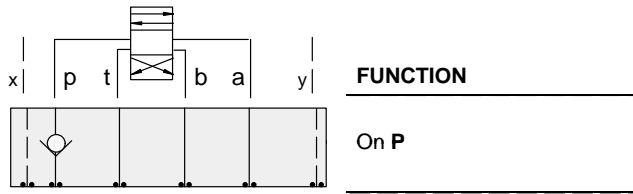
	Fully Adjustable Needle Valve		Fixed Orifice, Pressure-Compensated Flow Control
	NF*C Page 5.13		FX*A Page 5.21
	Fully Adjustable Needle Valve with Reverse Free Flow Check		Fixed Orifice, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*B Page 5.17		FC*B Page 5.23
	Fully Adjustable Needle Valve with Reverse Free Flow Check, Low Flow		Fully Adjustable, Pressure-Compensated Flow Control with Reverse Free Flow Check
	NC*C Page 5.19		FD*A Page 5.25
OTHER VALVES:	CN*C		



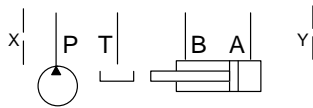
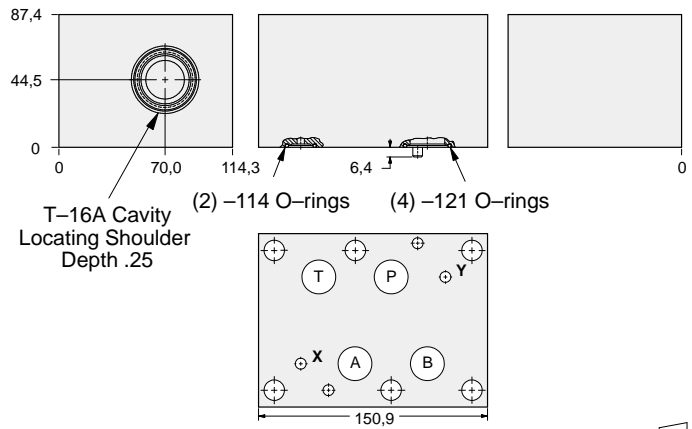
ISO 08 SANDWICH BODIES



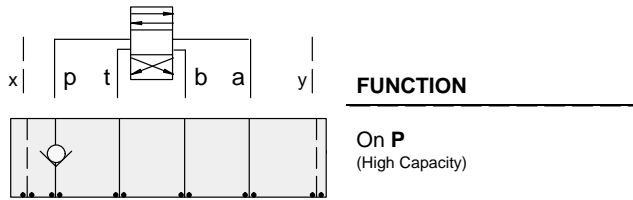
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



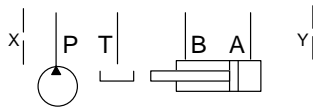
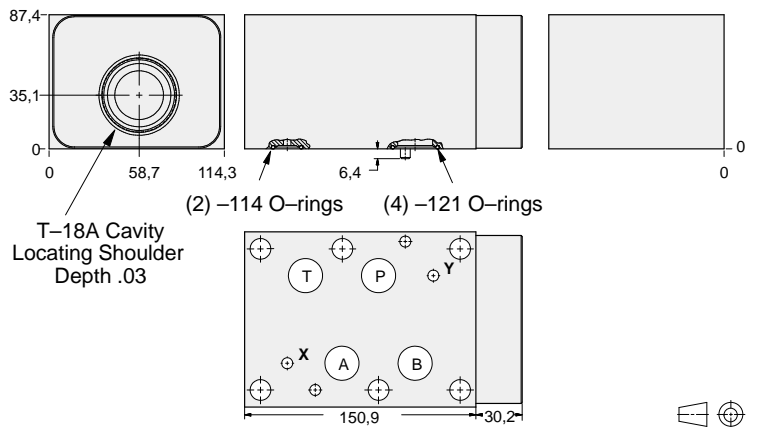
Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBP		IBP/S	



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBO		IBO/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

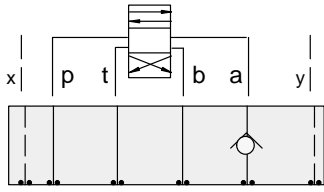
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



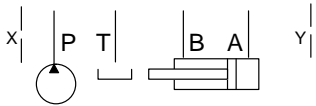
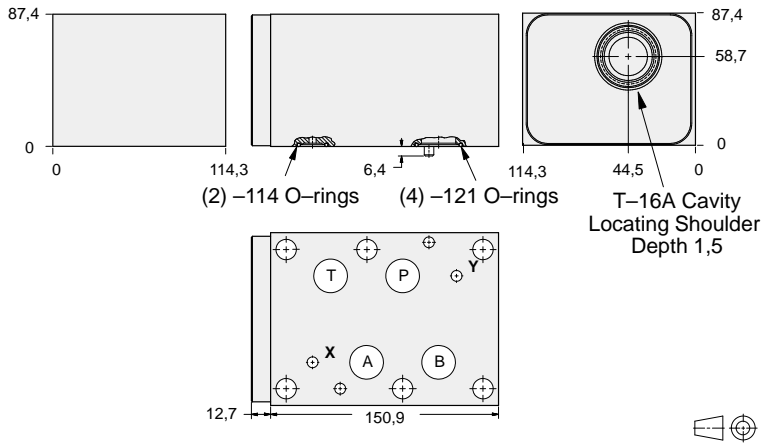
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



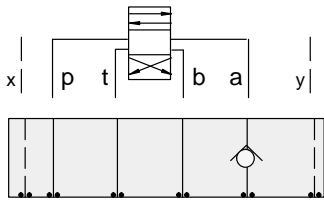
FUNCTION

On A
Free Flow Out
of Valve

Check Valves



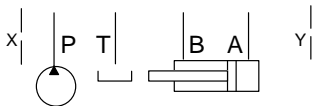
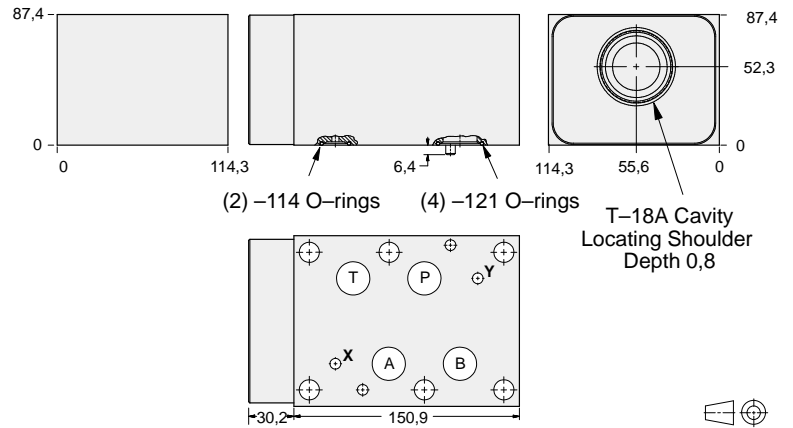
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBC		IBC/S	



FUNCTION

On A
Free Flow Out
of Valve (High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBG		IBG/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			

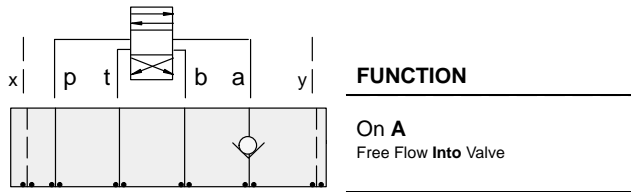
08 CHECK



ISO 08 SANDWICH BODIES



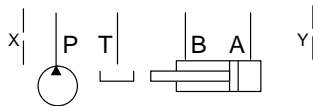
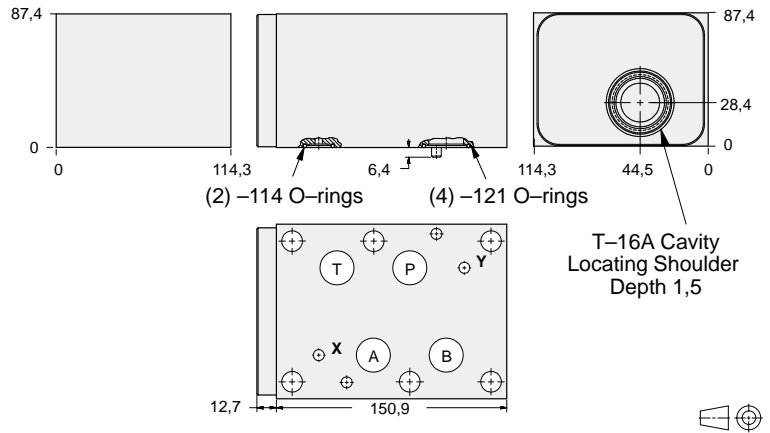
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



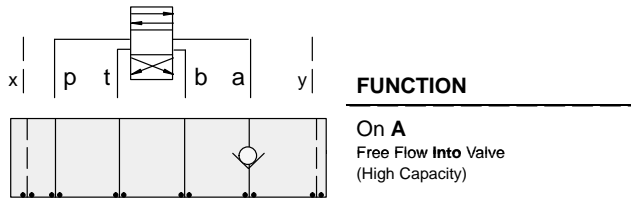
FUNCTION

On A
Free Flow Into Valve

Check Valves



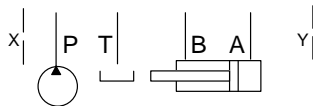
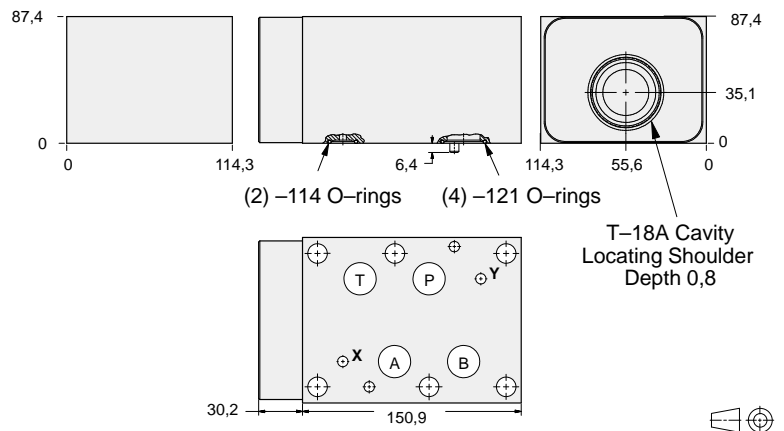
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBA		IBA/S	



FUNCTION

On A
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBE		IBE/S	

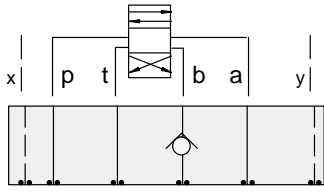
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



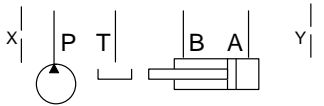
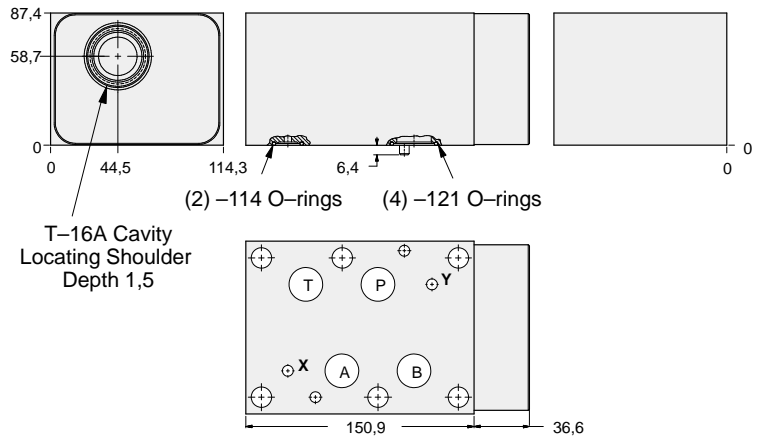
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



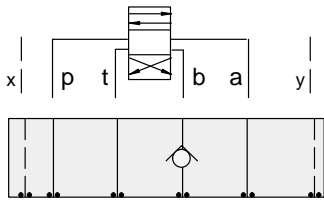
FUNCTION

On B
Free Flow Out
of Valve

Check Valves



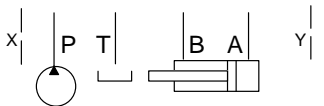
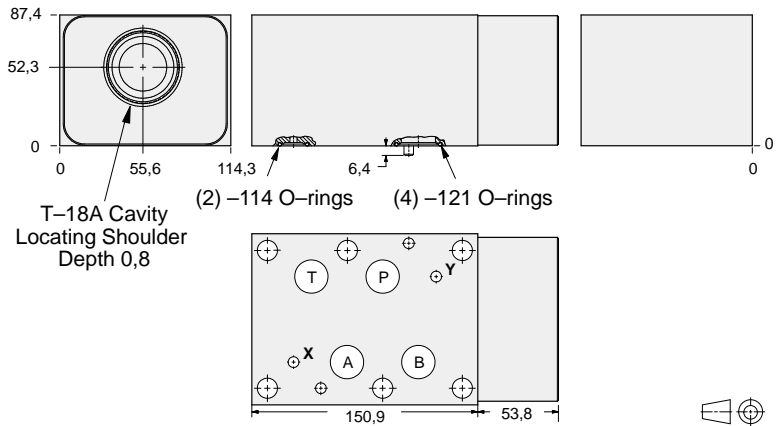
ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Model Code</i>	<i>List Price</i>
IBD		IBD/S	



FUNCTION

On B
Free Flow Out
of Valve (High Capacity)

Check Valves



ALUMINIUM		SG IRON	
<i>Model Code</i>	<i>List Price</i>	<i>Part Number</i>	<i>List Price</i>
IBH		IBH/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			

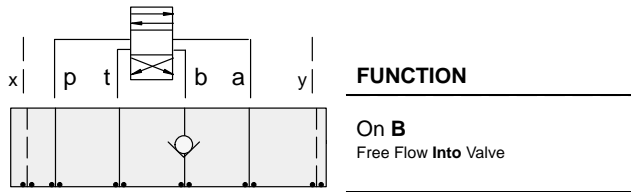
08 CHECK



ISO 08 SANDWICH BODIES



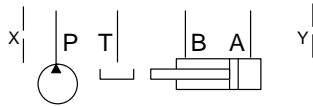
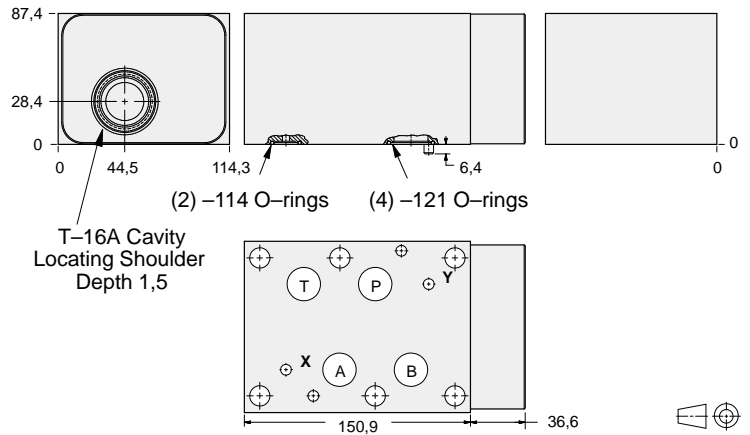
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



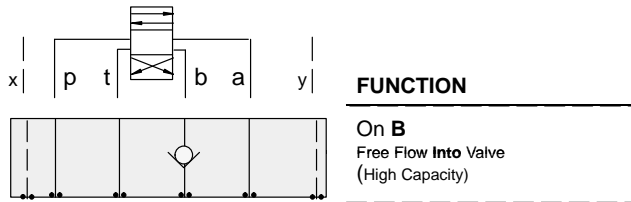
FUNCTION

On B
Free Flow Into Valve

Check Valves



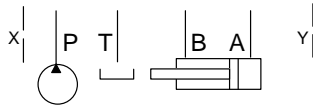
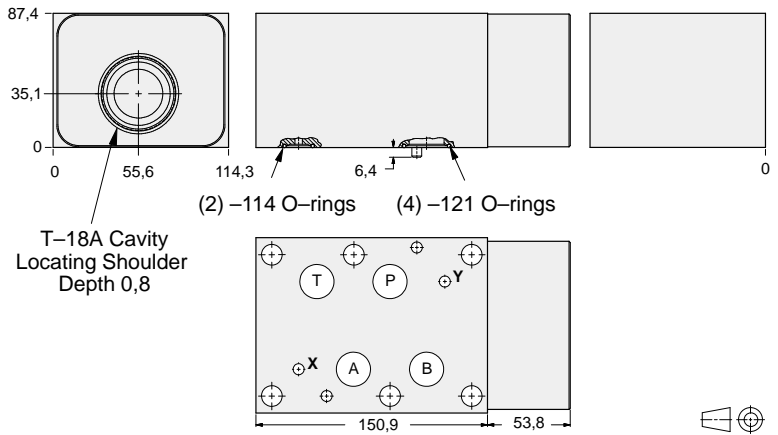
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBB		IBB/S	



FUNCTION

On B
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBF		IBF/S	

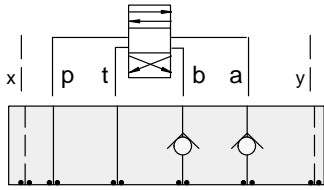
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



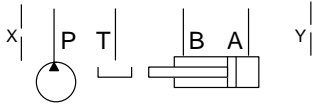
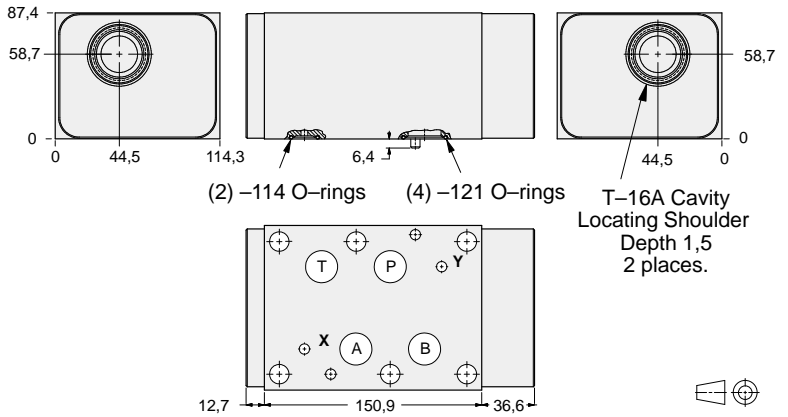
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



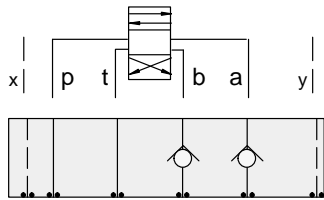
FUNCTION

On **A** and **B**
Free Flow **Out**
of Valve

Check Valves



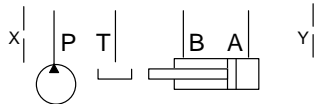
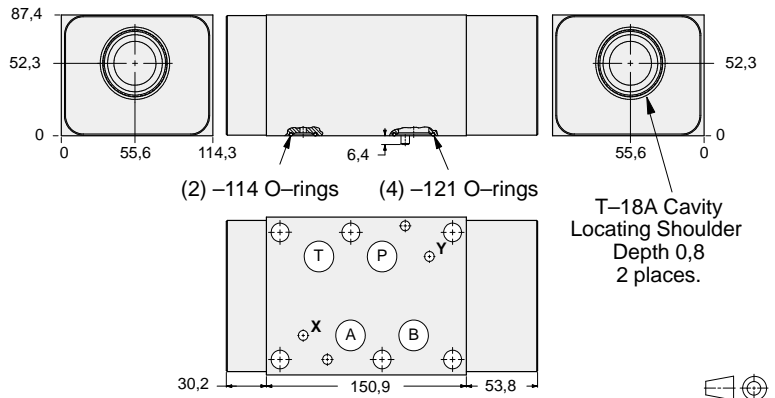
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBX		IBX/S	



FUNCTION

On **A** and **B**
Free Flow **Out**
of Valve (High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBZ		IBZ/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

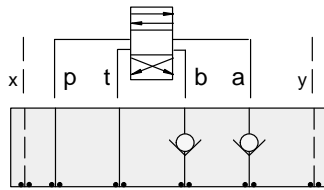
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



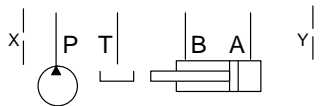
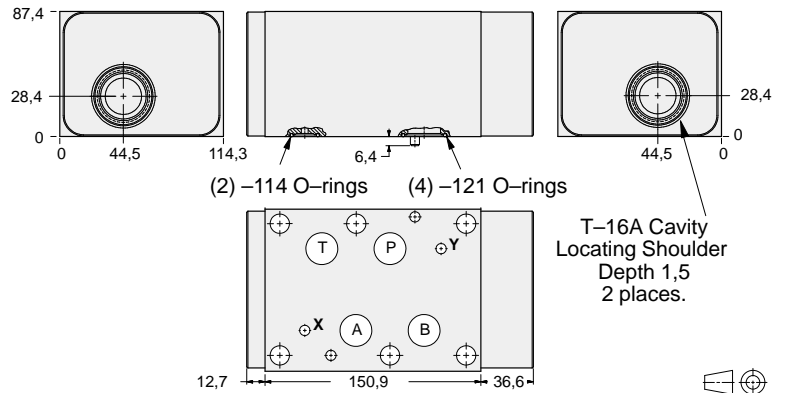
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



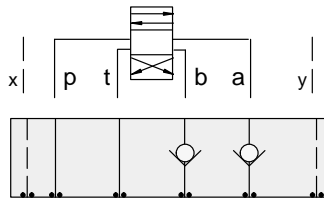
FUNCTION

On **A** and **B**
Free Flow Into Valve

Check Valves



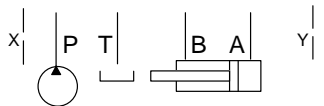
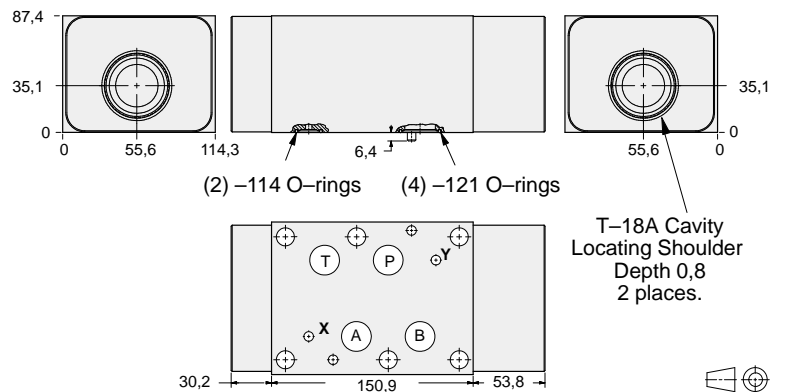
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBW		IBW/S	



FUNCTION

On **A**
Free Flow Into Valve
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBY		IBY/S	

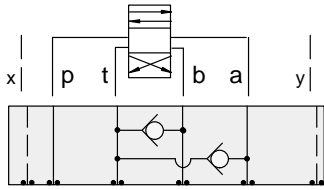
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



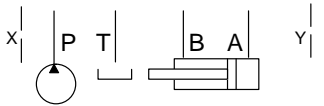
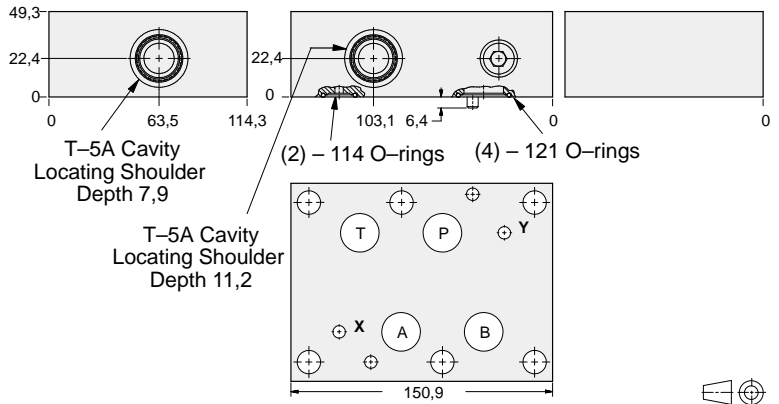
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



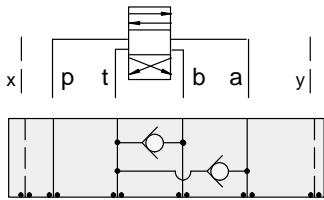
FUNCTION

T to A and B

Check Valves



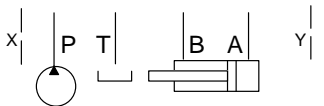
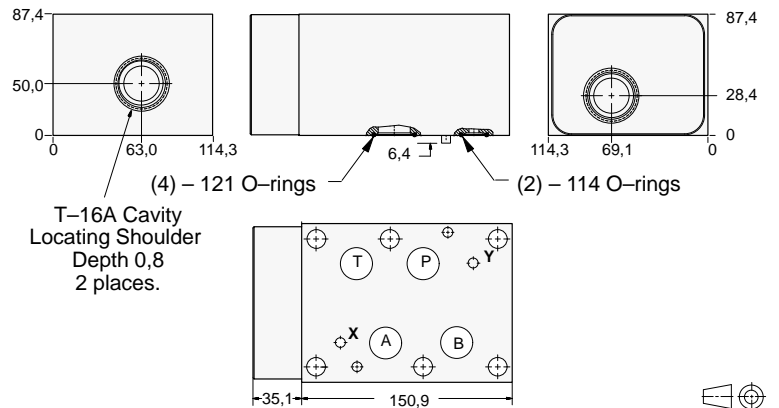
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
CDX		CDX/S	



FUNCTION

T to A and B
(High Capacity)

Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
CDV		CDV/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.08, 5.09		
OTHER VALVES:			

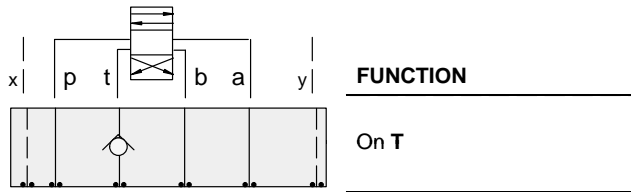
08 CHECK



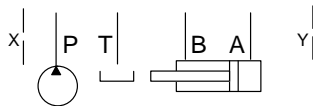
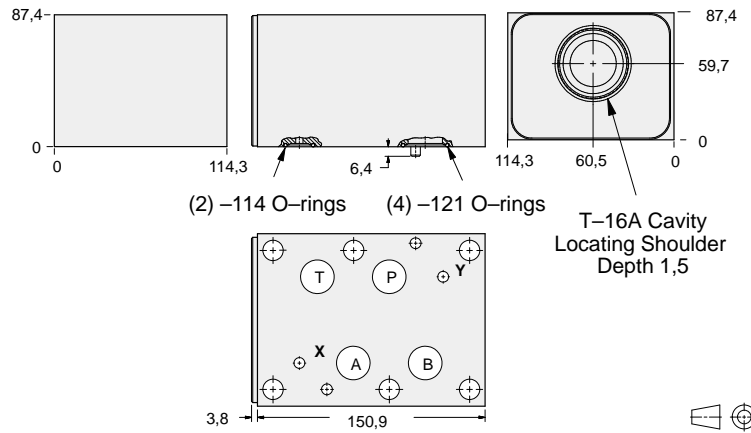
ISO 08 SANDWICH BODIES



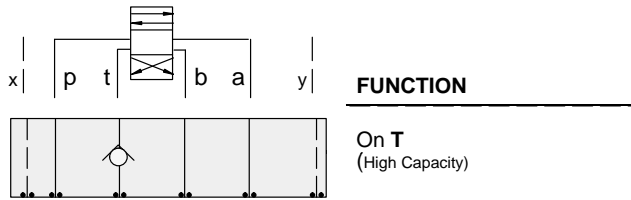
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



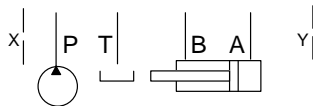
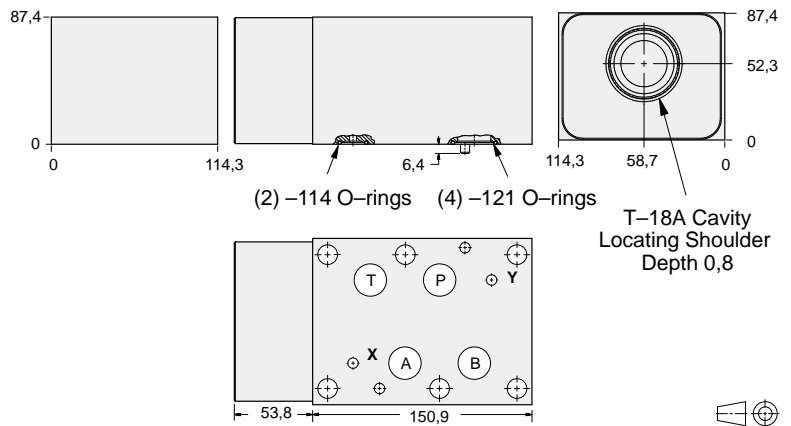
Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBT		IBT/S	



Check Valves



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
IBV		IBV/S	

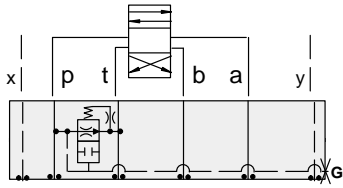
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	Check Valve, Free Flow Port 1 to Port 2 (Nose-to-Side)		
	CX*A Page 5.09		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



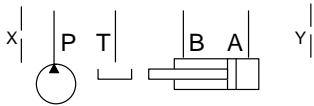
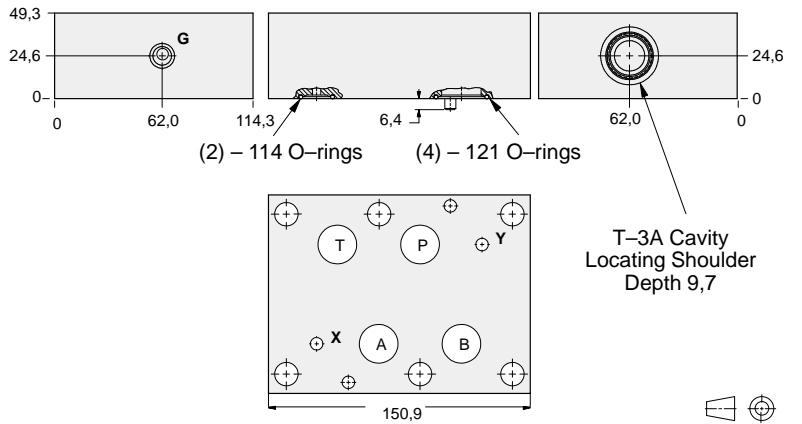
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



FUNCTION

Air-Bleed and Start-Up

Circuit Savers



Gauge Port (Plugged)	ALUMINIUM		SG IRON	
	Model Code	List Price	Model Code	List Price
.25 NPTF	CDP		CDP/S	
.25 BSPP	CDP/M		CDP/T	

08 CIRCUIT SAVER

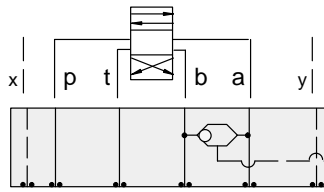
TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	<i>Air Bleed and Start-up Valve</i>		
	NQEB Page 10.16		
OTHER VALVES:			



ISO 08 SANDWICH BODIES



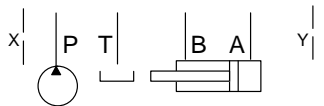
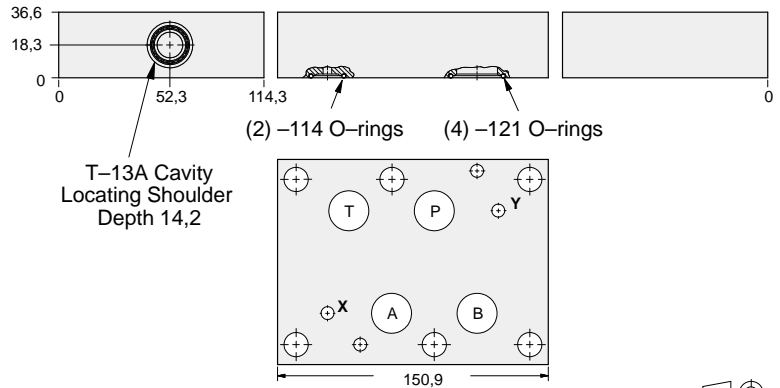
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



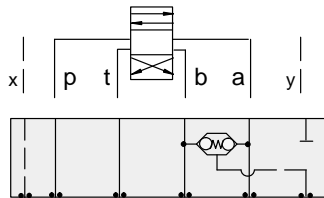
FUNCTION

Shuttle
A and B
Output External

Circuit Savers



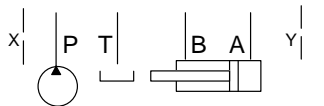
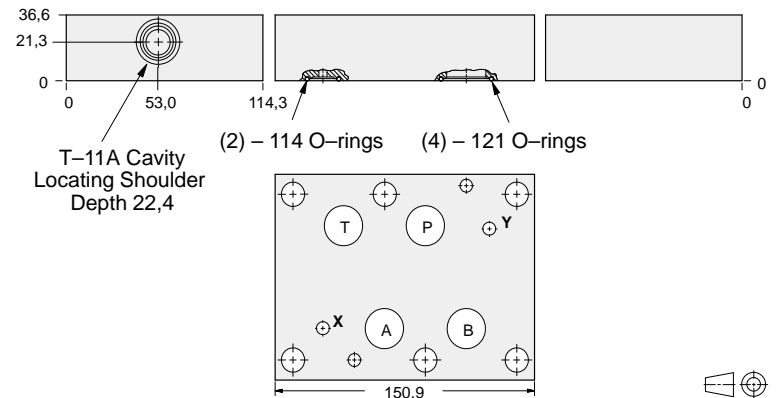
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
IBS		IBS/S	



FUNCTION

Checks from
A and B
Output to Y Port

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
HBS		HBS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE			
	2 Port Shuttle Valve, Signal External		
	CSAA Page 10.09, (use with IBS)		
	3 Port Back-to-Back Check Valve, Signal at Port 3		
	CDAB Page 10.10 (use with HBS)		
OTHER VALVES:			

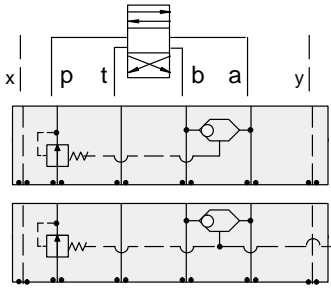
08 CIRCUIT SAVER



ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

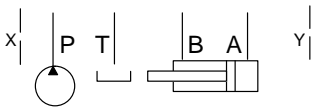
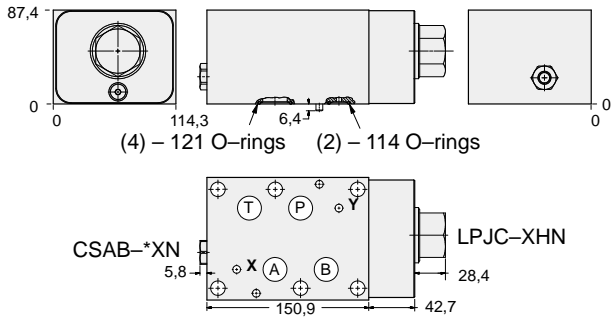


FUNCTION

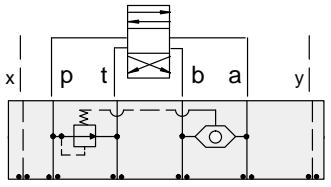
Pressure Compensator (Restrictive)

Pressure Compensator (Restrictive) w/Load-Sensing Port

Circuit Savers



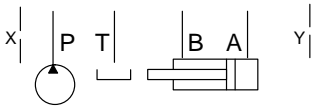
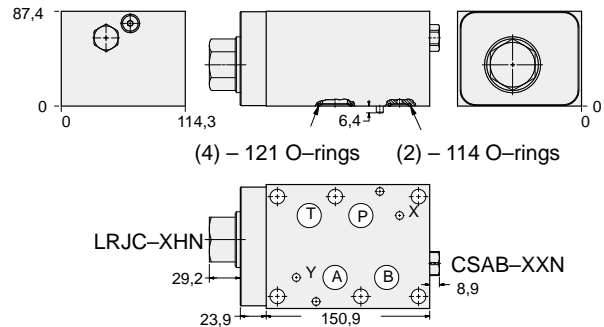
Shuttle Cartridge	External Shuttle Port	ALUMINIUM		SG IRON	
		Model Code	List Price	Model Code	List Price
CSAB-XXN	None	YFIA-XHN-CA		YFIA-XHN-CA/S	
CSAB-AXN	SAE-4	YFIB-XHN-CA		YFIB-XHN-CA/S	
CSAB-BXN	.25 BSPP	YFIB-XHN-CA/M		YFIB-XHN-CA/T	



FUNCTION

Pressure Compensator (Bypass)

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YFIC-XHN-CA		YFIC-XHN-CA/S	

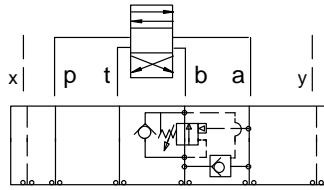
08 CIRCUIT SAVER



ISO 08 SANDWICH BODIES



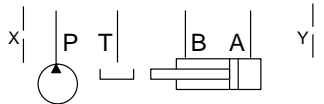
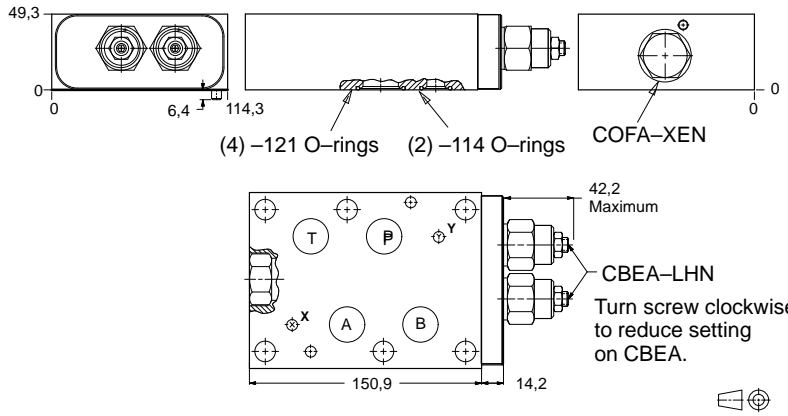
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



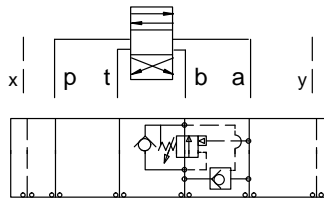
FUNCTION

B to A
Regenerative

Circuit Savers



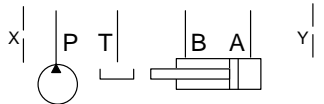
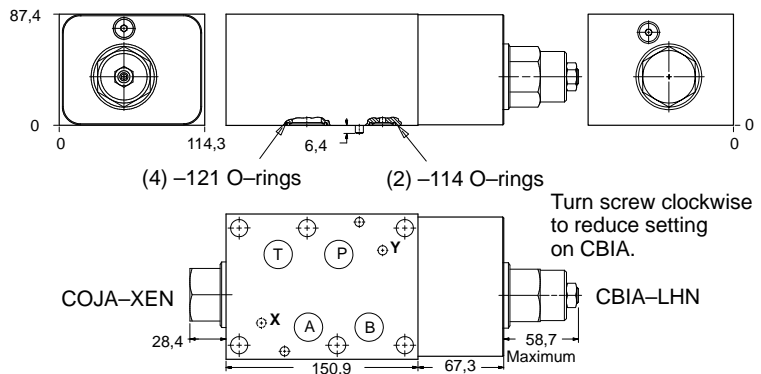
ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDFF-LHN-CA		YDFF-LHN-CA/S	



FUNCTION

B to A
Regenerative
(High Capacity)

Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YDGF-LHN-CA		YDGF-LHN-CA/S	

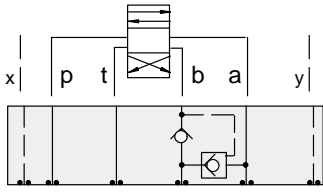


ISO 08 SANDWICH BODIES



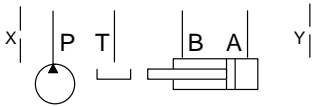
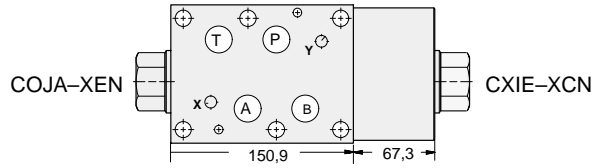
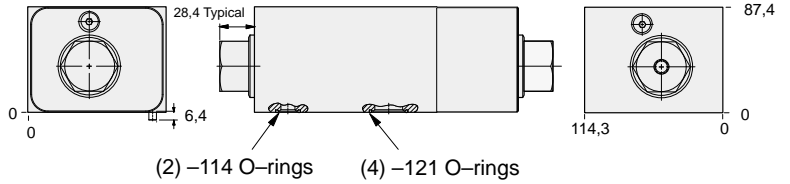
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Circuit Savers



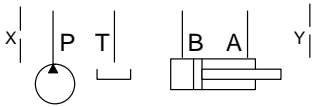
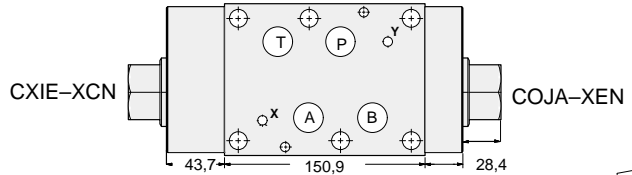
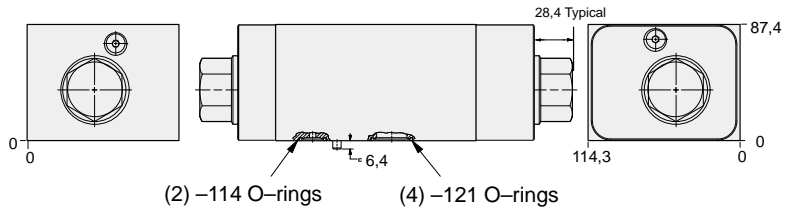
FUNCTION

B to A
Regenerative
(Full Time)



FUNCTION

A to B
Regenerative
(Full Time)



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDGH-XCN-CA		YDGH-XCN-CA/S	

ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YDGI-XCN-CA		YDGI-XCN-CA/S	

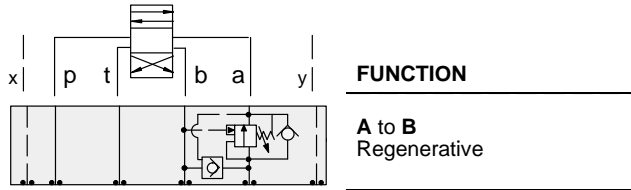
08 CIRCUIT SAVER



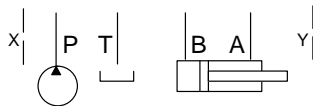
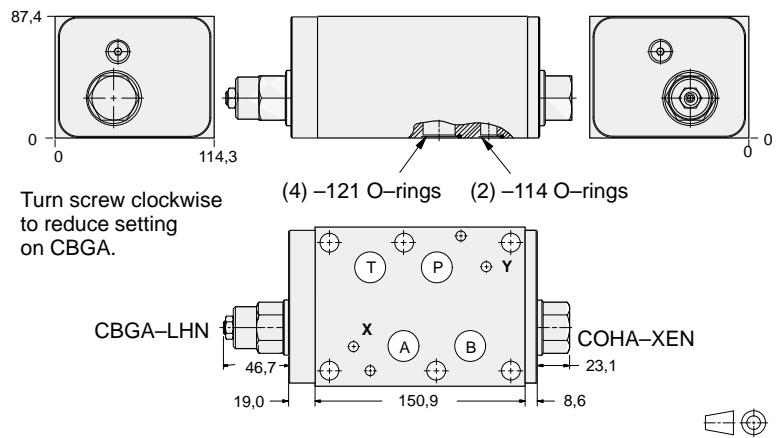
ISO 08 SANDWICH BODIES



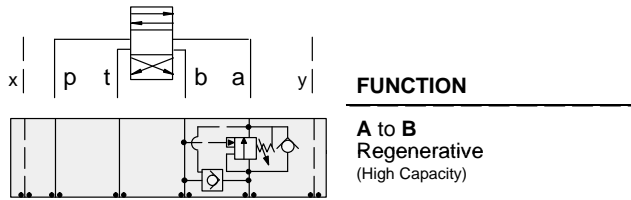
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.



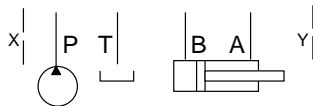
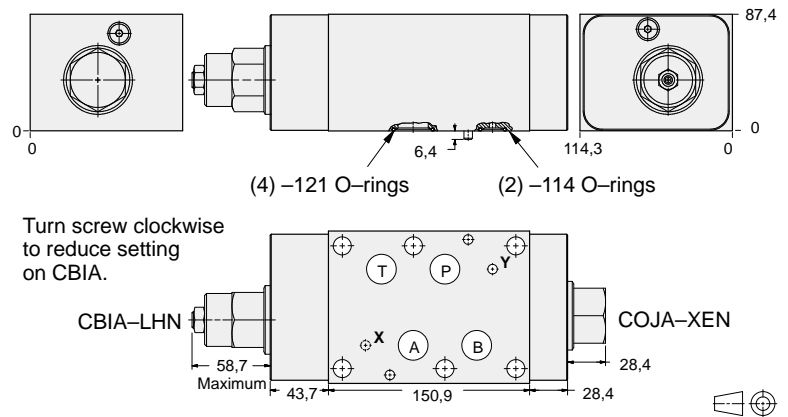
Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Model Code	List Price
YDFJ-LHN-CA		YDFJ-LHN-CA/S	



Circuit Savers



ALUMINIUM		SG IRON	
Model Code	List Price	Part Number	List Price
YDGE-LHN-CA		YDGE-LHN-CA/S	

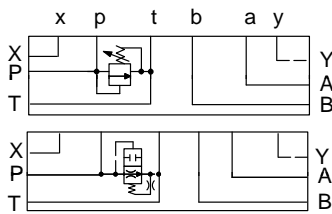


ISO 08 SANDWICH BODIES



- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

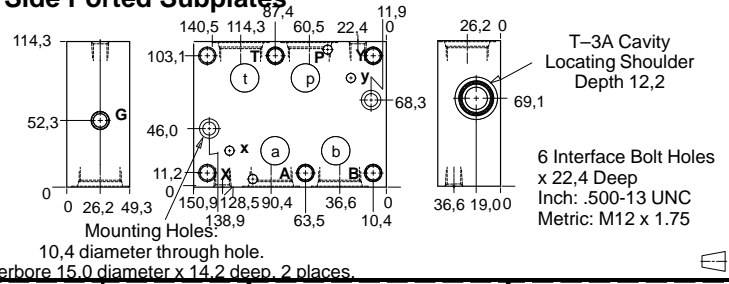
Side Ported Subplates



FUNCTION

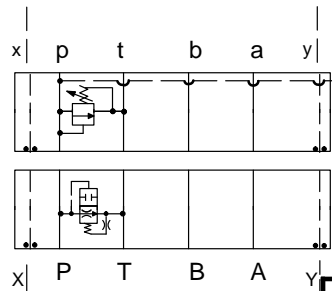
Relief P to T

Air-Bleed and Start-Up



Interface Bolt Holes	Port P,T,A,B	Port X,Y	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	1.00 NPTF	.25 NPTF	.25 NPTF	CSE		CSE/S	
Inch	SAE-16	SAE-6	.25 NPTF	CSM		CSM/S	
Metric	1.00 BSPP	.25 BSPP	.25 BSPP	CSX		CSX/S	

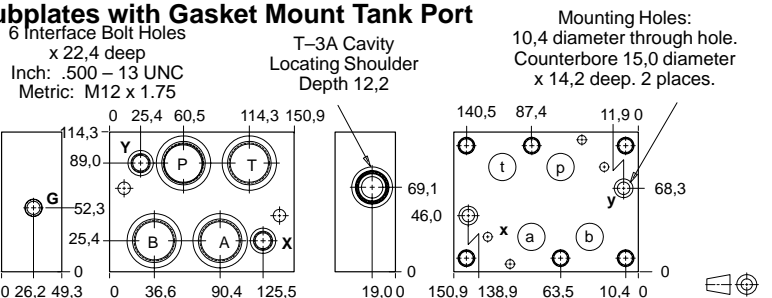
Side Ported Subplates with Gasket Mount Tank Port



FUNCTION

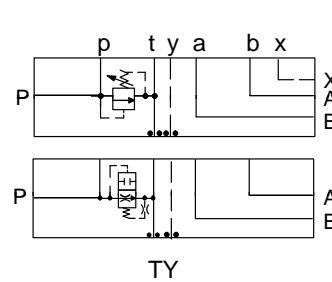
Relief P to T

Air-Bleed and Start-Up



Interface Bolt Holes	Port P,T,A,B	Port X,Y	Gauge Port	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	1.00 NPTF	.25 NPTF	.25 NPTF	CRE		CRE/S	
Inch	SAE-16	SAE-6	.25 NPTF	CRM		CRM/S	
Metric	1.00 BSPP	25 BSPP	.25 BSPP	CRX		CRX/S	

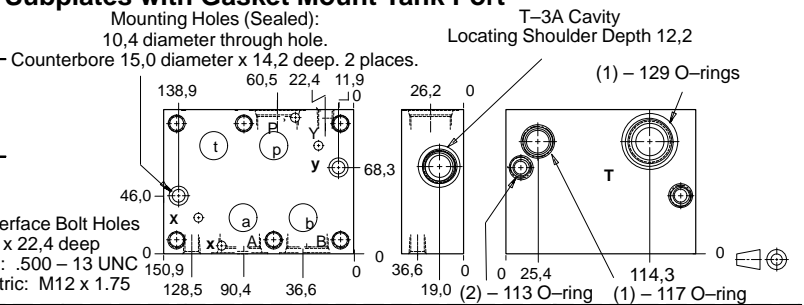
Side Ported Subplates with Gasket Mount Tank Port



FUNCTION

Relief P to T

Air-Bleed and Start-Up



Interface Bolt Holes	Ports A, B, P	Port T	Port X, Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
Inch	1.00 NPTF	1.00 NPTF	.25 NPTF	.25 NPTF	CTE		CTE/S	
Inch	SAE-16	1.00 NPTF	SAE-6	.25 NPTF	CTM		CTM/S	
Metric	1.00 BSPP	1.00 BSPP	.25B SPP	.25 BSPP	CTS		CTS/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

 Pilot Operated Relief Valve RPGC Page 1.06	 Direct Acting Relief Valve RDFA Page 1.10
OTHER VALVES:	

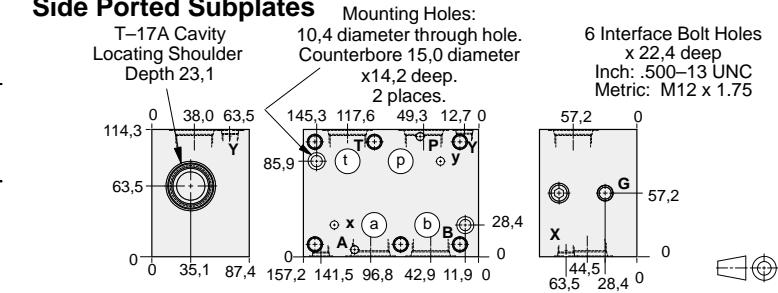
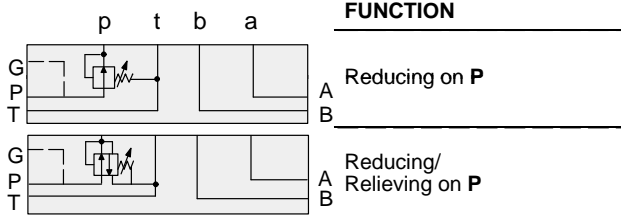


ISO 08 SANDWICH BODIES



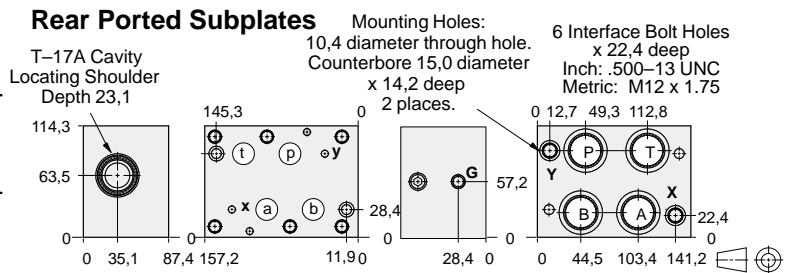
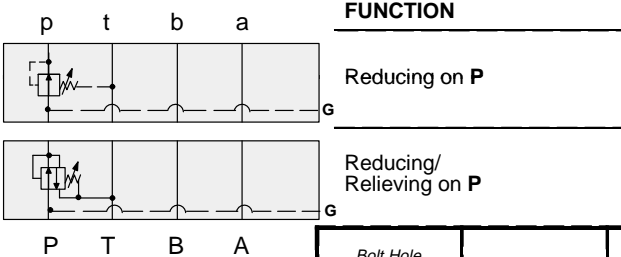
- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

Side Ported Subplates



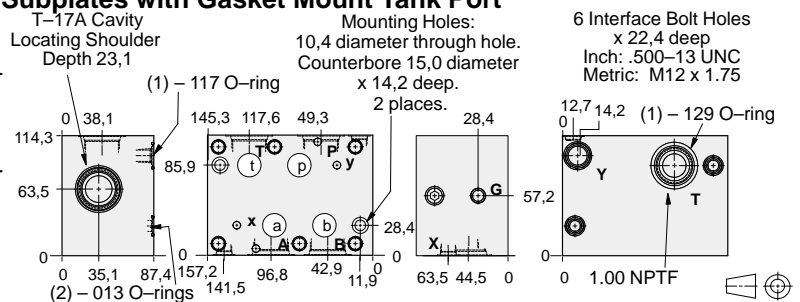
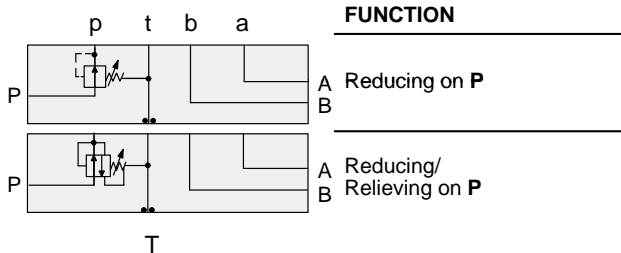
Bolt Hole Interface	Gauge Port	Ports A,B,P,T	Ports X,Y	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	1.00 NPTF	.25 NPTF	HSE		HSE/S	
Inch	.25 NPTF	SAE-16	SAE-6	HSM		HSM/S	
Metric	.25 BSPP	1.00 BSPP	.25 BSPP	HSX		HSX/S	

Rear Ported Subplates



Bolt Hole Interface	Gauge Port	Ports A,B,P,T	Ports X,Y	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	1.00 NPTF	.25 NPTF	HRE		HRM/S	
Inch	.25 NPTF	SAE-16	SAE-6	HRM		HRM/S	
Metric	.25 BSPP	1.00 BSPP	.25 BSPP	HRX		HRX/S	

Side Ported Subplates with Gasket Mount Tank Port



Bolt Hole Interface	Gauge Port	Ports A,B,P	Ports X, Y	ALUMINIUM		SG IRON	
				Model Code	List Price	Model Code	List Price
Inch	.25 NPTF	1.00 NPTF	.25 NPTF	HTE		HTE/S	
Inch	.25 NPTF	SAE-16	SAE-6	HTM		HTM/S	
Metric	.25 BSPP	1.00 BSPP	.25 BSPP	HTX		HTX/S	

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Reducing Valve		Pilot Operated Reducing/Relieving Valve
	PBHB Page 3.07		PPHB Page 3.11
	Air Controlled, Pilot Operated Reducing Valve		Air Controlled, Pilot Operated Reducing/Relieving Valve
	PBHC Page 3.09		PPHC Page 3.13



BAR MANIFOLDS

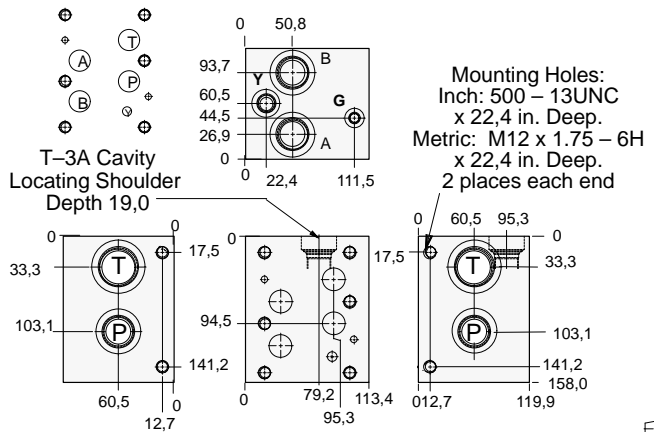
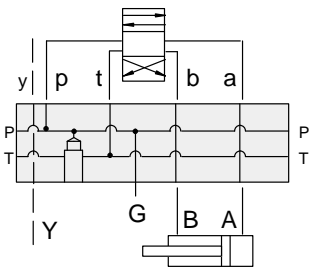


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 08 Parallel Circuit with Relief Cavity and Y Port

FUNCTION

One Station



Mounting Holes	Part T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.25 NPTF	1.00 NPTF	.375 NPTF	.25 NPTF	VLN		VLN/S	
inch	SAE-20	SAE-16	SAE-8	SAE-4	VLT		VLT/S	
metric	1.25 BSPP	1.00 BSPP	.375 BSPP	.25 BSPP	VLX		VLX/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			

BAR MANIFOLDS

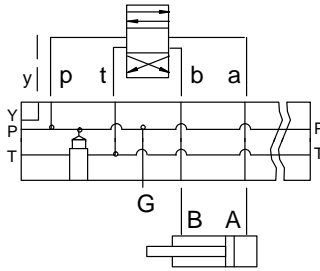


BAR MANIFOLDS

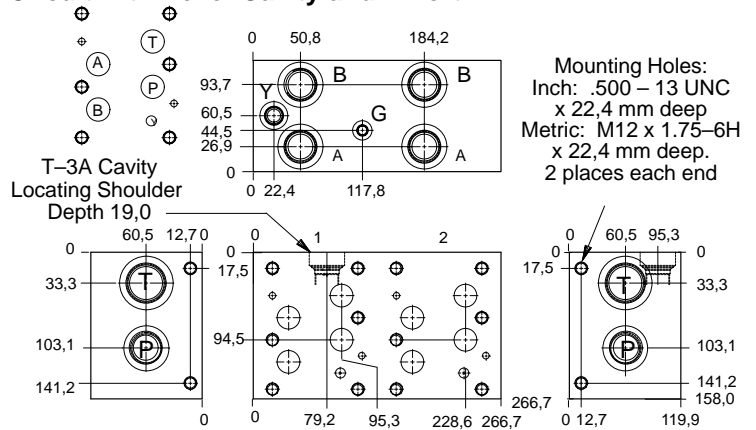


- Aluminium rated to 210 bar and SG Iron rated to 350 bar.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

ISO 08 Parallel Circuit with Relief Cavity and Y Port



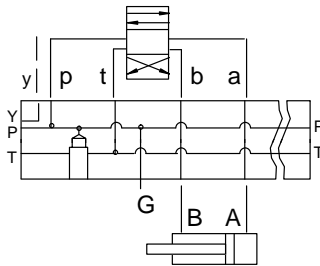
FUNCTION
Two Station



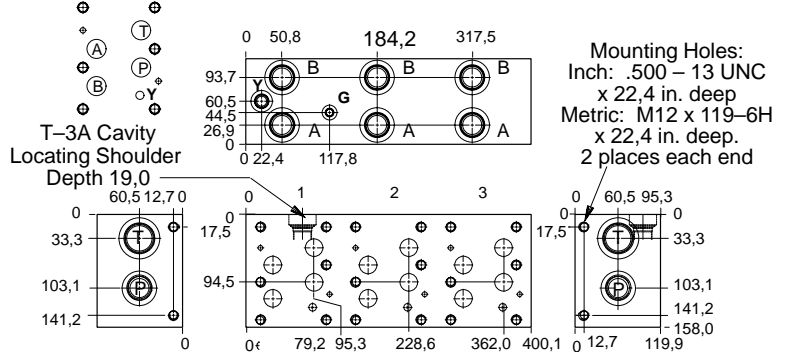
Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.25 NPTF	1.00 NPTF	.375 NPTF	.25 NPTF	VLP		VLP/S	
inch	SAE-20	SAE-16	SAE-8	SAE-4	VLV		VLV/S	
metric	1.25 BSPP	1.00 BSPP	.375 BSPP	.25 BSPP	VLY		VLY/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

ISO 08 Parallel Circuit with Relief Cavity and Y Port



FUNCTION
Three Station



Mounting Holes	Port T	Ports A, B, P	Port Y	Gauge Port	ALUMINIUM		SG IRON	
					Model Code	List Price	Model Code	List Price
inch	1.25 NPTF	1.00 NPTF	.375 NPTF	.25 NPTF	VLR		VLR/S	
inch	SAE-20	SAE-16	SAE-8	SAE-4	VLW		VLW/S	
metric	1.25 BSPP	1.00 BSPP	.375 BSPP	.25 BSPP	VLZ		VLZ/S	

Bar Manifold Mounting Kits to be ordered separately. See page 12.087.

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

	Pilot Operated Relief Valve		Direct Acting Relief Valve
	RPGC Page 1.06		RDFA Page 1.10
OTHER VALVES:			





