

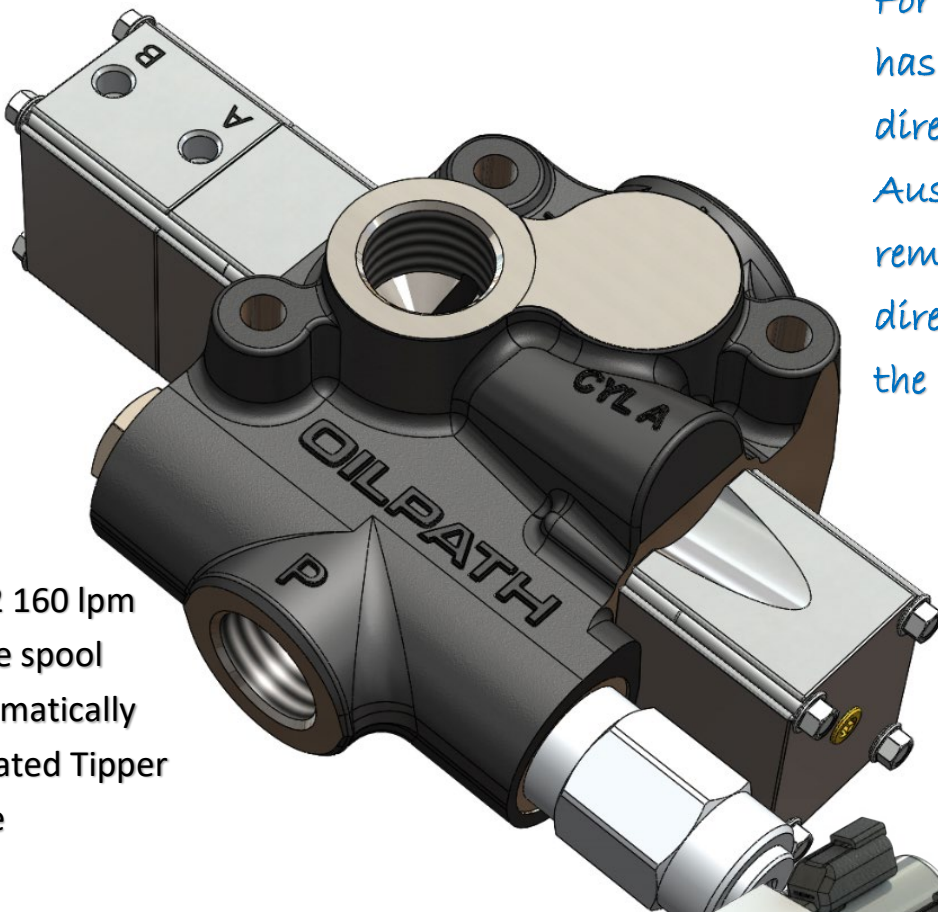


# Oilpath 2021 Product Catalogue and Price List

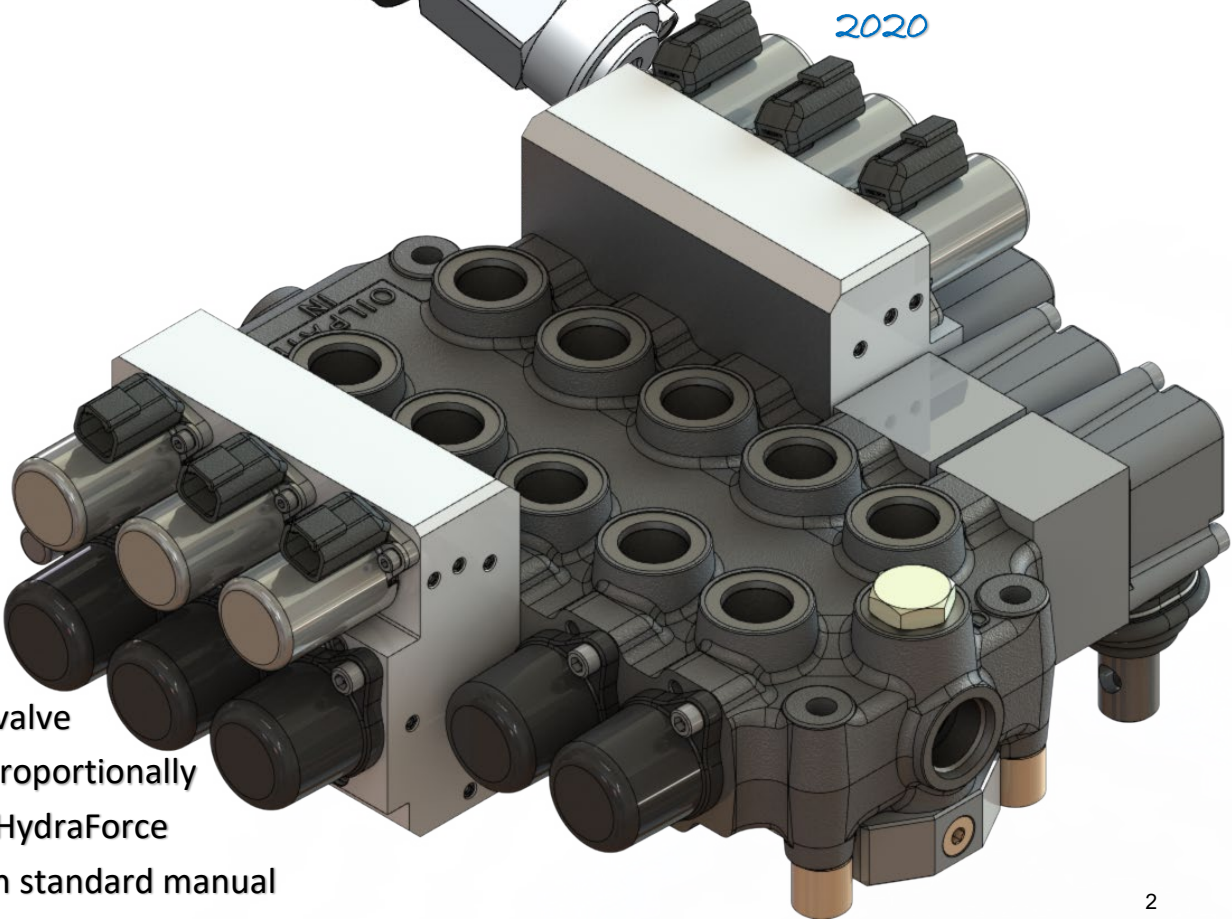


For almost 50 years Oilpath has been manufacturing directional control valves in Australia and to this day remains the sole producer of directional control valves in the country.

The OP range remains the benchmark for quality and reliability with new solenoid control valves hitting the market in 2020



OP22 160 lpm  
Single spool  
pneumatically  
operated Tipper  
Valve



OP20 5 spool valve  
with 3 being proportionally  
controlled by HydraForce  
cartridges with standard manual  
override handle levers



# OILPATH

VALVE & MANIFOLD MANUFACTURING



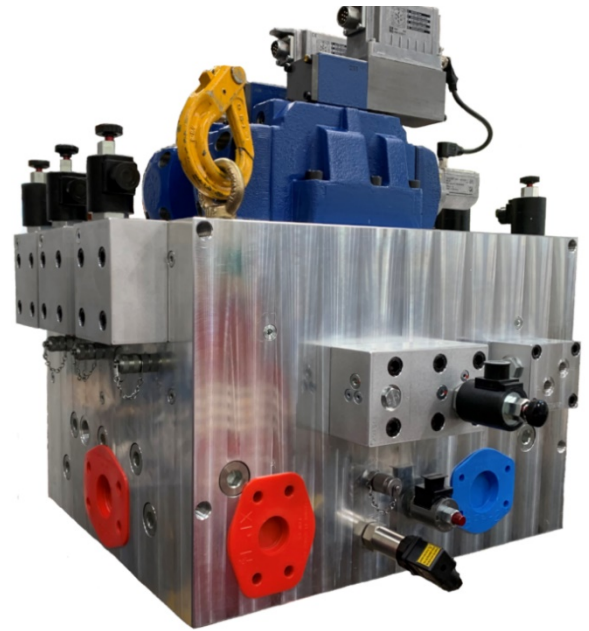
*Tell us your hydraulic circuit and we will design and manufacture a solution*

# Oilpath Hydraulics About Us

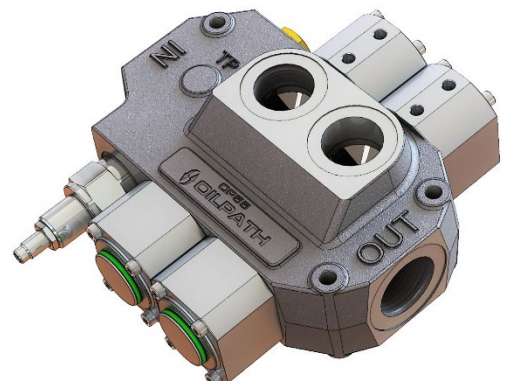
Oilpath has been manufacturing hydraulic control valves in Australia for over 40 years, steadily building our product range to compete with the multi-national importers present in the market, and proudly remain the sole manufacturers of directional control valves in Australia, including our propriety range of OP monoblock control valves, tipping truck valves and safety systems. Today Oilpath is a specialist designer and manufacturer of hydraulic valves and manifolds for the agricultural, mobile, mining, industrial, defence and shipbuilding industries.

Oilpath is proud to be the preferred Australian partner for HydraForce, and the largest importer and stockist of their comprehensive range of high-performance cartridge valves and electronic control systems. Oilpath utilise the HydraForce product as the primary cartridge in our standard and custom manifold designs. Oilpath's experienced engineers are available to discuss your specific requirements and will optimise the most efficient, economical and compact solution.

Oilpath has been assessed and approved by QAS International to the following management systems, standards and guidelines:  
 Integrated Management System PAS99:2012  
 certificate number AUP1242PAS  
 ISO9001:2015  
 ISO14001:2015  
 ISO45001:2018  
 AS/NZS 4801:2001



*Oilpath has successfully designed and commercialised a comprehensive range of hydraulic valving products for the transport, mobile, industrial and mining markets.*



## Oilpath Hydraulics Design and Manufacture

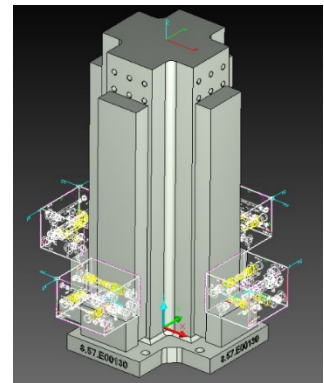
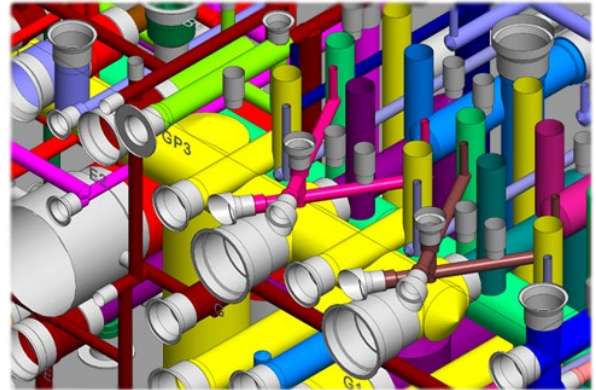
Engineering is deep seeded in Oilpath's history and stems back to the 1970's when Oilpath pioneered control valve manufacture in Australia providing locally made product. Oilpath has successfully developed and introduced new customised CAD & CAM Software systems to facilitate the ultimate in efficient "design-to-market" system processes in the industry and optimise the development of the most cost-effective manifolds; thus shortening lead times for the customer and increasing Oilpath's productivity. The system includes feature recognition, feature manipulation, machine simulation and extensive valve cavity libraries.

Oilpath has dedicated staff to liaise with you or your engineers and designers to work through any issues that may arise during design or prototyping. With their background, proven track record and design resources at hand, Oilpath will work with you to bring concept or hydraulic valving project to fruition.



Early in 2019 Oilpath invested heavily in an additional four new machine tools, two of which will be dedicated to manifold production. These machine tools are state of the art, with capabilities that are ideal for accurate and efficient manifold manufacture. Facilities such as high spindle speeds, through spindle coolant, high rapid travel movements, extremely fast tool change times with preselected tooling. The machines are also equipped with the latest in programable rotating tables, robust fixtures, hydraulic vices and the latest in cutting tools, and in-process telemetry touch probes for accuracy of positioning and in-process measuring.

With a focus on quality, function and performance, at Oilpath we want to make it easy for you to make the most informed and best choice when it comes to your next hydraulic valving purchase.



*Oilpath has successfully developed and introduced new customised CAD & CAM Software to optimise the development of the most cost-effective manifold design combined with the ultimate in efficient design to manufacturing system processes in the industry*



## Mining & Related Products

Mining as a mainstay of Australian business has long been an integral component of Oilpath. From complex custom designed and manufactured manifolds through to special hydraulic cartridge valves and special custom mining related jacking pumps. There is no industry demanding higher levels of service and reliability than mining.

*Oilpath's structured manufacturing systems and highly service driven culture combines perfectly to "deliver the goods": whether it be individual valves or complex designed and manufactured Hydraulic manifolds.*

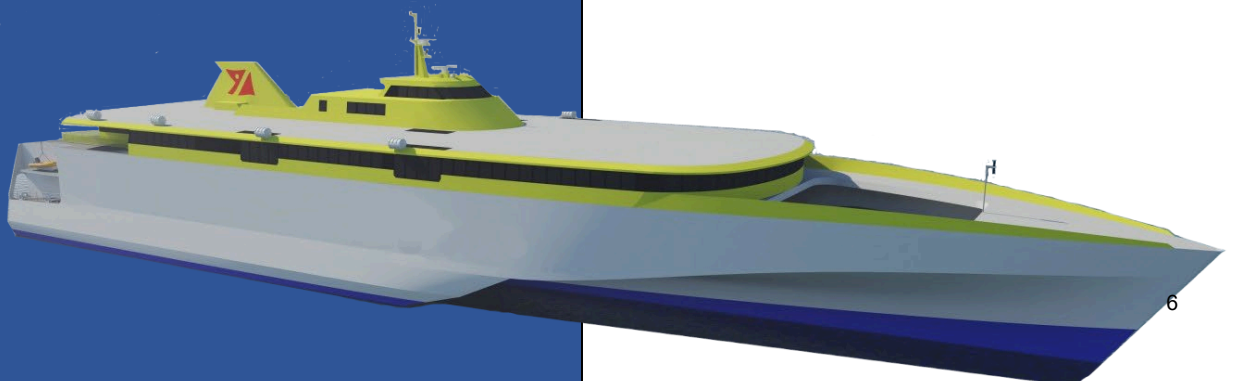


## Ship Building & Industrial

Oilpath has gained valuable experience in designing and manufacturing large complex manifold solutions for the ship building and Industrial sectors, this has included extensive Factory Acceptance Testing.

Oilpath has a global partner in HydraForce Inc. HydraForce has comprehensive lines of quality cartridge valves and electronic equipment utilised in some of the worlds largest OEM's

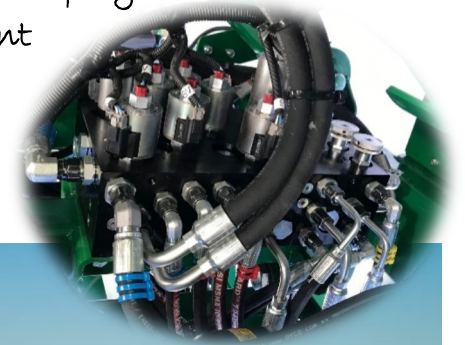
*Oilpath utilise HydraForce cartridge valves and electronic control systems. Oilpath valving solutions are utilised in a wide range of ship building and industrial applications such as elevating work platforms, winches, skid loaders and in ship roll controls and other applications*



## Agriculture

Oilpath Hydraulic Control Valves have been the Agricultural Industry benchmark since the 1970's. The OP20 valve has been utilised on a wide range of equipment from Wool Presses to Front End Loading attachments and is now the only Australian owned and manufactured Hydraulic Control Valve in the market. Today Oilpath is a market leader in the design and manufacturing of Hydraulic Control Manifolds for the state of art agricultural equipment

*Oilpath manifolds are utilised on a wide range of machinery such as Air Seeders, Sugar Cane Harvesters, tillage and spray equipment*



## Transport, Tipper Truck & Mobile

The Diversity of Oilpath's manufacturing capabilities combined with industry specific experience provides a powerful and competitive resource for Transport and Mobile Industry manufacturers. Long association with industry icons is testimony to Oilpath's ability to deliver to the demanding criteria of major and complex Hydraulic valving Projects. Whether your projects are simple or complex, please ask one of our specialist sales people to call in and discuss your current and upcoming requirements

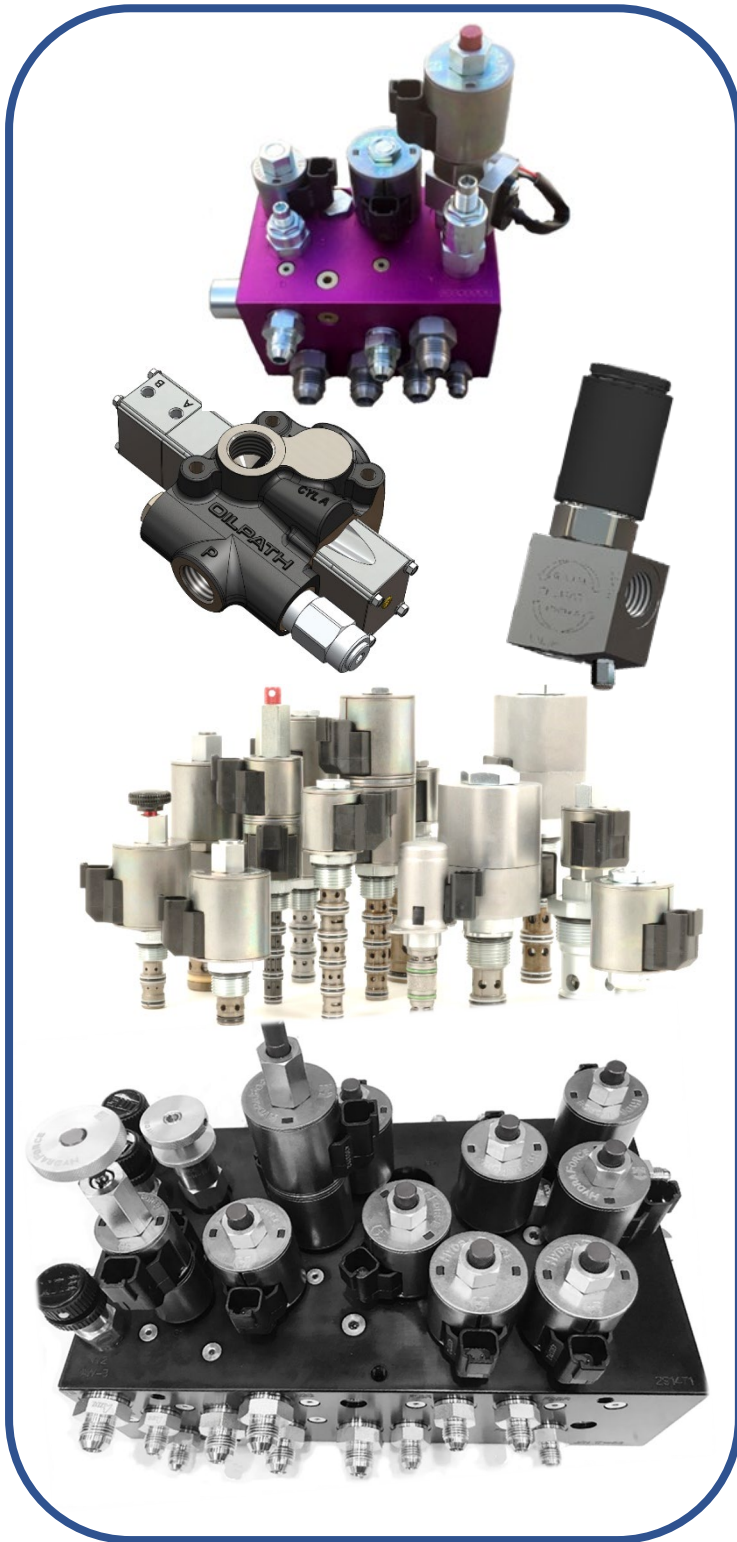


# 2020 Price List

[www.oilpathhydraulics.com.au](http://www.oilpathhydraulics.com.au)



THE AUSTRALIAN DESIGNER & MANUFACTURER OF DIRECTIONAL CONTROL VALVES & CUSTOM MANIFOLDS



## 2020 PRICE LIST



Directional Control Valves,  
Design & Manufacture of  
Custom and Standard Hydraulic  
Manifolds & Valve Packages



Prime Australian Partners for  
HydraForce Cartridge Valves  
and Control Equipment



Counterbalance Cartridges and  
Parts-in Body Counterbalance  
Solutions



Mazak Machine Tools

**Phone: 08 82774933** [sales@oilpathhydraulics.com.au](mailto:sales@oilpathhydraulics.com.au)

Various Oilpath products are protected by Australian Registered Designs and International Patents

OILPATH HYDRAULICS PTY LTD



[sales@oilpathhydraulics.com.au](mailto:sales@oilpathhydraulics.com.au)  
Phone 08 82774933



Page	Product	Description
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19	Tilt Tray Valve	Valvco 70 litres per minute monoblock Solenoid Tilt Tray Control Valve
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This is not an exhaustive list of available products, other products available upon request

## Disclaimer

*“Oilpath is not responsible for any errors or omissions, or for the results obtained from the use of the information in this price list. All information in this document is provided “as is”, with no guarantee of completeness, accuracy, timeliness or of the results obtained from the use of this information...”*

## New product VALVCO VC35 lpm monoblock directional control valve 1-7 spools



VALVCO is an Oilpath owned company established to handle product developed in partnerships with other like-minded companies.

The VALVCO VC35 Directional Valve Series provides a minimal footprint compact range of manually operated directional valves for low flow applications. Because of the physical size of VC35 valves, these valves are ideally suited for mounting on small machines where most other valves would be 'out of place'. Like all Oilpath DCV's, the handle assembly is enclosed to reduce the likelihood of corrosion affecting the handle mechanism.

### OVERALL SPECIFICATIONS

- Number of Spools.....1 to 7
- Maximum working pressure..... 320 bar (4600 psi)
- Rated flow.....35 lpm
- MATERIAL SPECIFICATIONS Body.....High tensile cast iron  
Spools.....Hardened steel  
Seals.....Buna - N

### STANDARD FEATURES

- Parallel circuit
- Direct-acting relief valve, adjustable Set at 210 bar
- Optional side/top inlet and outlet ports
- 3/8" BSP inlet, outlet and work ports
- Open or closed centre positions, 3-way or 4-way operation, motor spool and other spool options
- Hardened steel non-return check  
VC35

### OPTIONS

- Microswitch actuation on spool shift
- 2 and 3 position detent & spring centred detent
- Closed-circuit & power beyond
- Electric limit switch

New product VALVCO VC35 lpm monoblock directional control valve 1-7 spools

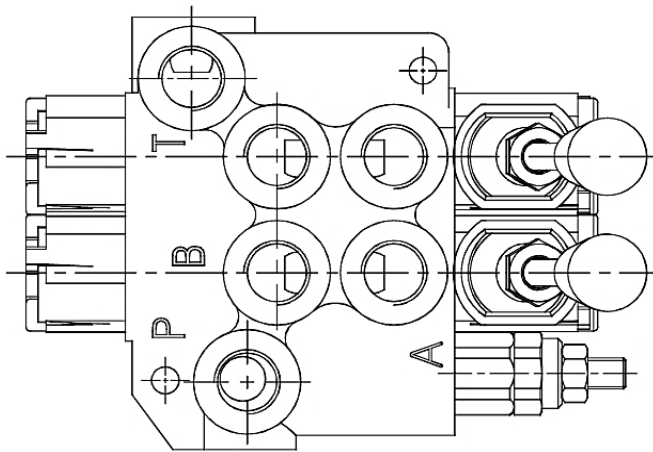
**VC35  
Model  
Designation**

Spool Types		PRV	Options	
D	Double Acting	Relief Valve setting 1000 - 4000 psi 2000 psi standard	PB	Hi pressure carry over plug
M	Motor		D	Three-position detent
S	Single Acting		SCDA	Spring centred detented to A
			SCDB	Spring centred detented to b

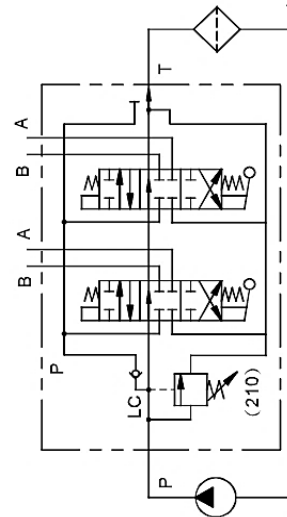


VC35 DDDDDDD 2000 D12 Seven station valve with double acting spools detented on spool 1 & 2

◆ **MODEL VC35 35 lpm Monoblock Valve**



◆ **CONTROL PORT(S)**



◆ **SPECIFICATIONS**

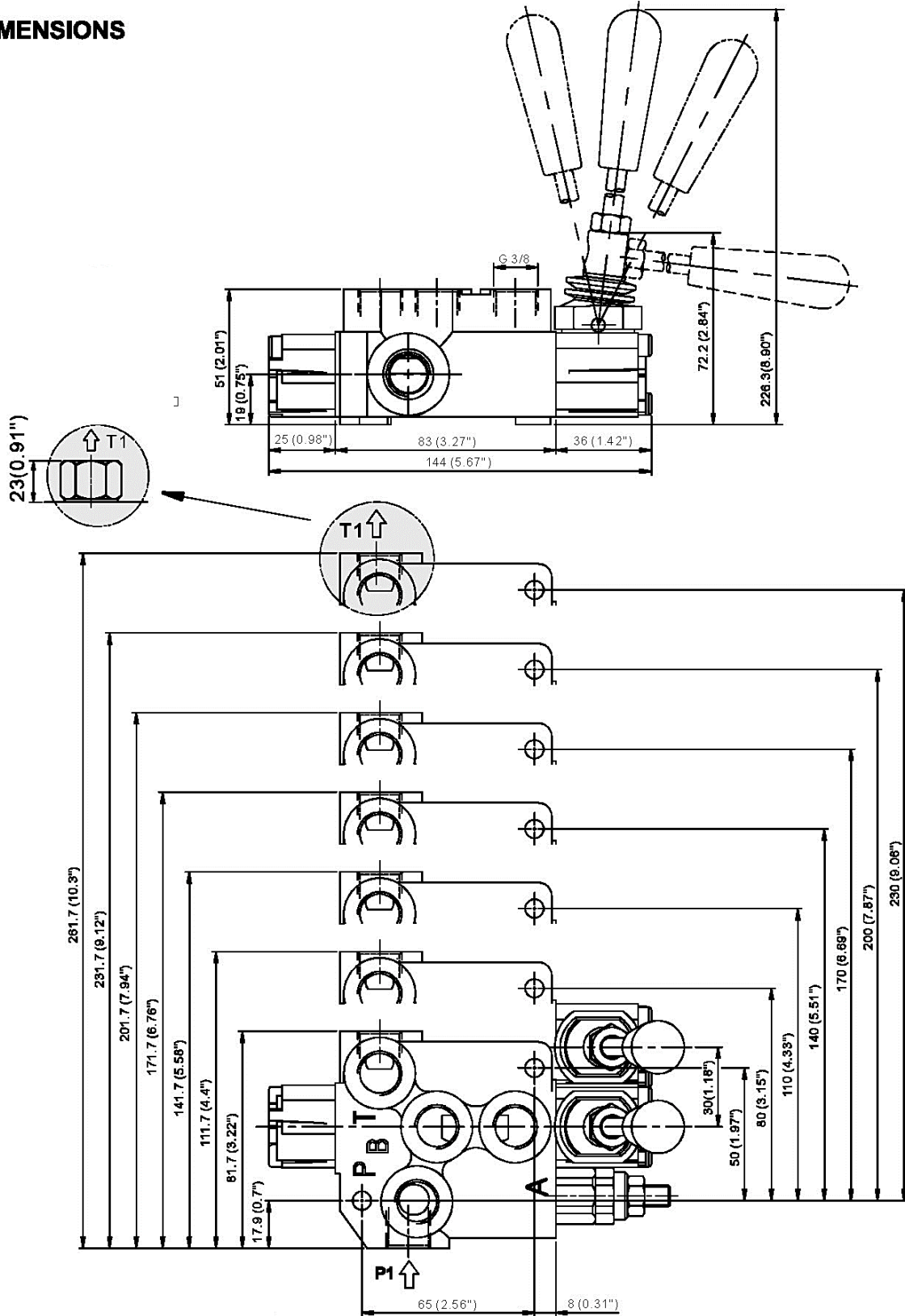
Model Number	Maximum Pressure	Maximum Flow	Weight
VC35	320 bar (4641 psi)	35(9.3 gpm)	*
<b>Fluid Type</b>		ISO VG 32 , 46 , 68	
<b>Viscosity cSt</b>		10~400 (59~1854 SSU)	
<b>Operating Temperature C°</b>		-15~70 (-5~158 °F)	
<b>Contamination Level</b>		ISO4406. 21/19/16 NAS1638,10	

● Standard pressure of relief valve sets at 210 bar.

※Any request of setting pressure up to 320 bar, please inform in advance.

New product VALVCO VC35 lpm monoblock directional control valve 1-7 spools

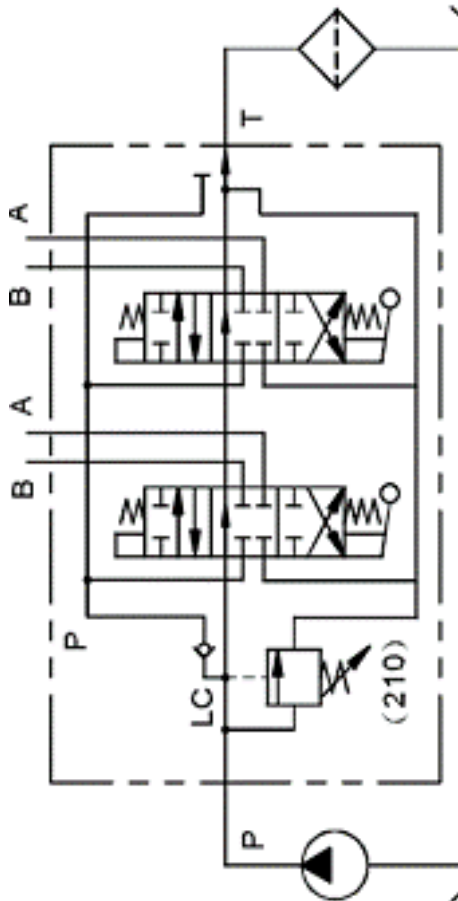
## ◆ DIMENSIONS



New product VALVCO VC35 lpm monoblock directional control valve 1-7 spools

	Standard Configuration Description D SPOOLS 2000	Part Number	List Price
VC35-1	VC35 D 2000	00410001	\$183.00
VC35-2	VC35 DD 2000	00420001	\$289.00
VC35-3	VC35 DDD 2000	00430001	\$379.00
VC35-4	VC35 DDDD 2000	00440001	\$497.00
VC35-5	VC35 DDDDD 2000	00450001	\$608.00
VC35-6	VC35 DDDDDD 2000	00460001	\$715.00
VC35-7	VC35 DDDDDDD 2000	00470001	\$820.00

Please contact the factory for alternative configuration pricing



VC35

New product VALVCO VC70S 70 lpm monoblock directional control valve 1-7 spools with solenoid and handle



VALVCO is an Oilpath owned company specifically established to handle product developed in partnerships with other like-minded companies.

The VALVCO CV70 Directional Control Valve Range has a small footprint. Available as a solenoid-operated manually overridden directional valves it offers flow up to 70 lpm. Due to the unique compact size of the VC70 valves its ideally suited for mounting on small machines where most other valves would be “out of place”. A typical application could be for radio-controlled use on tilt tray trucks etc. see Tilt Tray Flyer.

## OVERALL SPECIFICATIONS

- Number of Spools.....1 to 7
- Maximum working pressure..... 320 bar (4600 psi)
- Rated flow.....70 lpm
- MATERIAL SPECIFICATIONS Body.....High tensile cast iron  
Spools.....Hardened steel  
Seals.....Buna - N

## STANDARD FEATURES

- Parallel circuit
- Direct-acting relief valve, adjustable Set at 210 bar
- Optional side/top inlet and outlet ports
- 1/2” BSP inlet, outlet and work ports
- Open or closed centre positions, 3-way or 4-way operation, motor spool and other spool options
- Hardened steel load check in the “P” port

## OPTIONS

- 12-24volt solenoid operation with manual override
- Closed-circuit & power beyond
- Tilt Tray, recovery truck option available with motor and double-acting spools (see following pages)

New product VALVCO VC70S 70 lpm monoblock directional control valve 1-7 spools with solenoid and handle

## VC70S

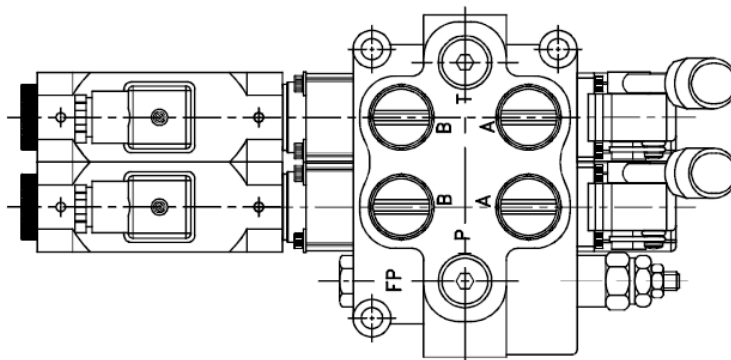
Spool Types		Relief Setting	Options	
D	Double Acting		Relief Valve setting Setting 1000 -4000 psi 2000 psi standard	PB
M	Motor	D		Three-position detent
S	Single Acting	SCDA		Spring centred detented to A
		SCDB		Spring centred detented to b
		S		Solenoid Operated
		H		Handle extensions
		DC12		Solenoid Voltage
		DC24	Solenoid Voltage	

VC70  
Model  
Designation

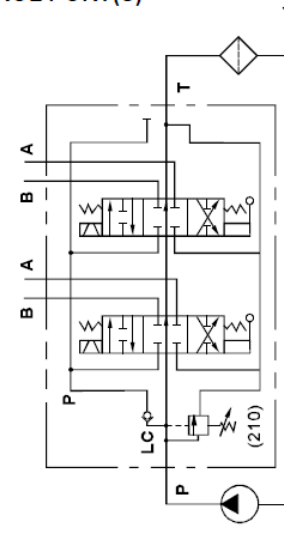
VC70S MMDDD 2000 S123 H123

Five station valve with two motors spools 3 double acting spools solenoid on first, second and third spool handle extension on first, second, and third spool Voltage 24 DC

◆ MODEL



◆ CONTROL PORT(S)



◆ SPECIFICATIONS

Model Number	Maximum Pressure bar	Maximum Flow lpm	Weight Kg
VC70S	350 (5075 psi)	70 (18.5gpm)	*
Fluid Type		ISO VG 32 , 46 , 68	
Viscosity cSt		10~400 (59~1854 SSU)	
Operating Temperature C °		-15~70 (-5~158 °F)	
Contamination Level		ISO4406. 21/19/16 NAS1638,10	

● Standard pressure of relief valve sets at 210 bar.

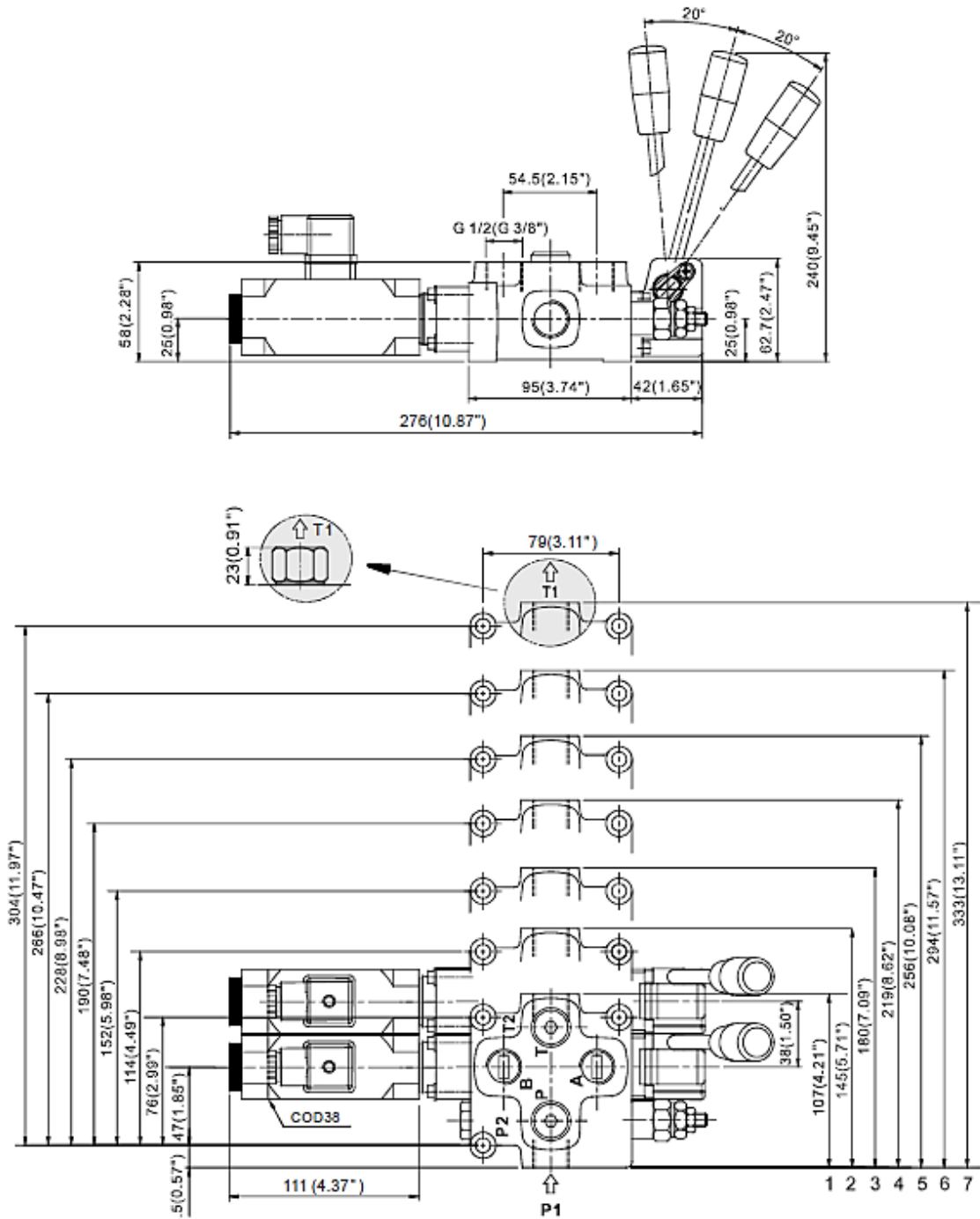
※Any request of setting pressure at 350 bar, please inform in advance.



New product VALVCO VC70S 70 lpm monoblock directional control valve 1-7 spools with solenoid and handle

◆ DIMENSIONS

● CONNECTOR (on T1 Port)



All Ports 1/2" bsp

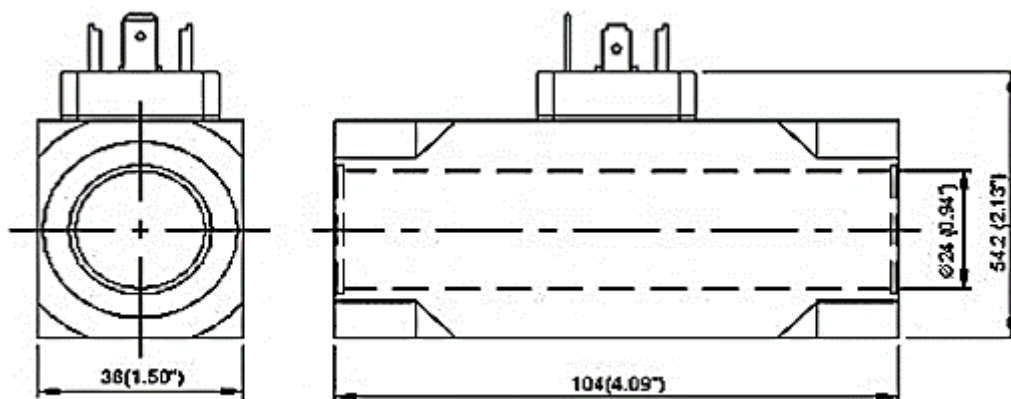
New product VALVCO VC70S 70 lpm monoblock directional control valve 1-7 spools with solenoid and handle

	Standard Configuration Description D SPOOLS 2000	Part Number	List Price
VC70S-1	VC70S D 2000	00771001	\$777.00
VC70S -2	VC70S DD 2000	00772001	\$1,391.00
VC70S-3	VC70S DDD 2000	00773001	\$1,999.00
VC70S-4	VC70S DDDD 2000	00774001	\$2,616.00
VC70S-5	VC70S DDDDD 2000	00775002	\$3,235.00
VC70S-6	VC70S DDDDDD 2000	00776001	\$3,914.00
VC70S-7	VC70S DDDDDDD 2000	00777001	\$4,593.00

## Coil for VC70S

Part Number	Voltage			Current & Power at Rated Voltage	
	Source Rated	HZ	Range	in rush current	Holding Current (Amps)
407019	DC12		10.8-13.8 V		2.58
407020	DC24		21.6-26.4 V		1.33

Above values are based on a temperature of 30 °c, electric voltage allowance 15%



## VC70 MMDDD 2000 S123 H123 DC24

### Part number 07750001

Valvco is a Oilpath owned company specifically set up to handle product developed in partnerships with other like minded companies.

The Valvco VC70 is an economically priced, specially configured 70 litre per minute monoblock control valve for Tilt Tray Truck applications.

The first 3 spools are 24 volt solenoid operated spools that have manual override levers. The first 2 spools are configured with Motor Spools, the remaining spools are Double Acting.

This valve has a small footprint for its capability. (see dimensions on next sheet).

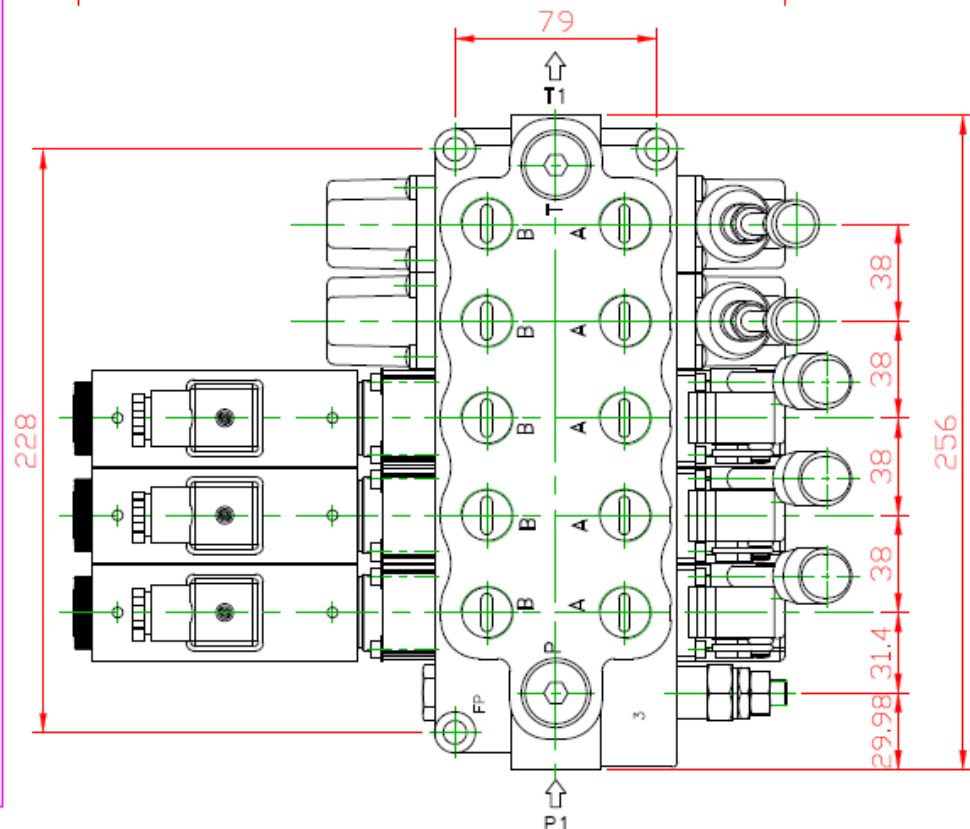
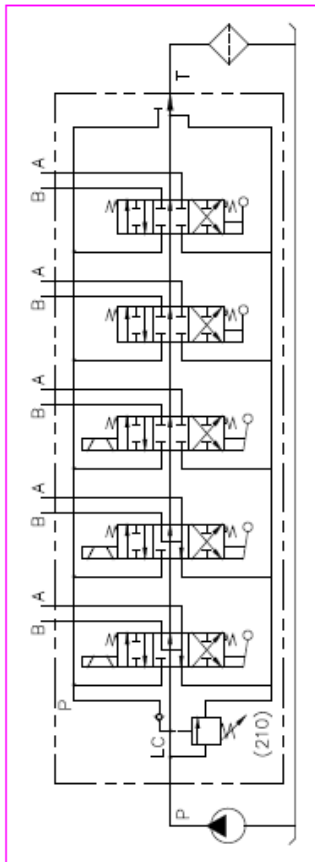
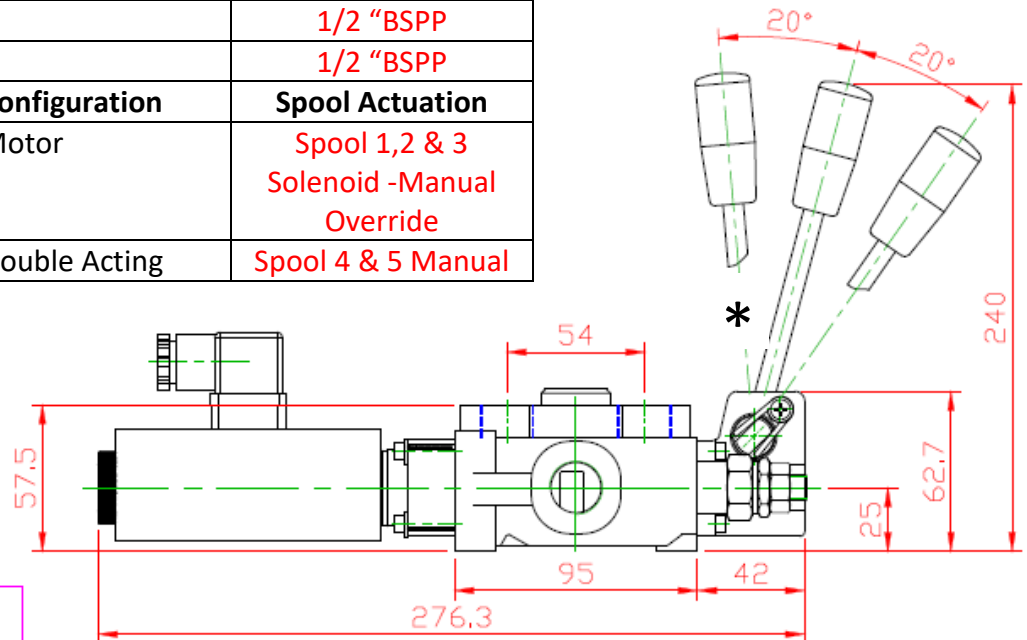


\* This valve can be configured with the handle levers assembled and solenoids "upside down" to ease installation issues.

# VALVCO 5 SPOOL TILT TRAY VALVE

	Maximum	Set
Maximum Flow	70 lpm	70 lpm
Maximum pressure	350 bar	210 bar
Voltage	12VDC or 24VDC	24VDC
Inlet Port		1/2 "BSPP
Outlet Port		1/2 "BSPP
A & B Ports		1/2 "BSPP
	<b>Configuration</b>	<b>Spool Actuation</b>
Spools 1 & 2	Motor	Spool 1,2 & 3 Solenoid -Manual Override
Spools 3,4, & 5	Double Acting	Spool 4 & 5 Manual

\* This valve can be configured with the handle levers assembled and solenoids "upside down" to ease installation issues.



**VALVCO PTY LTD**

an Oilpath owned company

Part Number: 07750001

20

Description:

VC70 MMDDD S123 H123 2000 DC 24

New Development OP11 Upgraded to 75 l/min with 3/4"UNO or 1/2"BSPP ports

## OP11 Monoblock Valve

Part No.	No of Spools	Nom Flow l/min	Max Pressure P,A,B	Max Pressure T	Ports (BSPP)	*List Prices From
0111*	1	75	315 bar	25bar	1/2" P,A&B T- 3/4"	\$329
0112*	2					\$505
0113*	3	60				\$672
0104*	4	55				\$828



\*prices as per listings on page 15

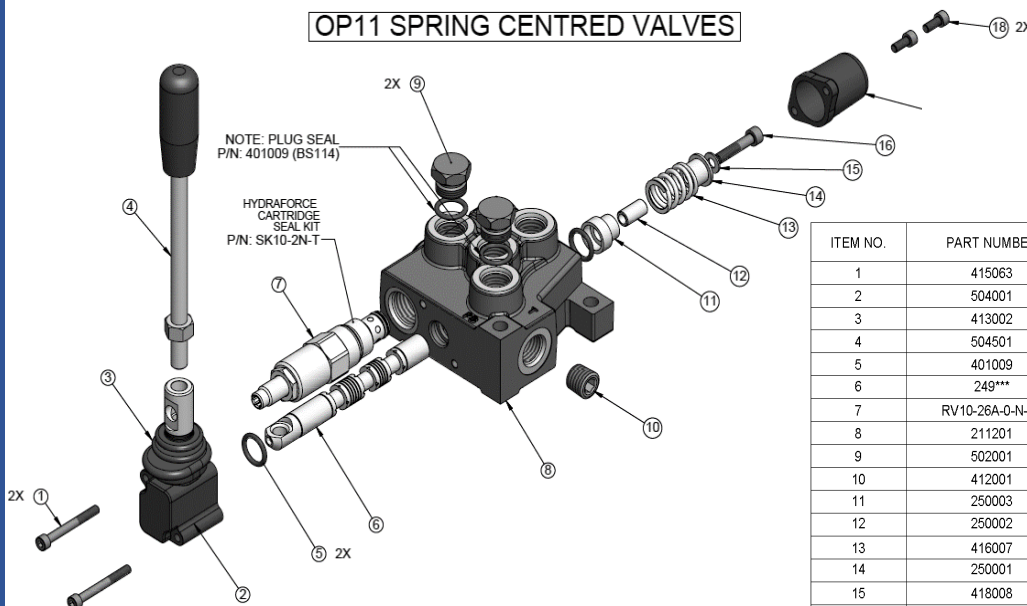
The OP11 Directional Valve provides a compact range of manually operated directional valves for medium flow applications. Like all Oilpath DCV's the handle assembly is fully enclosed to reduce the likelihood of corrosion affecting the handle mechanism. The handle bracket and spring end cover are made from glass filled nylon that has better impact and wear properties than aluminium. Each valve is supplied with a 3/8" bspt plug that can be easily inserted into a pre-tapped gallery to create Power Beyond (H.P.C.) and closed centre facility.

### OPTIONS

- 2 and 3 position detent & spring centred detent
- Pneumatic spool actuation
- Closed circuit & power beyond
- Electric limit switch

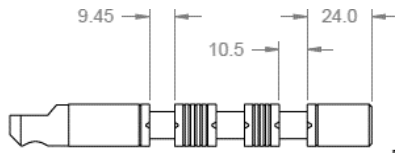
\*Note 4 spool valves remain as OP10 designation

### OP11 SPRING CENTRED VALVES



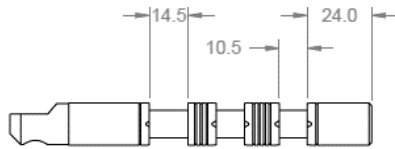
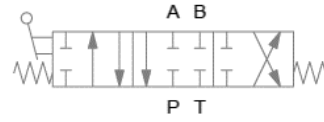
ITEM NO.	PART NUMBER	DESCRIPTION	SPRG CNTRD/QTY
1	415063	M5 x 45 SHCS	2
2	504001	OP10 LEVER BOX ASSEMBLY	1
3	413002	OP10 Lever Box Boot	1
4	504501	OP10 LEVER STEM ASSEMBLY	1
5	401009	N7 114 NITRILE O RING	2
6	249***	OP10 * Spool	1
7	RV10-26A-0-N-30	HYDRAFORCE CARTRIDGE	1
8	211201	OP11 01 3/4" UNF FIN. MACHINED	1
9	502001	3/4" UNF PLUG ASSEMBLY	2
10	412001	3/8" BSPT PRESSURE PLUG	1
11	250003	OP10 Long Spring Cup	1
12	250002	OP10 Spring Centering Bush	1
13	416007	OP S/C SPRING STD	1
14	250001	OP10 Short Spring Cup	1
15	418008	1/4" x 1/2" ZP Washer	1
16	415004	M6 x 30 SHCS	1
17	340001	OP10 Spring Cap	1
18	415005	M5 x 12 SHCS	2

New Development OP11 Upgraded to 75 l/min with 3/4" UNO or 1/2" BSPP ports



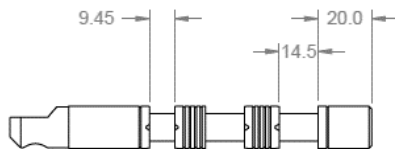
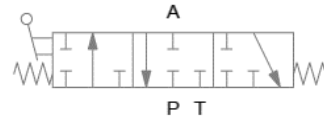
D Spool

PART NO: 249002



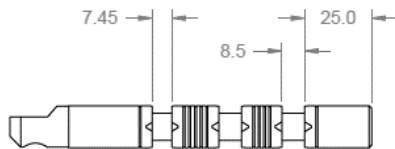
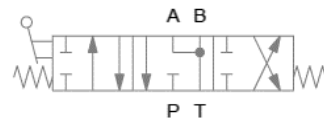
S Spool

PART NO: 249003



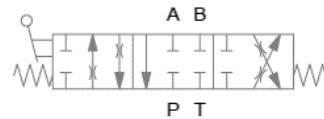
M Spool

PART NO: 249004

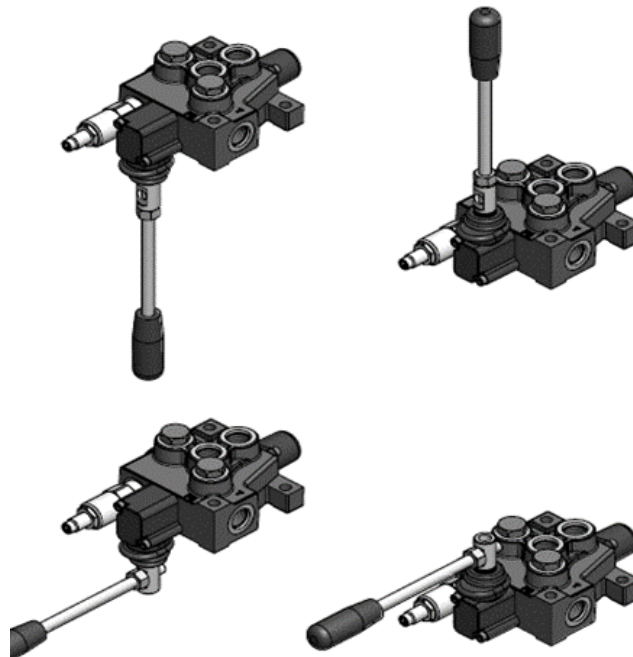


Q Spool

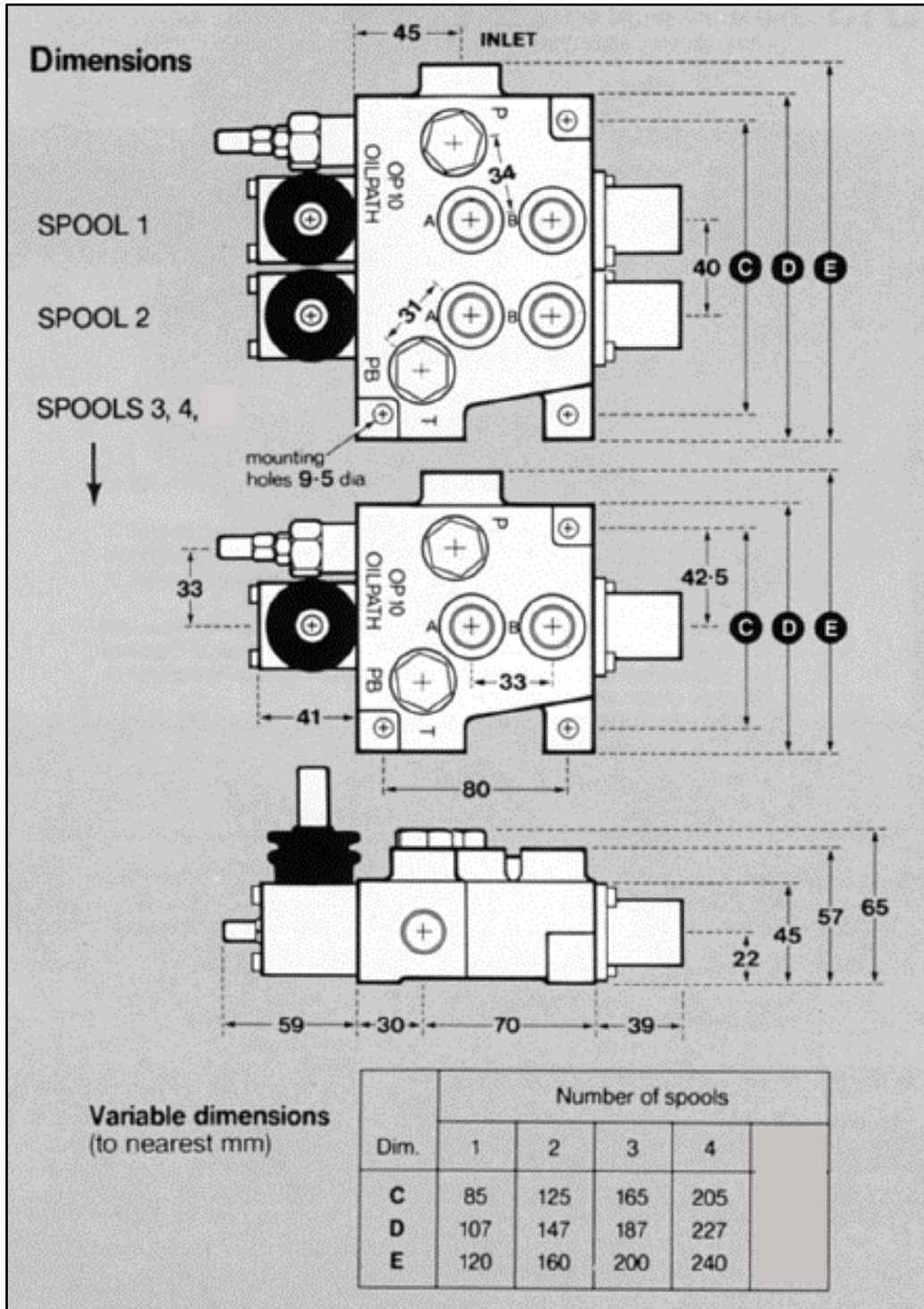
PART NO: 249017



NOTE: ALTERNATE HANDLE ORIENTATION FOR OP11 VALVE



New Development OP11 Upgraded to 75 l/min with 3/4"UNO or 1/2"BSPP ports



New Development OP11 Upgraded to 75 l/min with 3/4"UNO or 1/2"BSPP ports

## ORDERING INFORMATION

OP11 (OP10) valves can be ordered by quoting a number/letter group sequence as follows:  
Valve series; Spool configuration; Relief setting; Options required

Valve Model	Spool Types		Relief Setting	Options	
OP11	D	Double Acting	Specify Relief Valve Pressure Setting 100 - 5000 psi HydraForce Relief Valves on OP11	PB	High pressure carry over. Plug supplied in package as standard
	Q	Double Acting low flow version		CC	Closed Centre
	S	Single Acting		NR	Relief valve not required
	M	Motor Spool		SCDA	Spring centred dented to port A
OP10 (4 spool only)			No Setting required with NR option  400 - 5000 psi Oilpath Relief valves on OP10-4	SCDB	Spring centred dented to port B
				A	Air Control (OP118) supplied only with manual override
				D	Three position detent
				E	Electric limit switch followed by numeral indicating spools

OP11	D	2000	PB	Single Double acting spool 2000psi relief high pressure carry over
OP11	DS	2500	D2	Double 1 <sup>st</sup> spool double acting spring centred 2 <sup>nd</sup> spool single acting detented
OP11	DDD	1500	D1A23	Triple all double acting spools 1500 psi relief detent on 1 <sup>st</sup> spool pneumatically operated 2 <sup>nd</sup> & 3 <sup>rd</sup> spools
OP10	DDDM	3500	SCDB23	OP10 four spool with double acting spools on 1,2,3, motor spool on 4 3500 psi relief spring centred to B on 2 <sup>nd</sup> & 3 <sup>rd</sup> spool



## OP10 & OP11 Directional Control Valve Pricing

Part Number	Description	List Price for Base Valve	Standard Double Acting (no options)
0111xxxx	Single Spool Valve	378	329
0112xxxx	Two Spool Valve	581	505
0113xxxx	Three Spool Valve	772	672
0104xxxx	Four Spool Valve	953	828

## OP10 & OP11 Options Pricing (on new builds)

OPTIONS	Part Number	Description	List Price
D1	507020	Detent per spool, (three pos.) factory fitted # indicates pos.	44
CC	511048	OP10 Pressure Relief Blanking Plug kit, for closed centre	44
	511014	OP11 Pressure Relief Blanking Plug kit, for closed centre	54
E1	503003	Electric Limit Switch for single spool valve, factory fitted Note: Micro switch is not included in price	POA
E12	503004	Electric Limit Switch for double spool valve, factory fitted Note: Micro switch is not included in price	POA
E123	503005	Electric Limit Switch for triple spool valve, factory fitted Note: Micro switch is not included in price	POA
E1234	503006	Electric Limit Switch for four spool valve, factory fitted Note: Micro switch is not included in price	POA
	503010	Micro Switch for above kits, (one per valve) standard micro switch. This switch has a weather-proof rating to IP67	95
13A	248013	Optional micro switch sleeve for S/A spools with code E, kit only (add on spool)	23
Q		Optional D/A spool with metering for low flow DC power units	POA
SCDA	509018	Spring Centred Detent with det. acting on A port is pressurised	147
SCDB	509012	Spring Centred Detent with det. acting on B port is pressurised	147
S/O	509010	Spring offset to "B" (No centre position)	49
A1		OP118 Air Kit with handle control	388
MU		Valve prepared for Marine Environment	43

**Note:** 4 spool valves remain as OP10 designation with Oilpath integrated lift drop check and relief valve.

OP11 valves contain a separate lift drop check and a HydraForce Pressure Relief Valve

**New Development OP11 Upgraded to 75 l/min with 3/4"UNO or 1/2"BSPP ports**

<b>OP10/11 SPARES</b>		
		<b>List Price</b>
RV50-26A-0-P-50	HydraForce Relief Valve up to 5000 psi	181
RV10-26A-0-N-30	HydraForce Relief Valve up to 3000 psi	163
512011	Seal Kit Single Spool	31
512015	Seal Kit Double Spool	36
512043	Seal Kit Triple Spool	39
512017	Seal Kit Four Spool	42
511048	CC OP10 Pressure Relief Blanking Plug kit, for closed centre	49
511014	OP11 Pressure Relief Blanking Plug kit, for closed centre	62
509018	SCDA spring Centred Detent with det. acting on A port is pressurised	159
509012	SCDB Spring Centred Detent with det. acting on B port is pressurised	159
509001	Spring Centring Kit to suit all spools, without spring cap	43
507020	D1 Detent per spool, (three pos.) kit, or factory fitted # indicates pos.	48
506081	OP118 Air Kit for OP11	398
505016	Relief Valve complete cartridge including lift drop check	132
504504	Handle Lever Stainless Steel 10mm diameter	40
504503	Handle Lever complete with nut and rubber knob M8	36
504501	Handle Lever complete with nut and rubber knob	36
504027	Lever Box with shift leg & rubber boot but no handle	109
503010	Micro Switch, (one per valve) standard micro switch This switch has a weather-proof rating to IP67	105

**New Development OP11 Upgraded to 75 l/min with 3/4"UNO or 1/2"BSPP ports**

503009	13A Optional micro switch sleeve for S/A spools with code E, kit only	148
503006	E1234 Electric Limit Switch for four spool valve kit Note: Micro switch is not included in price	460
503005	E123 Electric Limit Switch for triple spool valve kit	355
503004	E12 Electric Limit Switch for double spool valve kit	256
503003	E1 Electric Limit Switch for single spool valve, kit or factory fitted	148
416220	Rubber Boot Bottom Clips	4
416219	Rubber Boot Top Clips	4
416009	Relief Valve Main Spring Z (not required for HydraForce Cartridges)	27
416008	Relief Valve Main Spring X (not required for HydraForce Cartridges)	27
416005	Relief Valve Main Spring Y (not required for HydraForce Cartridges)	27
413002	Rubber Boot for lever box	13
340001	Spring Cap supplied without M5 cap screws	30
249017	Q Optional D/A spool with metering for low flow DC power units	POA
249004	Motor Spool with no spring centring mechanism	132
249003	Single Acting Spool with no spring centring mechanism	132
249002	Double Acting Spool with no spring centring mechanism	132

New Development OP20 Upgraded to 120 l/min with 7/8"UNO or 3/4"BSPP ports

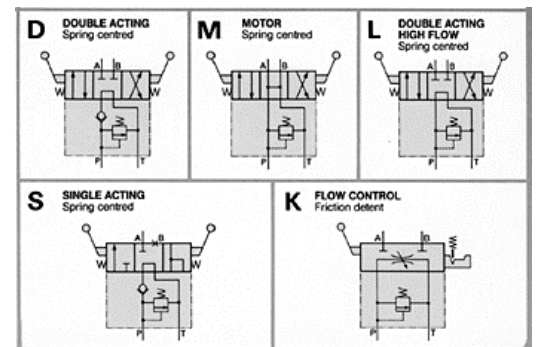
## OP20 Monoblock Valve Series

Part No.	No of Spools	Nom Flow l/min	Max Pressure P,A,B	Max Pressure T	Ports (BSPP)	*List Prices from
0201*	1	120	315 bar	25bar	3/4" P,A&B T-1"	\$443
0202*	2					\$652
0203*	3	110				\$879
0204*	4	100				\$1125
0205*	5					\$1388

\*Pricing as per listings on page 21



The OP20 Directional Valve Series provides an 100-120 lpm range of directional valves. The OP20 has the advantage of individual lift drop checks in the end of each valve spool, giving the valve a unique feature and useful feature in having a checks to maintain lift individually for all appropriate valve functions. (e.g. a 5 spool double acting valve has 10 lift drop checks). Closed centre and power beyond are also available with the use of plugs.



### STANDARD FEATURES

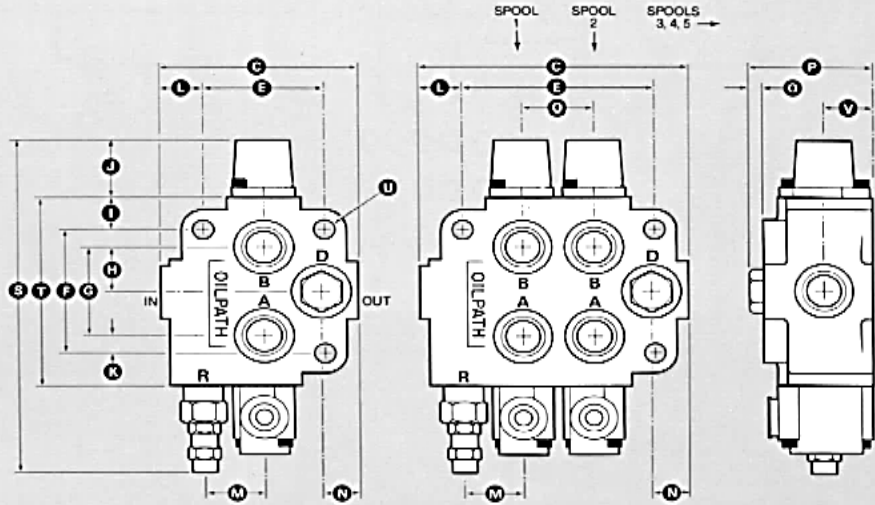
- Parallel circuit
- Integral HydraForce direct acting relief valve, adjustable, factory set at 140 bar
- Optional side/top outlet ports
- 3/4"BSPP, outlet & work ports 1"BSPP tank port (options include 7/8"un, & 1-1/16" un)

### OPTIONS

- 2 and 3 position detent & spring centred detent
- Pneumatic spool actuation
- Electric over air
- Marine use preparation
- Restricted detent
- Solenoid operated proportional actuation (see separate sheet)
- Closed circuit & power beyond
- Micro switch actuation on spool shift
- Cable control

## New Development OP20 Upgraded to 120 l/min with 7/8" UNO or 3/4" BSPP ports

Dimensions (to nearest mm)	
Dim.	Number of spools
C	129 177 225 273 321
E	79 127 175 223 271
F	89
G	67
H	34
I	27
J	43
K	11
L	27
M	39
N	23
O	48
P	74
Q	7
S	252 (acorn nut closed)
T	143
U	Mounting hole 10.3 dia.
V	33



C, E; variable dimensions  
F - V; fixed dimensions

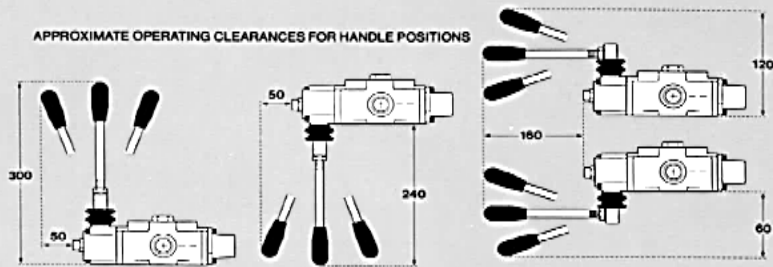
**Notes:**

1. When spool travels into body, port A becomes action. When spool is extended out from neutral, port B is action. This applies to all configurations.
2. Port D is alternate outlet. When high pressure carry over is fitted, port D is connected to tank unrestricted.

Specifications given in this brochure are correct at time of publication. The manufacturer reserves the right to change specifications without notice.

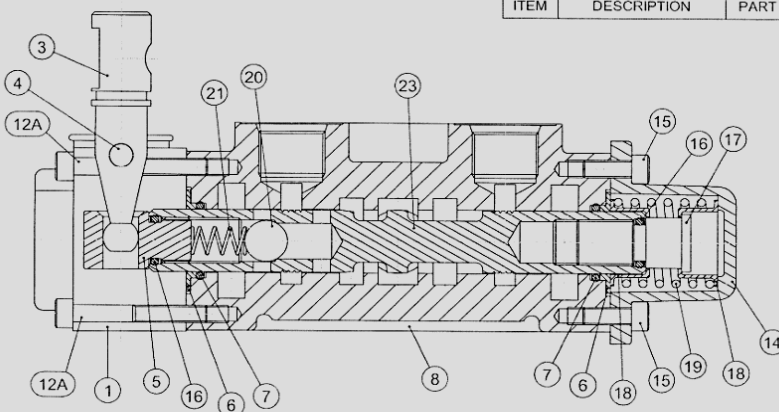
**DESIGNED & MANUFACTURED IN AUSTRALIA**

APPROXIMATE OPERATING CLEARANCES FOR HANDLE POSITIONS



ITEM	DESCRIPTION	PART NO
25	OP20 L SPOOL	249010
24	OP20 M SPOOL	249008
23	OP20 S SPOOL	249007
22	OP20 D SPOOL	249006
21	S/C SPRING STRONG	416036
20	9/16" STEEL BALL	417002

19	SPRING CENTRE	416013
18	SPRING CAP	248017
17	SPRING STUD	248002
16	O RING BS112	401007
15	M6 x 16 SHCS	415016
14	SPRING CAP	340004
13	DETENT SLEEVE	246004
12A	M6 x 45 SHCS	415011
12	SPRING DETENT	416004
11	Ø1/4" STEEL BALL	417005
10	PISTON DETENT	238005
9	O RING WASHER	251002
8	VALVE BODY OP20	212005
7	O RING BS118	401012
6	STEP WASHER	251001
5	SPOOL EYE	248003
4	PIVOT PIN	236008
3	SHIFT LEG	232002
2	RUBBER BOOT	413001
1	LEVER BOX	230005
ITEM	DESCRIPTION	PART NO



New Development OP20 Upgraded to 120 l/min with 7/8"UNO or 3/4"BSPP ports

Spool Type		Relief Setting	Options			
D	Double Acting		Specify pressure within a range of 600-4000 psi	PB	High Pressure carry over	D
S	Single Acting	CC		Closed Centre	W	Air Control OP106
M	Motor Control	NR		No Relief	BF	Bottom face Outlet
K	Flow Control not pressure compensated in multi spool vales only	SCDA		Spring centred detent to "A"	SCDB	Spring centred detent to "B"
L	Double Acting Spool with no load checks	H		Handle on auxiliary control e.g. W1H1	HI FLOW	Hi Flow, increasing flow to 120 l/min with 3/4"bspp or 1-1/16" un 3/4"bspt, R2 relief
P	Pressure Compensated Flow Control in multi spool vales only	OP10 6S		Electric over air solenoid control state voltage required e.g. OP106S24V	MU	special plating and hardware for mine or marine use
Please Note: Maximum tank pressure is 250 psi on OP20 valves		REST A		Restricted detent to "A" port	RESTB	Restricted detent to "B" port

- OP20D      2000    PB      Single Double acting spool 2000psi relief high pressure carry over
- OP20DDS    2500    W123H123    Triple 1<sup>st</sup> & 2<sup>nd</sup> spool double acting 3<sup>rd</sup> spool single acting 2500 psi relief with air and handle operation on all spools
- OP20DSSS    1500    SCDB1      Four spool valve 1<sup>st</sup> spool double acting spools 2<sup>nd</sup> 3<sup>rd</sup> & 4<sup>th</sup> spools single acting 1500 psi relief with spring centred detent to "B" detent on 1<sup>st</sup> spool
- OP20DDDDM    3500    SCDB23      Five spool with double acting spools on 1,2,3, & 4 and motor spool on 5<sup>th</sup> spool 3500 psi relief spring with 24volt solenoid unloading relief valve

New Development OP20 Upgraded to 120 l/min with 7/8"UNO or 3/4"BSPP ports

## OP20 Directional Control Valve Pricing

Part Number	Description	List Price Base Valve	Standard Double Acting List Price (no options)
0201xxxx	Single Spool Valve	509	443
0202xxxx	Two Spool Valve	750	652
0203xxxx	Triple Spool Valve	1011	879
0204xxxx	Four Spool Valve	1294	1125
0205xxxx	Five Spool Valve	1596	1388

## OP20 Options Pricing (on new builds)

OPTIONS for OP20	Part Number	Description	List Price
P	-	Priority Flow Control Spool Factory fit only, lead time applies	392
K	-	Spool includes friction detent and can only be factory fitted	108
L	-	L Spool is D/A no load checks, used for high flows applications	42
D1	507007	Detent per spool, (3 position) factory fit, # indicates position	50
SCDB	509020	Spring Centred Detent with det. Acting on B port is pressurised	151
SCDA	509007	Spring Centred Detent with det. acting on A port is pressurised	151
PB	511003	High Pressure Carry over plug for power beyond "Hi-Cap"	28
PBH	511005	High Pressure Carry over plug 1- 1/16" UNF Hi - Flow	68
CC	511047	Closed Centre Plug (Plug A) part of kit for closed centre	27
NR	511002	Pressure Relief Plug (Plug B) part of kit for closed centre	26
LW	-	Pressure Relief Lock Wire (lead seal)	28
BF	-	Bottom Face Outlet available only as special build from factory	POA
S/O	-	Spring Offset P-B (No Centre Position)	36
MU	-	Mine Use per spool, factory build only, nylon end caps and plated spool	36
W1	506023	OP106 air shift	212
-	506028	OP106 Solenoid manifold kit (includes manifold, screws and 'O' rings. 12or 24-volt DC	108
	506027	OP106 Solenoid kit (includes manifold kit, and 2 off solenoid valves	465

## New Development OP20 Upgraded to 120 l/min with 7/8"UNO or 3/4"BSPP ports

-	506025	OP106 Solenoid Air kit (incl. OP106 kit, manifold, and 2 off solenoid valves 24-volt DC	652
-	506031	same as above for 12volt DC	652
H1	-	Used only in price build for new assembly requiring dual control, (e.g.) lever and air or lever and cable.	133
HI- FLOW	-	Special D/A or S/A spools with load checks for 25 gpm for Tippers and fitted into single or double spool valves with 3/4" bspt ports & R2 Relief	50
-	-	If above spools are ordered with 1 1/16"un service ports, per spool and in a valve with R1 or R2 relief cavity.	50
FBC	-	Port relief cavity last spool - suit RV08-20A not including cartridge	84
Port Relief	RV08-20A-0-N- XX	Relief Valve	125
-	CP08-20- N	Plug VC08-2to suit above cavity (CP08-20N)	26
AS xx	SVRV10- 26X	Relief and solenoid unloading adaptor, nominate voltage and pressure.	362

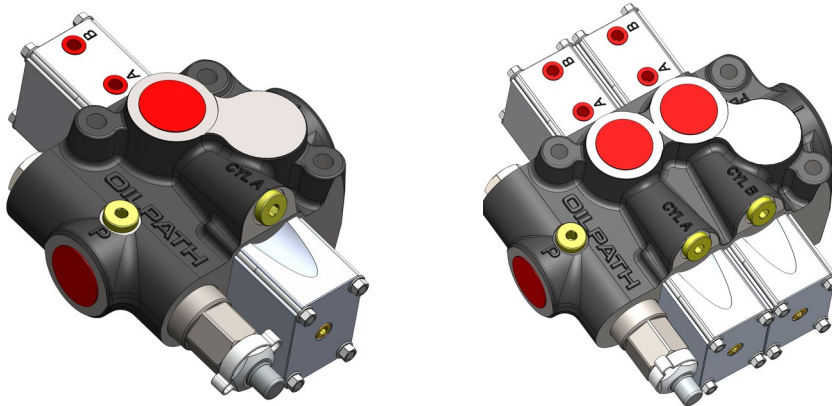
## OP20 Spare Parts Pricing

Part Number	DESCRIPTION	LIST PRICE
MU for Spool	For Marine or mine use ADD on per spool (exchange for like)	32
513044	Motor Spool with spring centring mechanism	186
513037	L Spool with spring centring mechanism	186
513034	Double Acting Hi Flo Spool with spring centring mechanism	173
513029	Single Acting Hi-Flo Spool with spring centring mechanism	173
513028	Single Acting Spool with spring centring mechanism	173
513027	Double Acting Spool with spring centring mechanism	173
512055	OP106 Seal Kit all seals	42
512002	Seal Kit Single Spool all seals and metal step washers	43
512008	Seal Kit Double Spool all seals and metal step washers	56
512029	Seal Kit Triple Spool all seals and metal step washers	68
512004	Seal Kit Four Spool all seals and metal step washers	78
512005	Seal Kit Five Spool all seals and metal step washers	98
512021	OP105 Seal Kit all seals	POA



**New Development OP20 Upgraded to 120 l/min with 7/8"UNO or 3/4"BSPP ports**

512019	OP104 Seal Kit all seals	POA
512016	OP103 Seal Kit all seals	13
512007	Proportional Air Seal Kit (old kit with stainless steel piston)	13
512003	Proportional Air Seal Kit (new kit with aluminium piston)	102
511047	CC Closed Centre Plug (Plug A) part of kit for closed centre	29
511005	PBH High Pressure Carry over plug 1- 1/16" UNF Hi - Flow	71
511003	PB High Pressure Carry over plug for power beyond "Hi-Cap"	30
511002	NR Pressure Relief Plug (Plug B) part of kit for closed centre	28
509020	SCDB Spring Centred Detent with det. Acting on B port is pressurised	162
509017	Spring Centring Kit to suit all spools, supplied without spring cap	56
509007	SCDA Spring Centred Detent with det. acting on A port is pressurised	162
507007	D1 Detent per spool, (3 position) kit,	52
506028	OP106 Solenoid manifold kit (includes manifold, screws & 'O' rings)	116
506034	OP106 Solenoid manifold kit (includes manifold, screws & 'O' rings 24 v DC	116
506027	OP106 Solenoid kit (includes manifold kit, and 2 off solenoid valves 24 v DC	497
506025	OP106 Solenoid Air kit (incl. OP106 kit, manifold, 2 off solenoid valves 24V	700
506031	OP106 Solenoid Air kit (incl. OP106 kit, manifold, 2 off solenoid valves 12V	
506023	W1 OP106 air shift	228
505025	Relief Valve R2 cartridge set to 2000 psi	234
505020	Relief Valve R1 (standard) cartridge, set to 2000 psi	173
504502	Handle Lever complete with nut and rubber knob	35
504028	Lever Box with shift leg & rubber boot but no handle	153
504015	H, Kit B used when converting standard lever assembly valve to dual control, (e.g.) lever and air or lever and cable.	117
504014	H, Kit A used when fitting dual control, with air or cable already fitted.	269
504010	Handle Assembly Old Style not including handle lever	166
502019	Spool Eye New Style to suit lever box handle (current style)	32
413001	Rubber Boot for lever box	13
340004	Spring Cap supplied without M6 cap screws	35
249011	L Spool only	141
249008	Motor Spool only	151
249007	Single Acting Spool only	141
249006	Double Acting Spool only	141



Benefit from Greater Supply Responsiveness & Resilience & **Protect** Against Future Disruptions.... Buy Benchmark Australian Product from Oilpath

Oilpath is delighted to present the OP22 MARK 2 pneumatically actuated hydraulic directional control valve. The tipping industry's benchmark valve for efficiency is updated to include a more compact footprint and a higher performance pneumatic actuation system.

The OP22 is designed explicitly as a tipping valve and has various patents protecting the design. Oilpath engineers designed the galleries inside the valve casting to provide minimal pressure drop, especially during the return to tank line which allows the most efficient hoist downtimes in the industry.

**Note:** The MARK 2 pneumatic system's minimum working pressure is reduced to 60 p.s.i. ensuring even the poorest of truck air systems will operate this valve.

**Note 2:** Oilpath re-designed high-performance direct acting relief valve provides minimal pressure drop and incredible stability (see charts)

### OVERALL SPECIFICATIONS

- Rated Flow.....160 lpm.
- Maximum working pressure.....220 bar (3200 psi)
- Working ports.....1"bspp
- Tank Port.....1 ¼"bspp

### MATERIAL SPECIFICATIONS BODY

- Body.....High tensile strength cast iron
- Spools..... Hardened steel spools
- Seals.....Buna - N

### STANDARD FEATURES

- Relief Valve.....Oilpath R3 Full-Flow Direct Acting
- Pneumatic Ports.....1/8" bspp
- Test Points.....¼" bspp "A" "B" & "P" for setting & aux functions

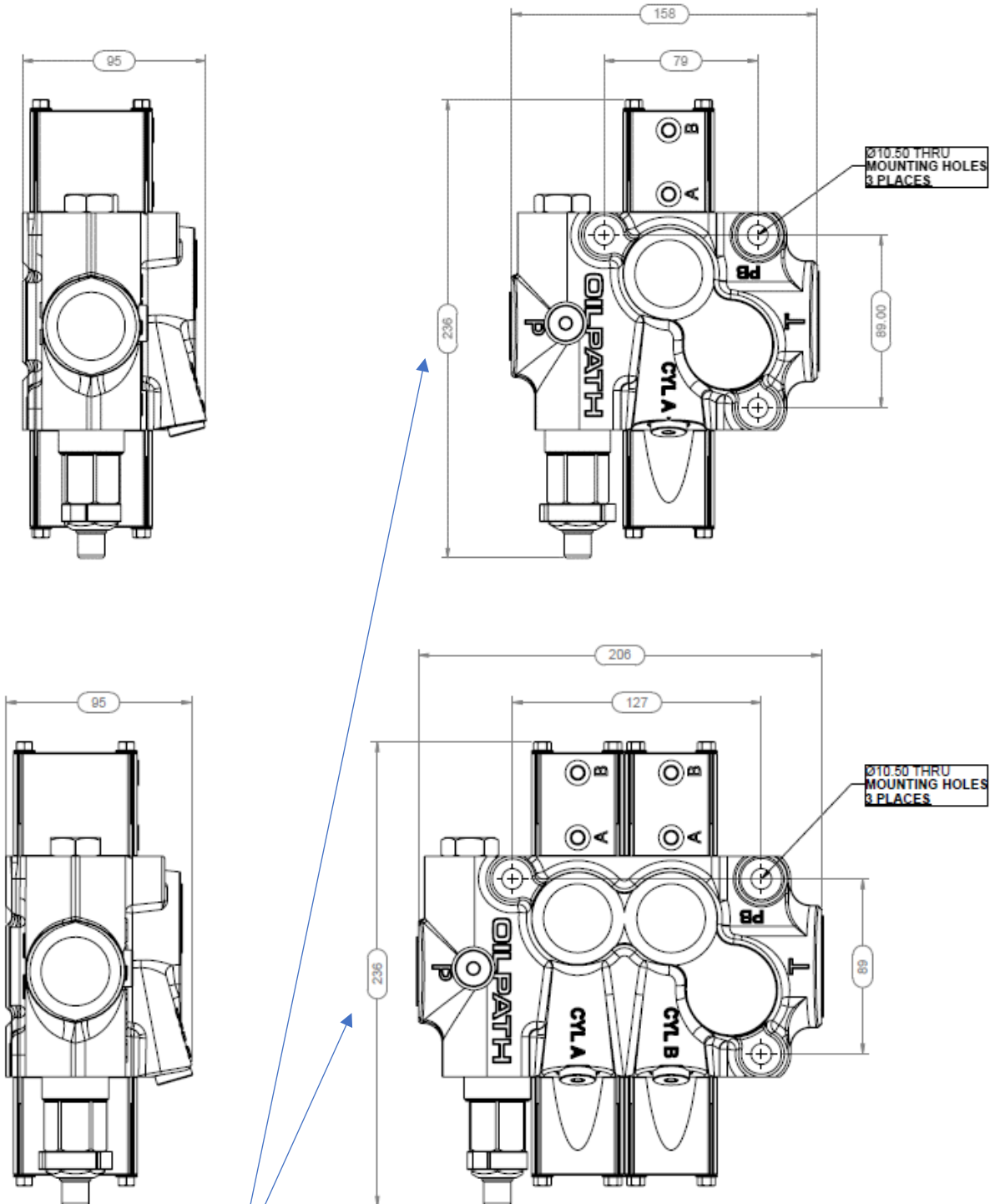
# OP22

160 lpm Single & Double Spool Directional Control Valves for the Tipping Industry

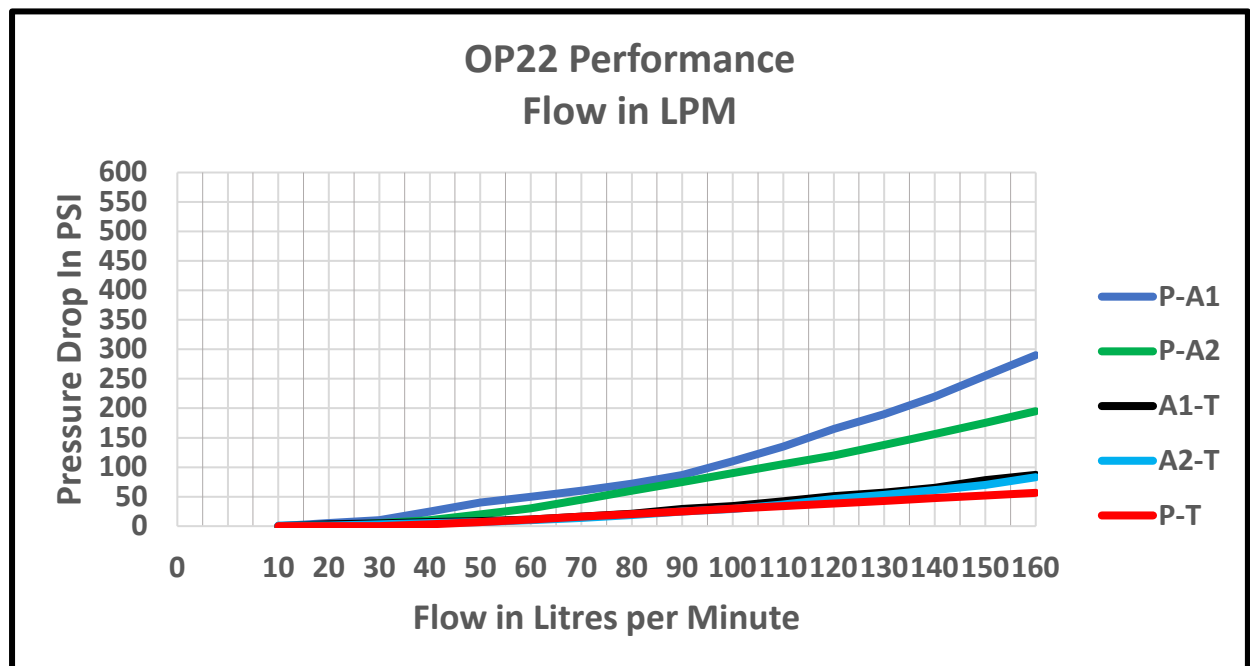
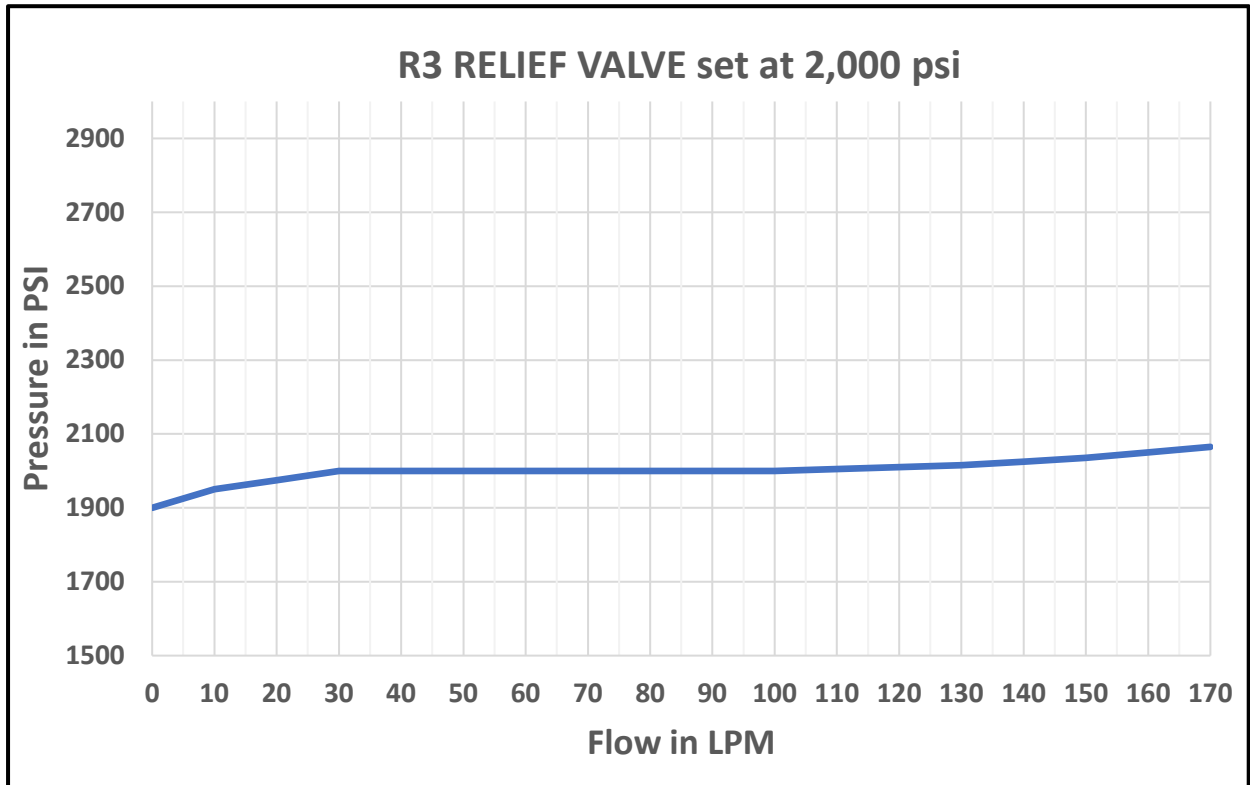


OP22 MARK 2 (December 2020 upgrade)

Designed & Manufactured in Australia



Please note that the OP22 MARK 2 is 35mm shorter



## OP22 Truck Valve Pricing

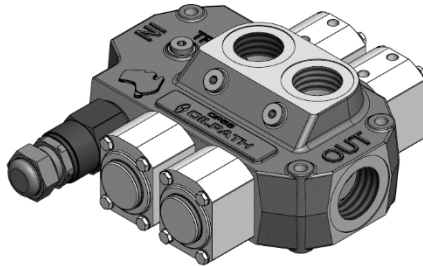
Part Number	DESCRIPTION OP22-1 SINGLE SPOOL	LIST PRICES Qty 10+	Qty 5 - 9	Qty 1- 4
02210003	OP22 SINGLE SPOOL R3 1"BSPP 1/8" BSPP PRESSURE PORT SWITCH 1/8" TEST POINT	\$551	\$605	\$734
Part Number	DESCRIPTION OP22 DOUBLE SPOOL	LIST PRICES Qty 10+	Qty 5 - 9	Qty 1- 4
02220007	OP22 SS A12 R3 1"BSPP - P,A,B 1-1/4"BSPP-T NO PORT RELIEF CAVITY (STD)	\$896	\$1,053	\$1,210

## OP22 Spares

Part Number	Description	LIST PRICE
512104	OP22-1 Seal Kit	\$35
512098	OP22 Seal kit	\$52
	OP22 Air Cylinder Seal Kit	\$70
505069	OP22 R3 Relief Valve Cartridge	\$293
249335	OP22 Spool only	\$130
505052	OP22 Spring Chamber Vent	\$45
504060	OP22 Optional Handle Assembly	NO LONGER AVAILABLE

\* Additional discount can be forwarded for bulk orders & annual supply agreements

\*patents pending



The OP55 is a larger derivative of the OP22, the benchmark in the tipping industry for efficiency, similar to the OP22, the OP55 is specifically designed as a tipping valve and has various patents protecting the design. The Oilpath engineers designed the galleries inside the valve casting to provide minimal pressure drop especially in the return to tank line which allows the most efficient hoist down times in the industry.

Oilpath also designed a high-performance differential area direct acting relief valve that provides minimal pressure drop and incredible stability. (see charts)

#### OVERALL SPECIFICATIONS

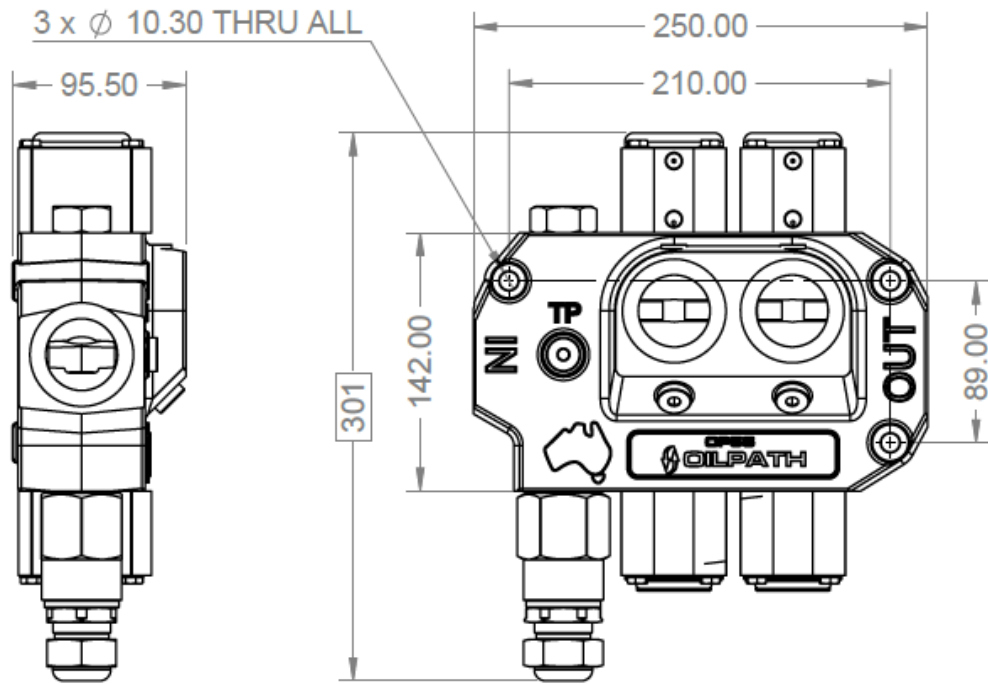
- Rated Flow.....250 lpm.
- Maximum working pressure.....250 bar (3500 psi)
- Working ports.....1" bspp or 1 ¼"bspp
- Tank Port..... 1 ¼"bspp 1 ½ "bspp

#### MATERIAL SPECIFICATIONS BODY

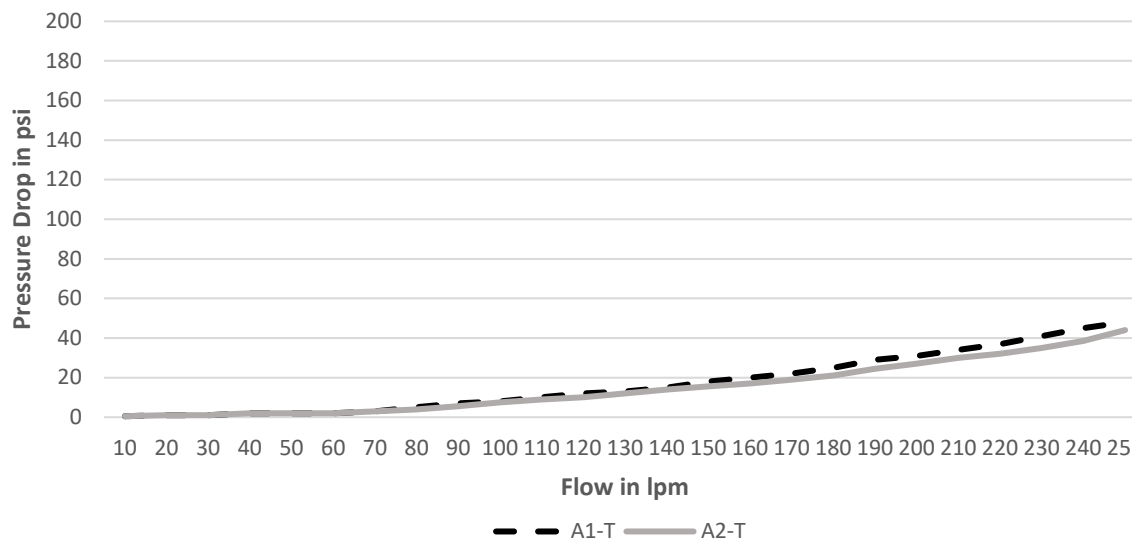
- Body.....High tensile strength cast iron
- Spools..... Hardened steel spools
- Seals.....Buna - N

#### STANDARD FEATURES

- Relief Valve.....Oilpath R55 Full Flow Direct Acting
- Pneumatic Ports.....1/8" bspp
- Test Points.....¼" bspp "A" "B" & "P" for setting & aux functions
- Tank Return.....Large internal galleries for fast lowering performance

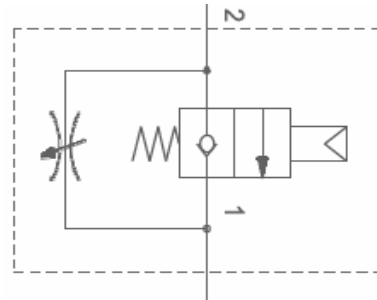
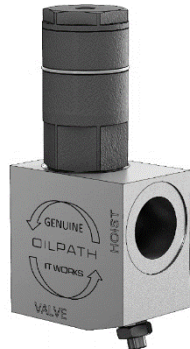


OP55 Flow Curves



Part Number	DESCRIPTION	LIST PRICES Qty 10+	Qty 5 - 9	Qty 1-4
05500002	OP55 SS A 12 R55 1 BSPP P,A&B 1-1/4" BSPP TANK 2500 OILPATH STD	1,190	1,215	1,577

\*Patents Pending



The Oilpath OP-APV-16-22 is the third generation of this market leading hoist blocking product that was designed in Australia and is manufactured in Australia utilising premium materials with “world class” manufacturing tolerances and techniques.

The latest revision provides an even lower pressure drop through the body utilising patented technology. The design also incorporates a large ratio “balanced” pneumatic cylinder which uses extremely low (2.1bar) air pressure to activate the system. The characteristics of the low-pressure requirement ensure efficient activation at times when little air is available and provides faster response times. Combining all these features guarantees the most efficient activation and hoist lowering times in the industry.

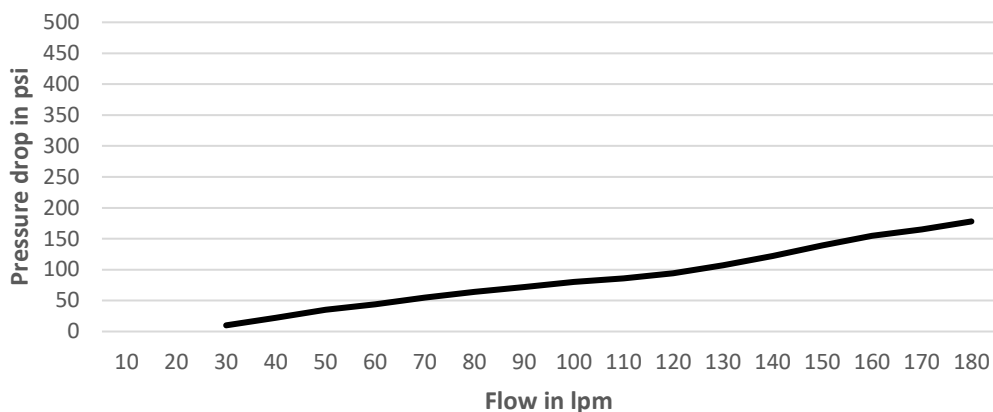
### OVERALL SPECIFICATIONS

- Maximum working pressure.....210 bar (3000 psi)
- Rated flow.....180 ltrs/min

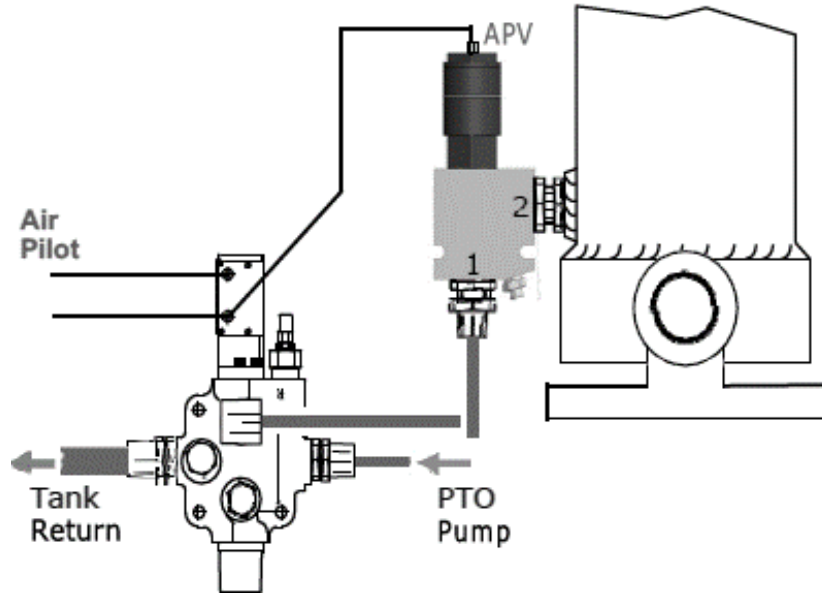
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile Aluminium
- Seals.....Buna - N

### OP-APV-16-22 Hoist- Tank







### Air Pilot Operation

Function	DC1	DC2	APV1
Raise	Pressure	Vent	Vent
Hold	Vent	Vent	Vent
Lower	Vent	Pressure	Pressure

### Important Information

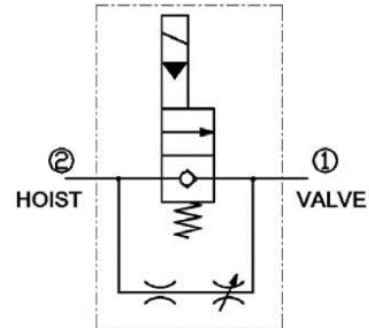
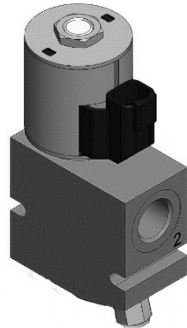
This valve must be installed by appropriately trained Hydraulics Operative as per the installation diagram above.

Do not attempt to disassemble this valve as it is designed to be maintenance free, any interference with this assembly will void all warranties and liabilities.

The only exception to the above is the external BS-029 neoprene "Breather" O-ring that needs to be replaced after 5 years or sooner if there are visible signs of deterioration.

Code	Description	List Prices	10-19	5-9	<5	
690222 OILPATH	OP-APV-16-22 HOIST BLOCKING VALVE 1" BSPP - OILPATH LOGO	20+	589	659	772	929

\* Additional discount can be forwarded for bulk orders & annual supply agreements



Oilpath Electric Hoist Blocking Valves utilise HydraForce normally closed poppet valves in conjunction with an Oilpath manufactured aluminum body and a manual override system from the pneumatic hoist block valve.

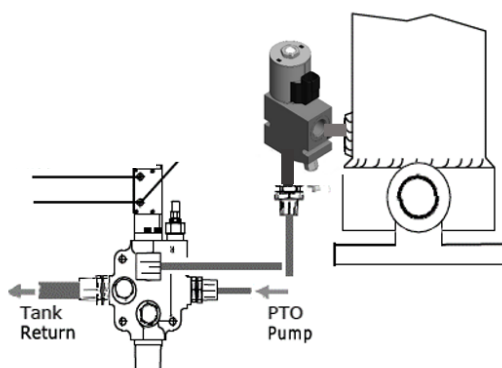
This valve utilises the world class HydraForce hardened steel poppet system and high-quality solenoids combination providing fast reliable operation and low leakage.

**OVERALL SPECIFICATIONS**

- Maximum working pressure.....210 bar (3000 psi)
- Sizes..... 57 lpm 1/2 " bspp & 115 lpm 3/4 "bspp
- Voltage.....12 or 24-volt Deutsch Coils

**MATERIAL SPECIFICATIONS BODY**

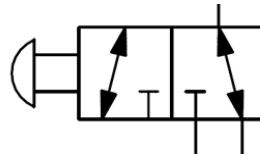
- Body .....High tensile Aluminium
- Seals.....Buna - N



**Air Pilot Operation**

Function	DC1	DC2	APV1
<b>Raise</b>	Pressure	Vent	Vent
<b>Hold</b>	Vent	Vent	Vent
<b>Lower</b>	Vent	Pressure	Pressure

Part No	Flow l/min	Voltage	List Price 5+	List Price <5
690052	62	26	328	400
690053	124	26	369	437
690106	124	13	392	460
690107	62	13	325	400



The OP27 Three Port Valve Series is a manually operated spool type 3-way 2-position selector valve. The high-quality cast-iron valve body is cast in Australia machined at Oilpath's Adelaide facility along with the chrome plated hardened steel spools. The range also includes alternative actuation methods.

#### OVERALL SPECIFICATIONS

- Maximum working pressure.....210 bar (3000 psi)
- Maximum Casting shock pressure.....840 bar (12,000 psi)
- Rated flow.....118 ltrs/min (100. gpm)

#### MATERIAL SPECIFICATIONS

- Body..... High tensile strength Australian cast iron
- Spools.....Hardened steel chrome plated
- Seals.....Buna - N

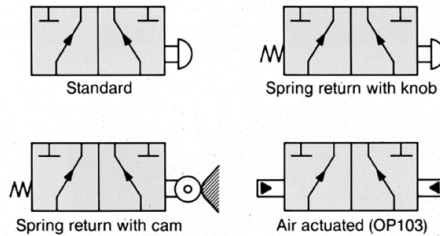
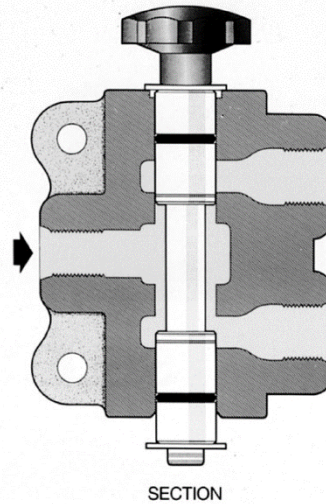
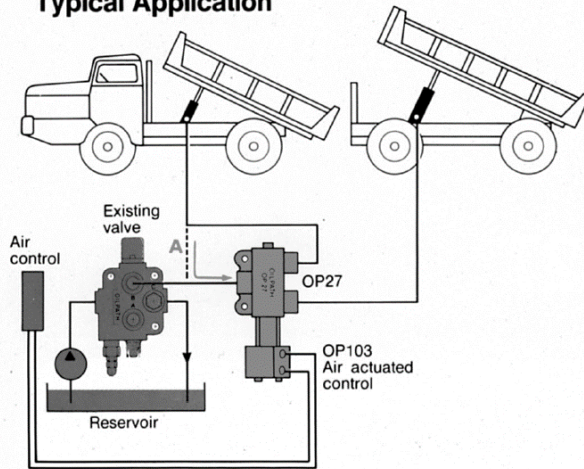
#### STANDARD FEATURES

- 3-way 2-position circuit
- 3/4" bspt Ports
- Simple push pull operation with Knob Actuator
- Front inlet port position
- Easily added to an existing OP20 Circuit

#### OPTIONS

- Handle Operation (OP20 Handle)
- Air Operation
- Detent System
- Spring Offset
- Roller Cam with Spring Offset
- Alternative ports include 7/8" un, 1-1/16" un, 1-5/16" un, 3/4" bspp, 1" bspp, 1/2" bspt & 1" bspt.

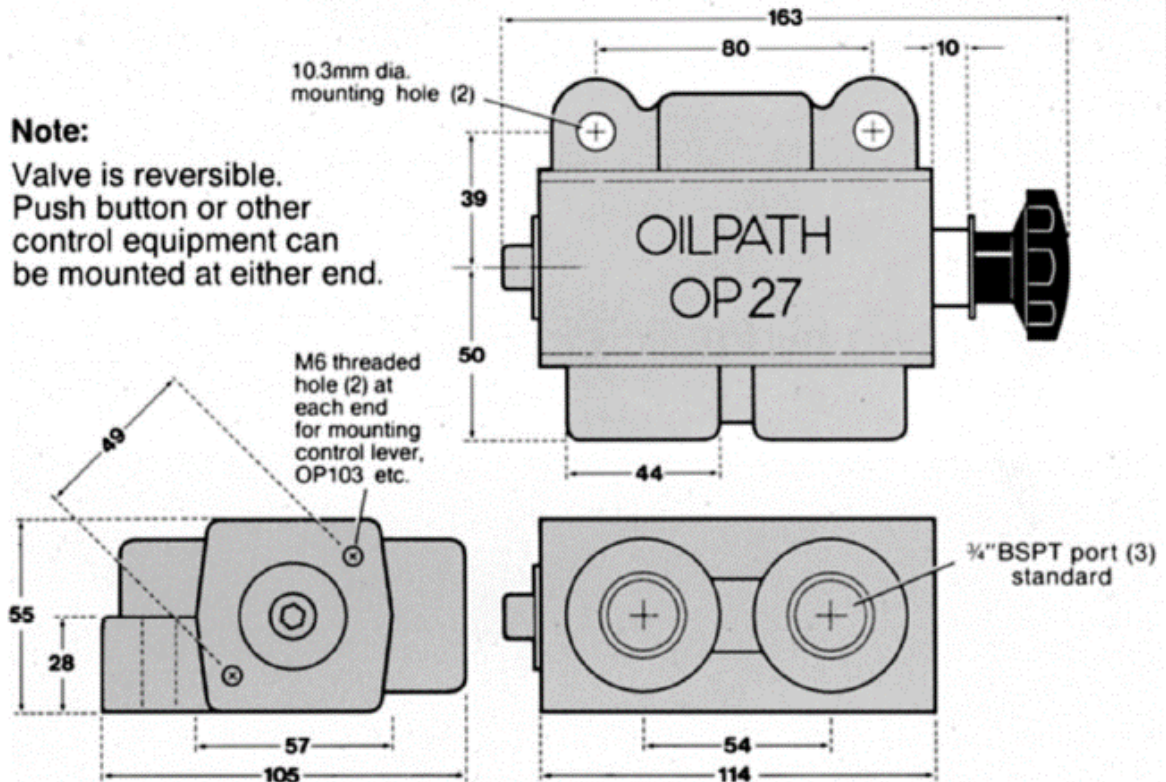
### Typical Application



### Dimensions

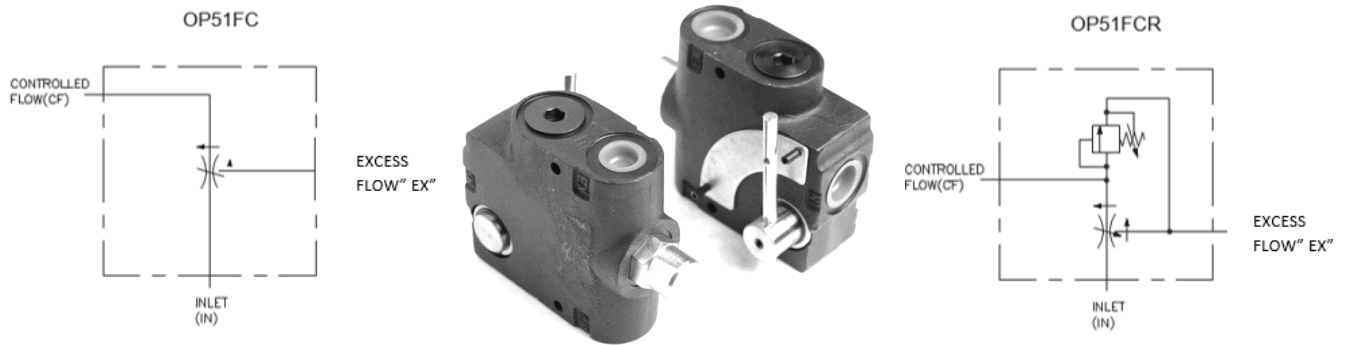
**Note:**

Valve is reversible.  
Push button or other control equipment can be mounted at either end.



## OP27 Valve Pricing

Part Number	Description	List Price
02700100	3/4" Ports and fitted with a plastic knob	256
02701300	3/4" Ports and fitted with spring offset kit	276
02706002	3/4" Ports and fitted with spring offset kit & new style air kit	406
<b>OP27 Options Pricing</b>		
Code	Description	List Price
H	Handle operated, OP20 style	82
D	Detent	POA
P	Plunger Activation Option (must include S/O option)	POA
CR	Cam roller (must include S/O option)	POA
<b>OP27 Spares Pricing</b>		
Part Number	DESCRIPTION	LIST PRICE
512036	Seal Kit (Spool O rings)	14
509013	Spring offset kit	48
507017	Detent kit	333
506044	B1 Air Kit (used with s/off)	167
504028	Lever Box Assembly	153
420003	Plastic Knob without washer	48
249001	Spool without knob or washers, plain	164



The model OP51FC is a pressure compensated swing arm adjustable flow control valve. By swinging the arm thru 90 °, the flow out the CF or controlled flow port can be varied within the range given in the specification.

Any remaining flow is bypassed to the EX or excess flow port. This flow can be used to power another circuit or can be returned to tank. Once the controlled flow is set, it will remain nearly constant with variations in pressure on either the controlled or excess flow ports.

Please note, if during operation the controlled flow port is blocked, then the valve will compensate in such a manner that there will also be no flow at the EX or excess flow port. With no relief valve to protect the flow in the circuit upstream, pump failure and or component damage will occur. If this situation could occur then it is recommended to fit an extra relief valve upstream or use the model OP51FCR valve.

- valve can also be used as a restrictive flow control by plugging the excess flow port.
- The valve model FCR51 has a built-in adjustable pressure relief. For this model, the excess flow port, labelled **(EX)** **must** be connected to tank.
- It should be noted that whenever these or any valve is used to bypass or restrict flow, heat will be generated. Steps may be required to keep system oil temperature from becoming too high.

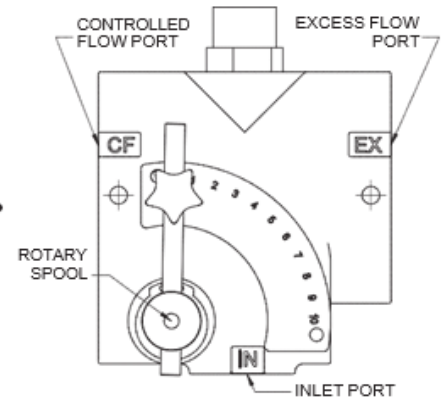
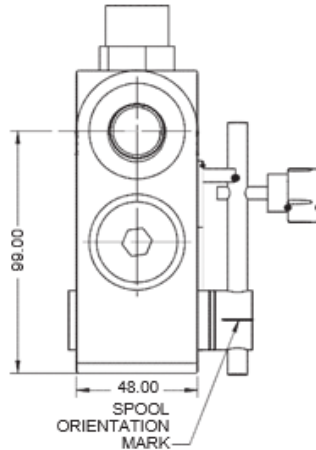
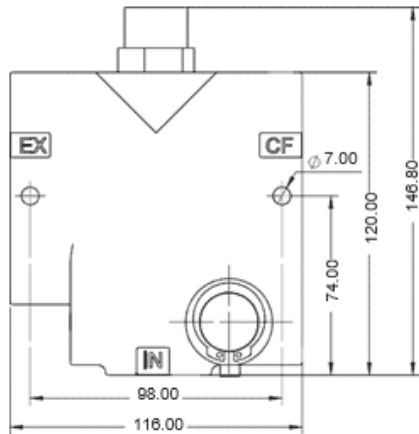
**OVERALL SPECIFICATIONS**

- Maximum working pressure.....210 bar (3000 psi)
- Rated flow.....114 l.p.m

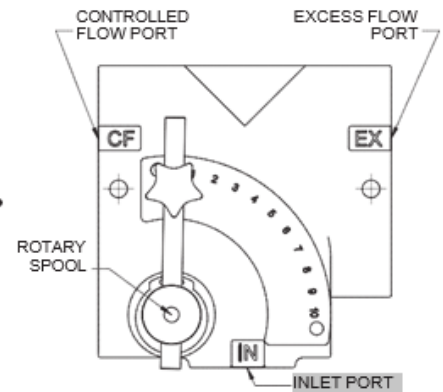
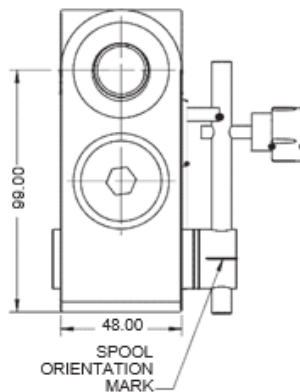
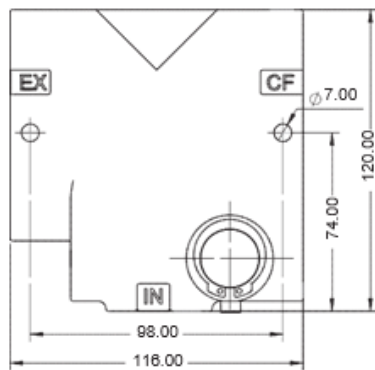
**MATERIAL SPECIFICATIONS BODY**

- Body .....High tensile strength cast iron
- Spools.....Hardened steel chrome plated spools
- Seals.....Buna - N

## OP51FCR



## OP51FC



Model No.	Port Thread	Relief Valve	Flow US gpm	Flow l/min	Weight	List Price
OP51FC- 1/2	1/2" BSPP	No	0 - 16	0 - 60	3.8 kg	238
OP51FC - 3/4	3/4" BSPP	No	0 - 30	0 - 113	3.8 kg	238
OP51FCR - 1/2	1/2" BSPP	Yes	0 - 16	0 - 60	4.0 kg	259
OP51FCR - 3/4	3/4" BSPP	Yes	0 - 30	0 - 113	4.0 kg	259



The OP80 Six Port Valve Series is a manually operated spool type 6-way 2-position selector valve. The high-quality cast-iron valve body is cast in Australia machined at Oilpath's Adelaide facility along with the plated hardened steel. The range also includes alternative actuation methods.

#### OVERALL SPECIFICATIONS

- Maximum working pressure.....210 bar (3000 psi)
- Maximum Casting shock pressure.....840 bar (12,000 psi)
- Rated flow.....118 ltrs/min (100. gpm)

#### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile strength Australian cast iron
- Spools.....Hardened steel hard chrome plated
- Seals.....Buna - N

#### STANDARD FEATURES

- 6-way 2-position circuit
- 1/2" bspt Ports
- Simple push pull operation with Knob Actuator
- Front inlet port position
- Easily added to an existing OP20 Circuit

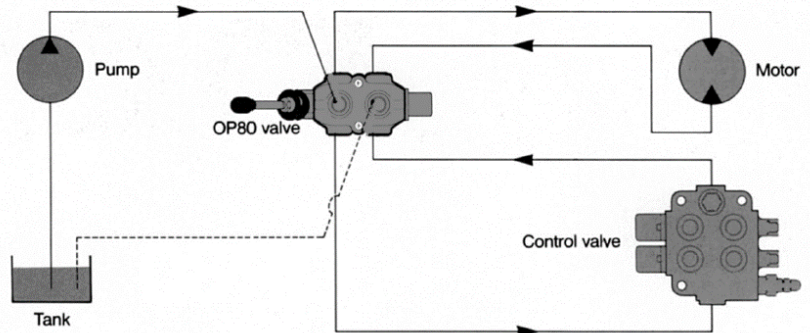
#### OPTIONS

- Handle Operation (OP20 Handle)
- Air Operation
- Detent System
- Spring Offset
- Alternative ports include 7/8"un, 1-1/16"un, 3/4"bspt, 3/4"bspp

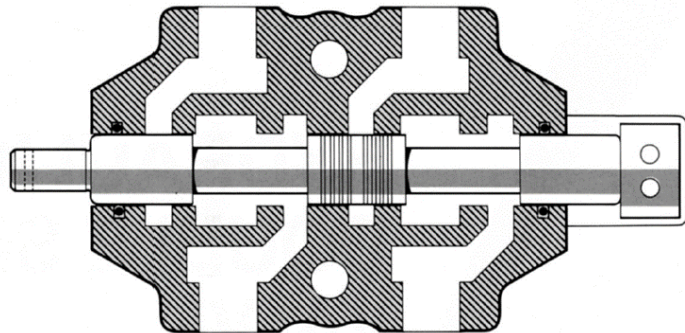
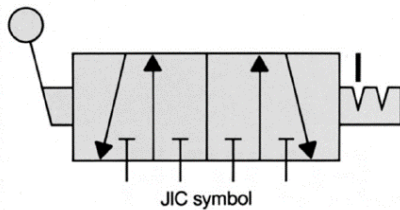


## Typical application

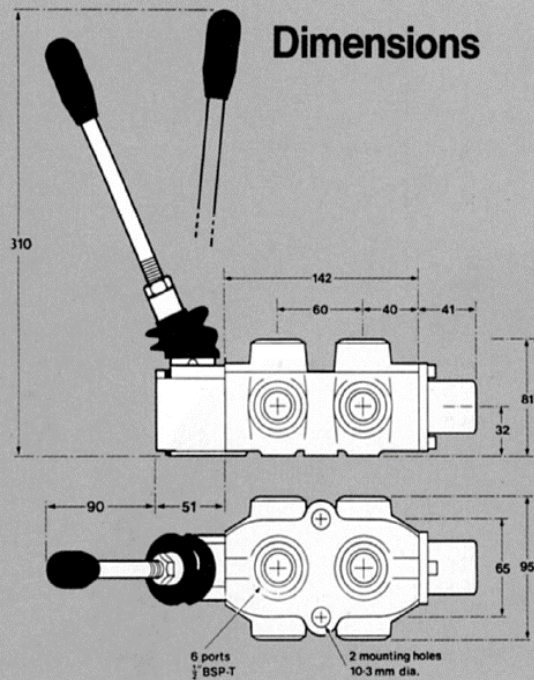
In this circuit OP80 valve is directing hydraulic pressure from pump to either a motor or a control valve.



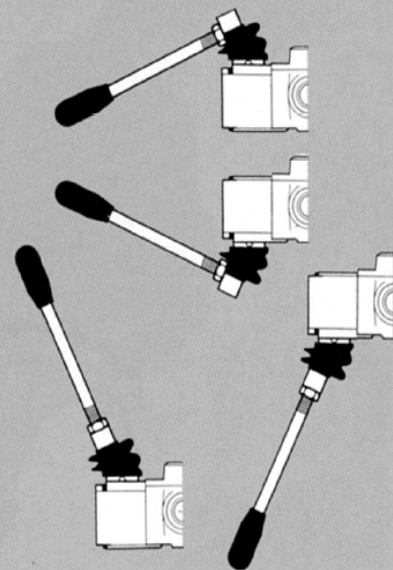
## Schematic



## Dimensions

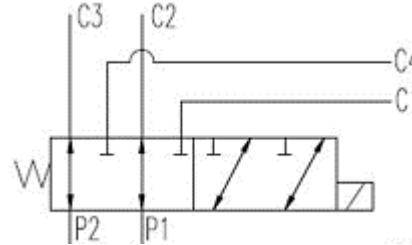
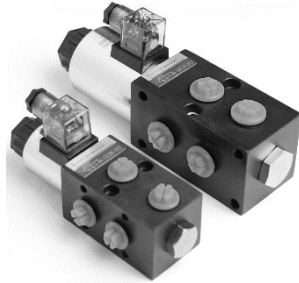


Convenient linkage enables easy repositioning of handle



## OP80 Six Port Selector Valve Price List

Part Number	Description	List Price
08000100	OP80 1/2"BSPT fitted with 2 position detent and OP20 style handle	423
08001000	OP80 1/2"BSPT K fitted with a black plastic knob (push pull)	365
08063000	Fitted with Air Kit and spring offset kit	523
<b>OP80 Options Price List</b>		
Part Number	Description	List Price
MU	Marine use lever box and end cap	111
<b>OP80 Spares Price List</b>		
Part Number	DESCRIPTION	LIST PRICE
512037	Seal kit (Spool O rings)	8
509014	Spring offset kit	45
507002	Detent Kit Complete assembly	133
506044	B1 Air Kit (used with s/off)	167
504502	Handle Lever complete with nut and rubber knob	36
504028	OP80 Lever Box	153



The OP80S is a stackable 6 port/2 way change over valve designed to be used when extra circuits are to be operated from one control lever on machines such as fork lift trucks, agricultural front-end loader, telescopic handlers, and in transmission circuits.

### OVERALL SPECIFICATIONS

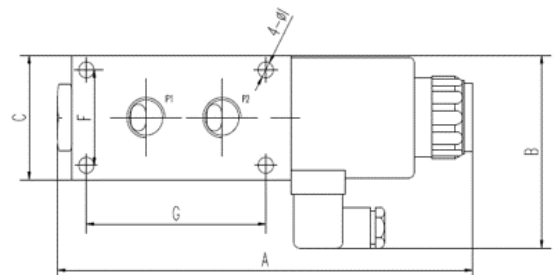
- Maximum working pressure.....250 bar (3500 psi)
- Maximum Casting shock pressure.....840 bar (12,000 psi)
- Rated flow 3/8"bspp.....40 ltrs/min
- Rated flow 1/2"bspp.....60 ltrs/min

### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile strength cast iron
- Spools.....Hardened steel chrome plated spools
- Seals.....Buna - N

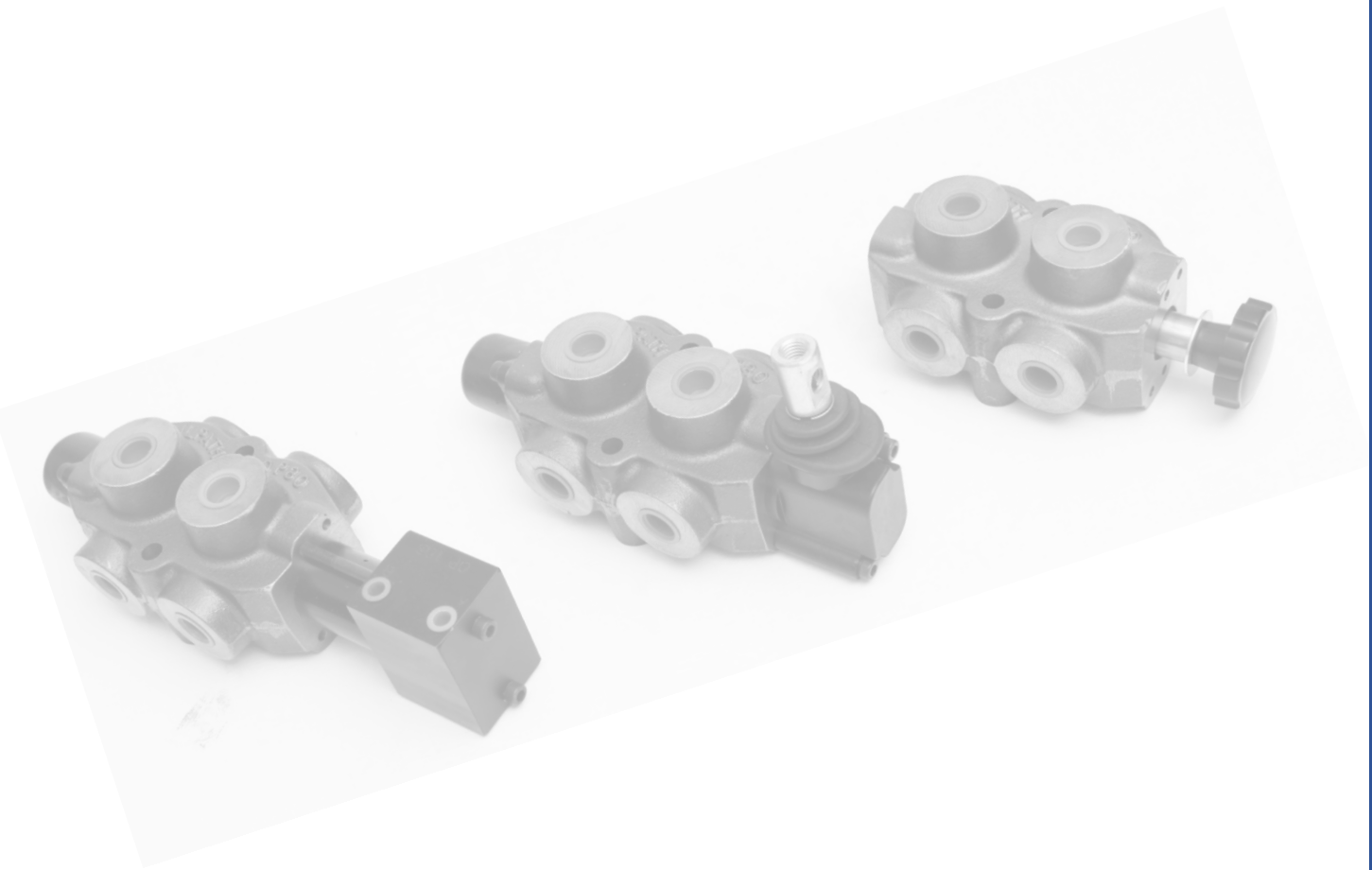
### STANDARD FEATURES

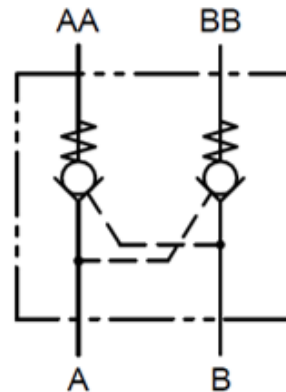
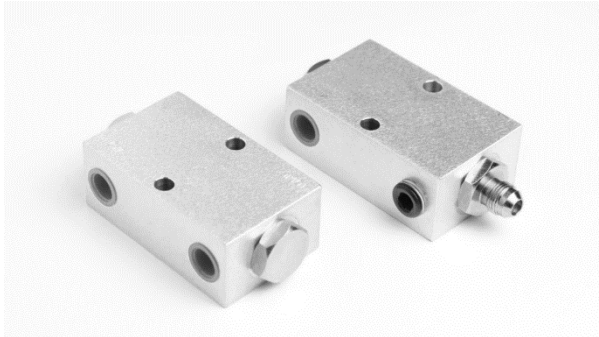
- 6-way 2-position circuit
- 3/8 or 1/2" bspp Ports
- 12 or 24 volt solenoid operated



	A	B	C	D	E	F	G	H	I	J
OP80S-3/8" BSPP	175.2	84	52	36	57.5	38	42	6.4	6	52
OP80S-1/2" BSPP	229	100.6	65	46	70	50	99	8	8.4	65

Part Number	Description	List Price
08103812	OP80S-3/8" BSPP 12 VOLT DC	292
08103824	OP80S-3/8" BSPP 24 VOLT DC	292
08101212	OP80S-1/2" BSPP 12 VOLT DC	351
08101224	OP80S-1/2" BSPP 24 VOLT DC	351





Oilpath OP101 Lock valves are designed and manufactured in Australia utilising quality materials and modern machining techniques.

The pilot piston is made from hardened steel and is precision fitted to the aluminum body and activates chrome steel check valve balls the provide minimal leakage.

### OVERALL SPECIFICATIONS

- Maximum working pressure.....210 bar (3000 psi)
- Sizes..... 55 lpm
- Type.....OP101-I for in-line applications
- Type.....OP101-C direct cylinder mount applications
- Port Size..... 1/2"bspt

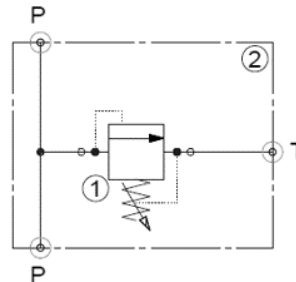
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium
- Components.....Hardened steel balls and pilot piston
- Seals.....Buna – N

### OPTIONS

- Port Size.....3/4"UNF

Model Number	Part Number	Description	List Price
OP101-C	10100100	Cylinder mounted with 1/2"BSPT ports	241
OP101-C	10100600	Cylinder mounted with 3/4" unf ports	241
OP101-I	10100200	In-Line with 1/2" BSPT ports	242
OP101-I	10100800	In-Line with 3/4" unf ports	242



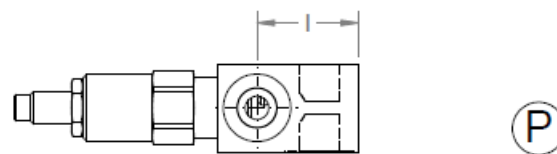
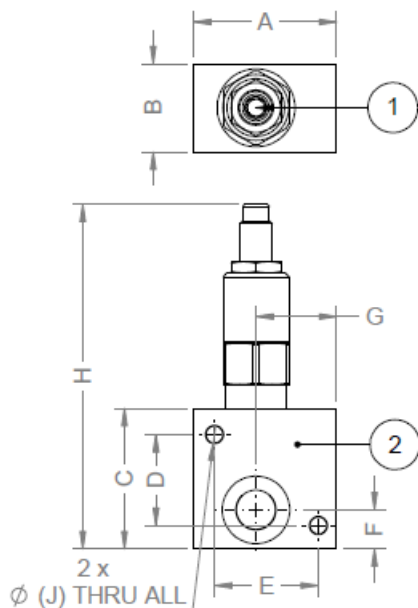
Oilpath OP110 through ported in-line relief valves are designed and manufactured in Australia utilising quality materials and HydraForce relief valve cartridges.

**OVERALL SPECIFICATIONS**

- Maximum working pressure.....50-210 bar (750-3000 psi)
- Sizes..... 28-160 lpm
- Port Size.....3/8" or 1/2" bspp

**MATERIAL SPECIFICATIONS BODY**

- Body .....High tensile aluminium
- Components.....HydraForce Relief Valve Cartridges
- Seals.....See Chart



DIMENSION TABLE			
DIMS	110820**	110020**	11052650
A	55	63.5	63.5
B	34	40	40
C	54	63.5	63.5
D	35	43	43
E	40	48.5	48.5
F	15	17.5	17.5
G	31	38.5	38.5
H	132.5	141.9	141.9
I	39	44.7	44.7
J	6.5	6.5	6.5

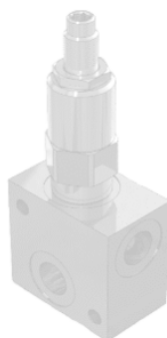
PART No.	CARTRIDGE	LINE BODY PART NO.	PRESSURE RANGE	NOMINAL FLOW	List Price
11082005	RV08-20A-O-N-5	222121 (ALLOY)	50 - 500	23 l/min	198
11082009	RV08-20A-O-N-9	222121 (ALLOY)	100 - 1100	23 l/min	198
11082018	RV08-20A-O-N-18	222121 (ALLOY)	250 - 2300	23 l/min	198
11082033	RV08-20A-O-N-33	222121 (ALLOY)	250 - 3600	23 l/min	198
11002006	RV10-20A-O-N-6	222009 (ALLOY)	50 - 600	38 l/min	202
11002012	RV10-20A-O-N-12	222009 (ALLOY)	150 - 1200	38 l/min	202
11002023	RV10-20A-O-N-23	222009 (ALLOY)	250 - 2300	38 l/min	202
11002033	RV10-20A-O-N-33	222009 (ALLOY)	250 - 3300	38 l/min	202
11002604	RV10-26A-O-N-4	222009 (ALLOY)	100 - 400	113 l/min	213
11002615	RV10-26A-O-N-15	222009 (ALLOY)	150 - 1500	113 l/min	213
11002630	RV10-26A-O-N-30	222009 (ALLOY)	400 - 3000	113 l/min	213
11052650	RV50-26A-O-P-50	222509 (STEEL)	400 - 5000	113 l/min	270

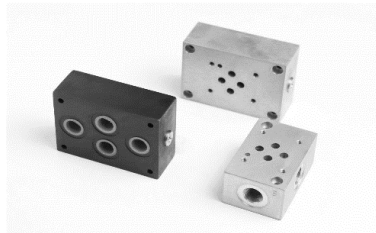
**Body Porting Details**

ALL PORTS: 222009 = 1/2" BSP-P  
 ALL PORTS: 222121 = 3/8" BSP-P  
 ALL PORTS: 222509 = 1/2" BSP-P

**NEW 160 L/MIN**

**11082034 RV16-26H-0-N-35/25 WITH ALLOY 222122 1"BSPP - \$421**





Oilpath OP111 cetop 3 and cetop 5 sub plates are designed and manufactured in Australia utilising quality materials. These subplates have various outlet porting options including side or bottom.

### OVERALL SPECIFICATIONS

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Maximum working pressure..... DuraBar 345 bar (5000 psi)
- Sizes..... Cetop 3 and 5
- Port Size.....3/8" in Cetop 3 & 1/2" bspp in Cetop 5

### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium or Durbar

Product Type	Part Number	Description Cetop 3 Products	List Price
OP111-A	111001	Single Cetop 3 alloy sub-plate, side ported 3/8" BSPP	90
OP111-A-C	111005	Single Cetop 3 cast iron as above but for 350 bar	122
OP111-B	111003	Single Cetop 3 alloy sub-plate, rear ported 3/8" BSPP	129
OP111-B-C	111006	As above but produced in cast iron for 350 bar rating.	195
OP111-A-R-*	111013	Cetop 3, Alloy, RV08-20A-0-N relief cartridge, 2 - 210 bar 40 l/min. Sub-plate with Pilot Operated Pressure Relief Valve	447

Product Type	Part Number	Description Cetop 5 Products	List Price
OP1115-A	111501	Single Cetop 5 alloy sub-plate, side ported 1/2" BSPP	141
OP1115-A- C	111502	Single Cetop 5 Steel as above but for 350 bar	176
OP1115-B	111503	Single Cetop 5 alloy sub-plate, rear ported 1/2" BSPP	141
OP1115-B-C	111504	As above but produced in steel for 350 bar rating.	176



New product VALVCO VC3 CETOP 3 Valve



VALVCO is an Oilpath owned company established to handle product developed in partnerships with other like-minded companies.

The Valvco Cetop 3 Valves are an economical product with high quality cast iron bodies and hardened spool components

Model Number	Description	Max Pressure	Max Tank line back pressure	Maximum Flow lpm	List Price
WE-2B3-02G-D2-3035	2 Way	315bar (4500 psi)	210bar (3000 psi)	80 (21 GPM)	\$ 142.00
WE-2B3B-02G-D2-3035	2 Way				\$ 142.00
WE-2B3-02G-D1-3035	2 Way				\$ 142.00
WE-2B3B-02G-D1-3035	2 Way				\$ 142.00
WE-3C2-02G-D2-3035	3 Way				\$ 198.00
WE-3C3-02G-D2-3035	3 Way				\$ 198.00
WE-3C4-02G-D2-3035	3 Way				\$ 198.00
WE-3C6-02G-D2-3035	3 Way				\$ 198.00
WE-3C2-02G-D1-3035	3 Way				\$ 198.00
WE-3C3-02G-D1-3035	3 Way				\$ 198.00
WE-3C4-02G-D1-3035	3 Way				\$ 198.00
WE-3C6-02G-D1-3035	3 Way				\$ 198.00
Fluid Type		ISO VG 32, 46, 68			
Viscosity		10-400 (59-1854-SSU)			
Operating Temperature		MINUS 15 TO +70C (-5-158 F)			
Contamination Level		ISO4406 21/19/16 NAS1638. 10			
Surface Treatment		Zinc phosphate Compound			

How to order:

1	2	3	4	5	6	7
WE	***	02	G	**	**	30

1 VALVE SERIES

5 TYPE OF COIL D1 =12 VOLT D2= 24 VOLT

2 SPOOL TYPE (NEXT PAGE)

6 ADJUSTING WAY (NONE)

3 SUBPLATE MOUNTING SIZE (02 = 6mm)

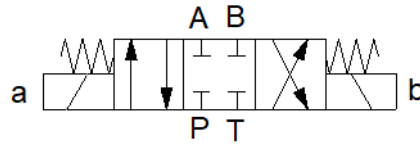
7 WIRING TYPE ( WIRING BOX TYPE)

4 CONNECTION TYPE (BASEPLATE)

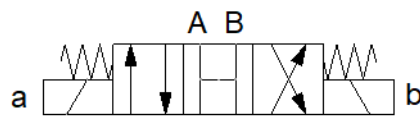
New product VALVCO VC3 CETOP 3 Valve

## Cetop 3 Spools

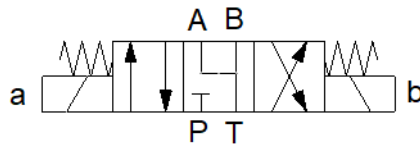
### WE-3C2



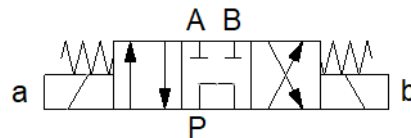
### WE-3C3



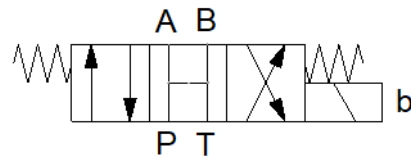
### WE-3C4



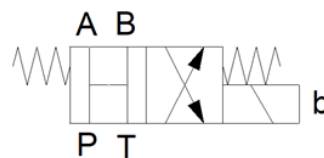
### WE-3C6



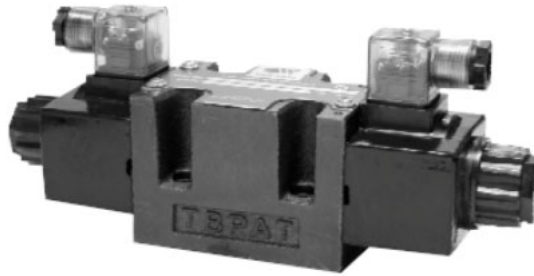
### WE-2B3



### 2B3B



New product VALVCO VC5 CETOP 5 Valve



VALVCO is an Oilpath owned company established to handle product developed in partnerships with other like-minded companies.

The Valvco Cetop 5 Valves are an economical product with high quality cast iron bodies and hardened spool components

Model Number	Description	Max Pressure	Max Tank line back pressure	Maximum Flow lpm	List Price
WE-2B3-03G-D1-3035	2 Way	315bar (4500 psi)	160bar (2320 psi)	120 (32 GPM)	\$ 292.00
WE-2B3-03G-D2-3035	2 Way				\$ 292.00
WE-2B3B-03G-D1-3035	2 Way				\$ 292.00
WE-2B3B-03G-D2-3035	2 Way				\$ 292.00
WE-3C2-03G-D1-3035	3 Way				\$ 340.00
WE-3C2-03G-D2-3035	3 Way				\$ 340.00
WE-3C3-03G-D1-3035	3 Way				\$ 340.00
WE-3C3-03G-D2-3035	3 Way				\$ 340.00
WE-3C4-03G-D1-3035	3 Way				\$ 340.00
WE-3C4-03G-D2-3035	3 Way				\$ 340.00
WE-3C6-03G-D1-3035	3 Way				\$ 340.00
WE-3C6-03G-D2-3035	3 Way				\$ 340.00
Fluid Type		ISO VG 32, 46, 68			
Viscosity		10-400 (59-1854-SSU)			
Operating Temperature		MINUS 15 TO +70C (-5-158 F)			
Contamination Level		ISO4406 21/19/16 NAS1638. 10			
Surface Treatment		Zinc phosphate Compound			

How to order:

1	2	3	4	5	6	7
WE	***	03	G	**	**	30

1 VALVE SERIES

5 TYPE OF COIL D1 =12 VOLT D2= 24 VOLT

2 SPOOL TYPE (NEXT PAGE)

6 ADJUSTING WAY (NONE)

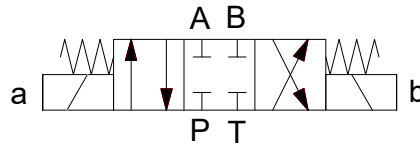
3 SUBPLATE MOUNTING SIZE (02 = 6mm)

7 WIRING TYPE ( WIRING BOX TYPE)

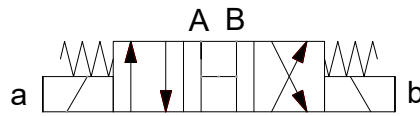
4 CONNECTION TYPE (BASEPLATE)

**Cetop 5 Spools**

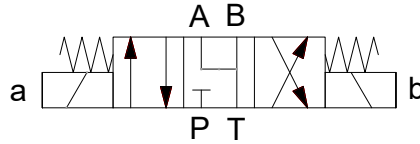
**WE-3C2**



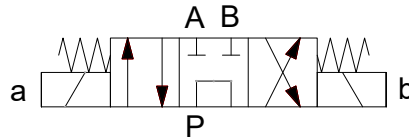
**WE-3C3**



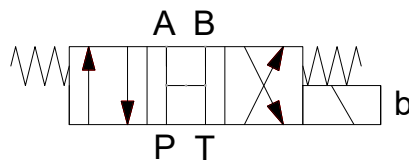
**WE-3C4**



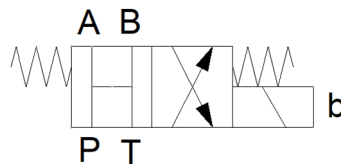
**WE-3C6**



**WE-2B3**



**2B3B**


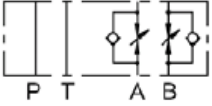




## New product VALVCO MODULAR VALVES


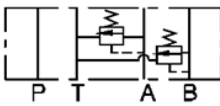
### CETOP 3 Modular Function Valves



These units mount between the directional valve and the sub-plates. The addition of these valves require longer bolt kits. Each valve block requires the addition of 40mm to the bolt length. Maximum inlet pressure 315 Bar.


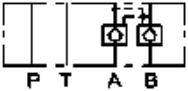
\* CETOP 3 used in illustrations below

		Part Number	Function	CETOP	List Price
			Throttle with check		
		MTC-02-W1-K-20	meter to cylinder on "a"& "b"	3	\$ 155.00
		MTC-03-W1-K-20	meter to cylinder on "a"& "b"	5	\$ 190.00

		Part Number	Function	CETOP	List Price
			Pressure Temperature compensated flow control		
		MOF-02-P-20	P Port only	3	\$ 235.00
		MOF-03-P-20	P Port only	5	\$ 425.00

		Part Number	Function	CETOP	List Price
			Modular Relief Valve 10-250 bar		
		MRV-02-W3-K-20	relief "a" "b"- t	3	\$ 220.00
		MRV-03-W3-K-20	relief "a" "b"- t	5	\$ 330.00

		Part Number	Function	CETOP	List Price
			Pressure Reducing Module		
		MBR-02-P3-K-20	Pressure Reducing Module	3	\$ 155.00
		MBR-03-P3-K-20	Pressure Reducing Module	5	\$ 230.00

		Part Number	Function	CETOP	List Price
			Pilot Operated Check Valve Module		
		MPC-02-W-20	Pilot operated checks on "a"& "b"	3	\$ 155.00
		MPC-03-W-20	Pilot operated checks on "a"& "b"	5	\$ 190.00



Oilpath cetop 3 & 5 bar manifolds are manufactured with an industry standard 10-2 cavity and can be provided with HydraForce relief valves and other cartridge configurations.

**OP112-\* CETOP3 MANIFOLD – PARALLEL ALLOY with 10-2 relief cavity  
P & T Ports 1/2" BSPP, Service Ports 3/8" BSPP**

Product Type	Part Number	Description	List Price
OP112-1	112001	Single Station	132
OP112-2	112002	Two Station	165
OP112-3	112003	Three Station	216
OP112-4	112004	Four Station	270
OP112-5	112005	Five Station	330
OP112-6	112006	Six Station	382

**OP112-\*-S CETOP3 MANIFOLD – SERIES ALLOY with 10-2 relief cavity  
P & T Ports 1/2" BSPP, Service Ports 3/8" BSPP**

Product Type	Part Number	Description	List Price
OP112-2-S	112072	Two Station in series	194
OP112-3-S	112073	Three Station in series	242
OP112-4-S	112074	Four Station in series	285
OP112-5-S	112075	Five Station in series	348
OP112-6-S	112076	Six Station in series	402

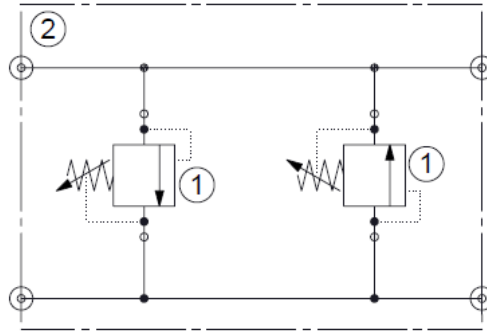
**OP114-\* CETOP 5 MANIFOLD - PARALLEL ALLOY with 10-2 relief cavity  
P & T Ports 3/4 " BSPP, Service Ports 1/2" BSPP**

Product Type	Part Number	Description	List Price
OPS114-1	114001	Single Station	205
OPS114-2	114002	Double Station	329
OPS114-3	114003	Three Station	434
OPS114-4	114004	Four Station	540
OPS114-5	114005	Five Station	692
OPS114-6	114006	Six Station	788
		<b>Cartridge Valves for all Manifolds</b>	
		RV10-26A-0-N-30 HydraForce Relief Valve	164
		SVRV10-26-0-N-* Solenoid Relief / Unloader	427

Note: Other manifold configurations and material can be manufactured to order

# OP115

Cross-Line Relief Valve



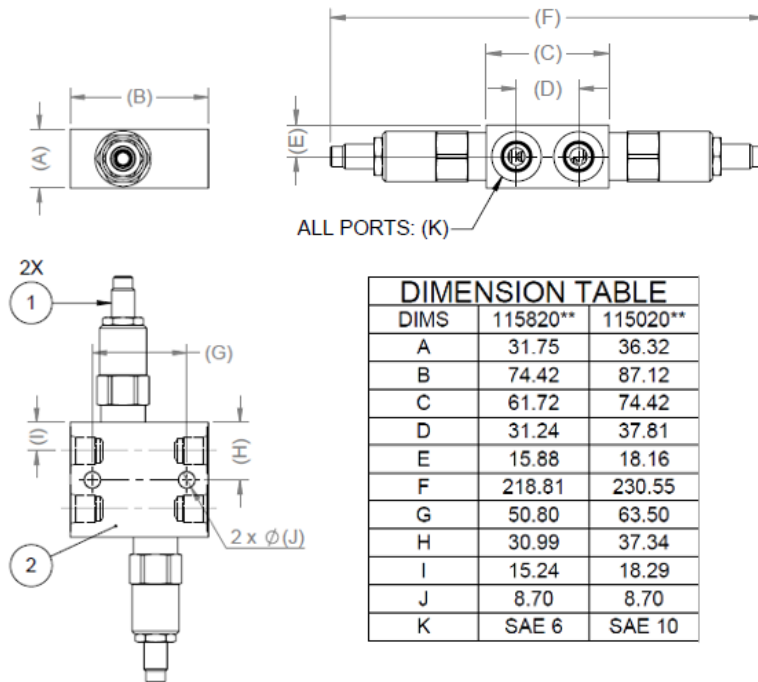
Oilpath OP115 cross line relief valves are designed and manufactured in Australia utilising quality materials and HydraForce relief valve cartridges.

## OVERALL SPECIFICATIONS

- Maximum working pressure.....50-210 bar (750-3000 psi)
- Sizes..... 28-113 lpm
- Port Size.....3/8" or 1/2" bspp

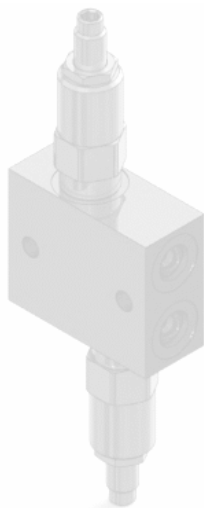
## MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium
- Components.....HydraForce Relief Valve Cartridges
- Seals.....See Chart



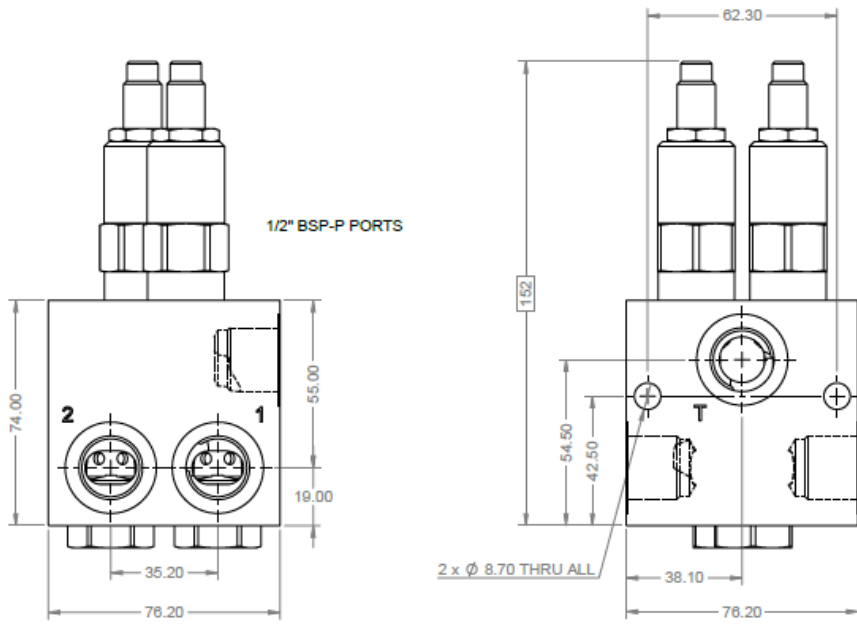
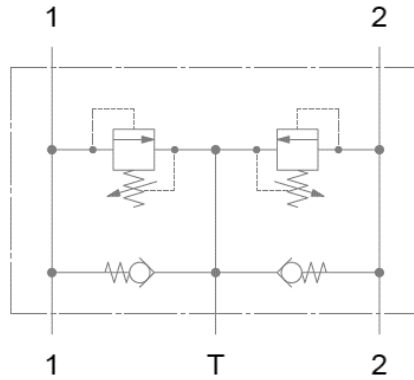
PART No.	CARTRIDGE NOMINAL FLOW	LINE BODY PART NO.	PRESSURE RANGE (PSI)	List Price
11582005	RV08-20A-O-N-5	7070160 (ALLOY)	50 - 500 23 l/min	242
11582009	RV08-20A-O-N-9	7070160 (ALLOY)	100 - 1100 23 l/min	242
11582018	RV08-20A-O-N-18	7070160 (ALLOY)	250 - 2300 23 l/min	242
11582033	RV08-20A-O-N-33	7070160 (ALLOY)	250 - 3600 23 l/min	242
11502006	RV10-20A-O-N-6	7070170 (ALLOY)	50 - 600 38 l/min	275
11502012	RV10-20A-O-N-12	7070170 (ALLOY)	150 - 1200 38 l/min	275
11502023	RV10-20A-O-N-23	7070170 (ALLOY)	250 - 2300 38 l/min	275
11502033	RV10-20A-O-N-33	7070170 (ALLOY)	250 - 3300 38 l/min	275
11502604	RV10-26A-O-N-4	7070170 (ALLOY)	100 - 400 113 l/min	299
11502615	RV10-26A-O-N-15	7070170 (ALLOY)	150 - 1500 113 l/min	299
11502630	RV10-26A-O-N-30	7070170 (ALLOY)	400 - 3000 113 l/min	299

For cartridge performance data see HydraForce website @ [www.hydraforce.com](http://www.hydraforce.com)





Oilpath 100 lpm Cross Line Relief with Anti-Cavitation Checks, incorporating HydraForce Pilot operated Relief Vales and anti-cav. Check Valves.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Port sizes.....1/2" bspp
- Cartridges.....HydraForce

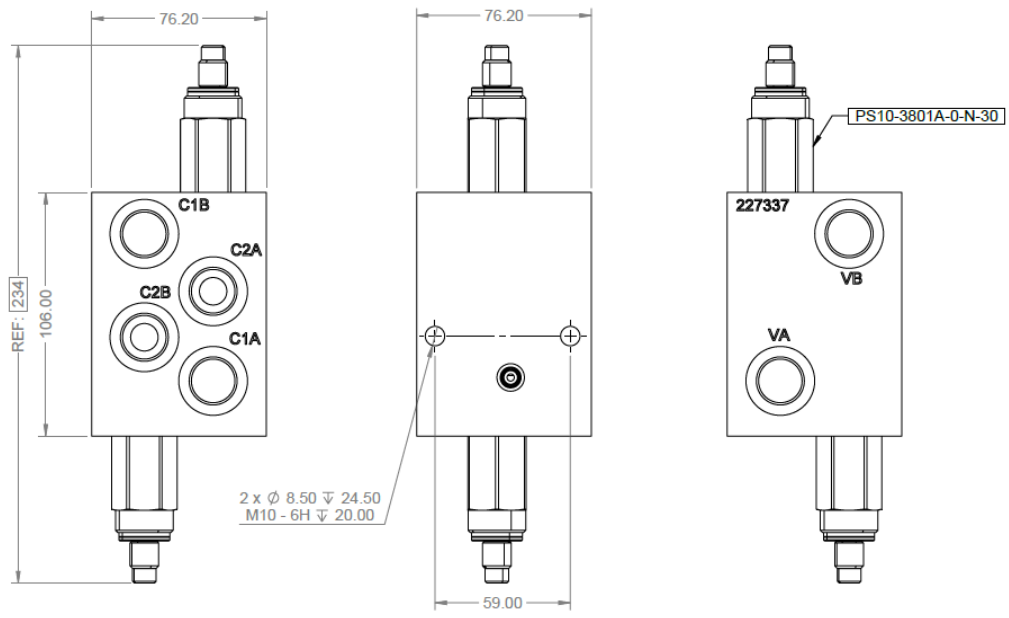
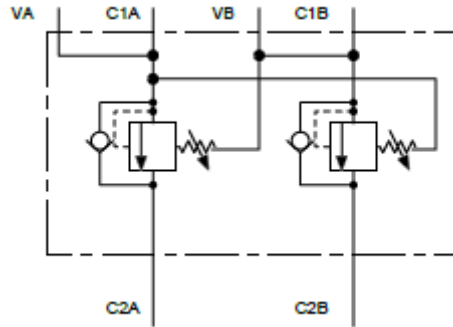
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
12900001	Oilpath 100 lpm Cross Line Relief with Anti-Cavitation Checks	615

\* Contact factory for alternative sizing and options

Oilpath 100 lpm Double Sequence Valve including reverse flow check valves, with adjustment range between 10-210 bar.



**FEATURES**

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Port sizes.....1/2" bspp
- Cartridges.....HydraForce

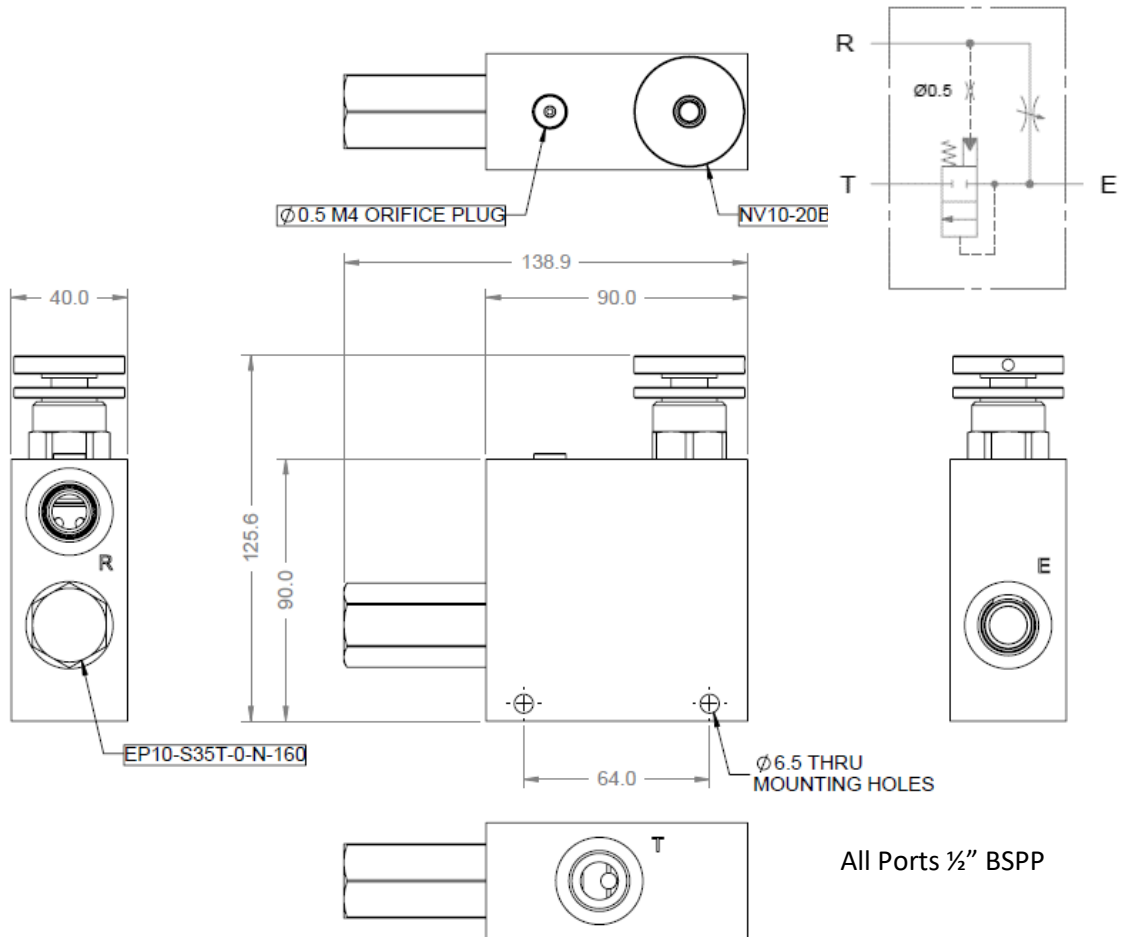
**MATERIAL SPECIFICATIONS BODY**

- Body .....High tensile aluminium

Part No.	Description	List Price
15600001	Oilpath 100 lpm Double Sequence Valve including reverse flow check valves	<b>640</b>

\* Contact factory for alternative sizing and options

Oilpath pressure compensated, three-way bypass type with maximum inlet flow of 90 lpm, maximum regulated flow of 55 lpm and maximum pressure of 210 bar.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Port Size.....1/2"bspp
- Cartridges.....HydraForce

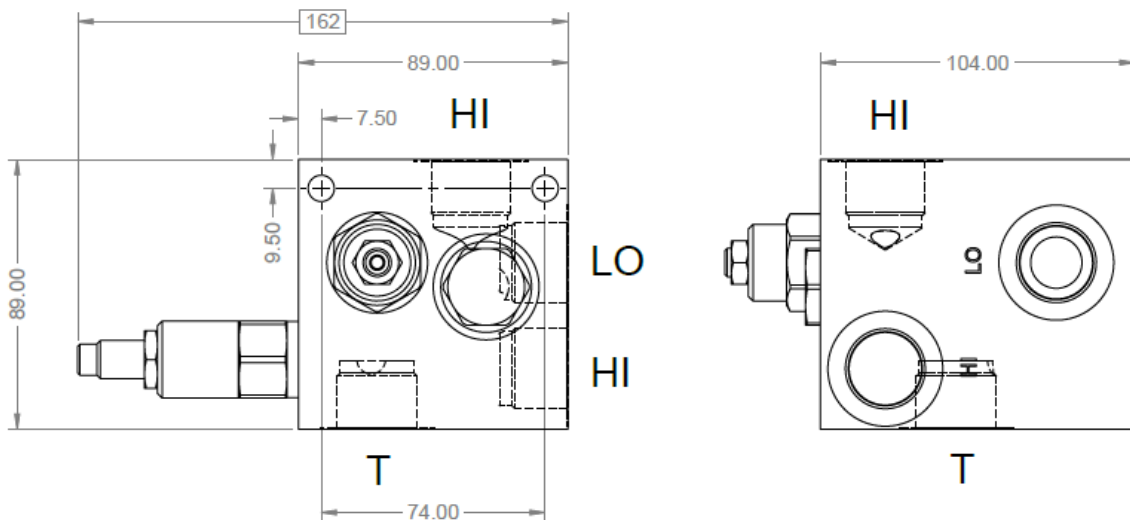
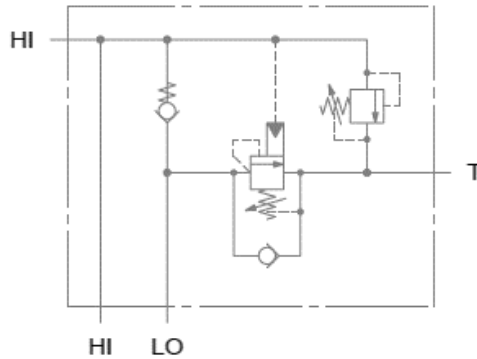
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
15700001	3-way pressure compensated flow regulator	369

\* Contact factory for alternative sizing and options

Oilpath 120 lpm Hi-Low Pump System Manifold with 3/4" bspp ports utilising highly efficient and reliable HydraForce cartridge valves.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Port size.....3/4" bspp
- Cartridges.....HydraForce

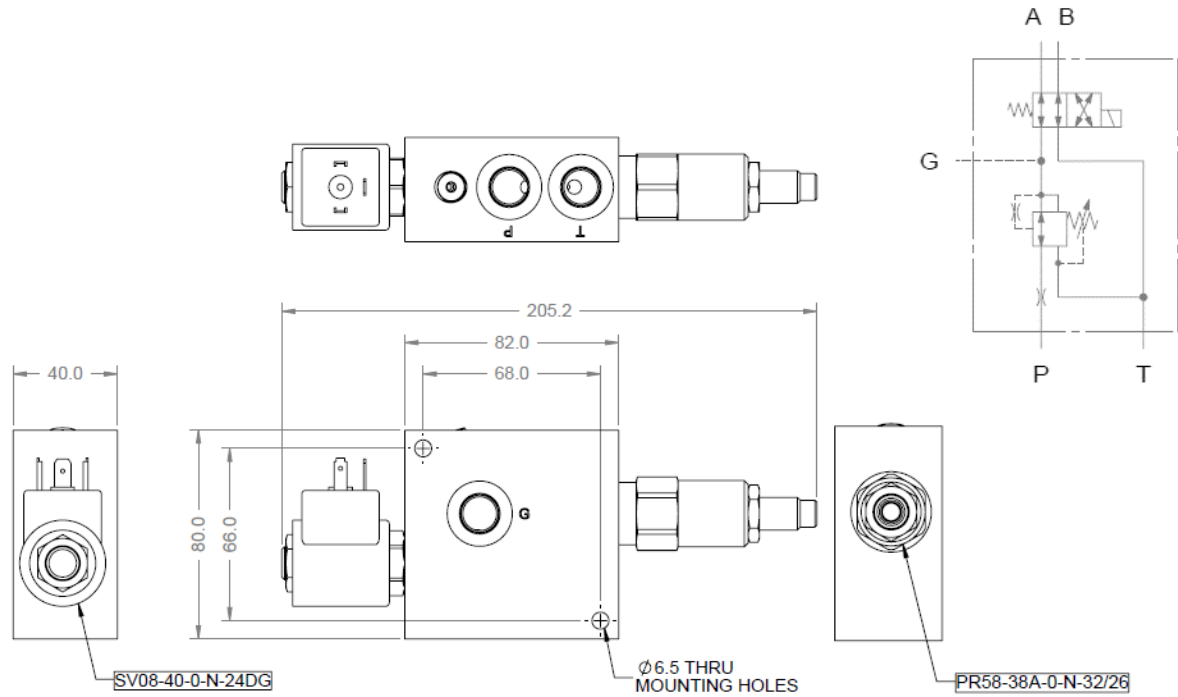
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
12800001	Oilpath 120 lpm Hi-Low Pump System Manifold with 3/4" bspp ports	<b>713</b>

\* Contact factory for alternative sizing and options

Oilpath OP137 Quick Hitch Valve is an economically priced, ultra-compact, quality valve, utilising HydraForce dirt tolerant cartridges. Available with 12 or 24 volt coils



ALL PORTS 9/16" UNF

## FEATURES

- Maximum working pressure..... 350 bar (5000 psi)
- Port Size.....9/16"unf
- Gauge Port.....1/4"bspp
- Cartridges.....HydraForce
- Reduced pressure to cylinder
- Orifice allows connection to high flow circuits

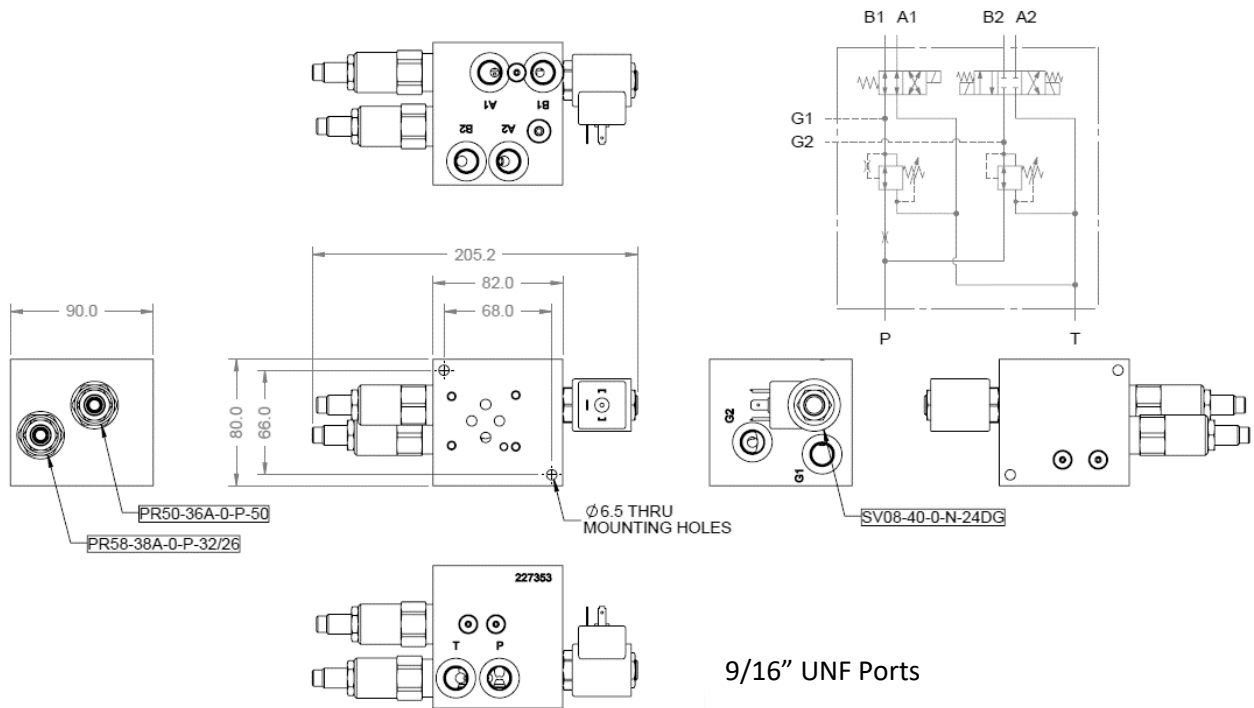
## MATERIAL SPECIFICATIONS BODY

- Body .....Ductile Iron

Part No.	Description	List Price
13710012	OP137 Quick Hitch Valve 12 volt	637
13710024	OP137 Quick Hitch Valve 24 volt	637

\* Contact factory for alternative sizing and options

Oilpath OP140 Quick Hitch & Valve is an economically priced, compact, quality valve, utilising HydraForce dirt tolerant cartridges. Available with 12 or 24 volt coils



### FEATURES

- Maximum working pressure.....0-350 bar (5000 psi)
- Port size.....9/16"unf
- Gauge Port.....1/4"bspp
- Cartridges.....HydraForce
- Reduced pressure to cylinder
- Orifice allows connection to high flow circuits

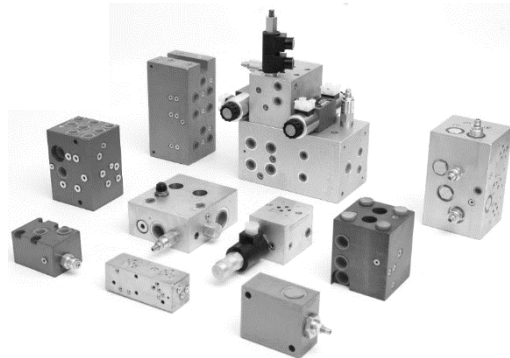
### MATERIAL SPECIFICATIONS BODY

- Body .....Ductile Iron

Part No.	Description	List Price
14000012	OP140 Quick Hitch & Tilt Valve 12 volt. (does not include Cetop 3 valve)	1,072
14000024	OP140 Quick Hitch & Tilt Valve 24 volt. (does not include Cetop 3 valve)	1,072

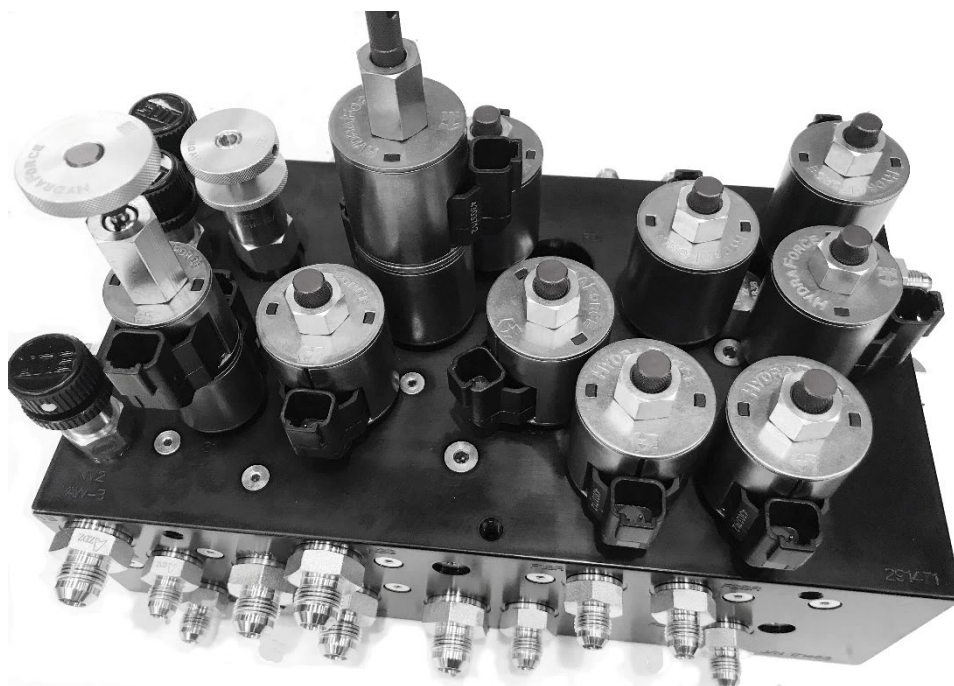
\* Contact factory for alternative sizing and options

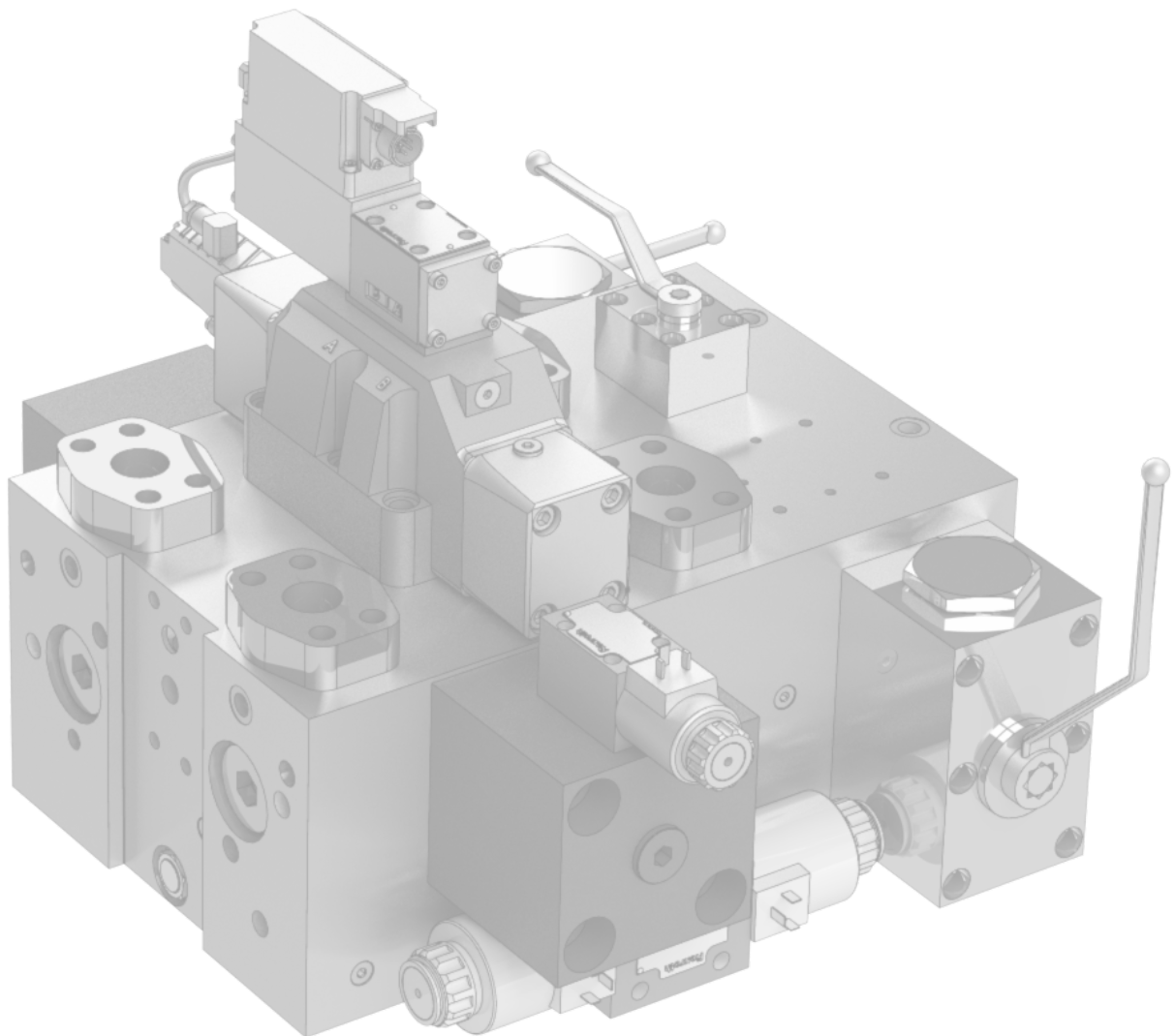
Please contact Oilpath to discuss your manifold requirements with our award winning engineers



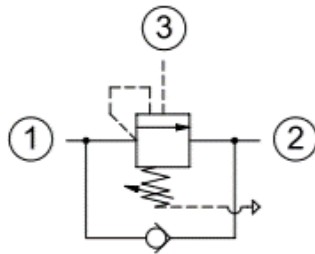
At Oilpath we believe that better performance comes from working together, and our engineers and field representatives will work with you to design your hydraulic control system. We understand that optimizing the performance of your machine starts with creative hydraulic integrated circuits, and when you work with Oilpath we utilize HydraForce cartridge valves and control equipment, therefore you can select from the broadest product range in the industry.

Our design staff will collaborate with you and verify your design prior to manufacturing a prototype. Then we'll make any necessary refinements and engineer your product to meet your exact specifications. With proprietary innovations like HydraForce I-Design, Solidworks MD Tools CAD software & Peps Manifold Expert CAM your hydraulic control schematic is easier than ever. The result is a performance- and configuration-optimized hydraulic solution that is designed exclusively for you.









## Oilpath Counterbalance Cartridges from Valvole Italia

Oilpath are delighted to announce that it has entered the Counterbalance Market, we accomplished this by striking a partnership with Valvole Italia a specialist Load Holding Company formed by engineers from the counterbalance division of Oil Control, focused exclusively on the design and manufacturing of load holding product. HydraForce utilise Valvole Italia counterbalance cartridges in an increasing amount in their custom manifold division.

Oilpath are stocking a range of T11A & T2A and parts in body counterbalance product that are extremely competitively priced and technically superior to product already in the market. Oilpath have built stock in standard configurations and will stock other configurations when demand dictates, please ask about special built to specification product required.

## Product Strengths

- Modular concepts available utilising same internal components
- Stainless Steel and Nickel-plated options
- Customisable pistons for specific applications optimising performance
- Cartridges proven through severe durability tests
- Proven superior stability over all other valves in market
- Superior pressure drop performance
- T11A GT Series suitable for 75 lpm with 26 bar pressure drop
- Valves designed & manufactured by a pure Load Holding Company
- T11A cartridges manufacture with smaller inscribed hexagon heads(19mm)

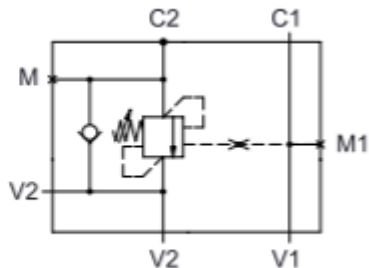
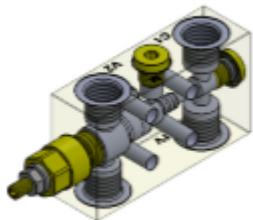
## Other Counterbalance Products Available

Please be aware that other counterbalance products are available in Industry standard cavity, Vented Cartridges, Rotary Actuator Cartridges, Parts in a body, and other counterbalance solutions. Please call Oilpath to discuss your requirements.

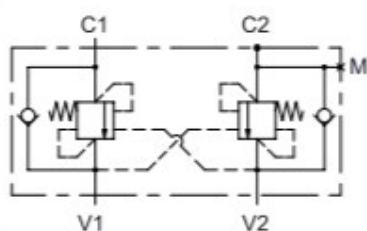
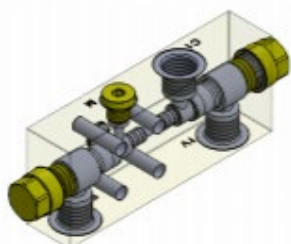
PART No.	Counterbalance Cartridge Description	List Price
C000D240021100A <b>(CBCL-LJN)</b>	LOAD CONTROL T11A 60 L/MIN 2:1 2000-5000PSI	162
C040M210031100A	LOAD CONTROL T11A 30 L/MIN 3:1 1000-4000PSI	162
C000M140031100A <b>(BCA-LHN)</b>	LOAD CONTROL T11A 60 L/MIN 3:1 1000-3000 PSI	162
C200M110031100A	LOAD CONTROL T11A 75 L/MIN 3:1 1000-2200PSI	175
C000D210040200A <b>(CBEA-LHN)</b>	LOAD CONTROL T2A 120 L/MIN 4:1 2000-5000PSI	238
C000T130051100A <b>(CBCG-LKN)</b>	LOAD CONTROL T11A 60 L/MIN 5:1 700-3000 PSI	162
C000D285051100A <b>(CBCG-LJN)</b>	LOAD CONTROL T11A 60 L/MIN 5:1 3045-5200PSI	162
C000D310101100A <b>(CBCH-LJN)</b>	LOAD CONTROL T11A 60 L/MIN 10:1 2000-5000PSI	162



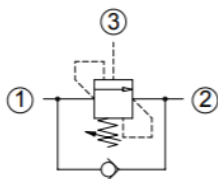
PART No.	Counterbalance Complete Parts in Body Description	List Price
SNS79L04G14D000	SINGLE C/BAL 4:1 350 BAR 1/4" BSPP	167
SNS31L04G38D000	SINGLE C/BAL 4:1 350 BAR 3/8" BSPP	174
SND79L04G14D000	DUAL C/BAL 4:1 350 BAR 1/4" BSPP	259
SND31L04G38D000	DUAL C/BAL 4:1 350 BAR 3/8" BSPP	281
SND31L04G12D000	DUAL C/BAL 4:1 350 BAR 1/2" BSPP	299
PJ17073	DUAL C/BAL 4:1 350 BAR - END C1,C2. PORTS ADJACENT TO CARTRIDGES FOR CONVENIENT CYLINDER MOUNTING 1/2" BSPP	356



Typical Single Counterbalance Parts-in-body.



Typical Double Counterbalance Parts-in-body.



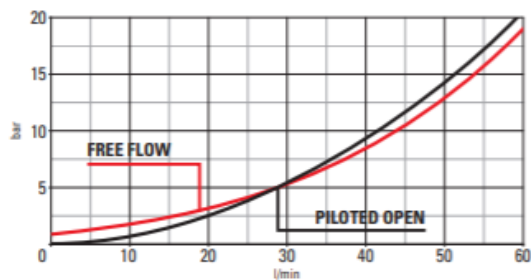
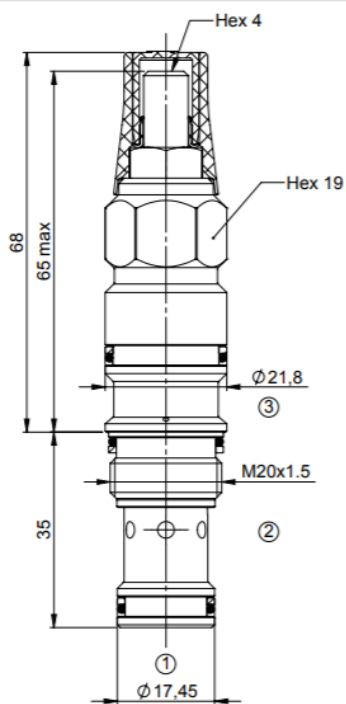
Typical Valvole Counterbalance Cartridge Example

C000M140031100A

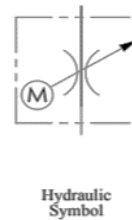
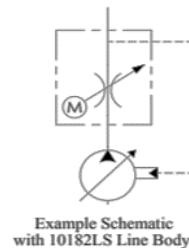
**(CBCA-LHN)**

3:1 Ratio

Performance Curves







Source Motorised Flow Control cartridges provide economical and simple electrical control for flows up to 190 lpm. It utilises a 12- or 24-volt DC motor to open or close a rotary spool valve. This rate is changed by providing a 12- or 24-volt signal to either increase or decrease the valve opening. In its simplest form, the control element is a DPDT three position-momentary-contact toggle or rocker switch or two DP momentary-contact push buttons.

If a more sophisticated control is desired, the loop can be closed by using a control amplifier and relay circuit in conjunction with feedback from a flow or speed sensor. The valve requires no power to maintain its flow setting. A 12-or24-volt DC is applied only while changing the flow rate and even then shut off to hold flow rate at the desired setting. In the event of a power failure or system shutdown, the system will remain at its current flow setting until power is restored and a command signal is once again supplied. Valve design allows for manual override in cases of electrical failure.

The valve is internally protected and will automatically shut down the internal drive when either the full open or full closed position are reached.

## FEATURES

- Internally Protected
- Requires no power to maintain setting
- Simple to use
- Economical
- Flexible
- Efficient
- Safe

## DESCRIPTION

MFC-10 and MFC-16 are cartridge design and fit generic 10-2 and 16-2 cavities respectively.

## OPERATING SPECIFICATIONS

Operating Pressure 3000 psi max

Flow Rating (based on 100 psi delta P with valve fully open)	Speed in Seconds
0-5 gpm MFC-10-5- (voltage 12 or 24)	3.5 (-03 option)
0-15 gpm MFC-10-15- (voltage 12 or 24)	7.0 (-07 option)
0-20 gpm MFC-16-20- (voltage 12 or 24)	24.0 (-24 option)
0-35 gpm MFC-16-35- (voltage 12 or 24)	48.0 (-48 option)
0-50 gpm MFC-16-50- (voltage 12 or 24)	

Larger valves (20-2) available on request

All Prices available on request

### Application notes on sizing motorized flow controls

The pressure drop curves shown are with the valve at full open.

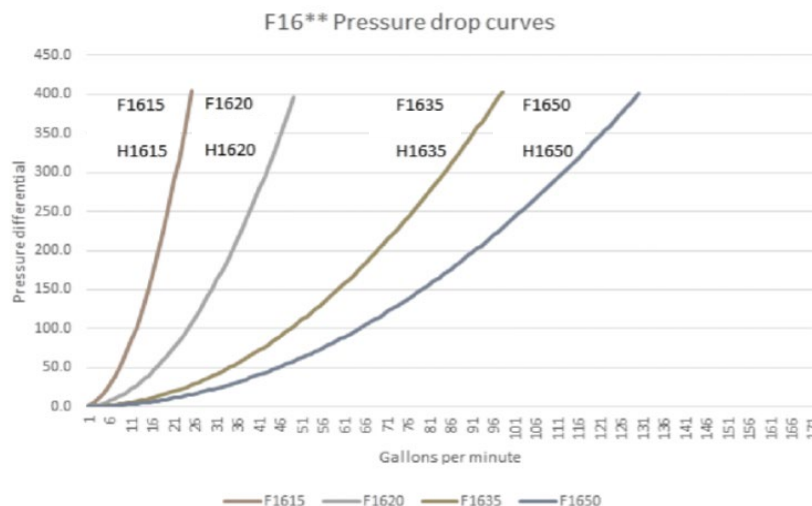
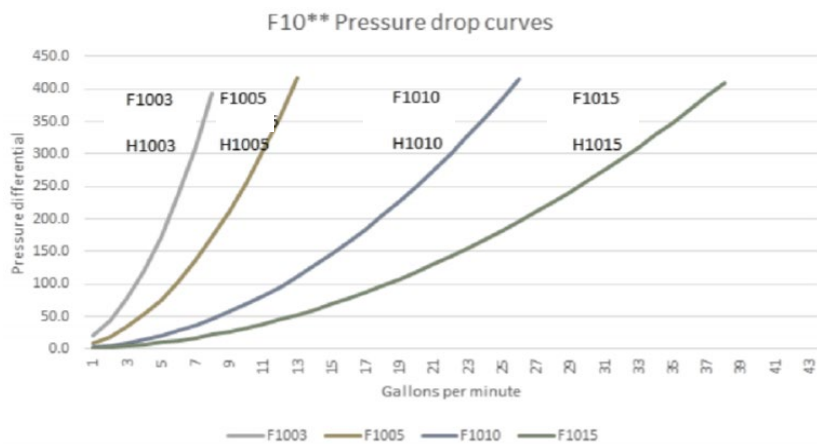
There may be a small variance from valve to valve due to tolerances in each valve. The pressure drop curves represent theoretical calculations and should only be used as a general guideline when sizing a motorized flow control.

### Motorized flow control sizing example:

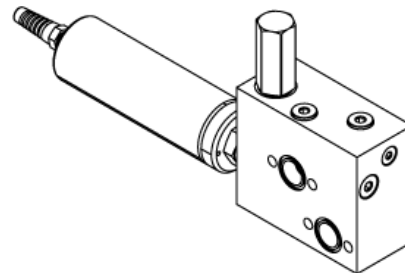
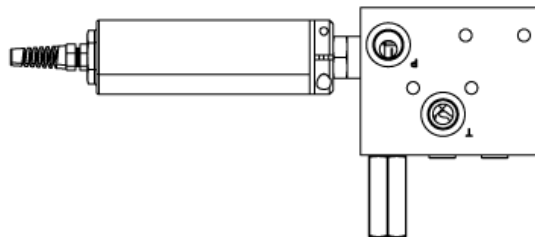
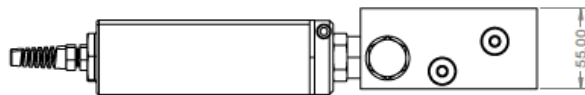
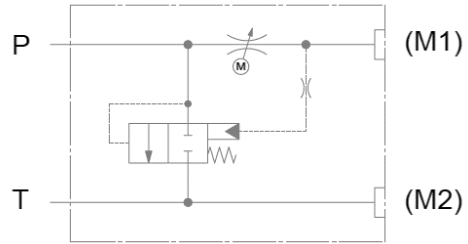
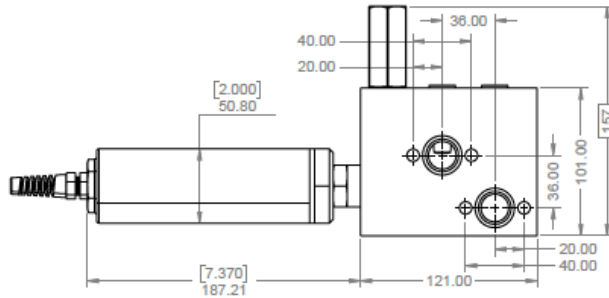
In a circuit that is using a 100 psi compensator and one of our F1010 size valves, the expected maximum flow would be about 12GPM.

If you were to use the same F1010 valve in a load sensing circuit with a 350 PSI compensator your expected maximum flow output would increase greatly to 24gpm.

By sizing the valve as close as possible to the maximum expected flow and pressure drop you will have the best resolution possible.



Oilpath 60 lpm Pressure Compensated Motorised Flow Control with OMP/OMR motor mounting interface and Source Motorised Flow Control Cartridge. 12 v or 24 volt system.



## FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Flow adjustment.....0-60 lpm
- Port Sizes.....1/2"bspp
- Flow control open to close timing.....7 seconds

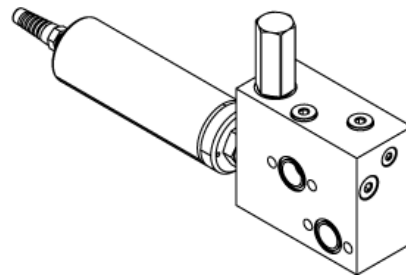
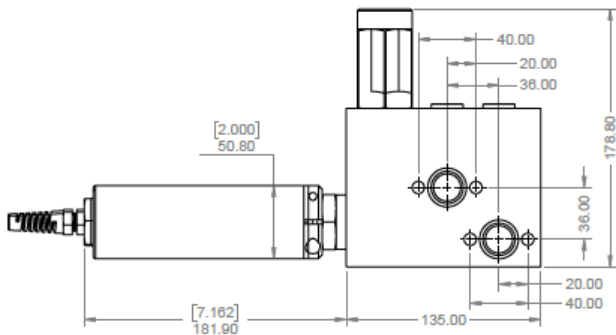
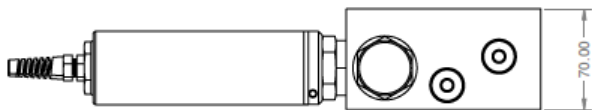
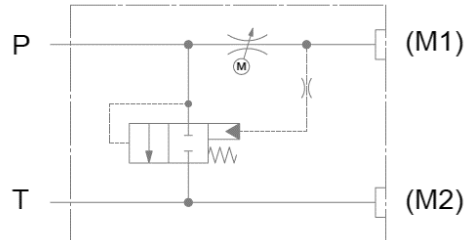
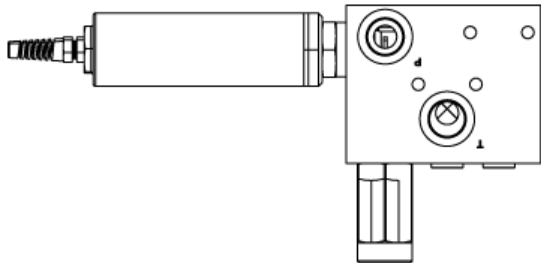
## MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
70000012	60 lpm Pressure Compensated Motorised Flow Control. 7 second timing 12 volt	1,939
70000024	60 lpm Pressure Compensated Motorised Flow Control. 7 second timing 24 volt	1,939

\* Contact factory for alternative sizing and flow control timing

Oilpath 120 lpm Pressure Compensated Motorised Flow Control with OMP/OMR motor mounting interface and Source Motorised Flow Control Cartridge. 12 v or 24 volt system.



## FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Flow Adjustment.....0-120 lpm
- Flow control open to close timing.....7 seconds
- Port sizes.....3/4"bspp

## MATERIAL SPECIFICATIONS BODY

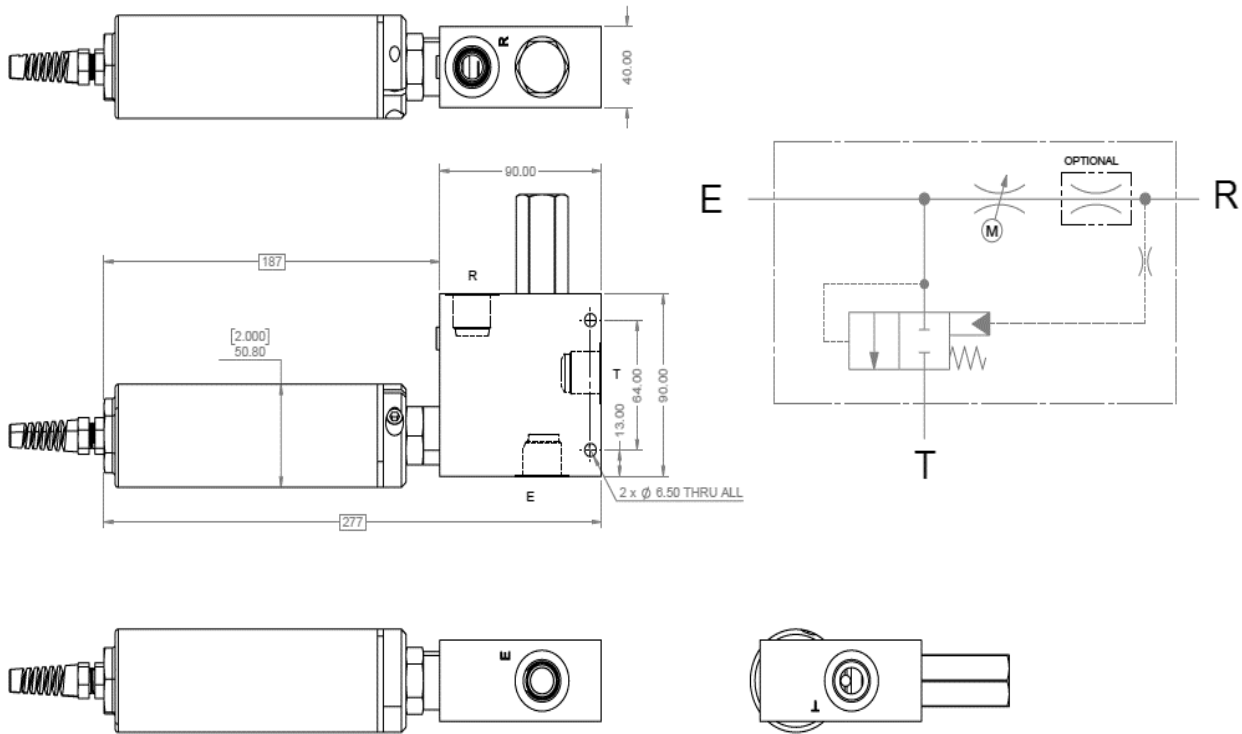
- Body .....High tensile aluminium

Part No.	Description	List Price
70100012	120 lpm Pressure Compensated Motorised Flow Control. 7second timing 12 volt	2,102
70100024	120 lpm Pressure Compensated Motorised Flow Control. 7second timing 24 volt	2,102

\* Contact factory for alternative sizing and flow control timing



Oilpath 60 lpm Pressure Compensated (by-pass style) Motorised Flow Control with Source Motorised Flow Control Cartridge. 12 v or 24 volt system. Regulated flow adjustment range 0-50 lpm.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Regulated Flow adjustment.....0-50 lpm
- Flow control open to close time.....7 seconds
- Port sizes.....1/2"bspp

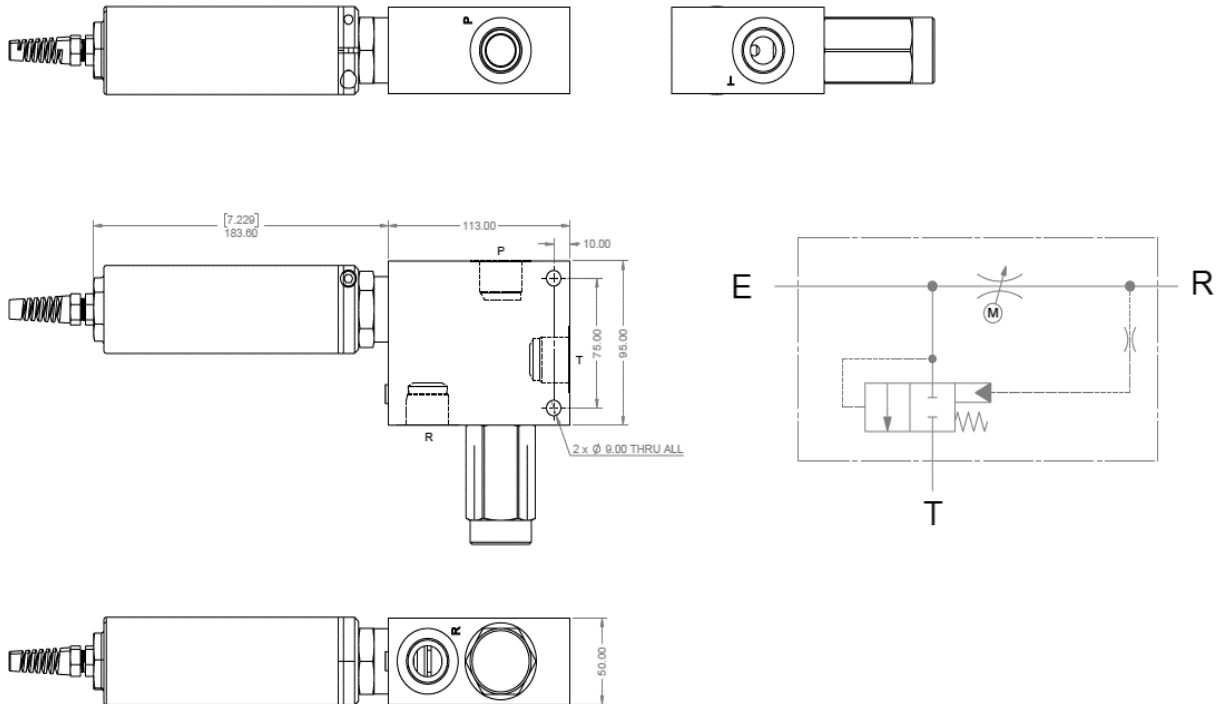
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
72000012	60 lpm Pressure Compensated Motorised Flow Control. Regulated flow 0-50 lpm 7 second timing 12 volt	1,809
72000024	60 lpm Pressure Compensated Motorised Flow Control. Regulated flow 0-50 lpm 7 second timing 24 volt	1,809

\* Contact factory for alternative sizing and flow control timing

Oilpath 120 lpm Pressure Compensated (by-pass style) Motorised Flow Control with Source Motorised Flow Control Cartridge. 12 v or 24 volt system. Regulated flow adjustment range 0-110 lpm.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Regulated Flow adjustment.....0-110 lpm
- Flow control open to close timing.....7 seconds
- Port sizes.....3/4"bspp

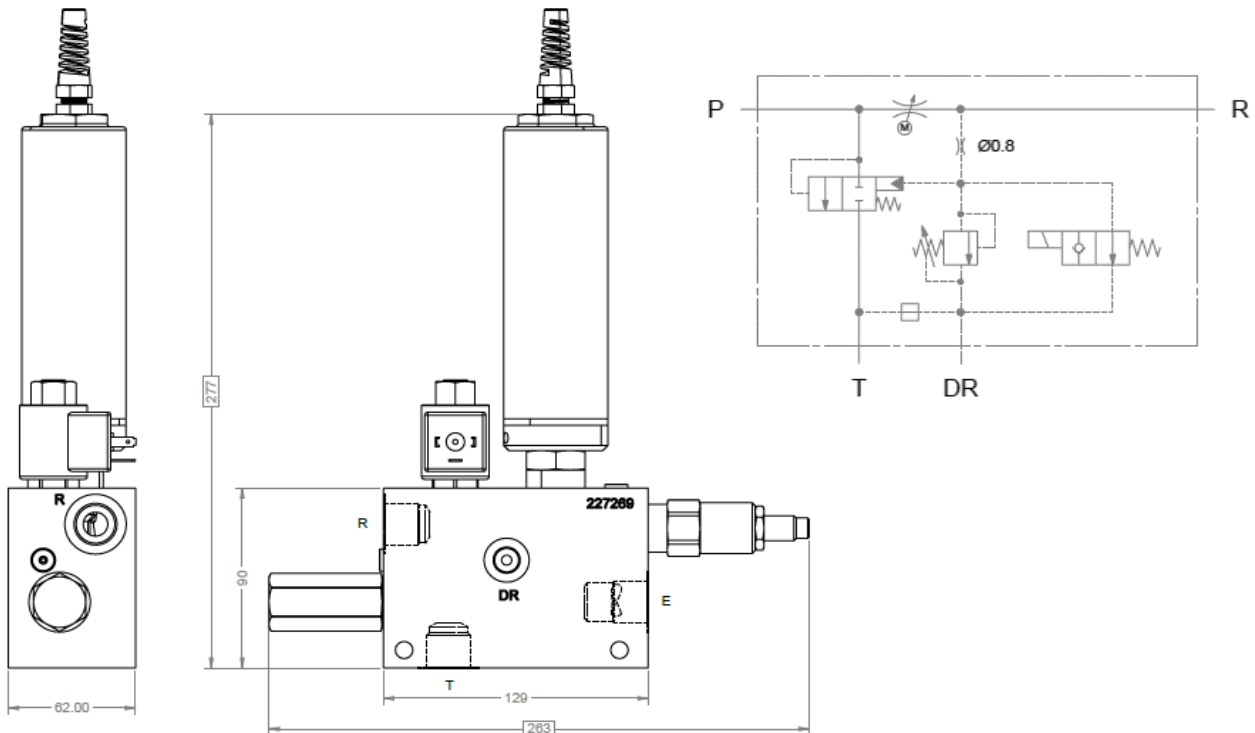
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
72100012	120 lpm Pressure Compensated Motorised Flow Control. Regulated flow 0-110 lpm 7 second timing 12 volt	1,973
72100024	120 lpm Pressure Compensated Motorised Flow Control. Regulated flow 0-110 lpm 7 second timing 24 volt	1,973

**\* Contact factory for alternative sizing and flow control timing**

Oilpath 60 lpm inlet Motorised Flow Control with Pressure Compensation, unloader and relief with Source Motorised Flow Control Cartridge. 12 v or 24 volt system. Regulated flow adjustment range 0-50 lpm. With a relief and unloading facility on priority line.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Regulated Flow adjustment.....0-50 lpm
- Flow control open to close time .....7 seconds
- Port sizes.....1/2"bspp

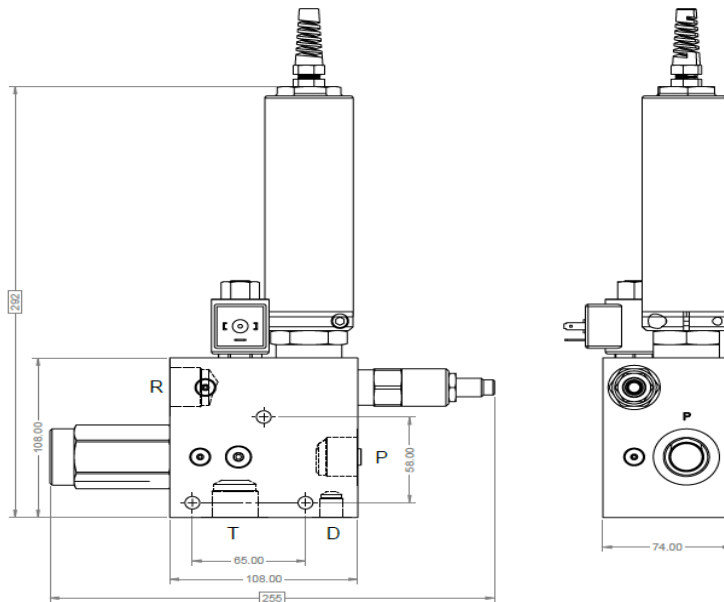
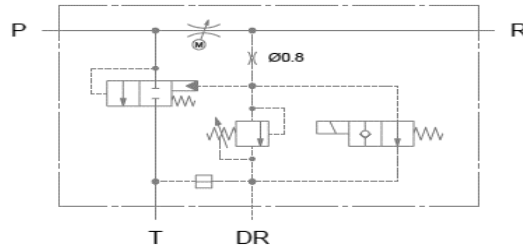
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
72200012	60 lpm Motorised Flow Control with Pressure Compensation and unloader relief function. 7 second timing 12 volt	2,220
72200024	60 lpm Motorised Flow Control with Pressure Compensation and unloader relief function. 7 second timing 24 volt	2,220

**\* Contact factory for alternative sizing and flow control timing**

Oilpath 120 lpm inlet Motorised Flow Control with Pressure Compensation, unloader and relief with Source Motorised Flow Control Cartridge. 12 v or 24 volt system. Regulated flow adjustment range 0-110 lpm. With a relief and unloading facility on priority line.



### FEATURES

- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Regulated Flow adjustment.....0-110 lpm
- Flow open to close time.....7 seconds
- Port sizes.....3/4"bspp

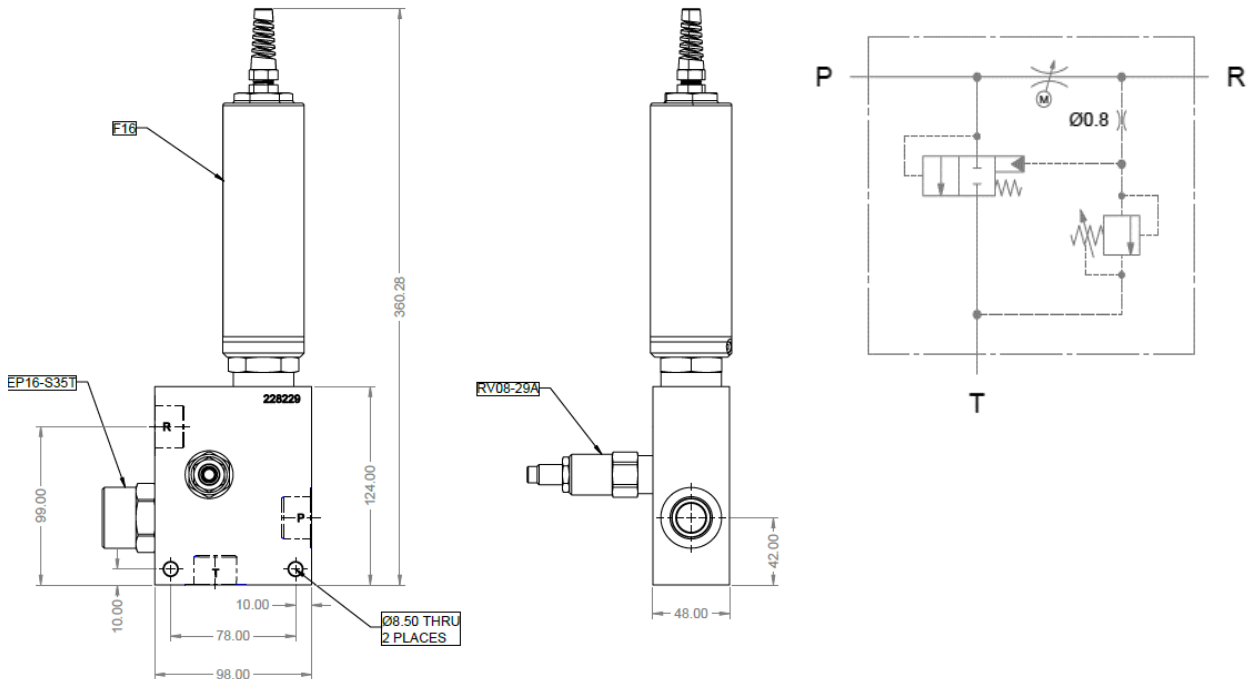
### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
72300012	120 lpm Motorised Flow Control with Pressure Compensation and unloader relief function, 7 second timing, 12 volt	2,372
72300024	120 lpm Motorised Flow Control with Pressure Compensation and unloader relief function, 7 second timing, 24 volt	2,372

\* Contact factory for alternative sizing and flow control timing

Oilpath 120 lpm inlet Motorised Flow Control with Pressure Compensation by-pass style, with relief on regulated flow line. Source Motorised Flow Control Cartridge. 12 v or 24 volt system. Regulated flow adjustment range 0-110 lpm.



### FEATURES

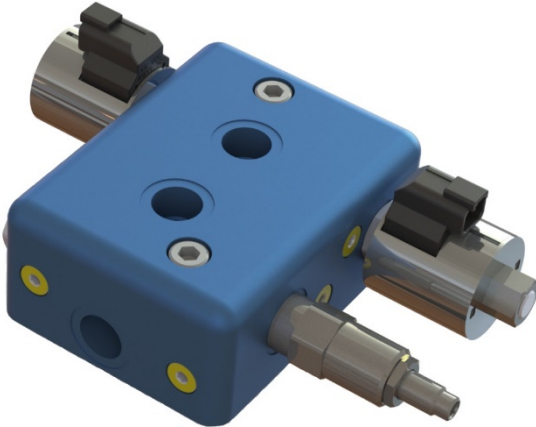
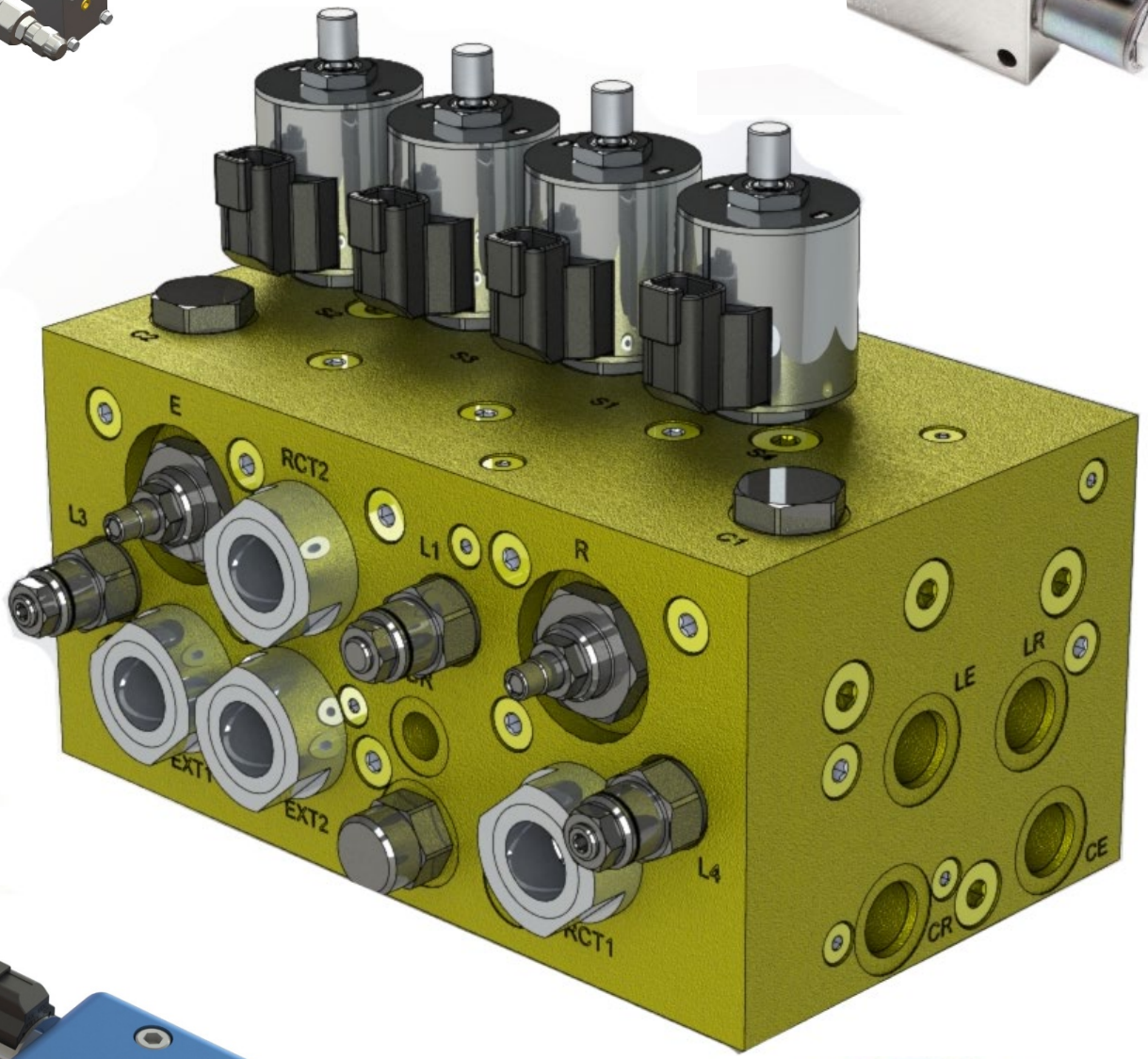
- Maximum working pressure..... Aluminium 210 bar (3000 psi)
- Regulated Flow adjustment.....0-110 lpm
- Flow control open to close time.....7 seconds
- Port sizes.....3/4" bsp

### MATERIAL SPECIFICATIONS BODY

- Body .....High tensile aluminium

Part No.	Description	List Price
72400012	120 lpm Motorised Flow Control with Priority and relief function, 7 second timing 12 volt	2,066
72400024	120 lpm Motorised Flow Control with Priority and relief function, 7 second timing 24 volt	2,066

\* Contact factory for alternative sizing and flow control timing





**Australian Authorised Distributor**

**Stocking in excess of 1,200 HydraForce Line**

**items incl: cartridges, line bodies & electronics**

Phone 08 82774933

[sales@oilpathhydraulics.com.au](mailto:sales@oilpathhydraulics.com.au)

# *Product Guide*

**Hydraulic Cartridge Valves  
Manifold Systems  
Electronic Controls**





With a unique blend of customized design solutions and superior product performance, HydraForce is leading the way in manufacturing the highest quality hydraulic cartridge valves, manifolds and electro-hydraulic controls.

**Multifunction Valves**

HydraForce multifunction valves incorporate two or more hydraulic functions in a single valve, allowing the design of a lighter, more compact valve package.

**Our Vision**

To be an independent provider of innovative technical solutions that can change the world

**Our Mission**

To create world wide customer delight by providing the highest quality products and the most responsive customer support in the world at a globally competitive cost

While custom design solutions are our specialty, HydraForce also provides many standard products. This Product Guide is a quick reference to the products available from HydraForce and its 120 stocking distributors. If you don't see what you need, contact HydraForce or your distributor for application support.

**Hydraulic Cartridge Valves**

HydraForce is the largest manufacturer of cartridge-style hydraulic valves in the world with a range of products that encompasses flow, directional and pressure controls, solenoid and electro-proportional options. Standard valves are grouped by category, with ISO graphic symbols, flow, and pressure ratings.



**HyPerformance™ Valves**

Designed for pressures up to 350 bar (5075 psi), HyPerformance or H-series valves meet more rigorous performance testing standards than standard models.



**High Quality, Precision Manufacturing**

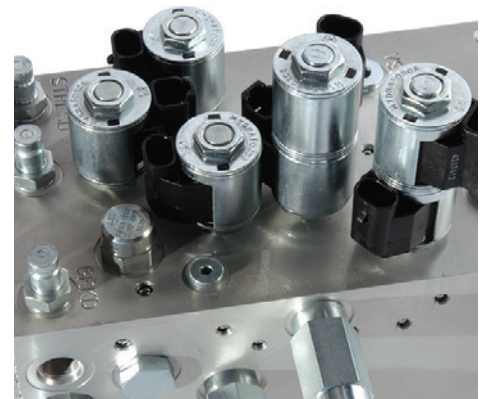
HydraForce uses the most advanced equipment and processes for machining, assembly, and product testing. By maintaining precise control of the fit and clearances in critical valve subassemblies, HydraForce is able to create high quality products that perform consistently. Precise procedures and state-of-the-art assembly equipment enable HydraForce to meet critical tolerances for more efficient hydraulic circuits.

Our equipment includes the following:

- Automated honing/bore-sizing equipment to 0.00005 tolerances
- Automated parts cleaning and assembly equipment

**Product Qualification**

HydraForce's product qualification policy includes fatigue and pressure testing to NFPA T2.6.1. Standard products are tested for at least one-million cycle capability. Other qualification testing can be done to meet specific customer requirements.



**Manifold Systems**

Optimizing the performance of your machine starts with creative hydraulic integrated circuits. Our design staff will collaborate with you and verify your design prior to manufacturing a prototype. Then we'll make any necessary refinements and engineer your product to meet your exact specifications. With proprietary innovations like our i-Design manifold tool, designing your hydraulic control schematic is easier than ever. The result is a performance- and configuration-optimized hydraulic solution that is designed exclusively for you.

Every HydraForce manifold is hydraulic function tested to a documented customer or product-specific test procedure. Manifolds produced at our U.S., U.K., and China facilities conform to the requirements of the ISO 9001 Certified Standard. HydraForce will mount customer specified fittings or other components not of our manufacture on request.



HydraForce can provide the following options for your custom hydraulic control system manifold:

- Steel, aluminum, cast or ductile iron manifold blocks
- Anodized or zinc plating for protection in severe environments
- Industry-common valve cavities
- Fittings, CETOP valves, and accessory components available
- “FastTrak” service for quick delivery of a working prototype
- i-Design hydraulic system design software available free of charge to qualified users

[info.hydraforce.com/download/i-design](http://info.hydraforce.com/download/i-design)



## Electronic Controls

HydraForce is pleased to offer a full line of electronic vehicle control products integrating engine, transmission, and other machine functions into a common J1939 or ISO 11783 CAN data link control circuit.

These systems consist of rugged, field-proven components suitable for heavy-duty operating conditions. PWM digital signal logic maximizes efficiency, response, and signal integrity under harsh environmental conditions. Reliability has been proven through extensive testing, as well as years of real-world application experience.

This is a complete line of the most rugged, heavy-duty vehicle machine controllers, monitors, displays, and electrical connectors for motion control and integrated machine control applications in mobile, off-highway and material handling equipment.

[www.hydraforce.com/electronics](http://www.hydraforce.com/electronics)

- Reliable operation in the most demanding mobile equipment applications
- Operating temperatures from -40 to 85 °C (-40 to 185 °F)
- Chemical splash immunity
- Moisture resistance to IP67 specifications
- Fully resistant to EMI/RFI
- Vibration resistant to 8  $G_{rms}$  (random) 24–200 Hz, 3-axis

## INTEGR8

ENGINEERED HYDRAULIC CONTROL SOLUTIONS

### INTEGR8

As an industry leader, HydraForce offers a unique series of innovative engineered hydraulic control solutions called INTEGR8. These solutions are designed to save engineering time and maximize efficiency. Specifically, they take the guesswork out for the most common hydraulic functions by providing engineered circuits featuring the best valve configurations. Now i-Design features a built-in library of INTEGR8 circuits to accelerate the design process.

All INTEGR8 circuits are 100% logic and function tested.

**At HydraForce we believe that better performance comes from working together.**



Our engineers and field representatives work with you to design your hydraulic control system. When you work with HydraForce, you can select from the broadest product range in the industry.

All HydraForce products meet global quality standards including ISO 9001, QS 9000. Every cartridge valve, manifold, and electrohydraulic control goes through rigorous testing and inspection to perform beyond industry standards.



**Contact us for additional product information:**

US: +1-847-793-2000  
UK: +44-121-333-1800  
China: +86-519-6988-1200



## HydraForce Electronic Control Units

HydraForce offers a line of general-purpose CoDeSys™ programmable controllers that work well as stand-alone controllers or integrate with other CAN networked devices. These controllers are designed to withstand the environmental demands of mobile off-highway equipment applications. They feature flexible input and output configuration.

## HydraForce Electronic Valve Drivers

HydraForce electronic valve drivers are available for a variety of electrohydraulic machine control functions. Whether you need simple closed-loop speed control, a fan control, or lift/lower, extend/retract, and dump controls, there is a HydraForce ExDR valve driver for your application. Vigorously tested and durable enough for mobile applications, and with SAE J1939 and CAN Open networking, these drivers fit into any system architecture.

## Firmware Personalities

The ExDR drivers are available in multiple specialized personalities. These preprogrammed firmware choices are fully configurable using HF-Impulse, a free utility available for download from the HydraForce electronics portal.

- EVDR — General 1 or 2 coil proportional valve driver
- ETDR — Time-based driver useful for shift/clutch controls
- EFDR — Fan speed control with reversing feature
- ECDR — Fully configurable with user-developed function diagram built from preprogrammed and tested function blocks

## ExDR-0101A

This single I/O driver features on-coil mounting, flexible input choices, and is configurable with the easy-to-use HF-Impulse software available for free download. It supports serial communication for configuration only. Personalities include EVDR/ETDR.

## ExDR-0201A

With SAE J1939 and CAN Open networking capabilities, this proportional hydraulic valve driver accepts inputs from virtually any analog or CAN-capable input device. It provides closed-loop control of one or two proportional solenoids, and mounts on the coil with an integrated DT06-2S Deutsch™ connector. Personalities include EVDR/EFDR/ECDR.

## ECDR-0203A

The ECDR-0203A features SAE J1939 and CAN Open networking capabilities, closed-loop control of one or two proportional solenoids, and three configurable analog or digital inputs. The ECDR firmware personality allows the user to build complex control schemes using preprogrammed and tested function blocks in a simple logic diagram.

## ECDR-0506A

Like the ECDR-0203A, the ECDR-0506A also features SAE J1939 and CAN Open networking capabilities, and the ECDR firmware personality. The I/O includes four closed-loop and one open-loop solenoid control, and up to six configurable analog or digital inputs.

## Displays

HydraForce offers operator display/input devices. These rugged units are programmable operator panels specifically designed for use with hydraulically powered mobile equipment. They offer the operator convenient and state-of-the-art control of hydraulic functions. The 4.3 or 7 inch (109/177 mm) displays feature 8 or 12 programmable soft keys, three hard keys, video input, programming tool, and CAN communications.

## ECBP Electronic CAN Button Panels

HydraForce ECBP panels are CAN capable input devices that really simplify your vehicle control wiring. A handsome addition to any cab or control panel, these units feature 16 color LED lighting, momentary/on-off/on-off-on cam configurable action, and available custom etching. Banks of four through eight buttons are possible. HF-Impulse supports operation and configuration of the ECBP panels.

## Sensors and Accessories

HydraForce extends machine system integration with pressure and temperature sensors, and all connectors and accessories necessary build complete machine control systems. HydraForce sensors allow machines to respond optimally to changing operating conditions of the system.

## HF-Impulse Software

Available for free download from the HydraForce electronics portal, HF-Impulse is a complete support and configuration tool for HydraForce electronic products. Using this custom software, you can set operating parameters, update firmware, service deployed equipment, or build complex logic schemes without writing a single line of code. HF-Impulse is continually updated to support the growing line of HydraForce electronics.

## Electronics

### HydraForce electronic control units

Item no.	Model	Input/Output	CAN
4000350	ECU-0809	8/9	Yes
4000352	ECU-2415	24/15	Yes
4000356	ECU-2820	28/20	Yes
4000343	ECU-3233A (1 MB RAM)	32/33	Yes
4000344	ECU-3233B (3 MB RAM)	32/33	Yes

### Drivers and controllers

Item no.	Model	Input/Output	CAN
4204800	EVDR-0101A	1/1	No
4204810	ETDR-0101A	1/1	No
4204700	EVDR-0201A	2/1	Yes
4204710	EFDR-0201A	2/1	Yes
4204740	ECDR-0201A	2/1	Yes
4208230	ECDR-0203A	2/3	Yes
4208560	ECDR-0506A	5/6	Yes

### Display/operator input devices

Item no.	Model	Display size	Inputs	Outputs
4000401	A3F - Touch screen	109 mm (4.3 in)	4 analog/digital 1 video	3 digital
4000400	A3S	109 mm (4.3 in)	None	None
4000408	A6F - Touch screen	177 mm (7 in)	4 analog/digital 3 video	3 digital
4000407	A6S	177 mm (7 in)	1 video	None

### ECBP electronic CAN button panels

Item no.	Description
4000384	ECBP-4, 4-Button CAN Rocker Switch Panel
4000385	ECBP-5, 5-Button CAN Rocker Switch Panel
4000386	ECBP-6, 6-Button CAN Rocker Switch Panel
4000387	ECBP-7, 7-Button CAN Rocker Switch Panel
4000388	ECBP-8, 8-Button CAN Rocker Switch Panel

### Heavy-duty pressure sensors

Item no.	Voltage	Pressure rating
4000650	5 Vdc	0 to 34 bar (500 psi)
4000651	5 Vdc	0 to 103 bar (1500 psi)
4000652	5 Vdc	0 to 207 bar (3000 psi)
4000653	5 Vdc	0 to 345 bar (5000 psi)
4000654	5 Vdc	0 to 414 bar (6000 psi)
4000655	9 to 36 Vdc	0 to 34 bar (500 psi)
4000656	9 to 36 Vdc	0 to 103 bar (1500 psi)
4000657	9 to 36 Vdc	0 to 207 bar (3000 psi)
4000658	9 to 36 Vdc	0 to 345 bar (5000 psi)
4000659	9 to 36 Vdc	0 to 414 bar (6000 psi)

### Thermistor temperature sensors

Item no.	Model	Temp range	Output signal
4206200	ERT-120	-40 to 150 °C (-40 to 300 °F)	436 to 5428 Ω

Refer to the HydraForce catalog for additional information and specifications. Complete technical information, including user manuals, are available on the HydraForce electronics portal at [www.hydraforce.com/electronics](http://www.hydraforce.com/electronics).

# G3 Next Generation Transmission, Pilot, and Powertrain Valves

## Next Generation (G3) Cartridge Valves

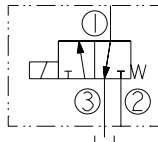
HydraForce has a complete range of control solutions for pilot control, diesel engine and powertrain systems, and transmissions. Fuel efficiency and emissions standards continue to drive the demand for more efficient, reliable powertrain systems. HydraForce meets the demand by providing the next generation of precise, customizable controls.



- Optimized actuator magnetic force
- Low current draw
- Zinc-nickel plated
- Maximized flow capacity
- IP69K ingress protection
- Low hysteresis
- Top-mounted connectors

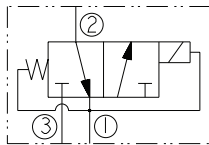
## G3 Valves

Solenoid valve,  
2-position, 3-way,  
drop-in



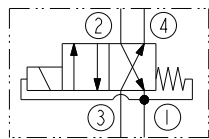
Model	Pressure bar (psi)	Flow lpm (gpm)
SV98-G38	45 (650)	30 (8)

Solenoid valve,  
2-position, 3-way,  
drop-in



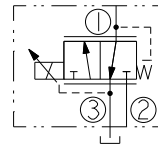
Model	Pressure bar (psi)	Flow lpm (gpm)
SV90-G39	45 (650)	30 (8)

Solenoid valve,  
2-position, 4-way,  
drop-in



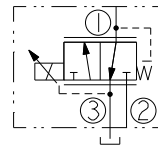
Model	Pressure bar (psi)	Flow lpm (gpm)
SV90-G40R	45 (650)	30 (8)

Proportional pressure  
reducing/relieving  
valve, drop-in



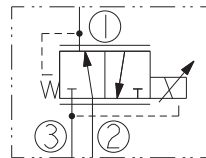
Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-G33	45 (650)	4 (1)

Proportional pressure  
reducing/relieving  
valve, drop-in



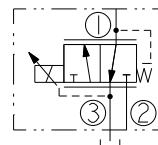
Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-G35	45 (650)	6 (2)

Proportional pressure  
reducing/relieving  
valve, drop-in



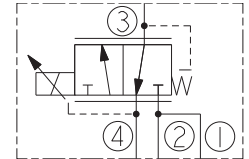
Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-G37	45 (650)	18 (5)

Proportional pressure  
reducing/relieving  
valve, drop-in



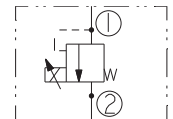
Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-G38	35 (500)	30 (8)

Proportional pressure  
reducing/relieving  
valve, drop-in



Model	Pressure bar (psi)	Flow lpm (gpm)
TS90-G34	35 (500)	34 (9)
TS92-G34	35 (500)	60 (16)

Proportional pressure  
relief valve, drop-in



Model	Pressure bar (psi)	Flow lpm (gpm)
TS98-G21	83 (1200)	6 (1.5)

**HydraForce multifunction valves** incorporate two or more functions into a single valve, allowing for the design of a lighter, more compact valve package. Multifunction valves reduce manifold size, number of ports, and machining costs, while increasing flow passage efficiency. The result is more responsive machine performance and efficient use of available horsepower.

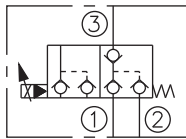
- Directional valves with isolated load-sense checks
- Solenoid valves with internal flow checks
- Solenoid valves with Integrated pressure relief
- Proportional flow controls with integrated pressure compensation
- Logic elements with built-in relief
- Logic elements with flow regulation
- Flow controls with adjustable pressure relief



## Multifunction Valves

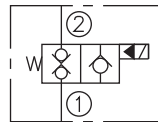
**Solenoid valve, poppet type, normally closed, load sense port**

US Pat. 7,921,880



Model	Pressure bar (psi)	Flow lpm (gpm)
SVCL10-30	240 (3500)	57 (15)

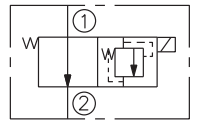
**Solenoid valve, poppet type, normally closed, internal outlet flow check**



Model	Pressure bar (psi)	Flow lpm (gpm)
SVCV08-20	207 (3000)	23 (6)

**Solenoid valve, normally open, integral pressure relief**

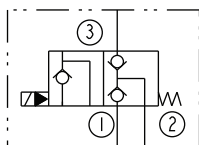
US Pat. 7,137,406



Model	Pressure bar (psi)	Flow lpm (gpm)
SVRV10-26	297 (4300)	76 (20)
SVRV12-26F	297 (4300)	189 (50)

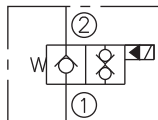
**Solenoid valve, poppet type, normally open, load sense port**

US Pat. 7,921,880



Model	Pressure bar (psi)	Flow lpm (gpm)
SVCL10-32	250 (3625)	57 (15)

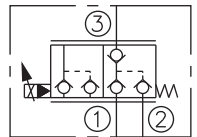
**Solenoid valve, poppet type, normally open, internal outlet flow check**



Model	Pressure bar (psi)	Flow lpm (gpm)
SVCV08-21	207 (3000)	23 (6)

**Proportional flow control, normally closed, isolated load sense port**

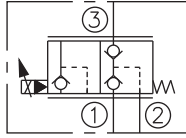
US Pat. 7,921,880



Model	Pressure bar (psi)	Flow lpm (gpm)
SPCL10-30	250 (3625)	57 (15)
SPCL16-30	250 (3625)	152 (40)

**Proportional flow control, normally closed, load sense port**

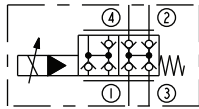
US Pat. 7,921,880



Model	Pressure bar (psi)	Flow lpm (gpm)
SPCL10-32	250 (3625)	57 (15)
SPCL16-32	250 (3625)	152 (40)

**Proportional directional valve, 2-position, 4-way, normally closed, isolated load sense port**

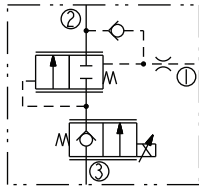
US Pat. 7,921,880



Model	Pressure bar (psi)	Flow lpm (gpm)
SPCL10-40	250 (3625)	132 (35)
SPCL16-40	250 (3625)	152 (40)

**Proportional flow control valve with integral compensator**

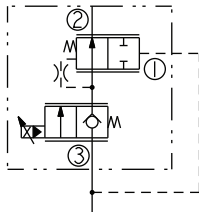
US Pat. 7,261,030



Model	Pressure bar (psi)	Flow lpm (gpm)
HSPEC10-30A	350 (5075)	35 (9)
HSPEC12-30A	350 (5075)	70 (18)
HSPEC16-30	350 (5075)	132 (35)

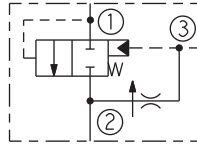
**Proportional flow control valve with integral compensator**

US Pat. 7,261,030



Model	Pressure bar (psi)	Flow lpm (gpm)
HSPEC10-34	350 (5075)	34 (9)
HSPEC12-34	350 (5075)	61 (16)

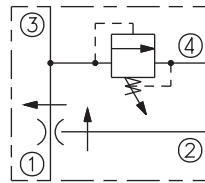
**Logic element with flow regulator**



Model	Pressure bar (psi)	Flow lpm (gpm)
EPFR58-35	345 (5000)	38 (10)
EPFR50-S35	345 (5000)	76 (20)
EPFR52-S35	345 (5000)	151 (40)
EPFR16-S35	240 (3500)	189 (50)

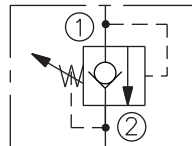
**Flow control with adjustable pressure relief**

US Pat. 7,063,100



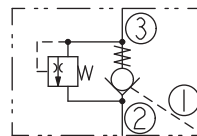
Model	Pressure bar (psi)	Flow lpm (gpm)
FRRV10-41F	207 (3000)	38 (10)
FRRV12-41F	207 (3000)	76 (20)

**Relief valve, direct acting with anti-cavitation check**



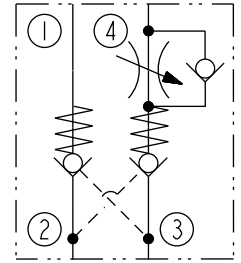
Model	Pressure bar (psi)	Flow lpm (gpm)
RVCV56-20	420 (6100)	175 (46)

**Check, pilot to open, integrated thermal relief**



Model	Pressure bar (psi)	Flow lpm (gpm)
PC10-38	240 (3500)	45 (12)

**Dual PO check with adjustable flow control**



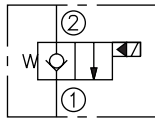
Model	Pressure bar (psi)	Flow lpm (gpm)
DCFC08-40	207 (3000)	19 (5)



- Continuous-duty coils with a wide range of voltages, terminations, and diode options
- Designed for mobile operating environments including low voltage, high and low temperatures, and exposed environmental conditions
- Industry common cavity sizes -07, -08, -10, -12, -16, -20, as well as drop-in-style construction
- Series E water/weather-resistant coils with integral connectors rated up to IP69K
- Manual override option on most models
- Integral position sensors available on some models

## Solenoid Valves

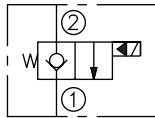
Solenoid valve, piloted poppet type, normally closed



Model	Pressure bar (psi)	Flow lpm (gpm)
SF08-20	345 (5000)	19 (5)

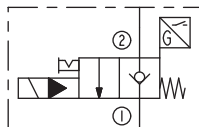
Solenoid valve, poppet type, normally closed

\* available with position sensor



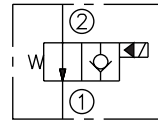
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-20	207 (3000)	23 (6)
SV08-20J	207 (3000)	23 (6)
HSV10-20	350 (5075)	76 (20)
SV10-20, SV10-P20A*	240 (3500)	57 (15)
HSV12-20	350 (5075)	114 (30)
SV12-20, SV12-P20A*	240 (3500)	114 (30)
SV16-20	240 (3500)	95 (25)

Solenoid valve, poppet type, normally closed, integral position sensor



Model	Pressure bar (psi)	Flow lpm (gpm)
SV58-P20A	345 (5000)	19 (5)

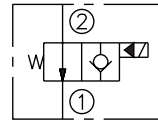
Solenoid valve, piloted poppet type, normally open



Model	Pressure bar (psi)	Flow lpm (gpm)
SF08-21	345 (5000)	30 (8)

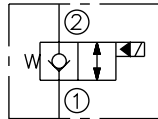
Solenoid valve, poppet type, normally open

\* available with position sensor



Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-21	207 (3000)	30 (8)
HSV10-21	350 (5075)	76 (20)
SV10-21, SV10-P21A*	207 (3000)	68 (18)
SV12-21, SV12-P21A*	240 (3500)	114 (30)
HSV12-21	350 (5075)	114 (30)
SV16-21	207 (3000)	132 (35)

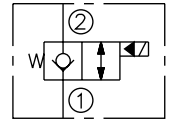
Solenoid valve, piloted poppet type, normally closed, bidirectional



Model	Pressure bar (psi)	Flow lpm (gpm)
SF08-22	345 (5000)	23 (6)
SF20-22	345 (5000)	303 (80)

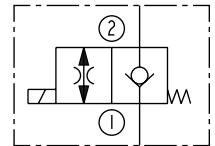
Solenoid valve, poppet type, normally closed, bidirectional

\* available with position sensor



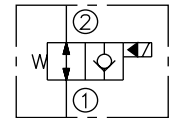
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-22	207 (3000)	27 (7)
HSV10-22	350 (5075)	76 (20)
SV10-22, SV10-P22A*	240 (3500)	57 (15)
HSV12-22	350 (5075)	114 (30)
SV12-22, SV12-P22A*	240 (3500)	114 (30)
SV16-22, SV16-P22A*	240 (3500)	151 (40)

Solenoid valve, needle type, normally closed



Model	Pressure bar (psi)	Flow lpm (gpm)
SL08-22	207 (3000)	1.5 (0.4)

Solenoid valve, piloted poppet type, normally open, bidirectional

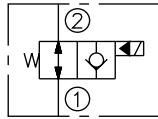


Model	Pressure bar (psi)	Flow lpm (gpm)
SF08-23	345 (5000)	30 (8)
SF20-23	345 (5000)	303 (80)

# Solenoid On/Off Valves

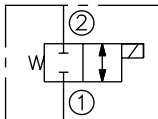
**Solenoid valve, poppet type, normally open, bidirectional**

\* available with position sensor



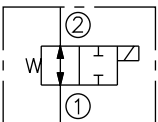
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-23	207 (3000)	30 (8)
HSV10-23	350 (5075)	76 (20)
SV10-23, SV10-P23A*	207 (3000)	68 (18)
HSV12-23	350 (5075)	114 (30)
SV12-23, SV12-P23A*	240 (3500)	114 (30)
SV16-23	207 (3000)	132 (35)

**Solenoid valve, spool type, normally closed, bidirectional**



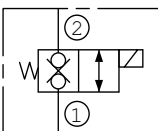
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-24	207 (3000)	17 (4)
HSV10-24	350 (5075)	30 (8)
SV10-24	207 (3000)	38 (10)
SV12-24	240 (3500)	76 (20)

**Solenoid valve, spool type, normally open, bidirectional**



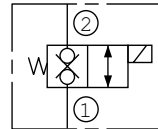
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-25	207 (3000)	10 (3)
HSV10-25	350 (5075)	30 (8)
SV10-25	207 (3000)	22 (6)
SV12-25	240 (3500)	76 (20)

**Solenoid valve, blocking, normally closed, low flow**



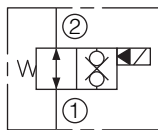
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-26	207 (3000)	1.9 (0.5)
SV38-26	207 (3000)	3.4 (0.9)

**Solenoid valve, blocking, normally closed, bidirectional**



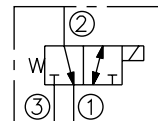
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-28	207 (3000)	11 (3)
HSV10-28	350 (5075)	76 (20)
SV10-28	240 (3500)	76 (20)
HSV12-28	350 (5075)	114 (30)
SV12-28	240 (3500)	114 (30)
SV38-28	207 (3000)	19 (5)

**Solenoid valve, poppet type, normally open**



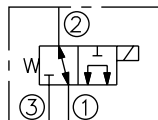
Model	Pressure bar (psi)	Flow lpm (gpm)
HSV10-29	350 (5075)	76 (20)
SV10-29	240 (3500)	76 (20)
HSV12-29	350 (5075)	114 (30)
SV12-29	240 (3500)	114 (30)

**Solenoid valve, 2-position, 3-way**



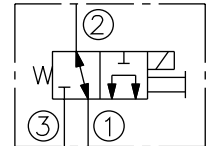
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-30	207 (3000)	15 (4)
SV38-30	207 (3000)	18 (5)
SV58-30	345 (5000)	15 (4)

**Solenoid valve, 2-position, 3-way**



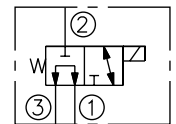
Model	Pressure bar (psi)	Flow lpm (gpm)
SV07-31	207 (3000)	6 (2)
SV08-31	207 (3000)	11 (3)
SV10-31	207 (3000)	22 (6)
SV12-31	240 (3500)	60 (16)

**Solenoid valve, 2-position, 3-way**



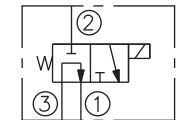
Model	Pressure bar (psi)	Flow lpm (gpm)
SV38-31J	207 (3000)	11 (3)

**Solenoid valve, 2-position, 3-way**



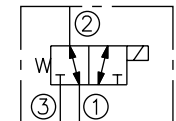
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-33	207 (3000)	11 (3)
SV12-33	240 (3500)	60 (16)

**Solenoid valve, 2-position, 3-way**



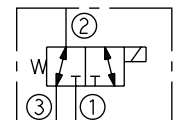
Model	Pressure bar (psi)	Flow lpm (gpm)
SV10-33	207 (3000)	19 (5)

**Solenoid valve, 2-position, 3-way**



Model	Pressure bar (psi)	Flow lpm (gpm)
SV07-34	207 (3000)	13 (3)
SV10-34	207 (3000)	23 (6)
SV12-34	240 (3500)	60 (16)

**Solenoid valve, 2-position, 3-way**

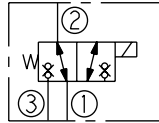


Model	Pressure bar (psi)	Flow lpm (gpm)
SV07-35	207 (3000)	11 (3)
SV08-35	207 (3000)	11 (3)



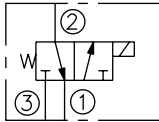
# Solenoid On/Off Valves

Solenoid valve, poppet type, normally closed, internally piloted, high flow



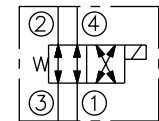
Model	Pressure bar (psi)	Flow lpm (gpm)
SV38-38	207 (3000)	11 (3)

Solenoid valve, 2-position, 3-way, drop-in



Model	Pressure bar (psi)	Flow lpm (gpm)
SV98-T39	45 (650)	30 (8)

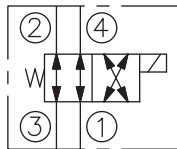
Solenoid directional valve, 2-position, 4-way, open transition



\* available with position sensor

Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-40	207 (3000)	11 (3)
SV10-40, SV10-P40*	207 (3000)	23 (6)
SV58-40	345 (5000)	11 (3)

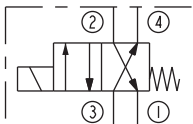
Solenoid directional valve, 2-position, 4-way, closed transition



\* available with position sensor

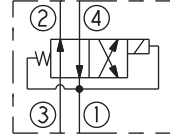
Model	Pressure bar (psi)	Flow lpm (gpm)
SV10-40A, SV10-P40A*	207 (3000)	38 (10)

Solenoid directional valve, 2-position, 4-way, open transition



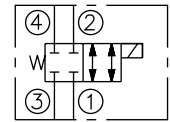
Model	Pressure bar (psi)	Flow lpm (gpm)
HSV10-40R	350 (5075)	23 (6)
SV12-40R	240 (3500)	60 (16)

Solenoid directional valve, 2-position, 4-way, drop-in



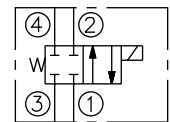
Model	Pressure bar (psi)	Flow lpm (gpm)
SV98-T40	30 (435)	30 (8)

Solenoid directional valve, 2-position, 4-way, normally closed



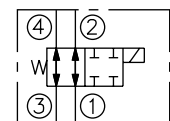
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-41	207 (3000)	13 (3)
SV10-41	207 (3000)	26 (7)
SV58-41	345 (5000)	26 (7)

Solenoid directional valve, 2-position, 4-way, normally closed



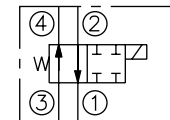
Model	Pressure bar (psi)	Flow lpm (gpm)
SV12-41	240 (3500)	60 (16)

Solenoid directional valve, 2-position, 4-way



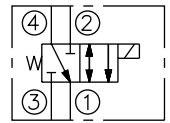
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-42	207 (3000)	11 (3)
SV10-42	207 (3000)	23 (6)

Solenoid directional valve, 2-position, 4-way



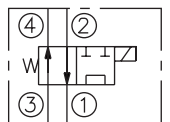
Model	Pressure bar (psi)	Flow lpm (gpm)
SV12-42	240 (3500)	60 (16)

Solenoid directional valve, 2-position, 4-way



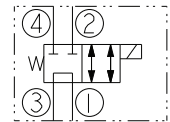
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-43	207 (3000)	11 (3)
SV10-43	207 (3000)	22 (6)

Solenoid directional valve, 2-position, 4-way



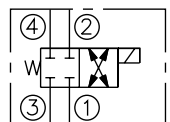
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-44	207 (3000)	11 (3)
SV10-44	207 (3000)	22 (6)

Solenoid valve, 4-way, 2-position, spool type



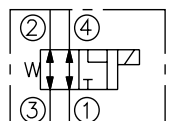
Model	Pressure bar (psi)	Flow lpm (gpm)
HSV10-44R	350 (5075)	23 (6)

Solenoid directional valve, 2-position, 4-way



Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-45	207 (3000)	11 (3)

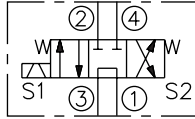
Solenoid directional valve, 2-position, 4-way



Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-46	207 (3000)	11 (3)

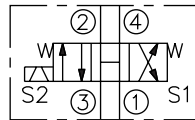
# Solenoid On/Off Valves

**Solenoid directional valve, 3-position, 4-way, tandem center**



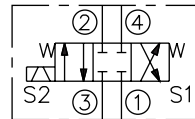
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-47A	207 (3000)	11 (3)
SV10-47A	240 (3500)	19 (5)

**Solenoid directional valve, 3-position, 4-way, open center**



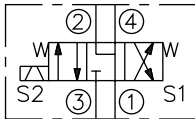
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-47B	207 (3000)	11 (3)
SV10-47B	240 (3500)	23 (6)

**Solenoid directional valve, 3-position, 4-way, closed center**



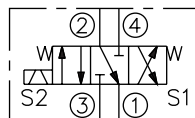
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-47C	207 (3000)	11 (3)
HSV10-47C	350 (5075)	38 (10)
SV10-47C	240 (3500)	23 (6)
HSV12-47C	350 (5075)	57 (15)

**Solenoid directional valve, 3-position, 4-way, motor center**



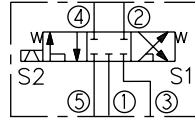
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-47D	207 (3000)	11 (3)
HSV10-47D	350 (5075)	34 (9)
SV10-47D	240 (3500)	23 (6)

**Solenoid directional valve, 3-position, 4-way**



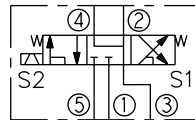
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-47E	207 (3000)	11 (3)
SV10-47E	250 (3625)	30 (8)

**Solenoid directional valve, 3-position, 5-way, closed center, load sense port**



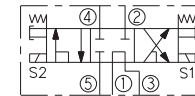
Model	Pressure bar (psi)	Flow lpm (gpm)
SV10-57C	250 (3625)	20 (5)

**Solenoid directional valve, 3-position, 5-way, motor center, load sense port**



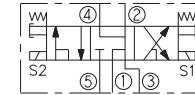
Model	Pressure bar (psi)	Flow lpm (gpm)
SV10-57D	250 (3625)	20 (5)

**Solenoid directional valve, 3-position, 5-way, closed center, brake release port**



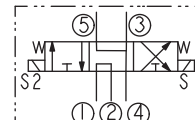
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-58C	207 (3000)	13 (3)
SV10-58C	250 (3625)	30 (8)

**Solenoid directional valve, 3-position, 5-way, motor center, brake release port**



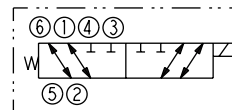
Model	Pressure bar (psi)	Flow lpm (gpm)
SV08-58D	240 (3500)	13 (4)
SV10-58D	250 (3625)	30 (8)

**Solenoid directional valve, 3-position, 5-way, motor center, power beyond port**



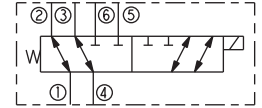
Model	Pressure bar (psi)	Flow lpm (gpm)
SV10-59D	207 (3000)	15 (4)

**Solenoid selector valve, 2-position, 6-way**



Model	Pressure bar (psi)	Flow lpm (gpm)
SV12-60	240 (3500)	45 (12)

**Solenoid selector valve, 2-position, 6-way**



Model	Pressure bar (psi)	Flow lpm (gpm)
SV80-61	207 (3000)	8 (2)

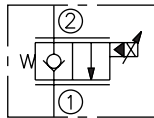
# Electro-proportional Valves



- Designed for reliability in mobile machinery applications and exposed environmental conditions
- Excellent linearity and low hysteresis
- Hardened precision spools and cages for long life
- Industry common cavity sizes enable interchangeability with non-proportional valves
- Drop-in style, sealed, proportional clutch actuation, and piloting valves
- Series E water/weather-resistant coils with integral connectors rated up to IP69K
- Patented high strength solenoid tube for all 3-position HSP valves

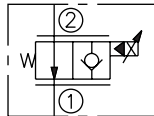
## Electro-proportional Valves

Proportional flow control, poppet type, normally closed



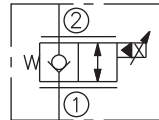
Model	Pressure bar (psi)	Flow lpm (gpm)
SP08-20	207 (3000)	22 (6)
SP08-20A	207 (3000)	30 (8)
HSP10-20	350 (5075)	53 (14)
SP10-20	250 (3625)	68 (18)
HSP12-20	350 (5075)	84 (22)
SP12-20	250 (3625)	100 (26)
HSP16-20	350 (5075)	265 (70)
SP16-20	250 (3625)	265 (70)

Proportional flow control, poppet type, normally open



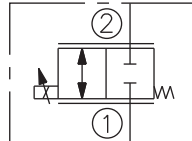
Model	Pressure bar (psi)	Flow lpm (gpm)
SP08-21	207 (3000)	23 (6)
HSP10-21	350 (5075)	53 (14)
SP10-21	250 (3625)	61 (16)
SP12-21	250 (3625)	200 (53)
HSP16-21	350 (5075)	95 (25)
SP16-21	250 (3625)	265 (70)

Proportional flow control, spool type, normally closed, bidirectional



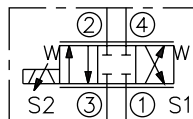
Model	Pressure bar (psi)	Flow lpm (gpm)
SP08-22	207 (3000)	30 (8)

Proportional flow control, spool type, normally closed, bidirectional



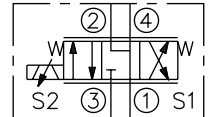
Model	Pressure bar (psi)	Flow lpm (gpm)
HSP08-24	350 (5075)	19 (5)
SP08-24	207 (3000)	11 (3)
SP10-24	207 (3000)	27 (7)

Proportional directional control, 3-position, 4-way, closed center



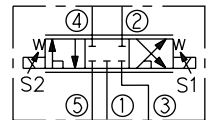
Model	Pressure bar (psi)	Flow lpm (gpm)
SP08-47C	240 (3500)	11 (3)
*HSP10-47C	350 (5075)	33 (9)
SP10-47C	248 (3600)	22 (6)
*HSP12-47C	350 (5075)	56 (15)
SP08-47CL	240 (3500)	8 (2)

Proportional directional control, 3-position, 4-way, motor center



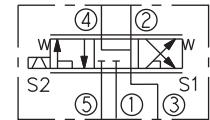
Model	Pressure bar (psi)	Flow lpm (gpm)
SP08-47D	240 (3500)	11 (3)
*HSP10-47D	350 (5075)	35 (9)
SP10-47D	207 (3000)	22 (6)
*HSP12-47D	350 (5075)	56 (15)
SP08-47DL	240 (3500)	8 (2)

Proportional directional valve, 3-position, 5-way, closed center, load sense port



Model	Pressure bar (psi)	Flow lpm (gpm)
SP10-57C	250 (3625)	23 (6)

Proportional directional valve, 3-position, 5-way, motor center, load sense port

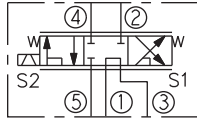


Model	Pressure bar (psi)	Flow lpm (gpm)
SP10-57D	250 (3625)	23 (6)
SP08-57D	240 (3500)	10 (3)

\* US Pat. 8,253,063

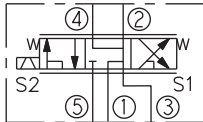
# Electro-proportional Valves

**Proportional directional valve, 3-position, 5-way, closed center, brake release port**



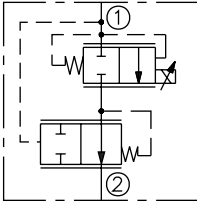
Model	Pressure bar (psi)	Flow lpm (gpm)
SP10-58C	250 (3625)	23 (6)

**Proportional directional valve, 3-position, 5-way, motor center, load sense port, brake release**



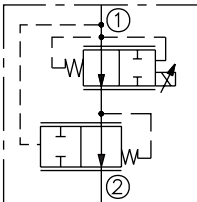
Model	Pressure bar (psi)	Flow lpm (gpm)
SP10-58D	250 (3625)	23 (6)
SP08-58D	240 (3500)	15 (4)

**Pressure-compensated proportional flow control valve, normally closed**



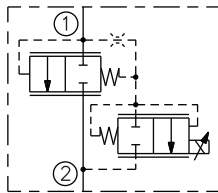
Model	Pressure bar (psi)	Flow lpm (gpm)
HPV12-20	350 (5075)	68 (18)
PV72-20	240 (3500)	64 (17)

**Pressure-compensated proportional flow control valve, normally open**



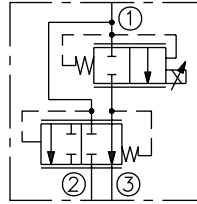
Model	Pressure bar (psi)	Flow lpm (gpm)
HPV12-21	350 (5075)	61 (16)
PV72-21	240 (3500)	56 (15)

**Proportional flow control, normally closed**



Model	Pressure bar (psi)	Flow lpm (gpm)
PV16-23	240 (3500)	170 (45)

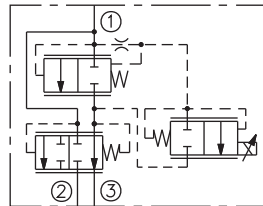
**Proportional flow control, normally closed, priority bypass**



Model	Pressure bar (psi)	Flow lpm (gpm)
PV08-30	240 (3500)	23 (6)
HPV12-30	350 (5075)	76 (20)
HPV16-30	350 (5075)	151 (40)
PV70-30	240 (3500)	30 (8)
PV72-30	240 (3500)	114 (30)
PV76-30A	240 (3500)	95 (25)

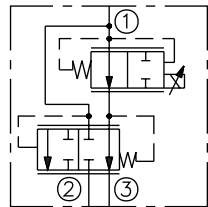
**Proportional flow control, 2-stage, normally closed, priority bypass**

US Pat. 6,966,329



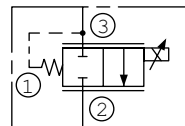
Model	Pressure bar (psi)	Flow lpm (gpm)
PV42-M30	240 (3500)	190 (50)

**Proportional flow control, normally open, priority bypass**



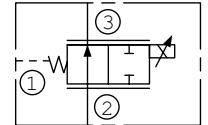
Model	Pressure bar (psi)	Flow lpm (gpm)
HPV12-31	350 (5075)	76 (20)
HPV16-31	350 (5075)	151 (40)
PV70-31	240 (3500)	50 (13)
PV72-31	240 (3500)	114 (30)

**Proportional flow control, normally closed**



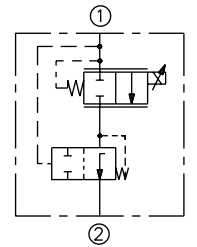
Model	Pressure bar (psi)	Flow lpm (gpm)
PV70-33	207 (3000)	30 (8)
PV72-33	240 (3500)	75 (20)

**Proportional flow control, normally open**



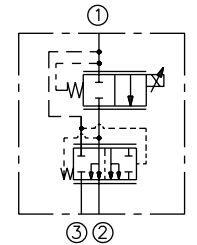
Model	Pressure bar (psi)	Flow lpm (gpm)
PV70-35	207 (3000)	30 (8)
PV72-35	207 (3000)	75 (20)

**Proportional flow regulator, normally closed**



Model	Pressure bar (psi)	Flow lpm (gpm)
PFR70-33x-E	207 (3000)	30 (8)
PFR72-33x-L	207 (3000)	60 (16)

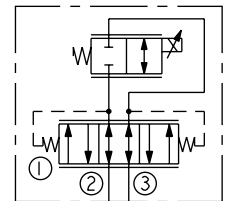
**Proportional flow regulator, normally closed, priority bypass**



Model	Pressure bar (psi)	Flow lpm (gpm)
PFR70-33x-F	207 (3000)	30 (8)
PFR70-33x-J	207 (3000)	30 (8)
PFR72-33x-J	207 (3000)	60 (16)

**Pressure compensated proportional flow control, normally closed**

US Pat. 6,167,906

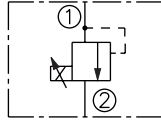


Model	Pressure bar (psi)	Flow lpm (gpm)
ZL70-30	240 (3500)	20 (5)

\* US Pat. 8,253,063

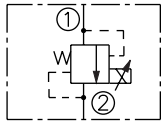
# Electro-proportional Valves

Proportional pressure control valve, relief, increasing pressure with current



Model	Pressure bar (psi)	Flow lpm (gpm)
TS08-20	35 (500)	4 (1)
TS38-20	248 (3600)	11 (3)
TS58-20	345 (5000)	8 (2)

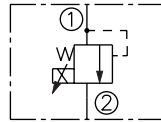
Proportional pressure control valve, relief, decreasing pressure with current



US Pat. 6,267,350

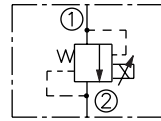
Model	Pressure bar (psi)	Flow lpm (gpm)
TS38-21	240 (3500)	1.1 (0.3)
TS58-21F	393 (5700)	1.9 (0.5)

Proportional pressure control valve, pilot operated, relief, increasing pressure with current



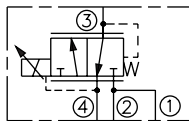
Model	Pressure bar (psi)	Flow lpm (gpm)
TS10-26	240 (3500)	95 (25)
TS12-26	240 (3500)	189 (50)

Proportional pressure control valve, pilot operated, relief, decreasing pressure with current



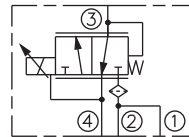
Model	Pressure bar (psi)	Flow lpm (gpm)
TS08-27	240 (3500)	25 (6)
TS10-27	275 (4000)	76 (20)
TS12-27	240 (3500)	186 (49)

Proportional pressure reducing/relieving valve, pilot operated



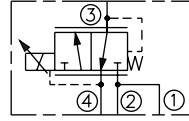
Model	Pressure bar (psi)	Flow lpm (gpm)
TS98-30	24 (350)	30 (8)

Proportional pressure reducing/relieving valve, pilot operated



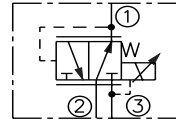
Model	Pressure bar (psi)	Flow lpm (gpm)
TS90-31	207 (3000)	38 (10)

Proportional pressure reducing/relieving valve, pilot operated, drop-in



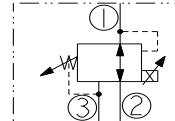
Model	Pressure bar (psi)	Flow lpm (gpm)
TS98-T34	30 (435)	30 (8)

Proportional pressure reducing/relieving valve, pilot operated



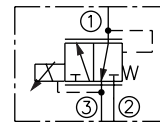
Model	Pressure bar (psi)	Flow lpm (gpm)
TS10-36	240 (3500)	57 (15)
TS12-36	275 (4000)	189 (50)

Proportional pressure reducing/relieving valve, pilot operated, decreasing pressure with current



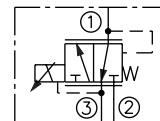
Model	Pressure bar (psi)	Flow lpm (gpm)
TS12-37F	276 (4000)	190 (50)

Proportional pressure reducing/relieving valve



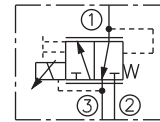
Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR08-33	207 (3000)	4 (1)

Proportional pressure reducing/relieving valve, drop-in



Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-T33	240 (3500)	4 (1)

Proportional pressure reducing/relieving valve, drop-in



Model	Pressure bar (psi)	Flow lpm (gpm)
EHPR98-T35	103 (1500)	6 (2)
EHPR98-T38	240 (3500)	19 (5)
EHPR98-T38B	240 (3500)	19 (5)

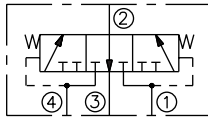
# Directional Valves



- Industry-common cavity sizes  
-04, -08, -10, -12, -16, -20 and -42
- Hydraulically piloted or manually-operated directional and logic valves enable circuit flexibility and performance optimization
- Proportional, piloted 3-position, 4-way directional valves for flow rates up to 170 lpm (45 gpm)
- Hardened precision seats, spools and cages for long life and low leakage

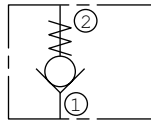
## Directional Valves

### Brake shuttle



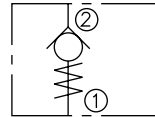
Model	Pressure bar (psi)	Flow lpm (gpm)
BV10-40	240 (3500)	8 (2)
HBV10-40	345 (5000)	8 (2)

### Check valve



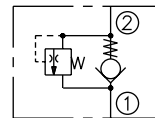
Model	Pressure bar (psi)	Flow lpm (gpm)
CV04-20	240 (3500)	5 (1.5)
CV04-B20	240 (3500)	5 (1.3)
HCV06-20	350 (5075)	19 (5)
CV08-20	240 (3500)	30 (8)
HCV08-20	350 (5075)	30 (8)
CV10-20	240 (3500)	75 (20)
HCV10-20	350 (5075)	76 (20)
CV50-20	345 (5000)	57 (15)
CV12-20	240 (3500)	95 (25)
HCV12-20	350 (5075)	95 (25)
CV16-20	240 (3500)	151 (40)
HCV16-20	350 (5075)	151 (40)
CV42-M20	240 (3500)	378 (100)
HCV42-M20	350 (5075)	303 (80)

### Check valve



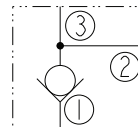
Model	Pressure bar (psi)	Flow lpm (gpm)
CV08-21	240 (3500)	30 (8)
CV12-21	240 (3500)	114 (30)
CV10-24	240 (3500)	57 (15)

### Check valve



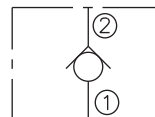
Model	Pressure bar (psi)	Flow lpm (gpm)
CV10-28	240 (3500)	45 (12)

### Check valve



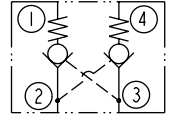
Model	Pressure bar (psi)	Flow lpm (gpm)
HCV16-30	350 (5075)	151 (40)

### Check valve disk



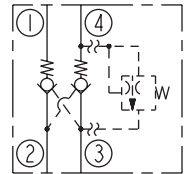
Model	Pressure bar (psi)	Flow lpm (gpm)
CVD08	250 (3625)	1.9 (0.5)
CVD10	250 (3625)	1.9 (0.5)

### Pilot operated check valve, dual



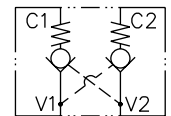
Model	Pressure bar (psi)	Flow lpm (gpm)
DC08-40	240 (3500)	19 (5)

### Pilot operated check valve, dual, optional thermal relief



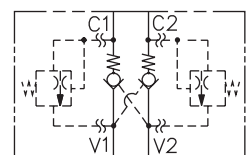
Model	Pressure bar (psi)	Flow lpm (gpm)
DC10-40	240 (3500)	30 (8)

### Pilot operated check valve, dual cartridges in manifold



Model	Pressure bar (psi)	Flow lpm (gpm)
DCV08	240 (3500)	30 (8)
HDCV16	350 (5075)	151 (40)

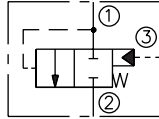
### Pilot operated check valve with thermal relief, dual cartridges in manifold



Model	Pressure bar (psi)	Flow lpm (gpm)
DCV10	240 (3500)	76 (20)

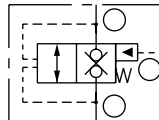
# Directional Valves

Logic element, spool type, 2-position, 2-way, externally piloted



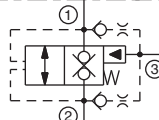
Model	Pressure bar (psi)	Flow lpm (gpm)
EP08-35	345 (5000)	38 (10)
EP10-S35	345 (5000)	76 (20)
EP12-S35	345 (5000)	151 (40)
EP16-S35	240 (3500)	189 (50)
HEP16-S35	350 (5075)	190 (50)
EP20-S35	345 (5000)	379 (100)
HEP42-S35	350 (5075)	379 (100)

Logic element, poppet type, 2-position, 2-way, externally piloted



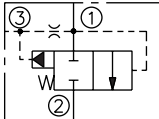
Model	Pressure bar (psi)	Flow lpm (gpm)
EP10-S38	350 (5075)	114 (30)
EP20-S38	240 (3500)	303 (80)
HEP42-S38	350 (5075)	284 (75)

Logic element, poppet type, 2-position, 2-way, externally piloted



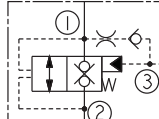
Model	Pressure bar (psi)	Flow lpm (gpm)
HEP16-S39	350 (5075)	190 (50)
EP20-S39	240 (3500)	285 (75)
HEP42-S39	350 (5075)	284 (75)

Logic element, spool type, vented



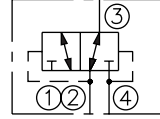
Model	Pressure bar (psi)	Flow lpm (gpm)
EV58-34	345 (5000)	38 (10)
EV10-S34	345 (5000)	76 (20)
EV12-S34	345 (5000)	151 (40)
EV16-S34	240 (3500)	189 (50)
HEV16-S34	350 (5075)	190 (50)
EV20-S34	345 (5000)	379 (100)
HEV42-S34	350 (5075)	379 (100)

Logic element, poppet type, vent to open



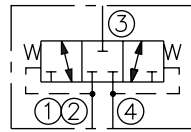
Model	Pressure bar (psi)	Flow lpm (gpm)
HEV12-S38	350 (5075)	114 (30)

Low side (hot oil) shuttle valve, springless



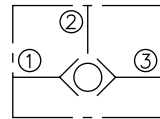
Model	Pressure bar (psi)	Flow lpm (gpm)
HS10-42	207 (3000)	38 (10)
HS50-42	207 (3000)	38 (10)
HS52-42	345 (5000)	45 (12)

Low side (hot oil) shuttle valve



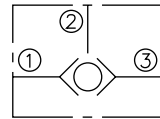
Model	Pressure bar (psi)	Flow lpm (gpm)
HS50-43	345 (5000)	132 (35)
HS52-43	345 (5000)	113 (30)

Load shuttle, ball type, down-hole mount



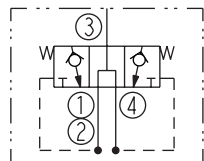
Model	Pressure bar (psi)	Flow lpm (gpm)
LS04-B30	240 (3500)	5 (1.3)
HLS06-B30	350 (5075)	8 (2)

Load shuttle, ball type



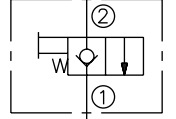
Model	Pressure bar (psi)	Flow lpm (gpm)
HLS06-30	350 (5075)	8 (2)
LS08-30	240 (3500)	19 (5)
LS10-30	240 (3500)	30 (8)
LS50-30	345 (5000)	30 (8)

Load shuttle, inverted



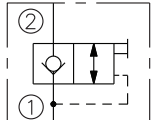
Model	Pressure bar (psi)	Flow lpm (gpm)
LS10-41	240 (3500)	15 (4)

Manual 2-position, 2-way valve, pull to open, spring return



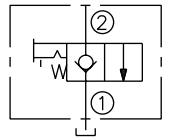
Model	Pressure bar (psi)	Flow lpm (gpm)
MP08-20	207 (3000)	53 (14)
MP10-20	207 (3000)	57 (15)

Manual 2-position, 2-way valve, pull to open, push to close



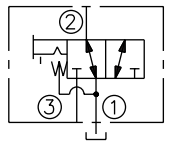
Model	Pressure bar (psi)	Flow lpm (gpm)
MP10-21	207 (3000)	57 (15)

Manual 2-position, 2-way valve, pull to open, with lock



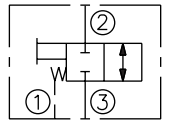
Model	Pressure bar (psi)	Flow lpm (gpm)
MP10-22	207 (3000)	57 (15)

Manual 2-position, 3-way valve, pull to shift, blocked transition



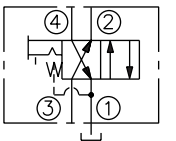
Model	Pressure bar (psi)	Flow lpm (gpm)
MP08-30	240 (3500)	25 (7)
MP58-30	345 (5000)	25 (7)

Manual 2-position, 2-way valve, pull to open, spring return, vented spring



Model	Pressure bar (psi)	Flow lpm (gpm)
MP08-34	240 (3500)	38 (10)

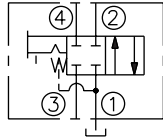
Manual 2-position, 4-way valve, pull to shift, spring return, open transition



Model	Pressure bar (psi)	Flow lpm (gpm)
MP08-40	240 (3500)	12 (3)
MP10-40	207 (3000)	22 (6)

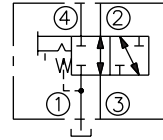
# Directional Valves

Manual 2-position, 4-way valve, pull to shift, spring return, closed transition



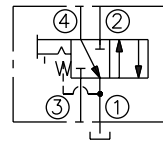
Model	Pressure bar (psi)	Flow lpm (gpm)
MP08-41	240 (3500)	12 (3)
MP10-41	207 (3000)	12 (3)

Manual 2-position, 4-way valve, pull to shift, spring return, closed transition



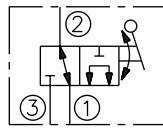
Model	Pressure bar (psi)	Flow lpm (gpm)
MP10-42	207 (3000)	12 (3)

Manual 2-position, 4-way valve, pull to shift, spring return, open transition



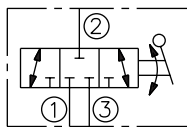
Model	Pressure bar (psi)	Flow lpm (gpm)
MP10-43	207 (3000)	12 (3)

Manual rotary, 2-position, 3-way valve, blocked transition



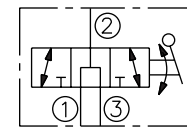
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-31	240 (3500)	38 (10)

Manual rotary, 3-position, 3-way valve, closed center



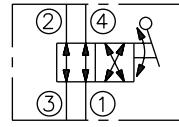
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-37A	240 (3500)	38 (10)

Manual rotary, 3-position, 3-way valve, open center



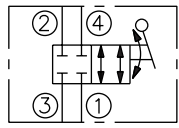
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-37B	240 (3500)	38 (10)

Manual rotary, 2-position, 4-way valve, blocked transition



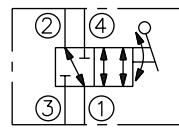
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-40	240 (3500)	11 (3)

Manual rotary, 2-position, 4-way valve, blocked transition



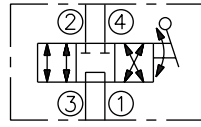
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-41	240 (3500)	11 (3)

Manual rotary, 2-position, 4-way valve, open transition, port 4 blocked



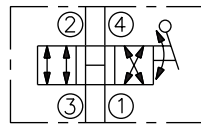
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-43	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, tandem center



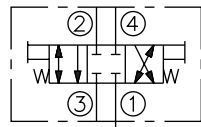
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47A	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, open center



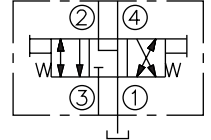
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47B	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, closed center



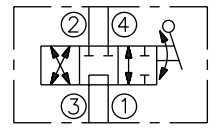
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47C	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, motor center



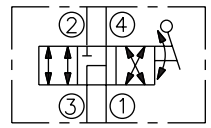
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47D	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, tandem center



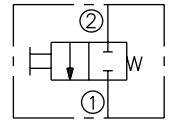
Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47F	240 (3500)	11 (3)

Manual rotary, 3-position, 4-way valve, motor center



Model	Pressure bar (psi)	Flow lpm (gpm)
MR10-47G	240 (3500)	11 (3)

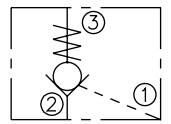
Manual valve, push to open



Model	Pressure bar (psi)	Flow lpm (gpm)
MV06-20	240 (3500)	115 (30)
MV08-22	207 (3000)	38 (10)

Check, pilot to open

see catalog for pilot ratio

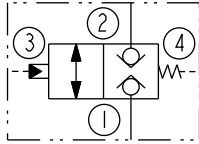


Model	Pressure bar (psi)	Flow lpm (gpm)
PC08-30	240 (3500)	26 (7)
HPC08-30	350 (5075)	30 (8)
PC10-30	240 (3500)	26 (7)
PC10-32	240 (3500)	30 (8)



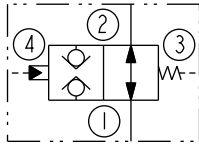
# Directional Valves

Piloted directional element, balanced poppet, bidirectional, normally closed



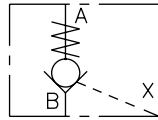
Model	Pressure bar (psi)	Flow lpm (gpm)
HPC42-J48	350 (5075)	380 (100)

Piloted directional element, balanced poppet, bidirectional, normally open



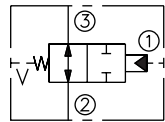
Model	Pressure bar (psi)	Flow lpm (gpm)
HPC42-J49	350 (5075)	380 (100)

Check, pilot to open



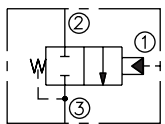
Model	Pressure bar (psi)	Flow lpm (gpm)
PCV10	240 (3500)	60 (16)
HPCV16	350 (5075)	151 (40)
PCV16	240 (3500)	151 (40)

Spool valve, piloted, 2-position, 2-way, normally open, external vent



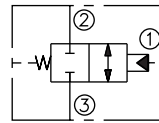
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-30	240 (3500)	38 (10)
PD12-30	240 (3500)	113 (30)

Spool valve, piloted, 2-position, 2-way, normally closed, internal vent



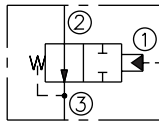
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-32	240 (3500)	38 (10)
PD12-32	240 (3500)	113 (30)

Spool valve, piloted, 2-position, 2-way, normally closed, external vent



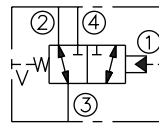
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-34	240 (3500)	38 (10)
PD12-34	240 (3500)	113 (30)

Spool valve, piloted, 2-position, 2-way, normally closed, internal vent



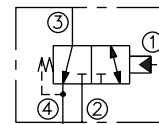
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-35	240 (3500)	38 (10)
PD12-35	240 (3500)	113 (30)

Spool valve, piloted, 2-position, 3-way, external vent



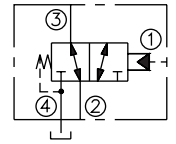
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-40	240 (3500)	38 (10)
PD12-40	240 (3500)	113 (30)
PD16-40	240 (3500)	170 (45)
PD42-M40	345 (5000)	265 (70)

Spool valve, piloted, 2-position, 3-way, internal vent, open transition



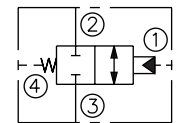
Model	Pressure bar (psi)	Flow lpm (gpm)
PD08-41	241 (3500)	8 (2)
PD10-41	240 (3500)	45 (12)
PD12-41	240 (3500)	113 (30)
PD16-41	240 (3500)	189 (50)
PD42-M41	345 (5000)	265 (70)

Spool valve, piloted, 2-position, 3-way, internal vent, open transition



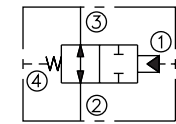
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-42	240 (3500)	38 (10)
PD12-42	240 (3500)	113 (30)
PD16-42	240 (3500)	189 (50)
PD42-M42	345 (5000)	265 (70)

Spool valve, piloted, 2-position, normally closed



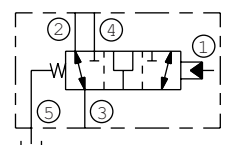
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-44	240 (3500)	32 (8)
PD12-44	240 (3500)	113 (30)
PD16-44	240 (3500)	189 (50)
HPD16-44	350 (5075)	170 (45)
HPD42-M44	350 (5075)	265 (70)

Spool valve, piloted, 2-position, normally open



Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-45	240 (3500)	45 (12)
PD12-45	240 (3500)	113 (30)
PD16-45	240 (3500)	189 (50)
HPD16-45	350 (5075)	170 (45)
PD42-M45	345 (5000)	265 (70)
HPD42-M45	350 (5075)	265 (70)

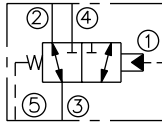
Spool valve, piloted, 2-position, 3-way, open transition



Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-50	240 (3500)	38 (10)

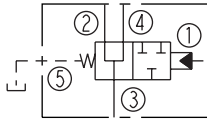
# Directional Valves

Spool valve, piloted, 2-position, 3-way, open transition



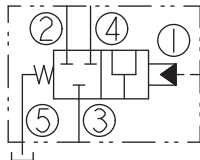
Model	Pressure bar (psi)	Flow lpm (gpm)
PD12-S50	240 (3500)	95 (25)
HPD16-S50	350 (5075)	151 (40)
PD16-S50	240 (3500)	170 (45)
PD42-S50	345 (5000)	265 (70)
HPD42-S50	350 (5075)	265 (70)

Spool valve, piloted, 2-position, 3-way



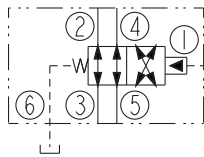
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-S1	240 (3500)	45 (12)
HPD16-S51	350 (5075)	151 (40)
PD16-S51	240 (3500)	151 (40)
HPD42-S51	240 (3500)	246 (65)

Spool valve, piloted, 2-position, 3-way



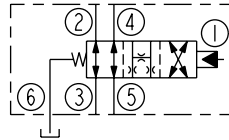
Model	Pressure bar (psi)	Flow lpm (gpm)
HPD16-S52	350 (5075)	151 (40)
HPD42-S52	350 (5075)	265 (70)

Spool valve, piloted, 2-position, 4-way



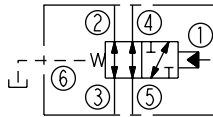
Model	Pressure bar (psi)	Flow lpm (gpm)
HPD16-S60	350 (5075)	95 (25)
HPD42-S60	350 (5075)	189 (50)

Spool valve, piloted, 2-position, 4-way, open transition



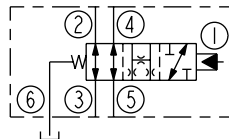
Model	Pressure bar (psi)	Flow lpm (gpm)
PD12-S60N	345 (5000)	56 (15)
PD16-S60N	240 (3500)	95 (25)
PD42-S60N	324 (4700)	189 (50)

Spool valve, piloted, 2-position, 4-way



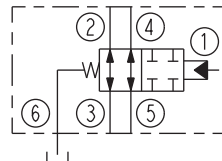
Model	Pressure bar (psi)	Flow lpm (gpm)
HPD42-S61	350 (5075)	189 (50)
HPD16-S61	350 (5075)	152 (40)

Spool valve, piloted, 2-position, 4-way, open transition



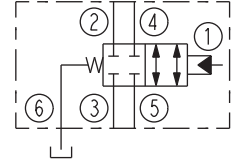
Model	Pressure bar (psi)	Flow lpm (gpm)
PD12-S61N	240 (3500)	56 (15)
PD16-S61N	240 (3500)	151 (40)

Spool valve, piloted, 2-position, 4-way



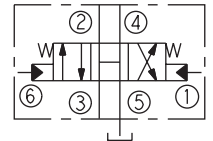
Model	Pressure bar (psi)	Flow lpm (gpm)
PD10-S62	250 (3625)	53 (14)
HPD42-S62	350 (5075)	189 (50)
HPD16-S62	350 (5075)	152 (40)

Spool valve, piloted, 2-position, 4-way



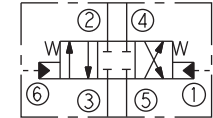
Model	Pressure bar (psi)	Flow lpm (gpm)
PD16-S63	240 (3500)	151 (40)
HPD42-S63	350 (5075)	189 (50)
HPD16-S63	350 (5075)	152 (40)

Spool valve, piloted, 3-position, 4-way, open center



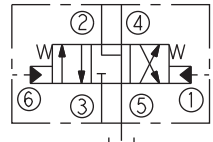
Model	Pressure bar (psi)	Flow lpm (gpm)
PD42-S67B	324 (3625)	189 (50)

Spool valve, piloted, 3-position, 4-way, closed center



Model	Pressure bar (psi)	Flow lpm (gpm)
HPD12-S67C	350 (5075)	57 (15)
PD16-S67C	240 (3500)	95 (25)
HPD16-S67C	350 (5075)	95 (25)
HPD42-S67C	350 (5075)	189 (50)

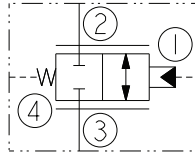
Spool valve, piloted, 3-position, 4-way, motor center



Model	Pressure bar (psi)	Flow lpm (gpm)
HPD12-S67D	350 (5075)	57 (15)
PD16-S67D	240 (3500)	95 (25)
HPD16-S67D	350 (5075)	95 (25)
HPD42-S67D	350 (5075)	189 (50)

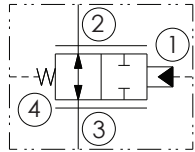
# Directional Valves

**Piloted proportional spool valve, normally closed**



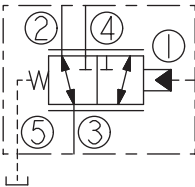
Model	Pressure bar (psi)	Flow lpm (gpm)
HPE16-44	350 (5075)	95 (25)
HPE42-M44	350 (5075)	170 (45)

**Piloted proportional spool valve, normally open**



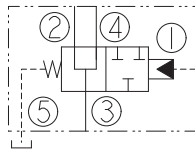
Model	Pressure bar (psi)	Flow lpm (gpm)
HPE16-45	350 (5075)	95 (25)
HPE42-M45	350 (5075)	170 (45)

**Spool valve, piloted, proportional, 3-way**



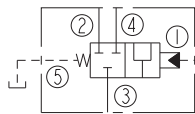
Model	Pressure bar (psi)	Flow lpm (gpm)
HPE42-S50	350 (5075)	170 (45)

**Spool valve, piloted, proportional, 3-way**



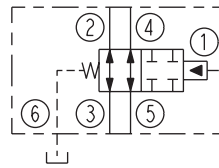
Model	Pressure bar (psi)	Flow lpm (gpm)
HPE42-S51	350 (5075)	170 (45)

**Spool valve, piloted, proportional, 3-way**



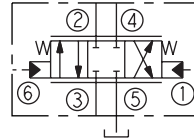
Model	Pressure bar (psi)	Flow lpm (gpm)
HPE42-S52	350 (5075)	170 (45)

**Spool valve, piloted, proportional, 4-way**



Model	Pressure bar (psi)	Flow lpm (gpm)
HPE42-S62	350 (5075)	170 (45)

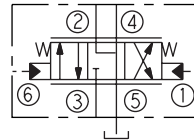
**Spool valve, piloted, proportional, 3-position, 4-way, closed center**



US Pat. 6,554,014

Model	Pressure bar (psi)	Flow lpm (gpm)
PE12-S67C	345 (5000)	45 (12)
HPE16-S67C	350 (5075)	95 (25)
PE16-S67C	345 (5000)	90 (24)
HPE42-S67C	350 (5075)	170 (45)
PE42-S67C	345 (5000)	170 (45)

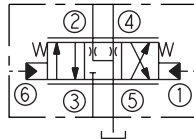
**Spool valve, piloted, proportional, 3-position, 4-way, motor center**



US Pat. 6,554,014

Model	Pressure bar (psi)	Flow lpm (gpm)
PE12-S67D	345 (5000)	45 (12)
HPE16-S67D	350 (5075)	95 (25)
PE16-S67D	345 (5000)	90 (24)
PE42-S67D	345 (5000)	170 (45)
HPE42-S67D	350 (5075)	170 (45)

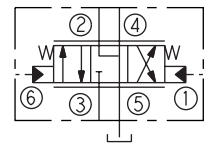
**Spool valve, piloted, proportional, 3-position, 4-way, motor center**



US Pat. 6,554,014

Model	Pressure bar (psi)	Flow lpm (gpm)
PE12-S67H	345 (5000)	45 (12)
HPE16-S67H	350 (5075)	95 (25)
PE16-S67H	345 (5000)	90 (24)
PE42-S67H	345 (5000)	170 (45)
HPE42-S67H	350 (5075)	170 (45)

**Spool valve, piloted, proportional, 3-position, 4-way, motor center**



US Pat. 6,554,014

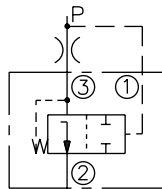
Model	Pressure bar (psi)	Flow lpm (gpm)
PE12-S67K	345 (5000)	45 (12)
HPE16-S67K	350 (5075)	95 (25)
PE16-S67K	345 (5000)	90 (24)
PE42-S67K	345 (5000)	170 (45)
HPE42-S67K	345 (5000)	170 (45)



- Variable or fixed orifice restrictor valves
- Pressure compensated flow regulators
- Pressure compensators for restrictive, bypass and priority circuits, with load-sensing system compatibility
- Optional settings and adjustment styles available
- Flow dividers/combiners for cylinder synchronizing and anti-stall applications
- Industry common cavity sizes

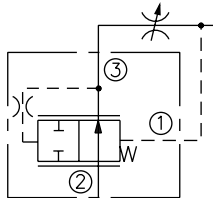
## Flow Control Valves

### Pressure compensator



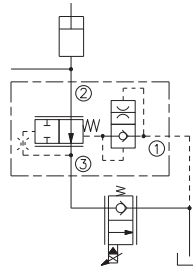
Model	Pressure bar (psi)	Flow lpm (gpm)
EC10-30	207 (3000)	30 (8)
EC12-30	240 (3500)	58 (15)
EC50-30	345 (5000)	30 (8)

### Pressure compensator



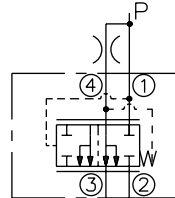
Model	Pressure bar (psi)	Flow lpm (gpm)
EC08-32	240 (3500)	11 (3)
EC10-32	207 (3000)	38 (10)
EC12-32	240 (3500)	57 (15)
HEC12-32	350 (5075)	83 (22)
EC16-32	240 (3500)	152 (40)
HEC16-32	350 (5075)	151 (40)

### Pressure compensator



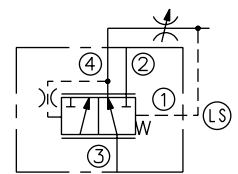
Model	Pressure bar (psi)	Flow lpm (gpm)
EC12-34	240 (3500)	83 (22)
HEC12-34	350 (5075)	83 (22)
EC16-34	240 (3500)	170 (45)

### Pressure compensator, bypass type



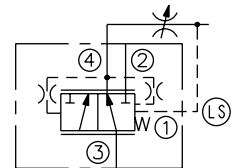
Model	Pressure bar (psi)	Flow lpm (gpm)
EC10-40	207 (3000)	38 (10)
EC12-40	240 (3500)	80 (21)
EC16-40	240 (3500)	180 (48)

### Pressure compensator with static load sense



Model	Pressure bar (psi)	Flow lpm (gpm)
EC10-42	240 (3500)	38 (10)
EC50-42	345 (5000)	38 (10)
EC12-42	345 (5000)	76 (20)
HEC12-42	350 (5075)	95 (25)
EC42-M42	240 (3500)	303 (80)
EC16-42	240 (3500)	190 (50)
EC56-42	345 (5000)	150 (40)

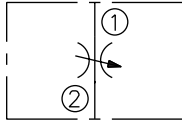
### Pressure compensator with dynamic load sense



Model	Pressure bar (psi)	Flow lpm (gpm)
EC10-43	240 (3500)	34 (9)
EC50-43	345 (5000)	45 (12)
EC12-43	345 (5000)	95 (25)
HEC12-43	350 (5075)	95 (25)
EC16-43	240 (3500)	190 (50)
HEC32-43	350 (5075)	530 (140)
EC42-M43	240 (3500)	303 (80)

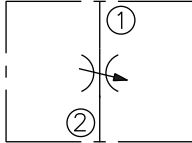
# Flow Control Valves

**Needle valve, positive shut-off**



Model	Pressure bar (psi)	Flow lpm (gpm)
NV08-21	240 (3500)	38 (10)
NV10-21	240 (3500)	57 (15)

**Needle valve, fine adjustment**



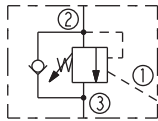
Model	Pressure bar (psi)	Flow lpm (gpm)
NV08-23	240 (3500)	38 (10)



- Pressure relief, reducing/relieving, unloading and sequencing operations
- Industry common cavity sizes up to -16 303 lpm (80 gpm)
- Pilot-operated, direct-acting, and differential-area pressure regulators for all application conditions
- RVD valve offers fast response with low pressure rise, low hysteresis, and low internal leakage
- Operating pressures up to 350 bar (5075 psi)
- Optional spring ranges and adjustment styles
- Externally plumbed pressure reducing options

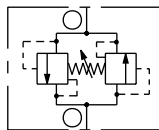
## Pressure Control Valves

### Counterbalance valve



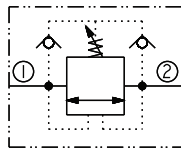
Model	Pressure bar (psi)	Flow lpm (gpm)
CB10-30	207 (3000)	19 (5)

### Relief valve, bidirectional



Model	Pressure bar (psi)	Flow lpm (gpm)
CR10-28	240 (3500)	60 (16)

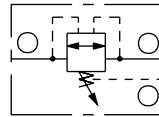
### Relief valve, bidirectional



Model	Pressure bar (psi)	Flow lpm (gpm)
CR08-28H	276 (4000)	38 (10)

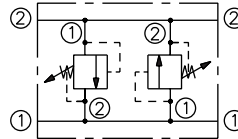
### Relief valve, bidirectional, vented

US Pat. 7,069,945



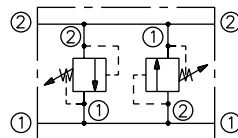
Model	Pressure bar (psi)	Flow lpm (gpm)
CR08-38	207 (3000)	30 (8)

### Crossover relief valve, direct acting, dual cartridges in manifold



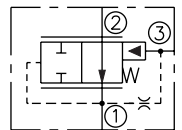
Model	Pressure bar (psi)	Flow lpm (gpm)
CRV08-20	228 (3300)	22 (6)
CRV10-20	240 (3500)	38 (10)

### Crossover relief valve, differential area, dual cartridges in manifold



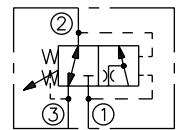
Model	Pressure bar (psi)	Flow lpm (gpm)
CRV08-22	180 (2600)	30 (8)
CRV10-22	240 (3500)	113 (30)

### Logic element, spool type, pressure reducing



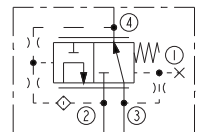
Model	Pressure bar (psi)	Flow lpm (gpm)
ER10-S30	345 (5000)	68 (18)
ER12-S30	345 (5000)	114 (30)

### Kickdown sequence valve, internal pilot/drain



Model	Pressure bar (psi)	Flow lpm (gpm)
KS10-30	207 (3000)	11 (3)

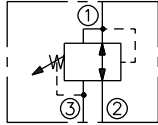
### Torque divider



Model	Pressure bar (psi)	Flow lpm (gpm)
HTD10-40	350 (5075)	57 (15)

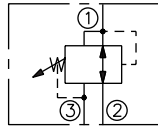
# Pressure Control Valves

Pressure reducing/relieving valve



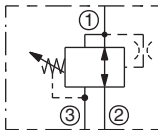
Model	Pressure bar (psi)	Flow lpm (gpm)
PR08-32	240 (3500)	11 (3)
PR10-32	207 (3000)	30 (8)

Pressure reducing/relieving valve, pilot operated



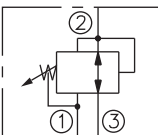
Model	Pressure bar (psi)	Flow lpm (gpm)
PR10-36	240 (3500)	56 (15)
PR50-36	345 (5000)	56 (15)
PR12-36	275 (4000)	189 (50)

Pressure reducing/relieving valve, direct acting



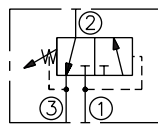
Model	Pressure bar (psi)	Flow lpm (gpm)
PR58-38	345 (5000)	19 (5)
PR50-38	345 (5000)	72 (19)

Pressure reducing/relieving valve



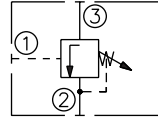
Model	Pressure bar (psi)	Flow lpm (gpm)
PRES50-30	345 (5000)	11 (3)

Sequence valve with internal pilot and drain



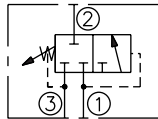
Model	Pressure bar (psi)	Flow lpm (gpm)
PS08-30	240 (3500)	22 (6)
PS10-30	207 (3000)	38 (10)
PS10-31	240 (3500)	22 (6)

Sequence valve with external pilot, internal drain



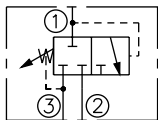
Model	Pressure bar (psi)	Flow lpm (gpm)
PS08-32	240 (3500)	19 (5)
PS10-32	207 (3000)	38 (10)
PS10-33	240 (3500)	23 (6)

Sequence valve with internal pilot and drain



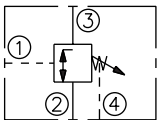
Model	Pressure bar (psi)	Flow lpm (gpm)
PS10-34	207 (3000)	117 (31)

Sequence valve with internal pilot, external drain



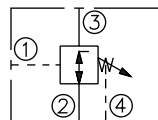
Model	Pressure bar (psi)	Flow lpm (gpm)
PS10-36	240 (3500)	56 (15)
PS50-36	331 (4800)	56 (15)

Sequence valve, normally closed with external pilot and drain



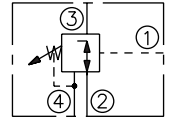
Model	Pressure bar (psi)	Flow lpm (gpm)
PS10-40	240 (3500)	38 (10)
PS50-40	345 (5000)	38 (10)

Sequence valve, normally open with external pilot and drain



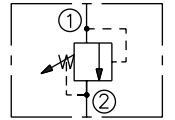
Model	Pressure bar (psi)	Flow lpm (gpm)
PS10-41	240 (3500)	38 (10)

Sequence valve, 3-way, external pilot and drain



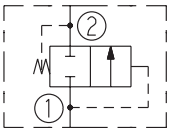
Model	Pressure bar (psi)	Flow lpm (gpm)
PS10-43	240 (3500)	38 (10)
PS50-43	414 (6000)	38 (10)

Relief valve, direct acting, poppet type



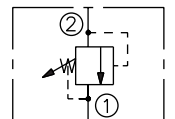
Model	Pressure bar (psi)	Flow lpm (gpm)
RV08-20	275 (4000)	23 (6)
RV58-20	345 (5000)	22 (6)
RV10-20	228 (3300)	38 (10)

Relief valve, pressure regulating, spool type



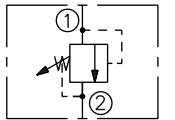
Model	Pressure bar (psi)	Flow lpm (gpm)
RV10-21F	228 (3300)	25 (7)

Relief valve, differential area, poppet type



Model	Pressure bar (psi)	Flow lpm (gpm)
RV08-22	248 (3600)	30 (8)
RV10-22	240 (3500)	114 (30)
RV50-22	345 (5000)	76 (20)

Relief valve, pilot operated, spool type

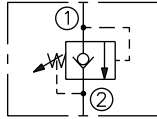


Model	Pressure bar (psi)	Flow lpm (gpm)
RV10-26	240 (3500)	114 (30)
RV50-26	345 (5000)	114 (30)
RV12-26	240 (3500)	170 (45)
RV16-26	275 (4000)	303 (80)
RV52-26	345 (5000)	170 (45)
RV56-26	345 (5000)	379 (100)

# Pressure Control Valves

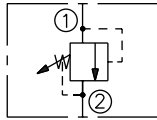
Relief valve, pilot operated with reverse-flow check

U.S. Pats. 7,069,945  
7,069,945



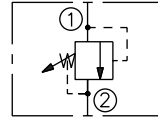
Model	Pressure bar (psi)	Flow lpm (gpm)
RV10-28	289 (4200)	114 (30)
RV50-28	345 (5000)	114 (30)

Relief valve, direct acting, poppet type, low flow



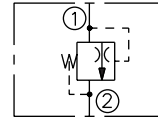
Model	Pressure bar (psi)	Flow lpm (gpm)
RV08-29	240 (3500)	1.9 (0.5)

Relief valve, direct acting, poppet type



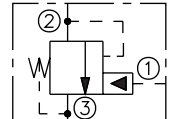
Model	Pressure bar (psi)	Flow lpm (gpm)
HRVD08-20	240 (3500)	53 (14)
RVD50-20	350 (5075)	114 (30)
RVD50-20P	385 (5575)	114 (30)

Thermal relief valve, poppet type



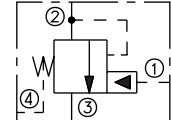
Model	Pressure bar (psi)	Flow lpm (gpm)
TR04-B20	414 (6000)	no rating

Unloading pilot, internal drain



Model	Pressure bar (psi)	Flow lpm (gpm)
UP10-31	207 (3000)	4 (1)

Remote sequence valve, unloading pilot



Model	Pressure bar (psi)	Flow lpm (gpm)
UP10-40	207 (3000)	4 (1)

## Accessories

HydraForce Valve Size

04  
07  
08, 38, 58, 98  
10, 50, 70  
12, 52, 72  
16, 76  
20  
42

Cavity Thread Size

7/16-20UNF-2B  
5/8-18UNF-2B  
3/4-16UNF-2B  
7/8-14UNF-2B  
1-1/16-12UN-2B  
1-5/16-12UN-2B  
1-5/8-12UN-2B  
M42 x 2,0-6H

### Valve Housings

Single cavity housings are available in a wide variety of port sizes for industry-common valve cavity sizes. Anodized aluminum housings are rated up to 240 bar (3500 psi). Steel and ductile iron housings are available in select sizes for high-pressures up to 350 bar (5075 psi).

### Custom Manifold Accessories

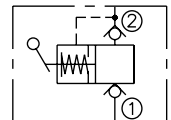
A full line of manifold accessories are available from stock including: cavity plugs, orifice discs, port plugs, orifice plugs, pilot pistons, screen cartridges, as well as cavity form tools and finishing tools.

### Hand Pumps

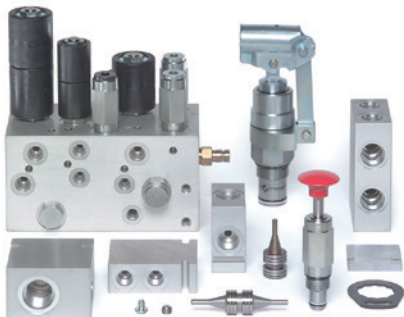
Three versions of hand operated piston and check valve pumps are available for manual operation of piloted features like brake release or emergency lowering of power-down functions.

## Hand Pumps

Hand pump  
see catalog for operating force requirements



Model	Pressure bar (psi)	Disp. cm <sup>3</sup> (in <sup>3</sup> )
HP10-20	207 (3000)	1.36 (0.083)
HP10-21	207 (3000)	10.6 (0.65)
HP16-21	207 (3000)	21.3 (1.3)







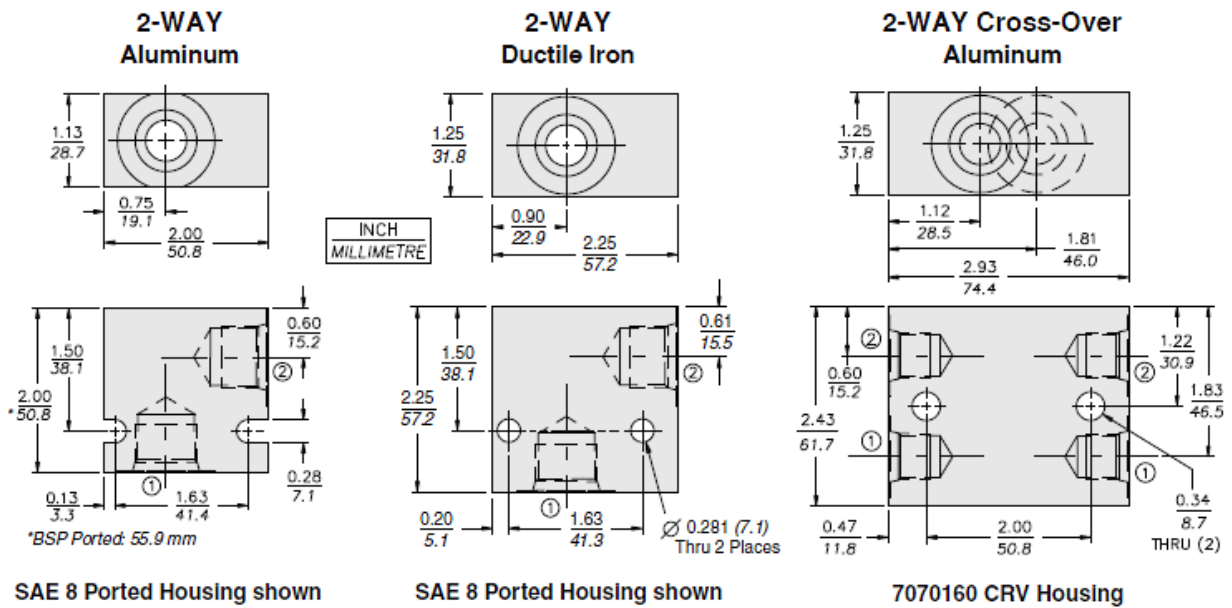
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

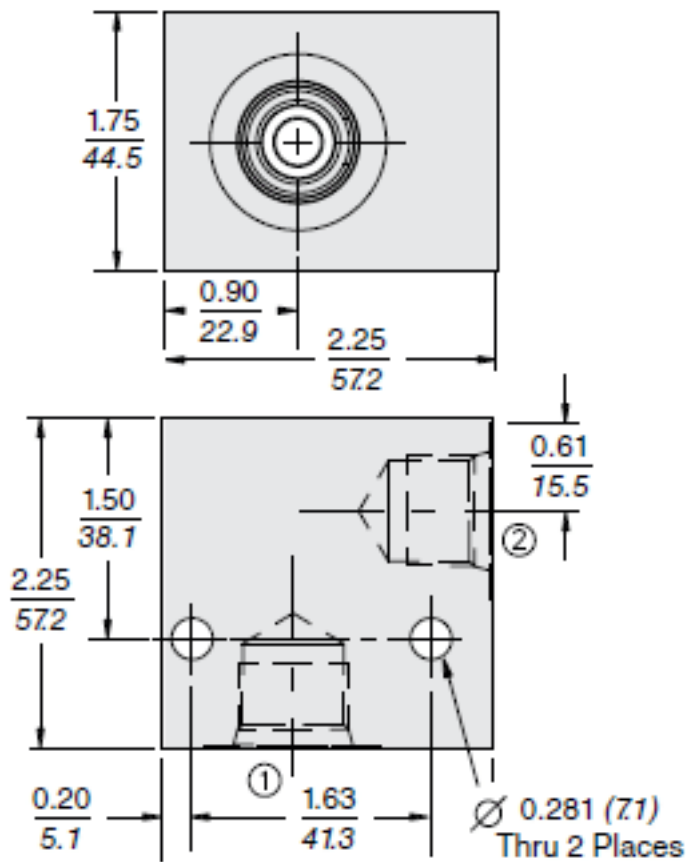
Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions





## 2-WAY H-Series Ductile Iron



SAE 8 Ported Housing shown

### Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7028620	2B	Aluminum	1/4" BSP	1/4" BSP					U.K.	
7028630	3B	Aluminum	3/8" BSP	3/8" BSP					U.K.	
7024640	4T	Aluminum	SAE 4	SAE 4					U.S.	
7024660	6T	Aluminum	SAE 6	SAE 6					U.S.	
7070160	6T	Aluminum	SAE 6 (2)	SAE 6 (2)					U.S.	
7024680	8T	Aluminum	SAE 8	SAE 8					U.S.	
7151050	3BD	Ductile iron	3/8" BSP	3/8" BSP					U.K.	
7151010	6TD	Ductile iron	SAE 6	SAE 6					U.S.	
7151020	8TD	Ductile iron	SAE 8	SAE 8					U.S.	



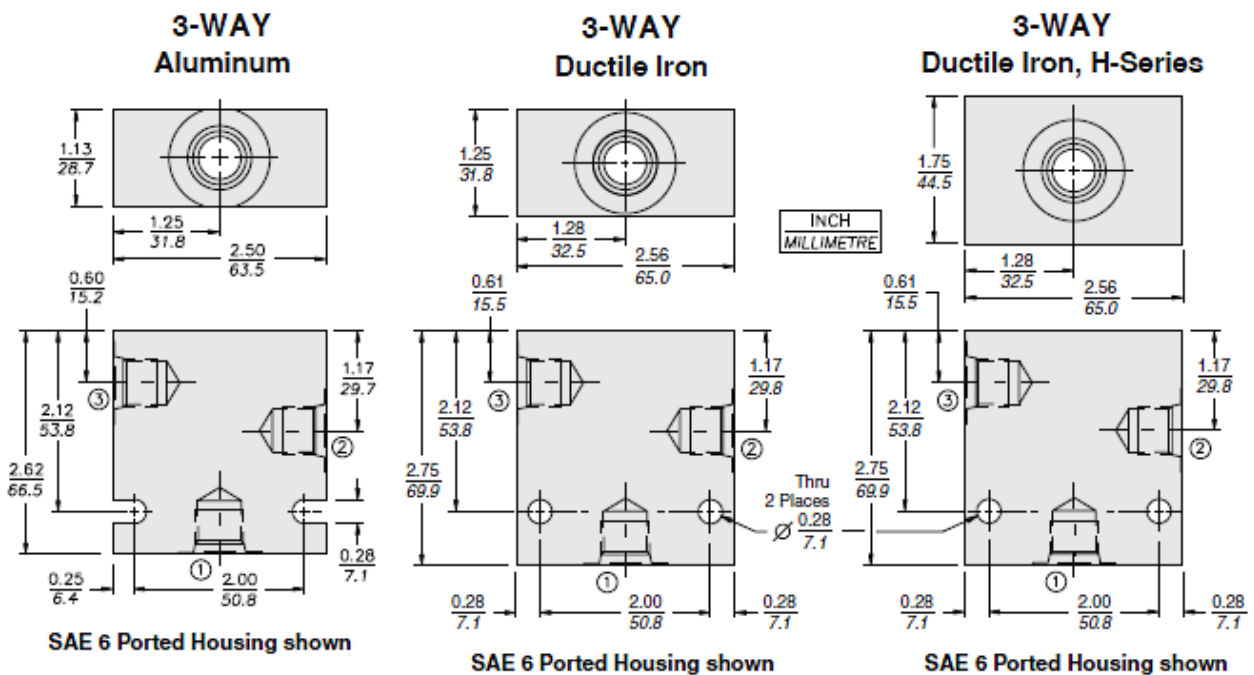
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7028730	3B	Aluminum	3/8" BSP	3/8" BSP	3/8" BSP				U.K.	
7024740	4T	Aluminum	SAE 4	SAE 4	SAE 4				U.S.	
7024760	6T	Aluminum	SAE 6	SAE 6	SAE 6				U.S.	
7151150	3BD	Ductile iron	3/8" BSP	3/8" BSP	3/8" BSP				U.K.	
7151110	6TD	Ductile iron	SAE 6	SAE 6	SAE 6				U.S.	
7160120	8HT	Ductile iron	SAE 8	SAE 8	SAE 8				U.S.	
7151120	8TD	Ductile iron	SAE 8	SAE 8	SAE 8				U.S.	



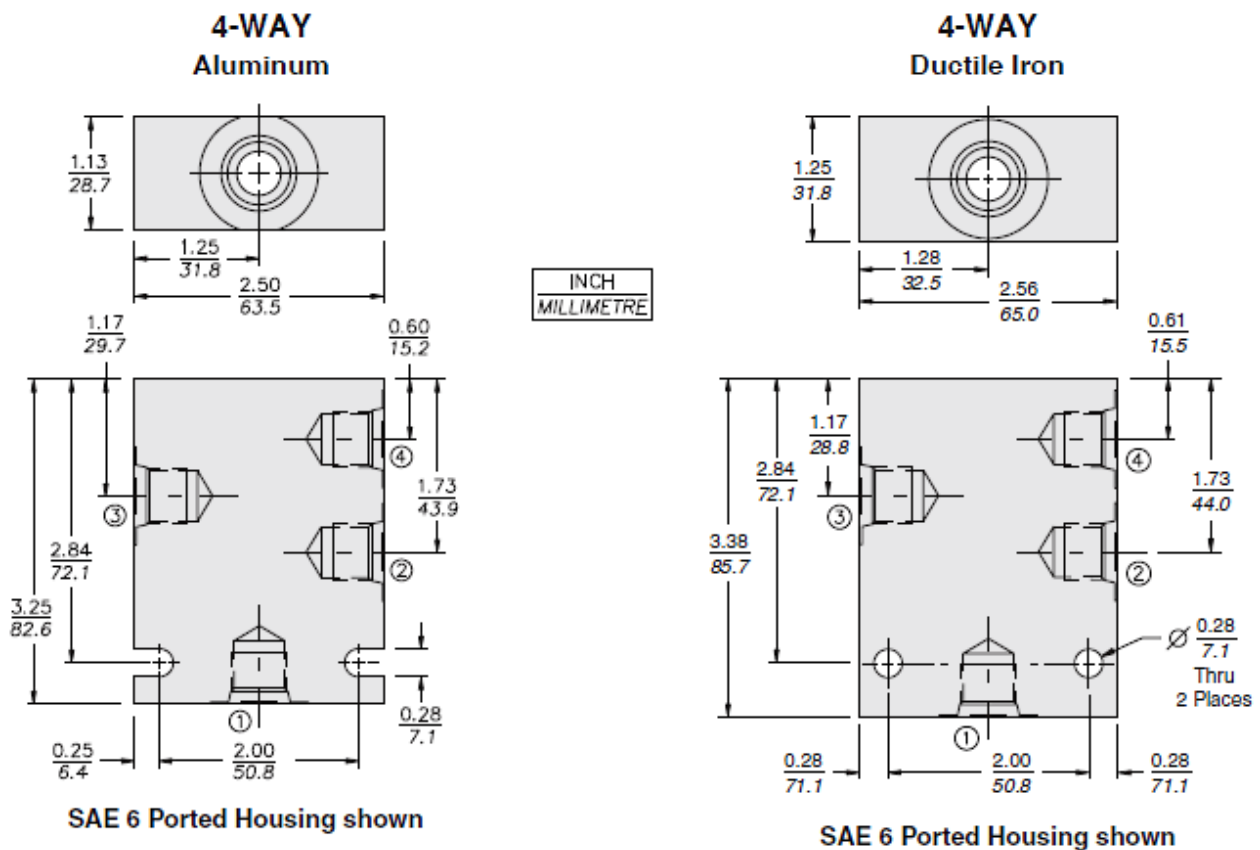
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7028830	3B	Aluminum	3/8" BSP	3/8" BSP	3/8" BSP	3/8" BSP			U.K.	
7024860	6T	Aluminum	SAE 6	SAE 6	SAE 6	SAE 6			U.S.	
7151250	3BD	Ductile iron	3/8" BSP	3/8" BSP	3/8" BSP	3/8" BSP			U.K.	
7151210	6TD	Ductile iron	SAE 6	SAE 6	SAE 6	SAE 6			U.S.	



Ratings

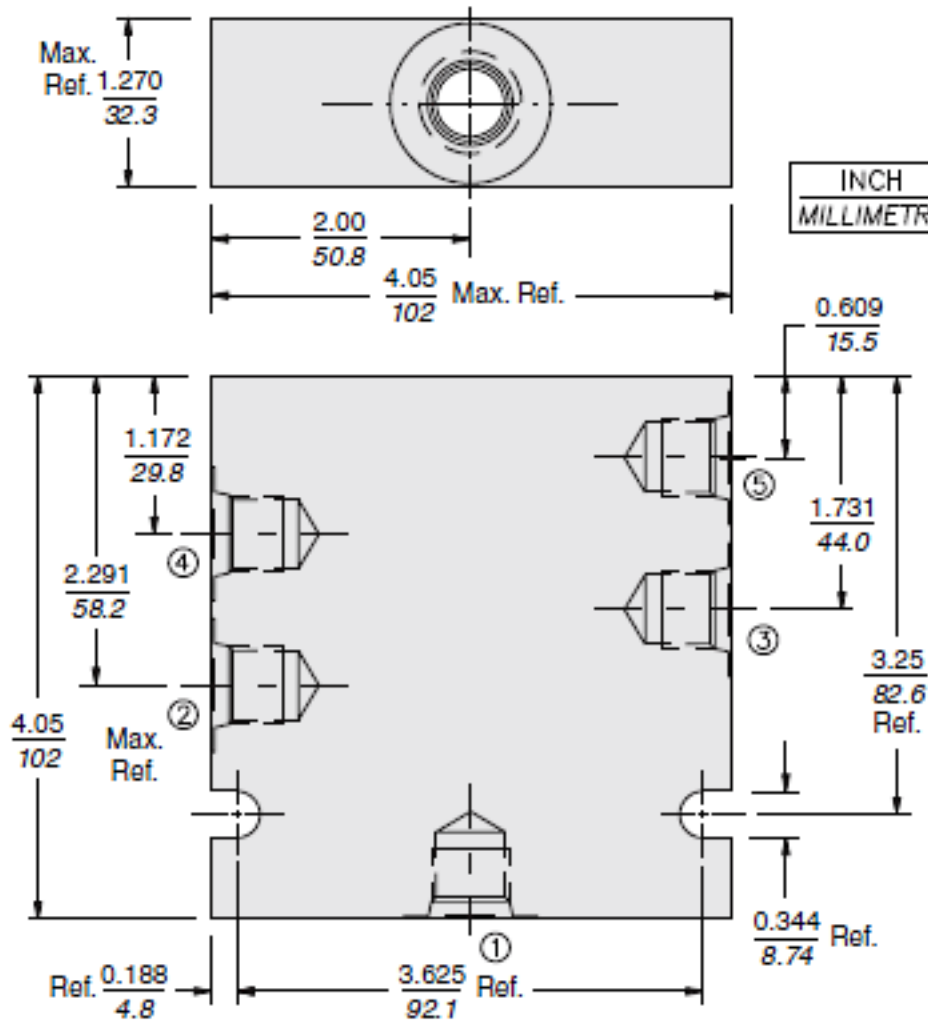
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

5-WAY  
Aluminum



SAE 6 Ported Housing Shown

Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
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7025860 6T

Aluminum SAE 6 SAE 6 SAE 6 SAE 6 SAE 6

U.S.



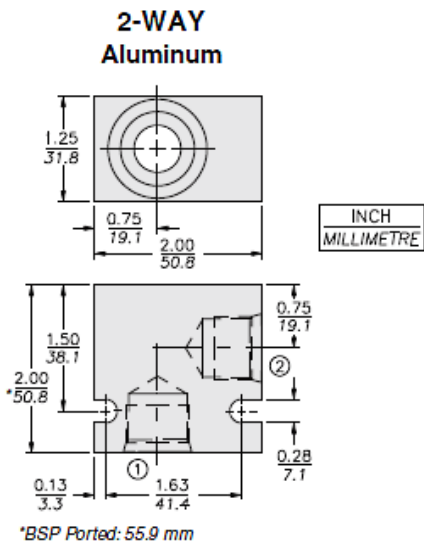
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

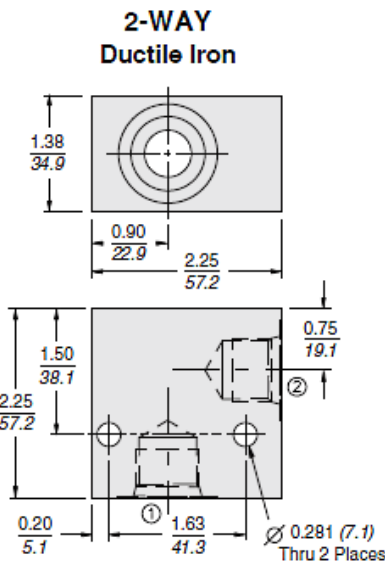
Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

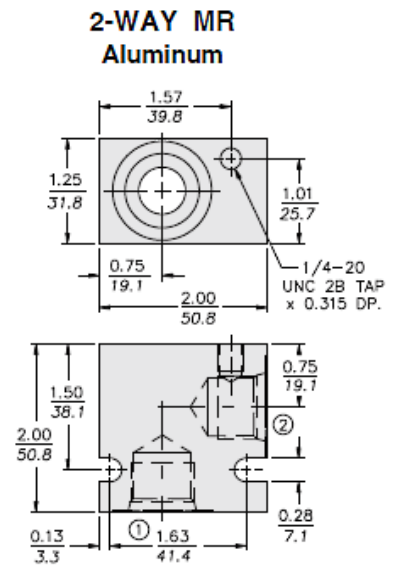
Dimensions



SAE 8 Ported Housing shown

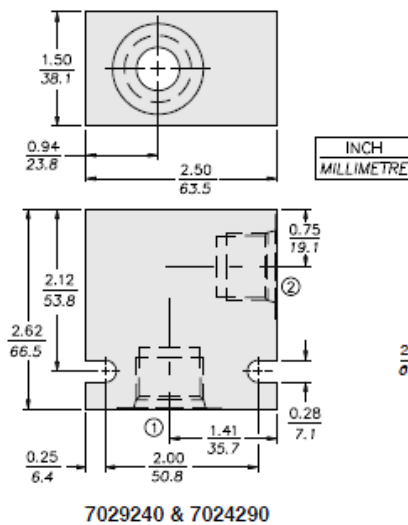


SAE 8 Ported Housing shown

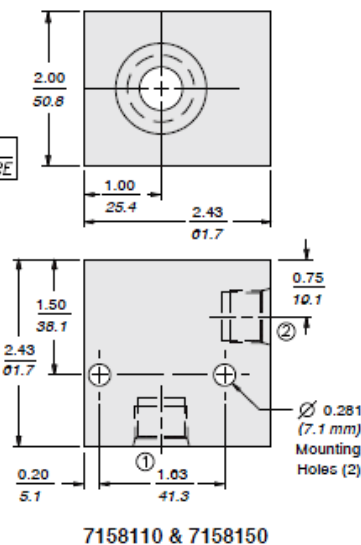


7026180 - MR  
For Lock-Down Bracket Use

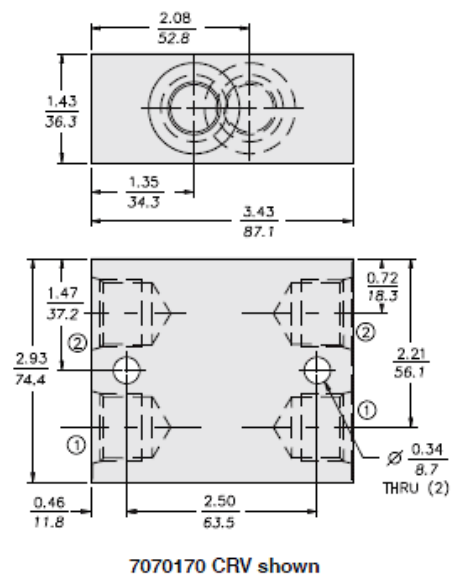
**2-WAY with Oversized Ports Aluminum**



**2-WAY Ductile Iron - H-Series**

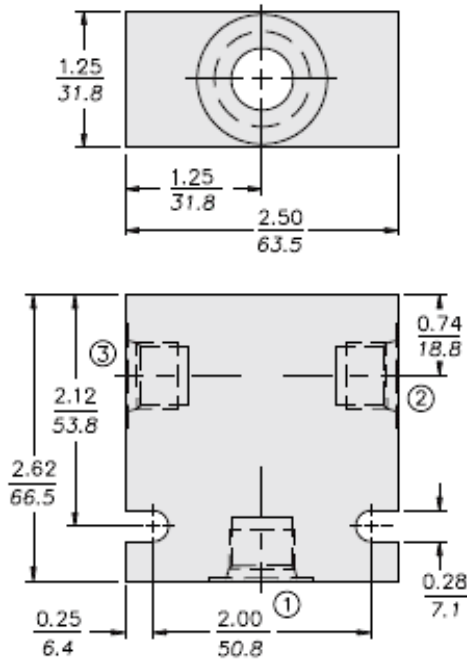


**2-WAY Cross-Over Aluminum**





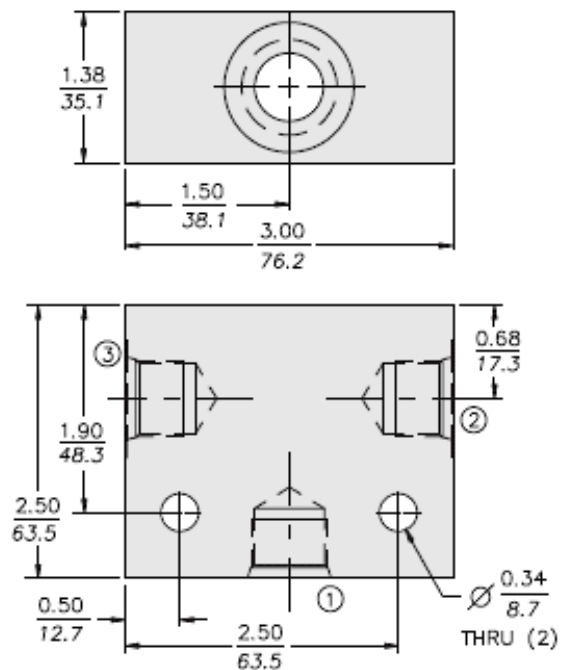
**2-WAY Thru-Ported  
Aluminum**



**7025660 & 7025680**

**2-WAY Thru-Ported with Oversized Ports  
Aluminum**

INCH  
MILLIMETRE



**7027080 shown**

**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
70282 20	2B	Aluminum	1/4" BSP	1/4" BSP					U.K.	
70282 30	3B	Aluminum	3/8" BSP	3/8" BSP					U.K.	
70282 40	4B	Aluminum	1/2" BSP	1/2" BSP					U.K.	
70242 60	6T	Aluminum	SAE 6	SAE 6					U.S.	
70242 80	8T	Aluminum	SAE 8	SAE 8					U.S.	
70261 80	8TL	Aluminum	SAE 8	SAE 8					U.S.	Drilled and tapped for lockdown bracket
71514 50	4BD	Ductile iron	1/2" BSP	1/2" BSP					U.K.	
71514 00	6TD	Ductile iron	SAE 6	SAE 6					U.S.	
71514 10	8TD	Ductile iron	SAE 8	SAE 8					U.S.	





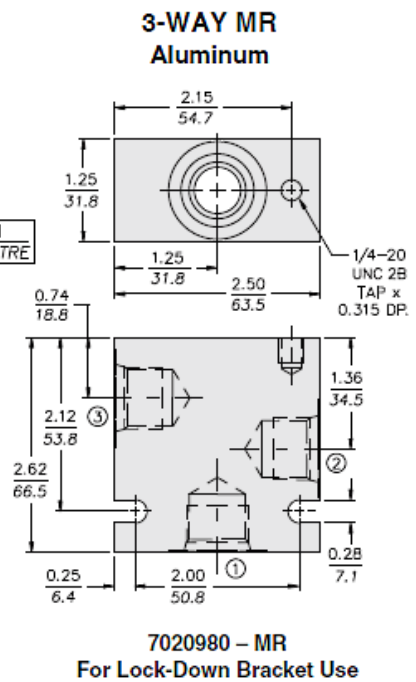
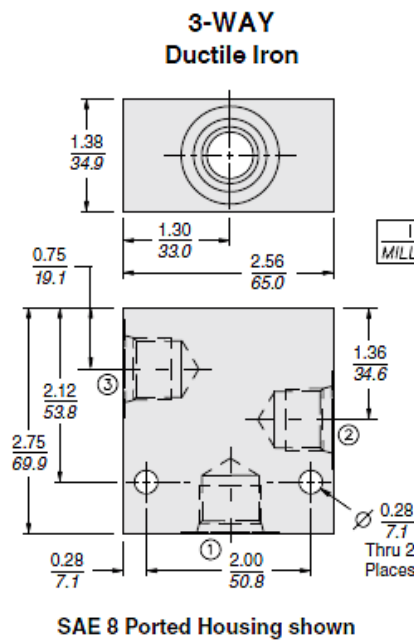
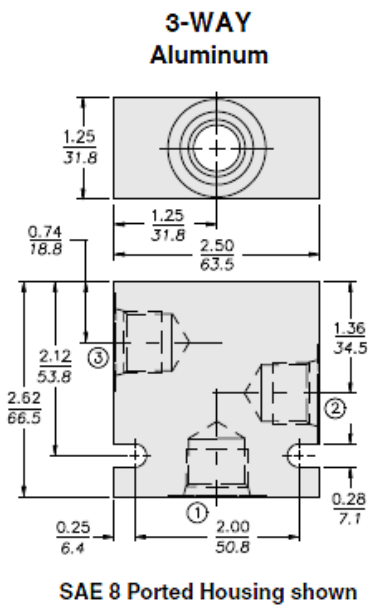
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

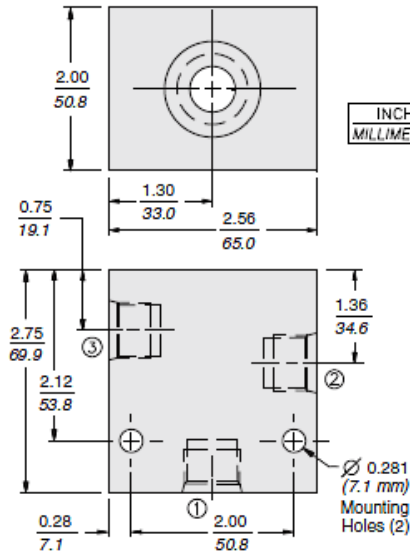
Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

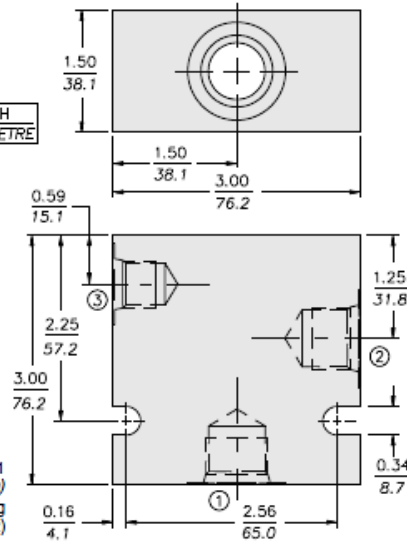




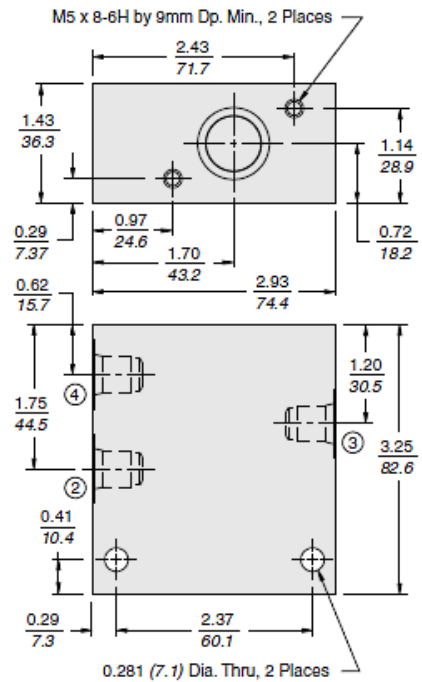
**3-WAY  
Ductile Iron, H-Series**



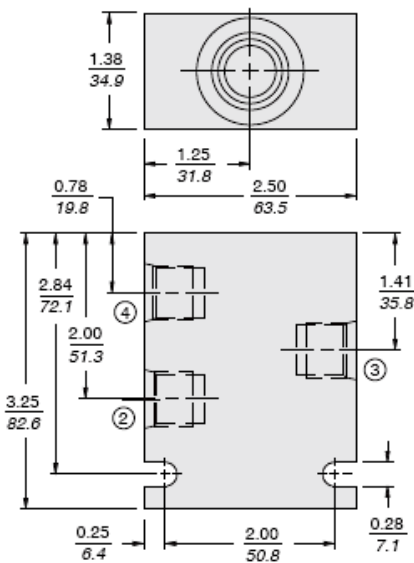
**3-WAY Short  
Aluminum or Ductile Iron**



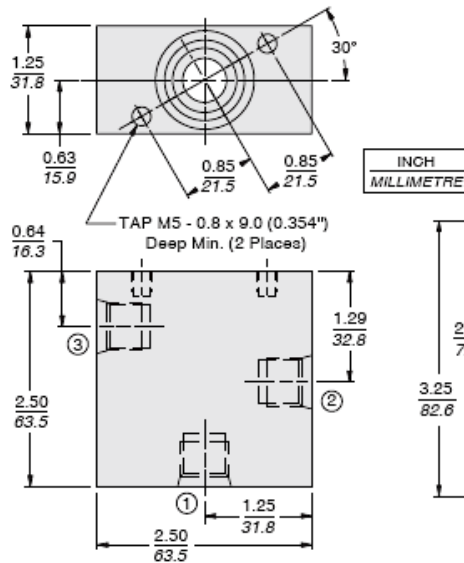
**3-WAY TS98-T3x Drop-In  
Aluminum**



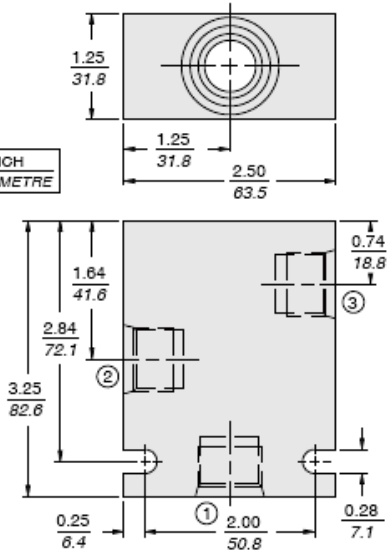
**3-WAY TS98-3x  
Aluminum**



**3-WAY 98-T3  
Aluminum**

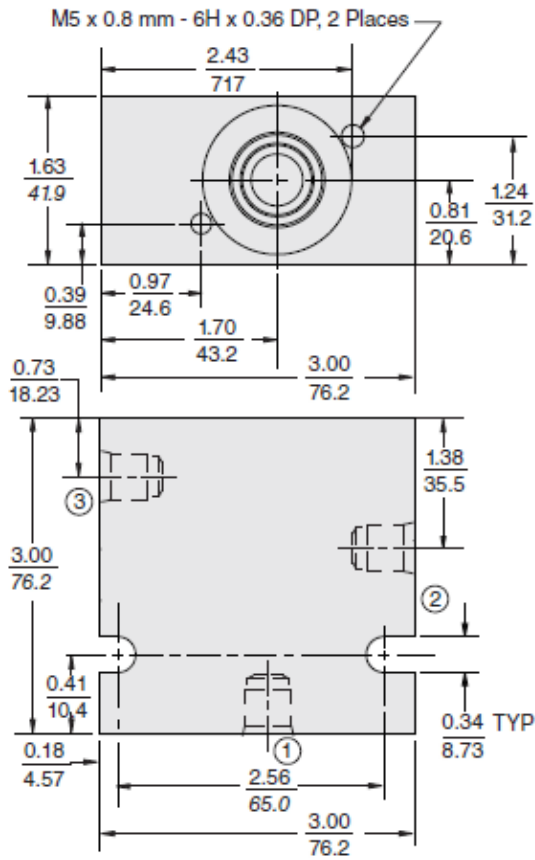


**3-WAY 10-L3  
Aluminum**

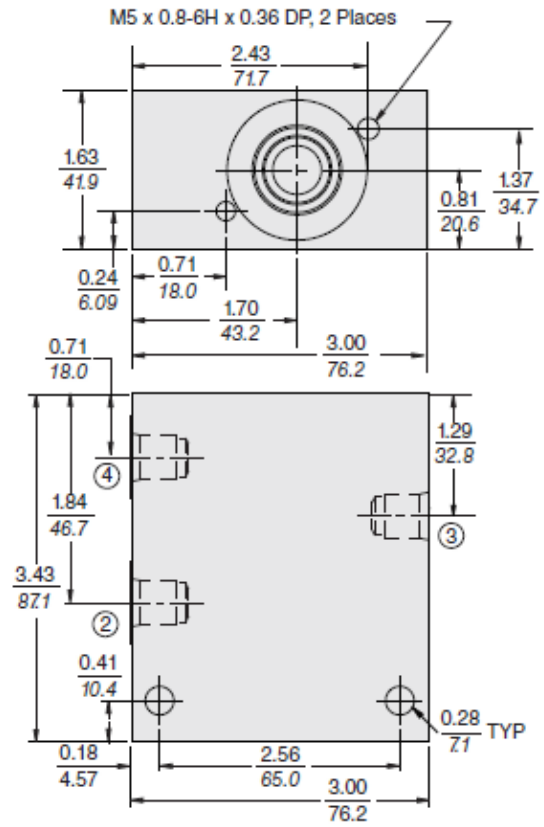




**3-WAY 90-G3 Drop-In  
Aluminum**



**3-WAY TS90-G3 Drop-In  
Aluminum**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7028330	3B	Aluminum	3/8" BSP	3/8" BSP	3/8" BSP				U.K.	
7024360	6T	Aluminum	SAE 6	SAE 6	SAE 6				U.S.	
7024380	8T	Aluminum	SAE 8	SAE 8	SAE 8				U.S.	
7020980	8TL	Aluminum	SAE 8	SAE 8	SAE 8				U.S.	Drilled and tapped for lockdown bracket
7151540	3BD	Ductile iron	3/8" BSP	3/8" BSP	3/8" BSP				U.K.	
7151500	6TD	Ductile iron	SAE 6	SAE 6	SAE 6				U.S.	
7151510	8TD	Ductile iron	SAE 8	SAE 8	SAE 8				U.S.	



**body\_10-4w-XXX**

**10-Size 4-Way Valve Housings**

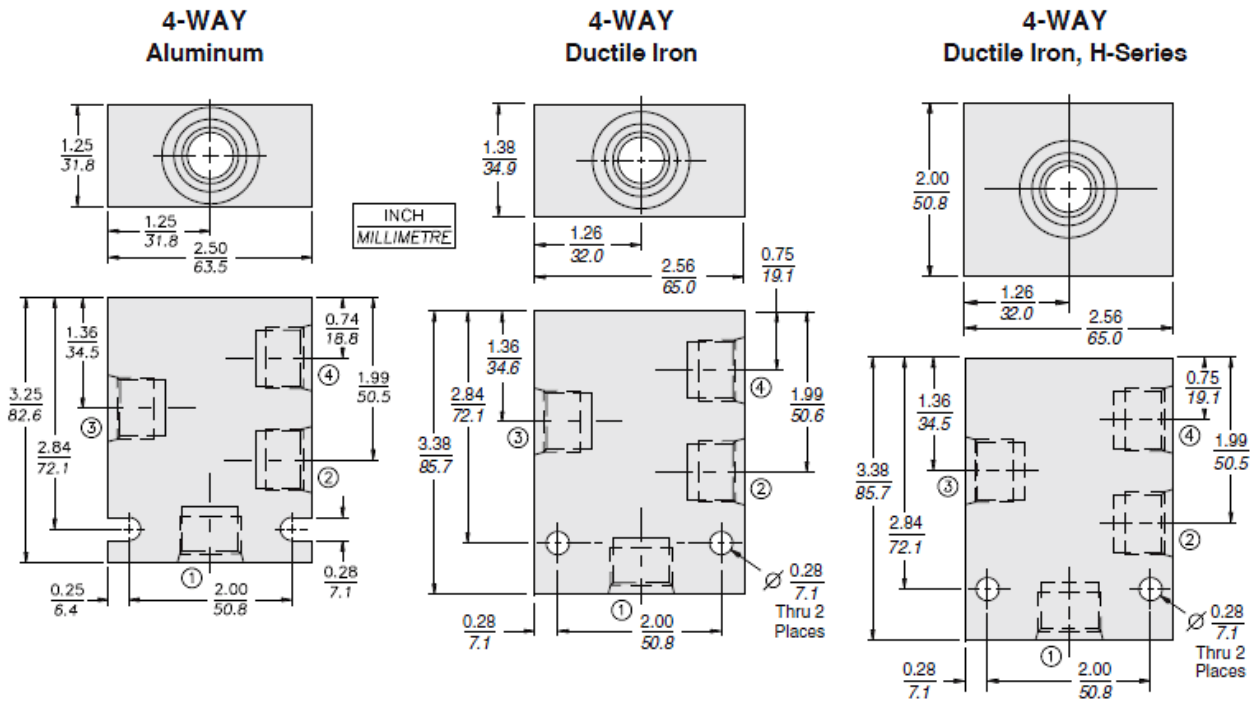
**Ratings**

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
 345 bar (5000 psi) - **Note:** Ductile iron

**Symbol**

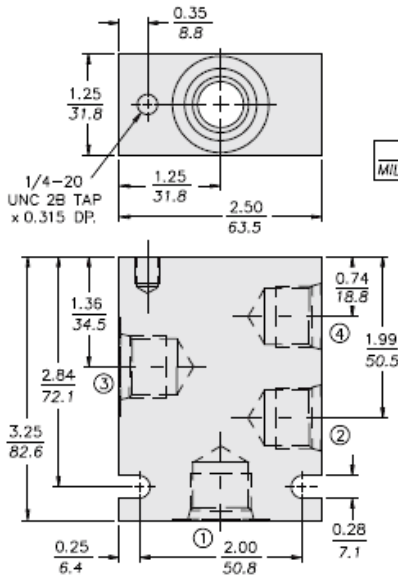
Material 6061-T6511 - **Note:** Aluminum  
 Dura-bar - **Note:** Ductile iron

**Dimensions**

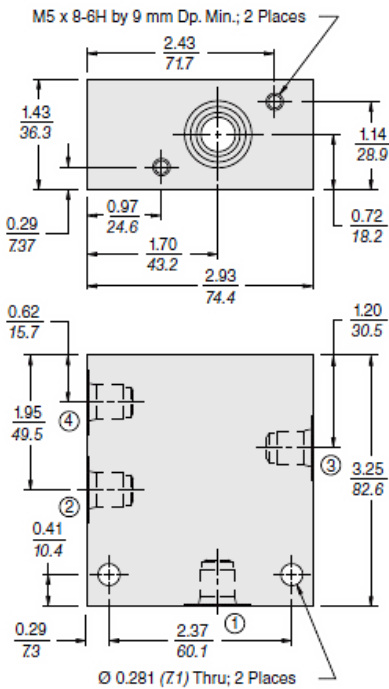




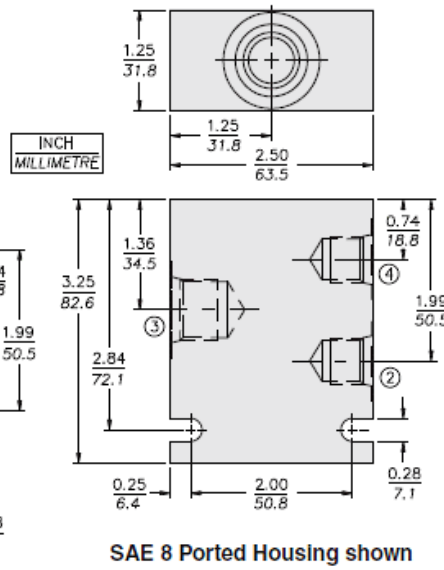
**4-WAY MR  
Aluminum**



7023380 – MR  
For Lock-Down Bracket Use  
**4-WAY SV98-T40  
Aluminum**

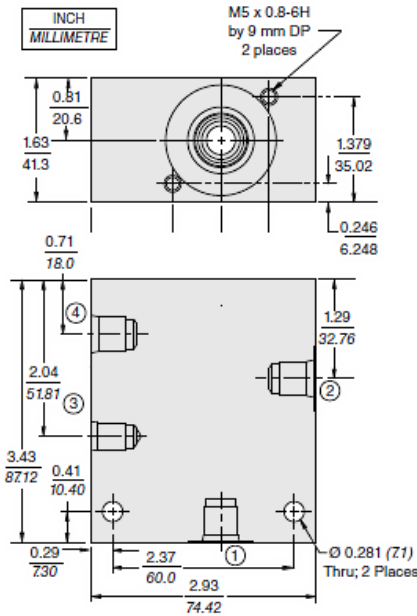


**4-WAY 3-PORT,  
Special FD-Type, Aluminum**

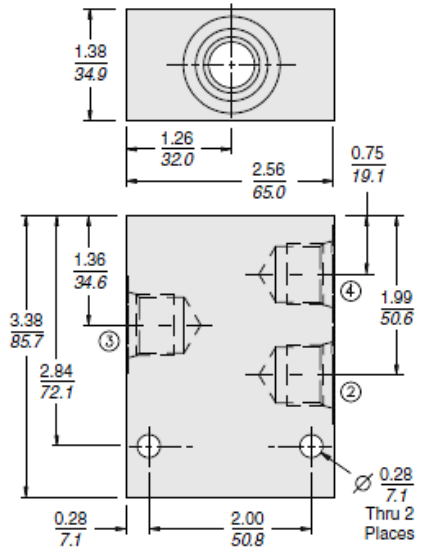


SAE 8 Ported Housing shown

**4-WAY SV90-G4x  
Aluminum**

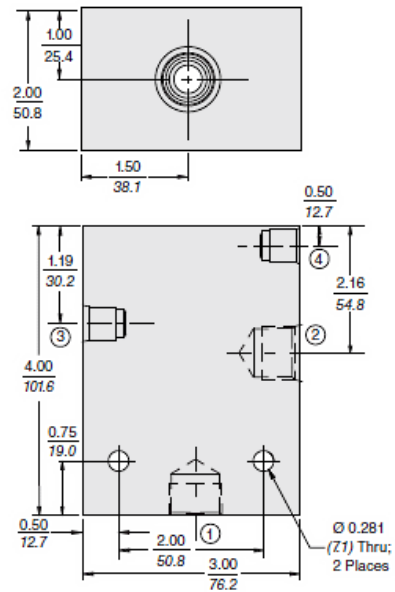


**4-WAY 3-PORT,  
Special FD-Type, Ductile Iron**



SAE 8 Ported Housing shown

**4-WAY J4  
Ductile Iron**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7024460	6T	Aluminum	SAE 6	SAE 6	SAE 6	SAE 6			U.S.	
7024480	8T	Aluminum	SAE 8	SAE 8	SAE 8	SAE 8			U.S.	
7151700	6TD	Ductile iron	SAE 6	SAE 6	SAE 6	SAE 6			U.S.	



7158310 8HT

Ductile iron SAE 8 SAE 8 SAE 8 SAE 8

U.S.



Ratings

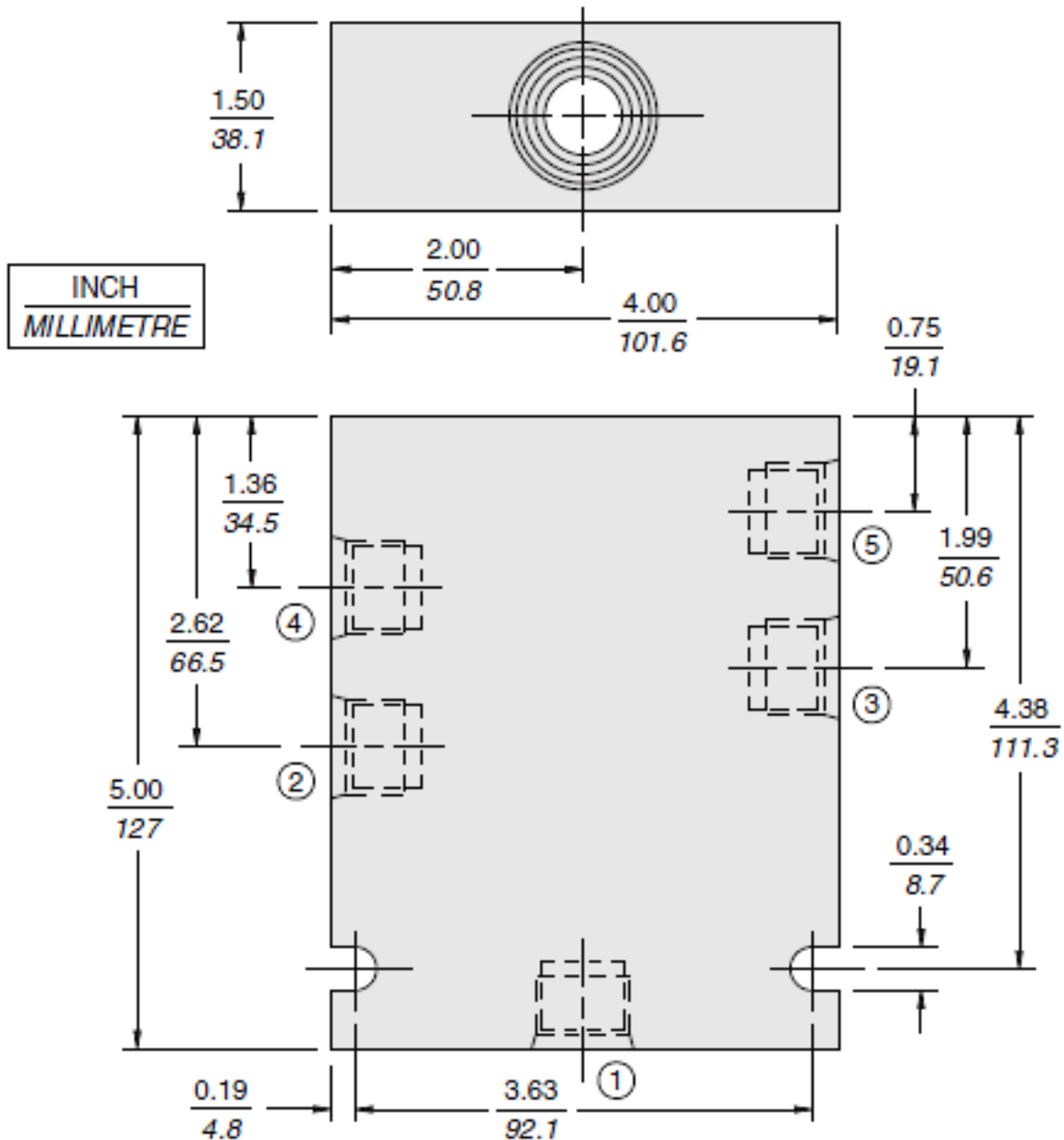
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

5-WAY  
Aluminum





**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7022820	6T	Aluminum	SAE 6	SAE 6	SAE 6	SAE 6	SAE 6		U.S.	
7022830	8T	Aluminum	SAE 8	SAE 8	SAE 8	SAE 8	SAE 8		U.S.	





Ratings

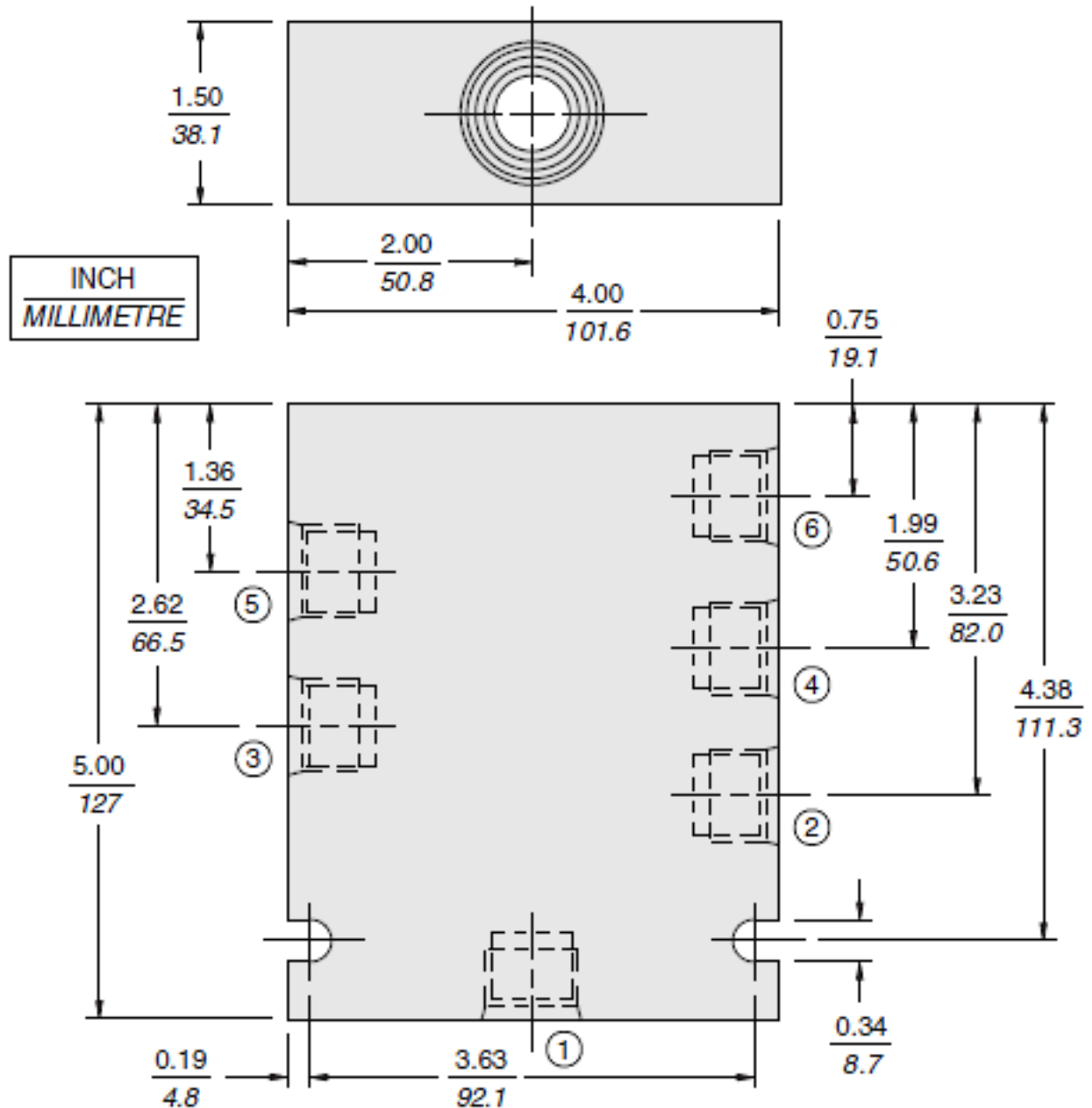
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

6-WAY  
Aluminum





**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
4553010	6T	Aluminum	SAE 6	SAE 6	SAE 6	SAE 6	SAE 6	SAE 6	U.S.	



Ratings

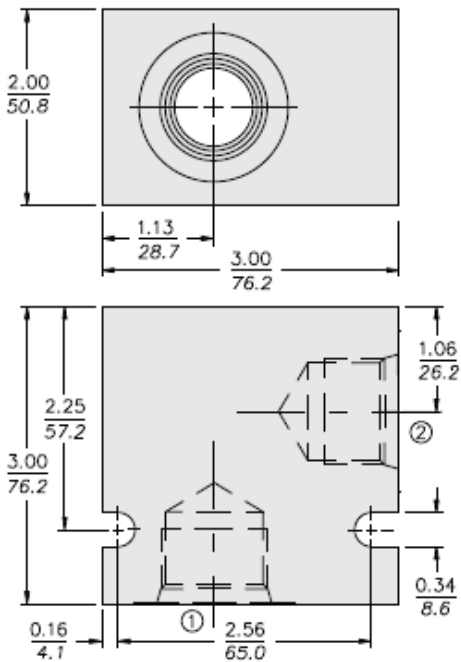
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

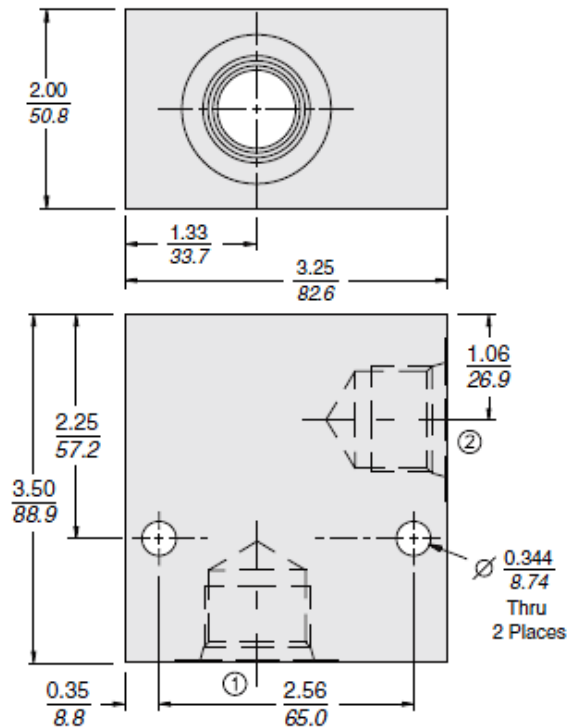
Dimensions

2-WAY  
Aluminum



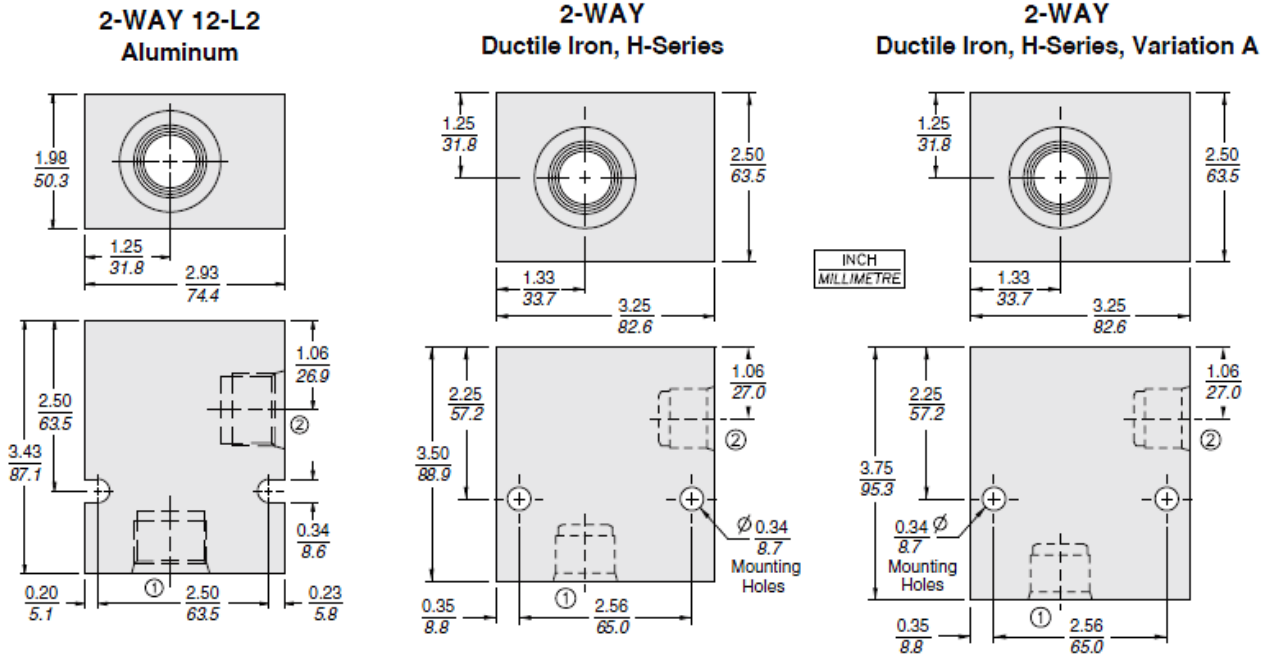
SAE 12 Ported Housing shown

2-WAY  
Ductile Iron



SAE 12 Ported Housing shown

INCH  
MILLIMETRE



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7020650	08T	Aluminum	SAE 08	SAE 08					U.S.	Designed for use with PV72-20, PV72-21, and FR12-23 valves
7022240	10T	Aluminum	SAE 10	SAE 10					U.S.	
7020660	10T	Aluminum	SAE 10	SAE 10					U.S.	Designed for use with PV72-20, PV72-21, and FR12-23 valves
7022250	12T	Aluminum	SAE 12	SAE 12					U.S.	
7020670	12T	Aluminum	SAE 12	SAE 12					U.S.	Designed for use with PV72-20, PV72-21, and FR12-23 valves
7022260	16T	Aluminum	SAE 16	SAE 16					U.S.	
7022530	8B	Aluminum	1" BSP	1" BSP					U.K.	
7158410	12HT	Ductile iron	SAE 12	SAE 12					U.S.	
7160020	12HT	Ductile iron	SAE 12	SAE 12					U.S.	Designed for use with HPV12-20 and HPV12-21 valves
7155010	12TD	Ductile iron	SAE 12	SAE 12					U.S.	
7155020	16TD	Ductile iron	SAE 16	SAE 16					U.S.	
7155060	8BD	Ductile iron	1" BSP	1" BSP					U.K.	



Ratings

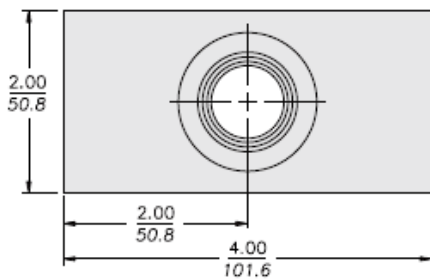
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

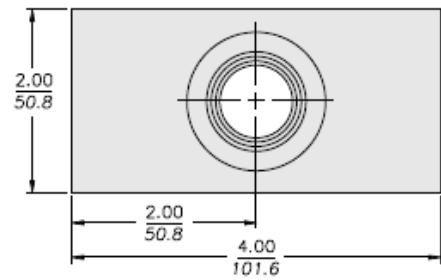
Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

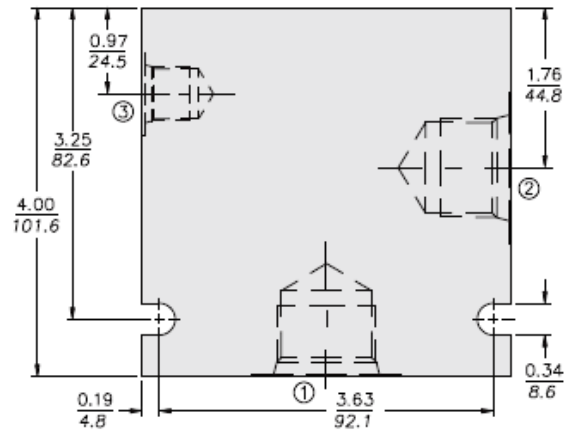
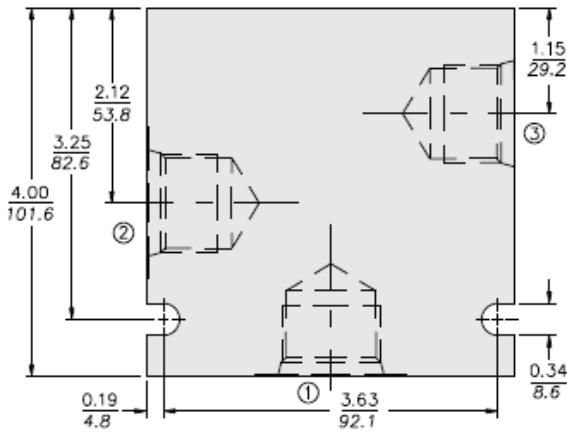
**3-WAY**  
Aluminum or Ductile Iron



**3-WAY Short**  
Aluminum or Ductile Iron



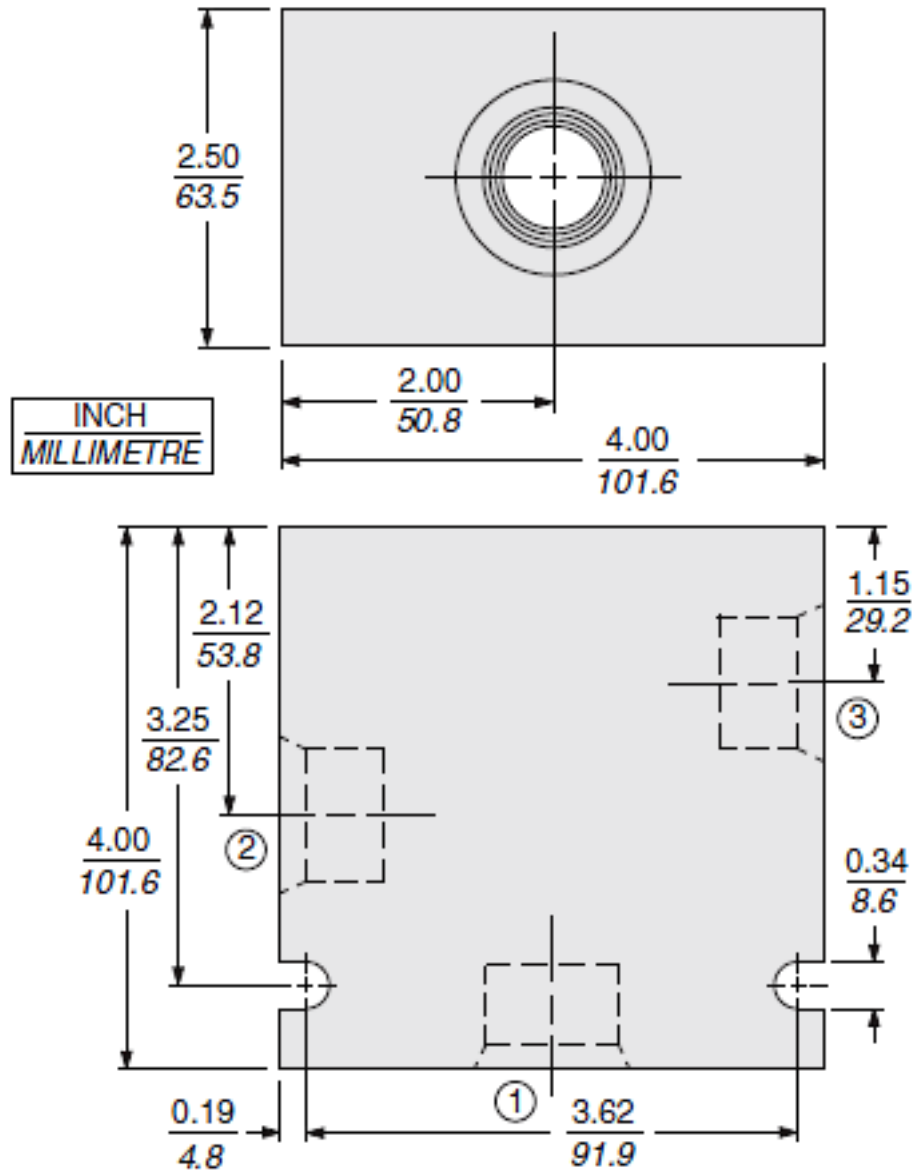
INCH  
MILLIMETRE



SAE 12 Ported Housing shown



### 3-WAY Ductile Iron, H-Series



#### Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7022330	10T	Aluminum	SAE 10	SAE 10	SAE 10				U.S.	
7022340	12T	Aluminum	SAE 12	SAE 12	SAE 12				U.S.	
7027400	12T	Aluminum	SAE 12	SAE 12	SAE 6				U.S.	
7022620	6B	Aluminum	3/4" BSP	3/4" BSP	3/4" BSP				U.K.	



702232 0	8T	Aluminum	SAE 8	SAE 8	SAE 8	U.S.
715852 0	12HT	Ductile iron	SAE 12	SAE 12	SAE 12	U.S.
715512 0	12TD	Ductile iron	SAE 12	SAE 12	SAE 12	U.S.
715062 0	12TD	Ductile iron	SAE 12	SAE 12	SAE 6	U.S.
715066 0	6BD	Ductile iron	3/4" BSP	3/4" BSP	3/8" BSP	U.K.



**body\_12-4w-XXX**

**12-Size 4-Way Valve Housings**

**Ratings**

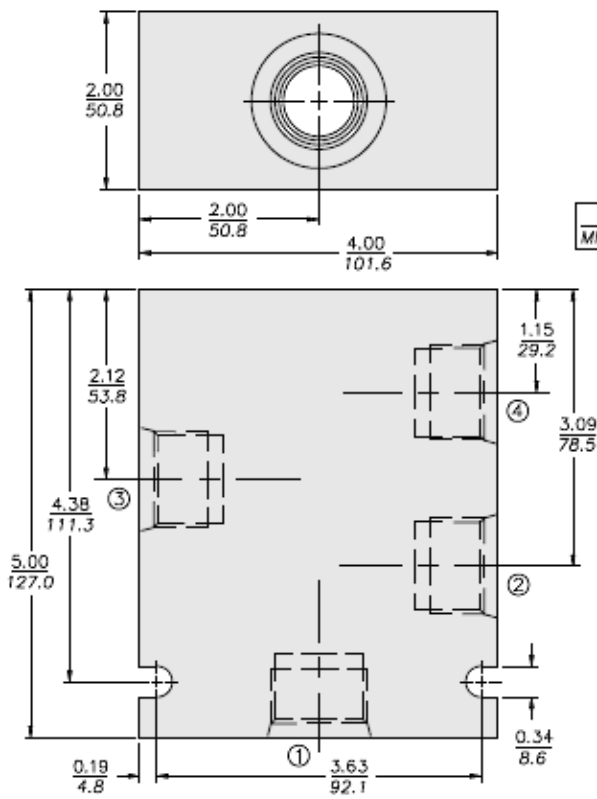
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
 345 bar (5000 psi) - **Note:** Ductile iron

**Symbol**

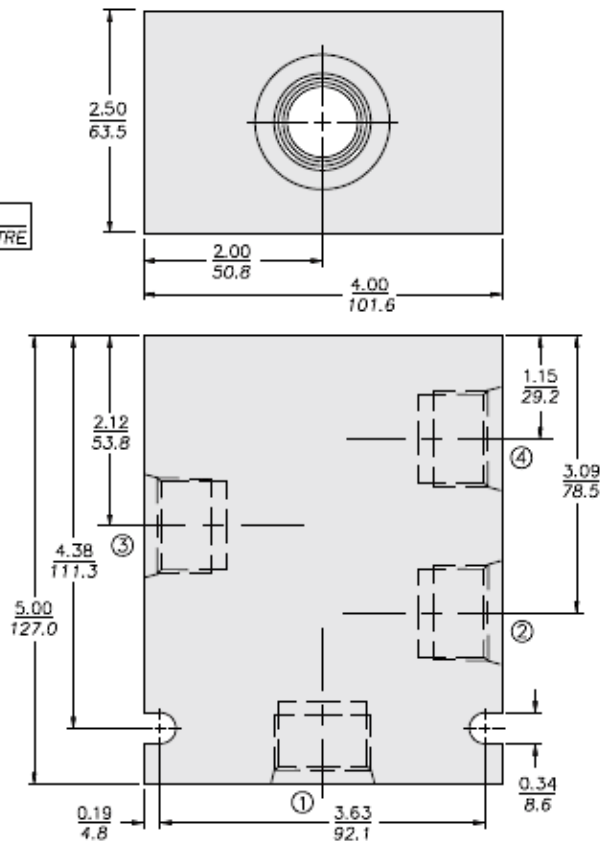
Material 6061-T6511 - **Note:** Aluminum  
 Dura-bar - **Note:** Ductile iron

**Dimensions**

**4-WAY**  
Aluminum or Ductile Iron



**4-WAY**  
Ductile Iron, H-Series

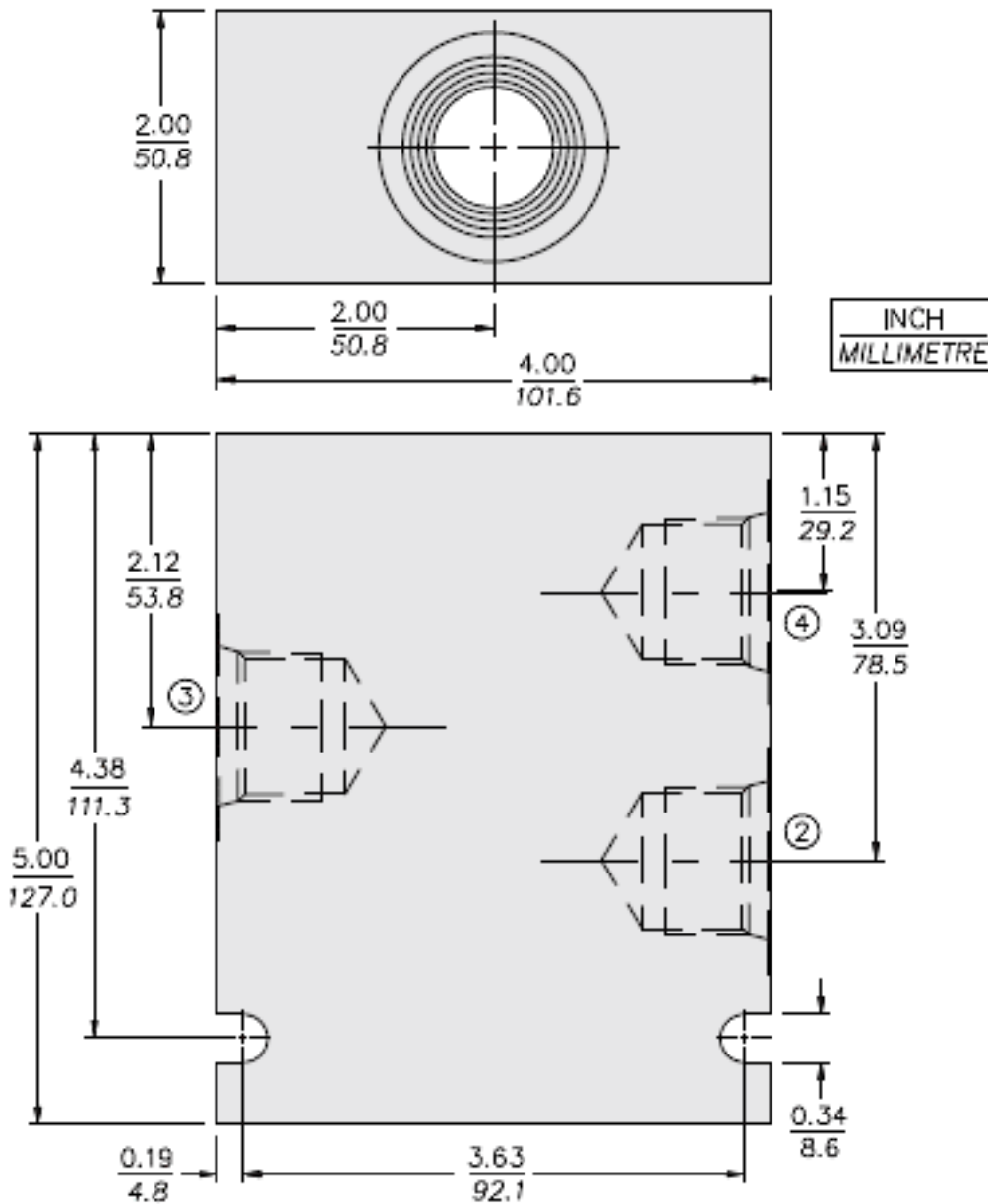


INCH  
MILLIMETRE





### 4-WAY 3-PORT Special FD-Type, Aluminum or Ductile Iron



SAE 12 Ported Housing shown

#### Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7022480	10T	Aluminum	SAE 10	SAE 10	SAE 10	SAE 10			U.S.	
7022470	12T	Aluminum	SAE 12	SAE 12	SAE 12	SAE 12			U.S.	



702244 0	12T	Aluminum	SAE 6	SAE 12	SAE 12	SAE 12	U.S.	PD-type body
702272 0	6B	Aluminum	3/4" BSP	3/4" BSP	3/4" BSP	3/4" BSP	U.K.	
715862 0	12HT	Ductile iron	SAE 12	SAE 12	SAE 12	SAE 12	U.S.	
715072 0	12TD	Ductile iron	SAE 12	SAE 12	SAE 12	SAE 12	U.S.	



Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

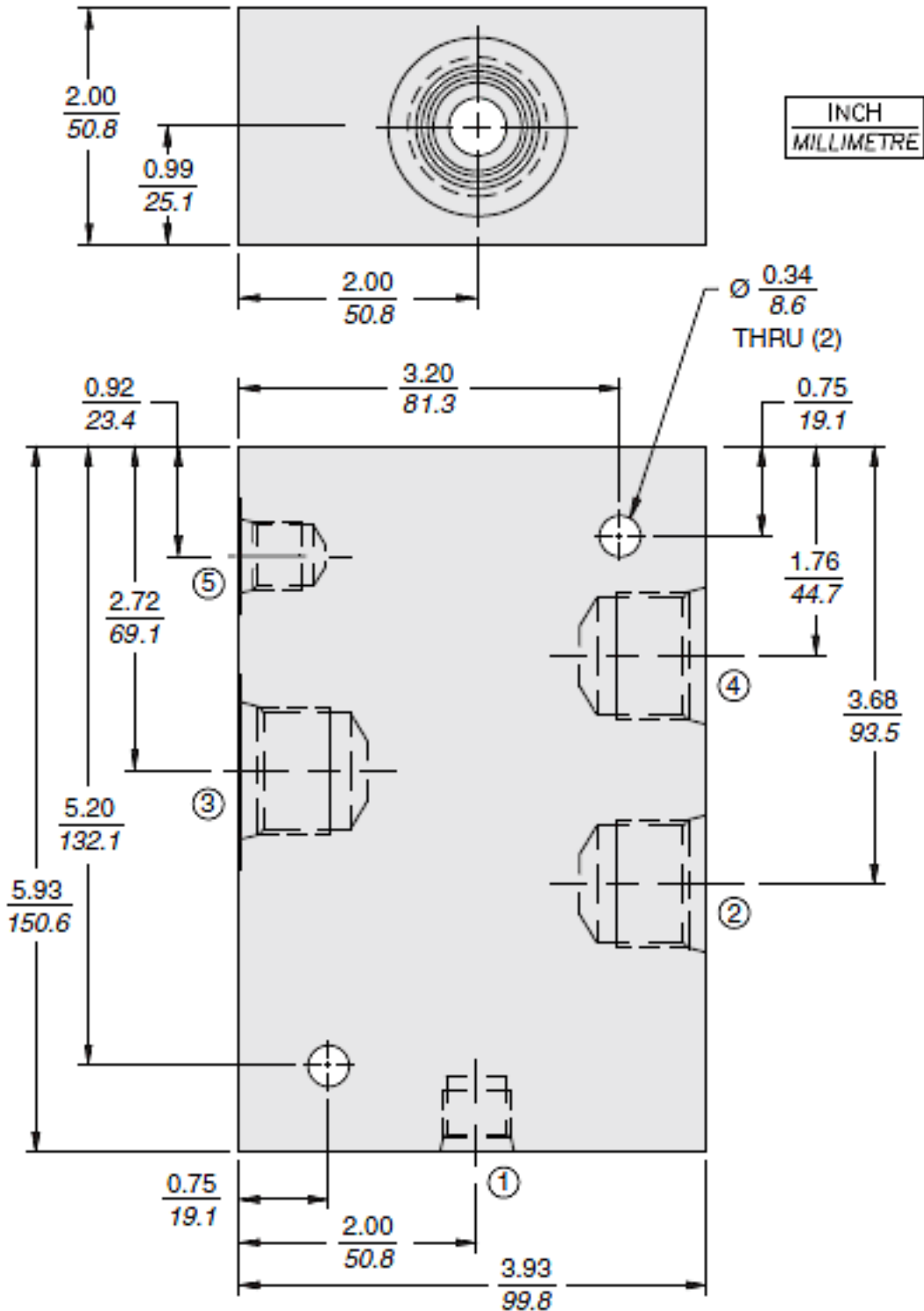
Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions



**5-WAY  
PD-Type, Aluminum**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
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7029900 10T

Aluminum SAE 6 SAE 10 SAE 10 SAE 10 SAE 6

U.S.



## Ratings

Pressure rating      207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

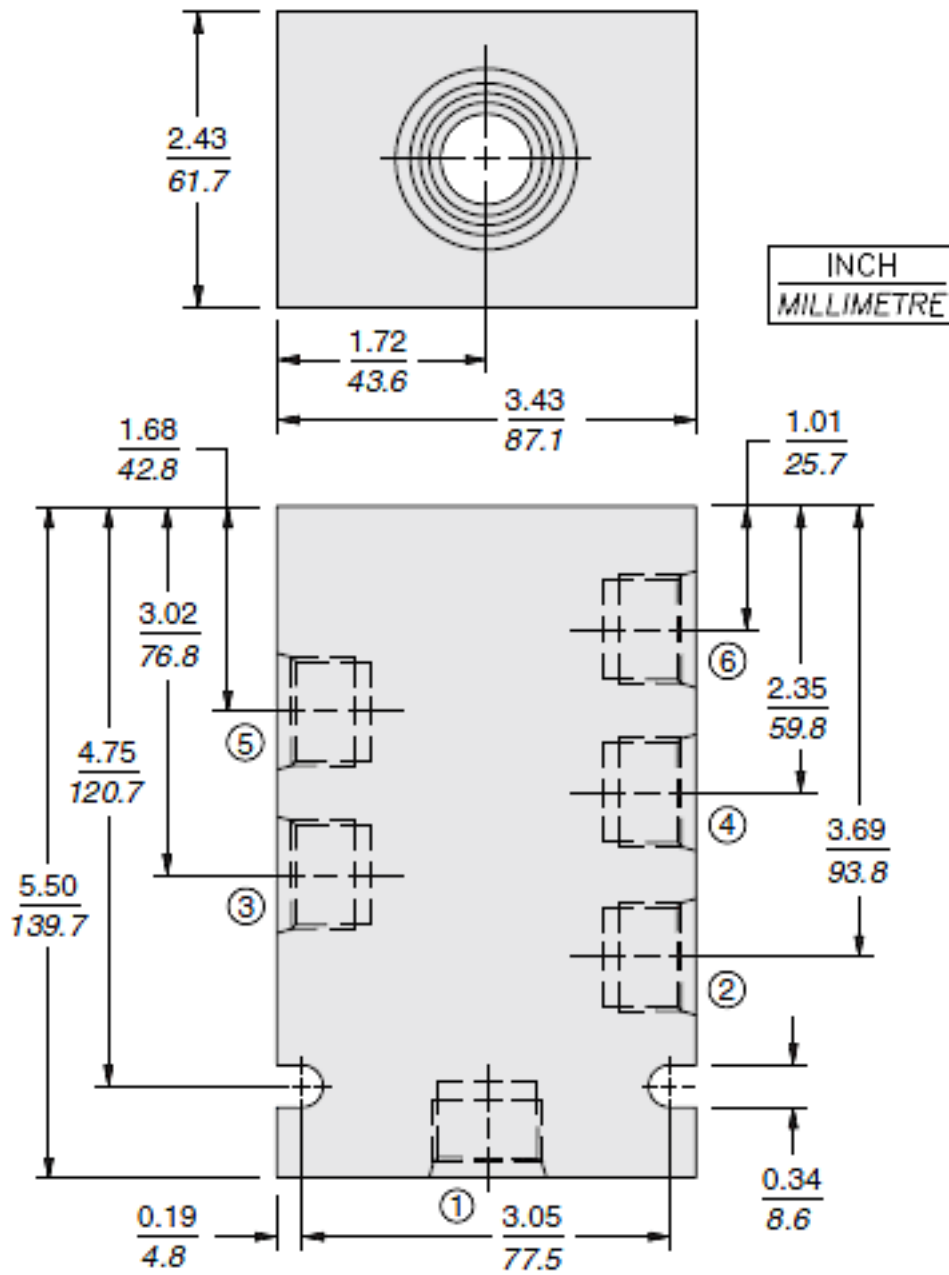
## Symbol

Material              6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

## Dimensions

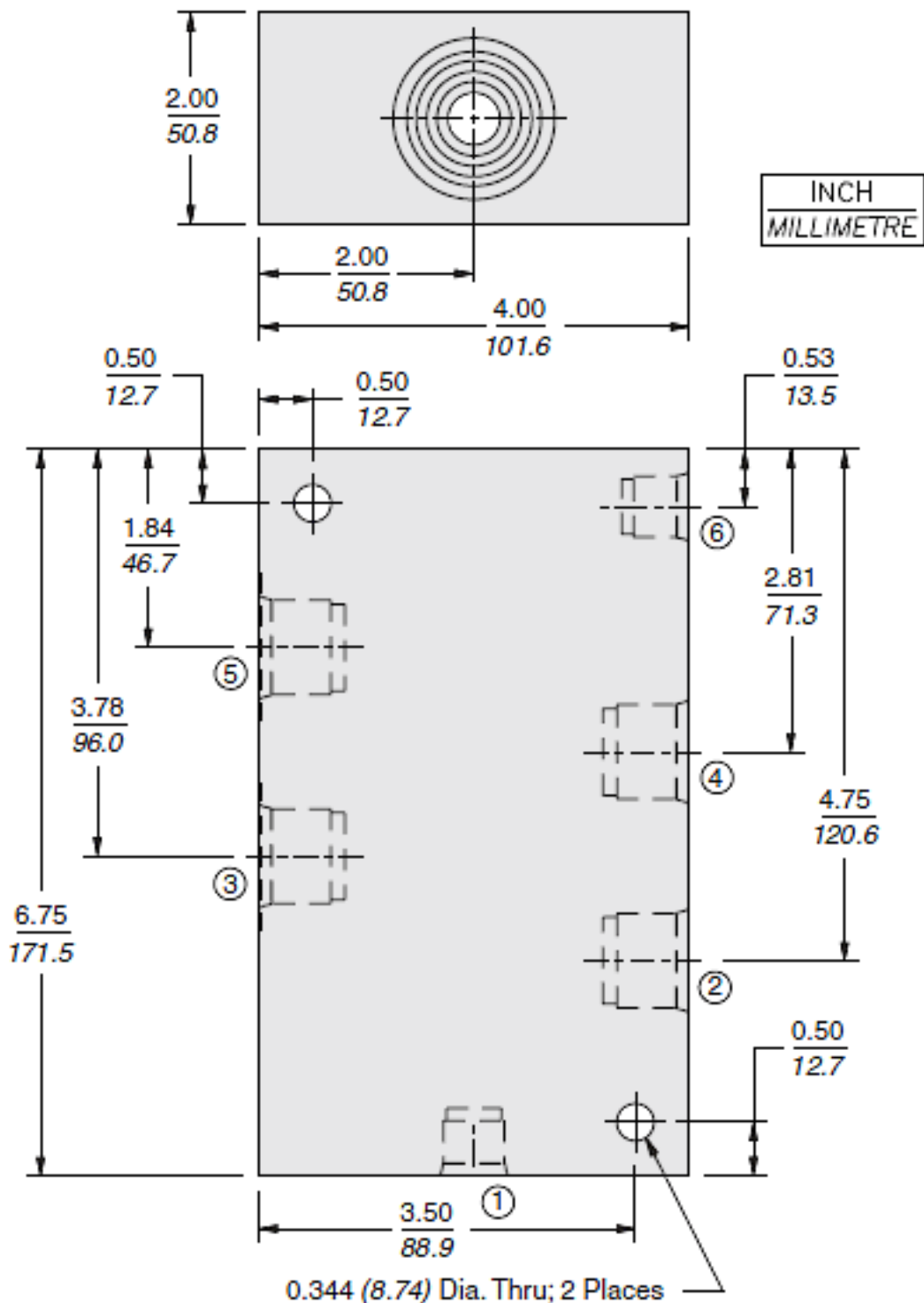


### 6-WAY Aluminum





**6-WAY, 12-S6 Test Housing**  
**PD/PE-Type, Ductile Iron**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7021480	10T	Aluminum	SAE 10	SAE 10	SAE 10	SAE 10	SAE 10	SAE10	U.S.	





7021470 8T Aluminum SAE 8 SAE 8 SAE 8 SAE 8 SAE 8 SAE 8 SAE 8 U.S.



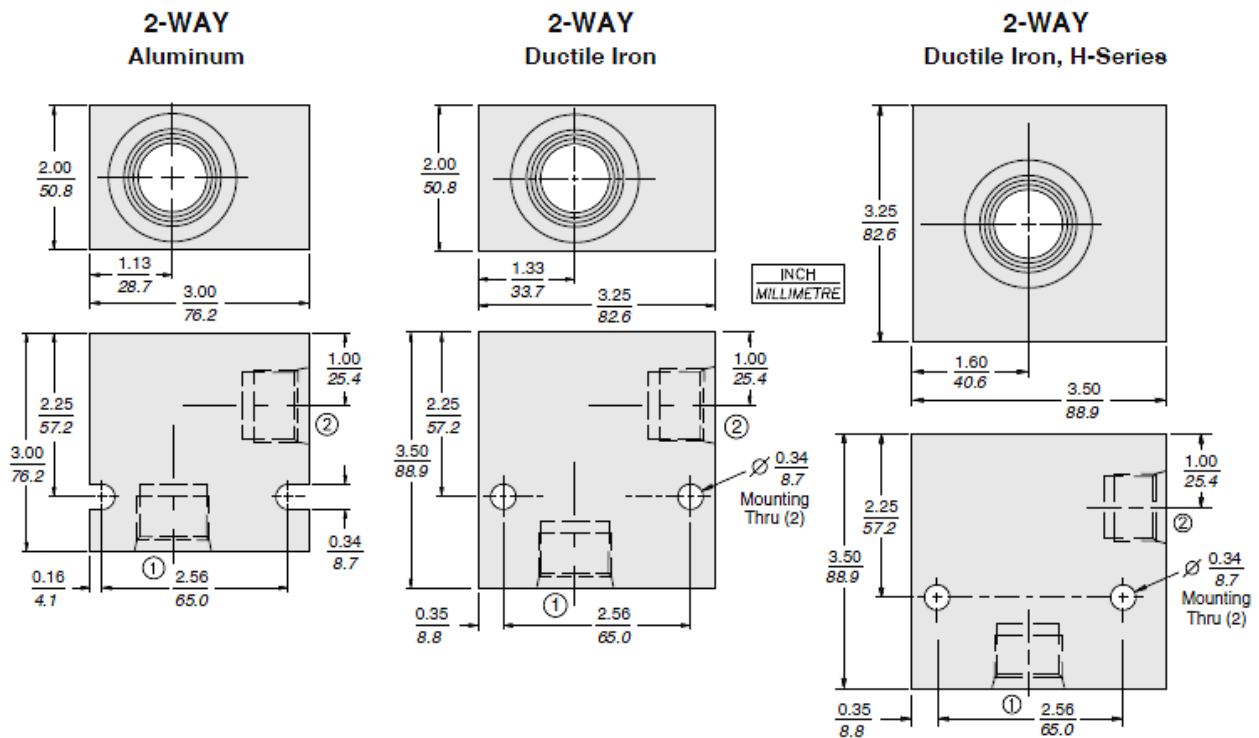
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7023230	12T	Aluminum	SAE 12	SAE 12					U.S.	
7023240	16T	Aluminum	SAE 16	SAE 16					U.S.	
7023610	6B	Aluminum	3/4" BSP	3/4" BSP					U.K.	
7023620	8B	Aluminum	1" BSP	1" BSP					U.K.	
7152010	12TD	Ductile iron	SAE 12	SAE 12					U.S.	
7152020	16TD	Ductile iron	SAE 16	SAE 16					U.S.	
7157220	6HT	Ductile iron	SAE 16	SAE 16					U.S.	
7152050	8BD	Ductile	1" BSP	1" BSP					U.K.	



iron



Ratings

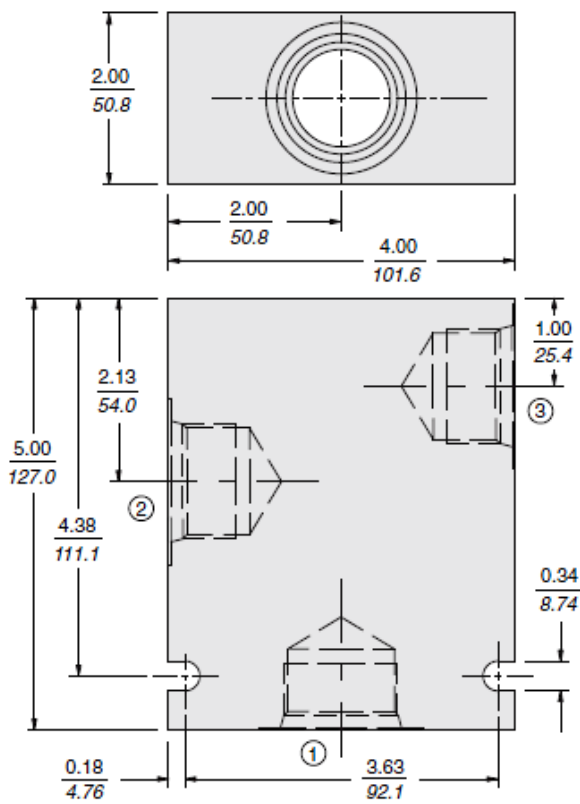
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

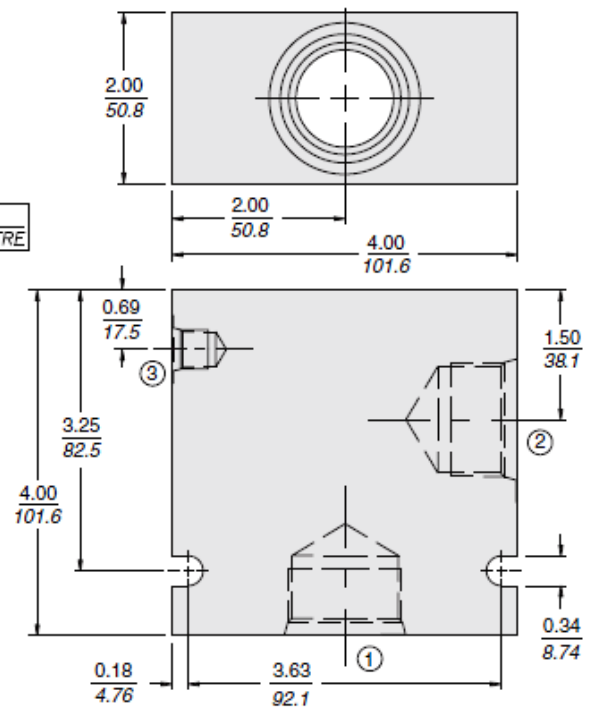
Dimensions

3-WAY  
Aluminum



SAE 16 Ported Housing shown

3-WAY Short  
Aluminum or Ductile Iron

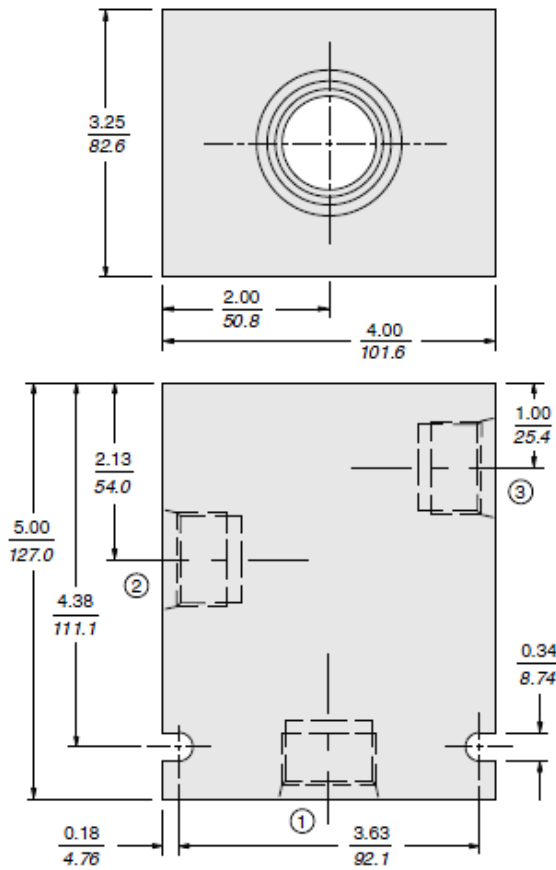


SAE 16 Ported Housing shown

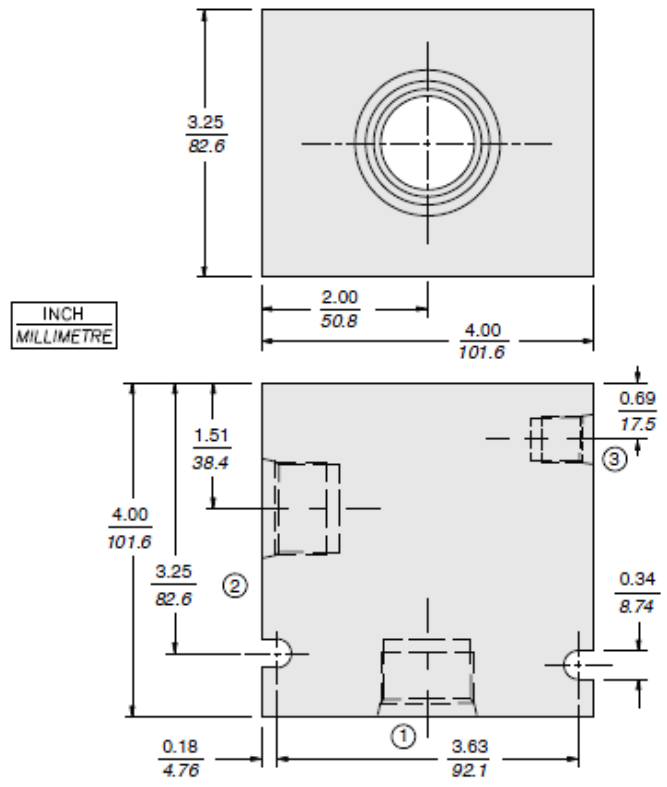
INCH  
MILLIMETRE



**3-WAY**  
Ductile Iron, H-Series



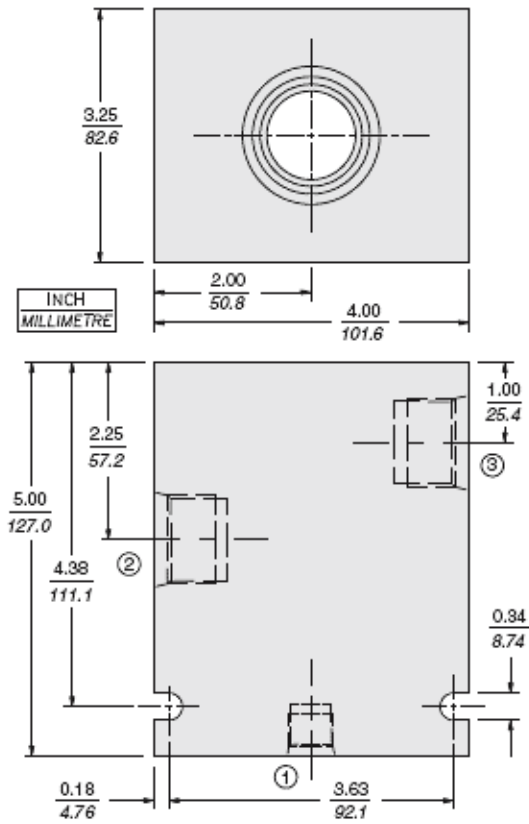
**3-WAY Short**  
Ductile Iron, H-Series



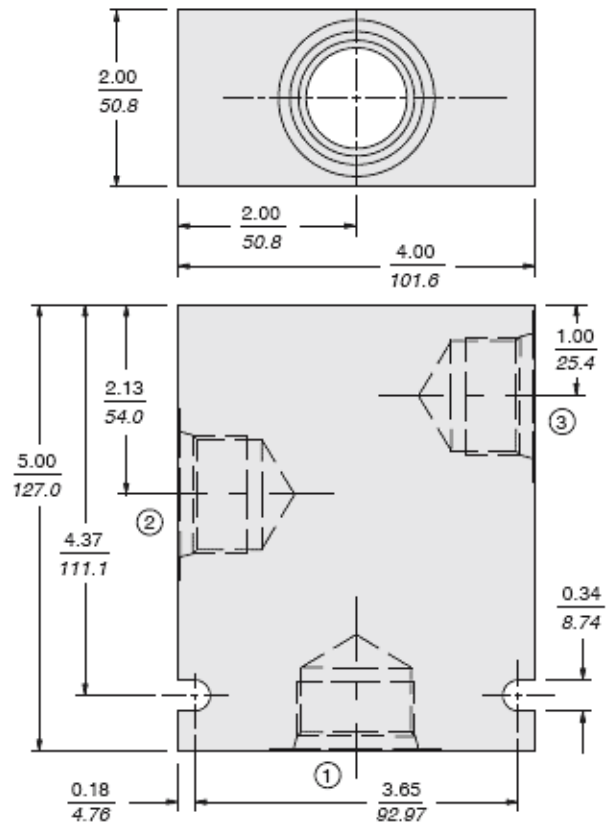
INCH  
MILLIMETRE



**3-WAY HSPEC-Type  
Ductile Iron, H-Series**



**3-WAY SPCL-Type  
Ductile Iron**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7022650	12T	Aluminum	SAE 12	SAE12	SAE 12				U.S.	
7022660	16T	Aluminum	SAE 16	SAE 16	SAE 16				U.S.	
7023340	16T	Aluminum	SAE 16	SAE 16	SAE 6				U.S.	
7159530	16HT	Ductile iron	SAE 16	SAE16	SAE 16				U.S.	
7157420	16HT	Ductile iron	SAE 16	SAE 16	SAE 6				U.S.	
7159640	16HT	Ductile iron	SAE 6	SAE 16	SAE 16				U.S.	
7152130	16TD	Ductile iron	SAE 16	SAE 16	SAE16				U.S.	



Ratings

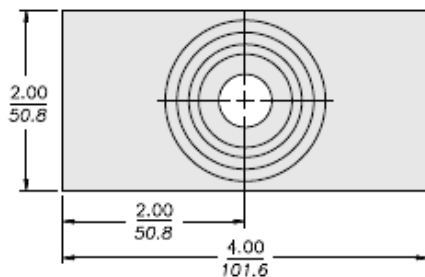
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

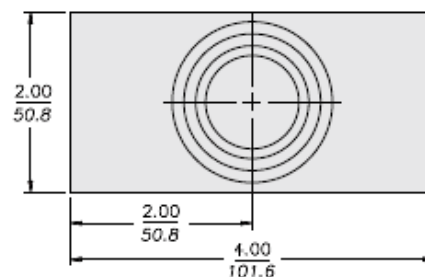
Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

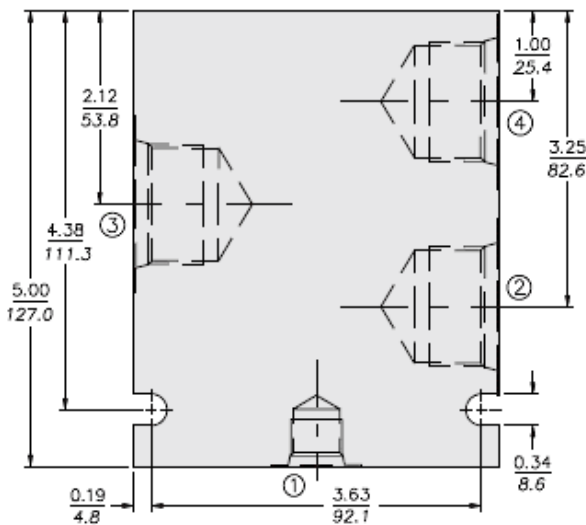
4-WAY  
Aluminum, PD-Type



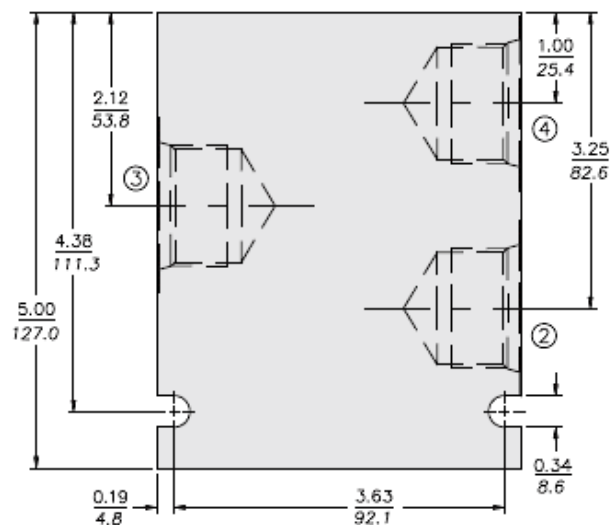
4-WAY 3-PORT  
Special FD-Type, Aluminum or Ductile Iron



INCH  
MILLIMETRE



SAE 16 Ported Housing shown



SAE 16 Ported Housing shown

Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7023470	16T	Aluminum	SAE 6	SAE 16	SAE 16	SAE 16			U.S.	PD-type body
7023460	16T	Aluminum	—	SAE 16	SAE 16	SAE 16			U.S.	
7023450	2T	Aluminum	SAE 6	SAE 12	SAE 12	SAE 12			U.S.	PD-type body
715241	12TD	Ductile	—	SAE	SAE	SAE			U.S.	



0		iron		12	12	12	
715242	16TD	Ductile	—	SAE	SAE	SAE	U.S.
0		iron		16	16	16	





## Ratings

Pressure rating      207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

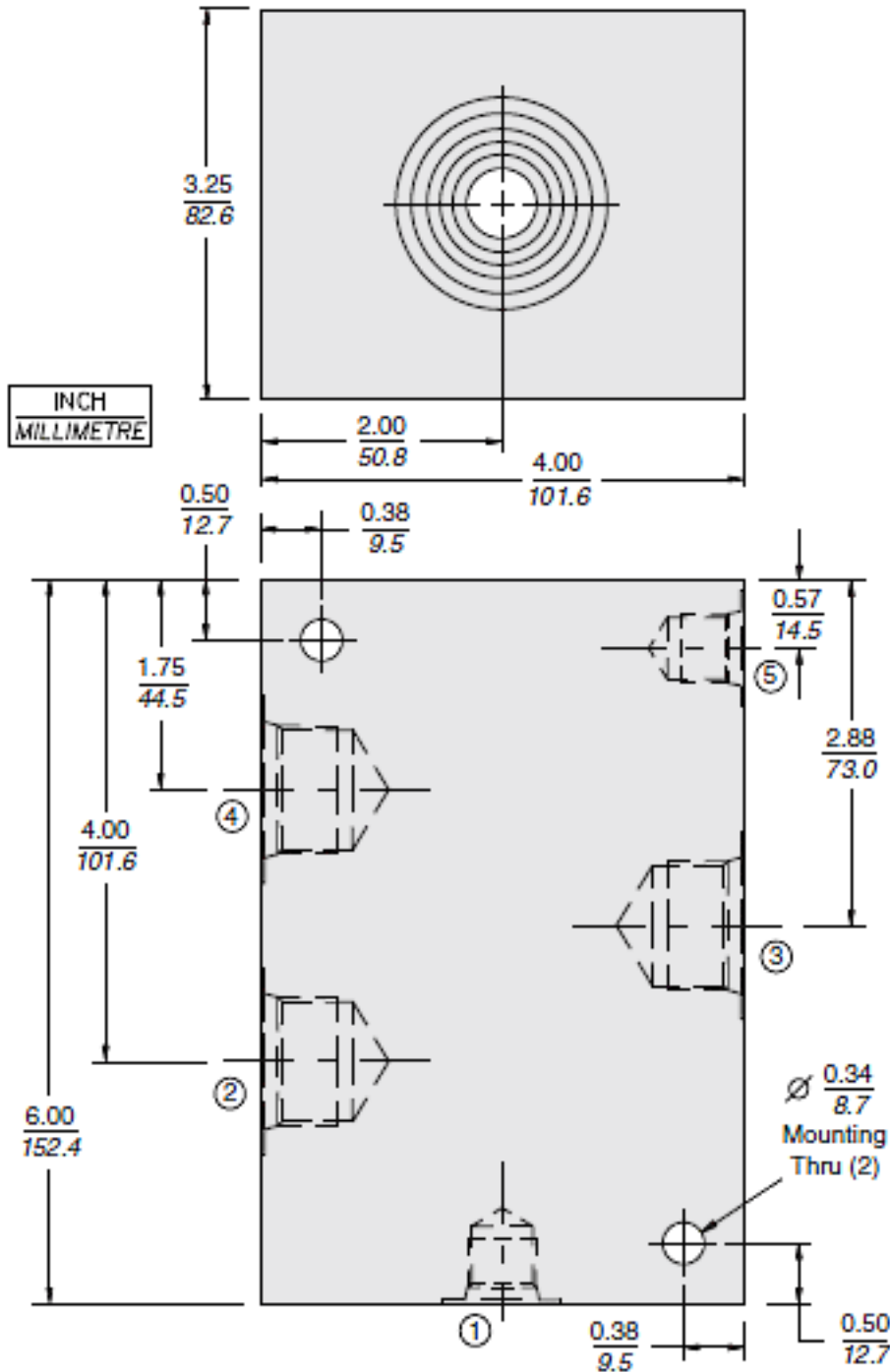
## Symbol

Material              6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

## Dimensions



**5-WAY 16-S5**  
Ductile Iron, H-Series, HPD-Type



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7159960	16HT	Ductile iron	SAE 6	SAE 16	SAE 16	SAE 16	SAE 6		U.S.	



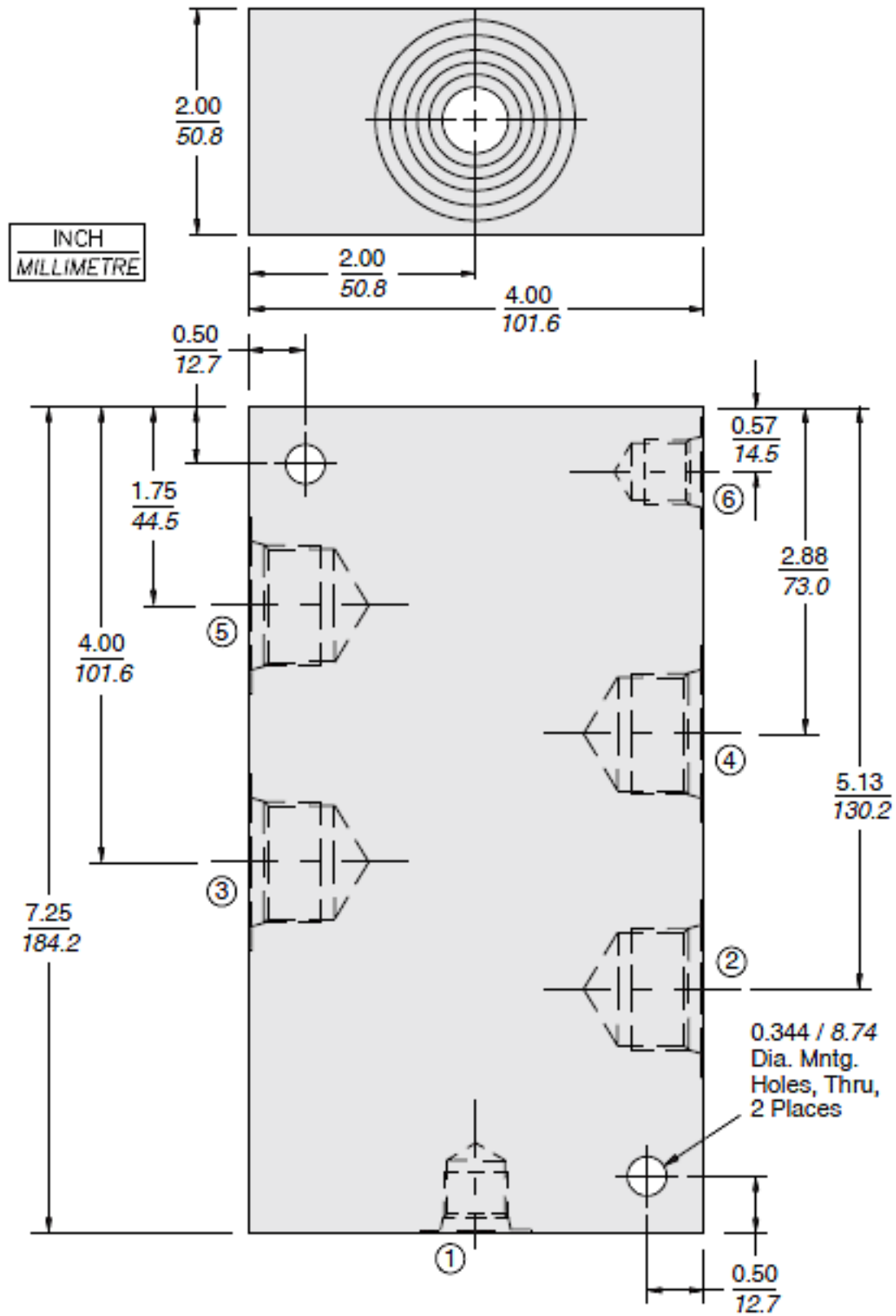
## Ratings

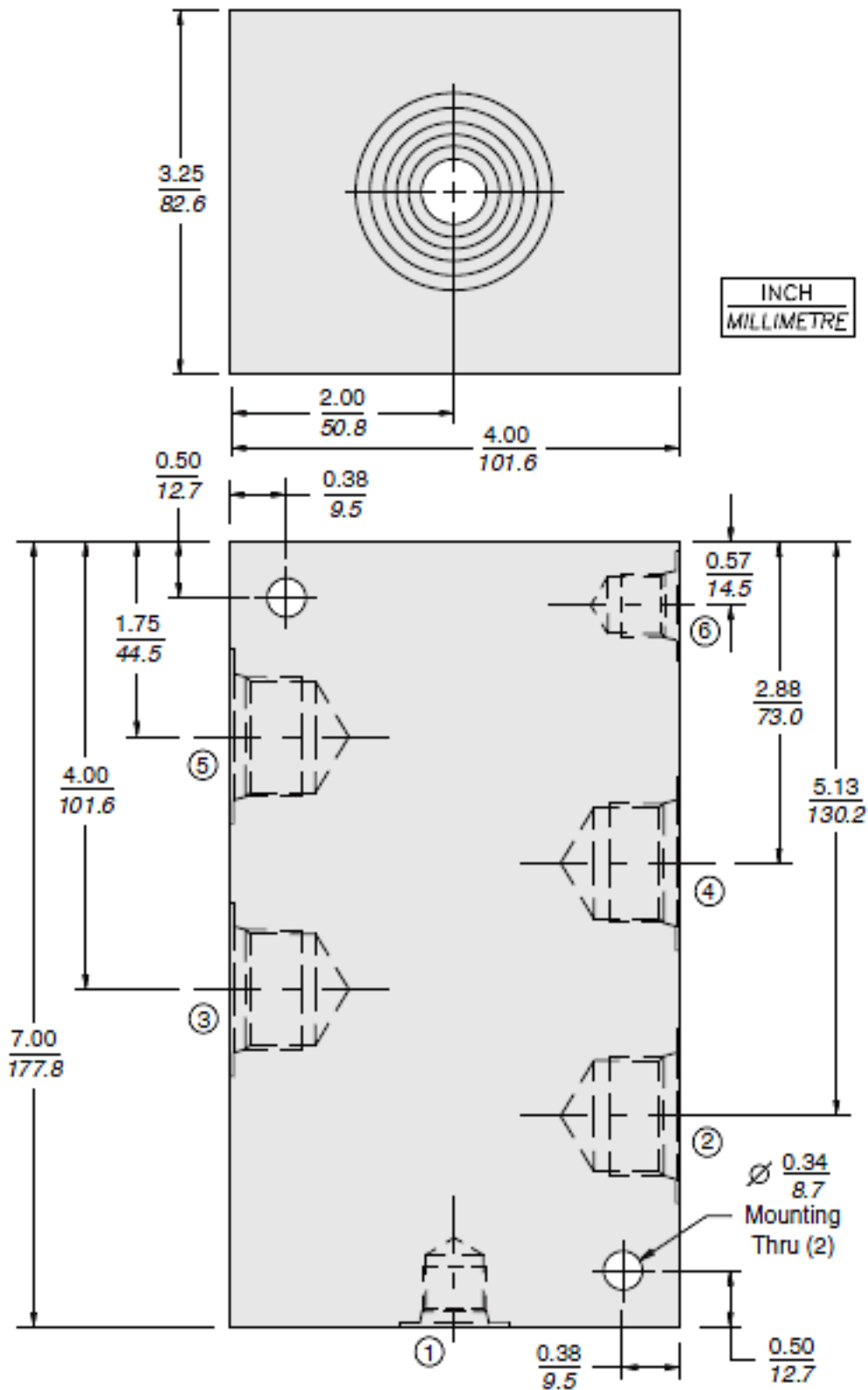
Pressure rating      207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

## Symbol

Material              6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

## Dimensions





### Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7157560	16HT	Ductile iron	SAE 6	SAE 16	SAE 16	SAE 16	SAE16	SAE 6	U.S.	



7150360 16TD Ductile iron SAE 6 SAE 16 SAE 16 SAE 16 SAE16 SAE 6 U.S.



## Ratings

Pressure rating      207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

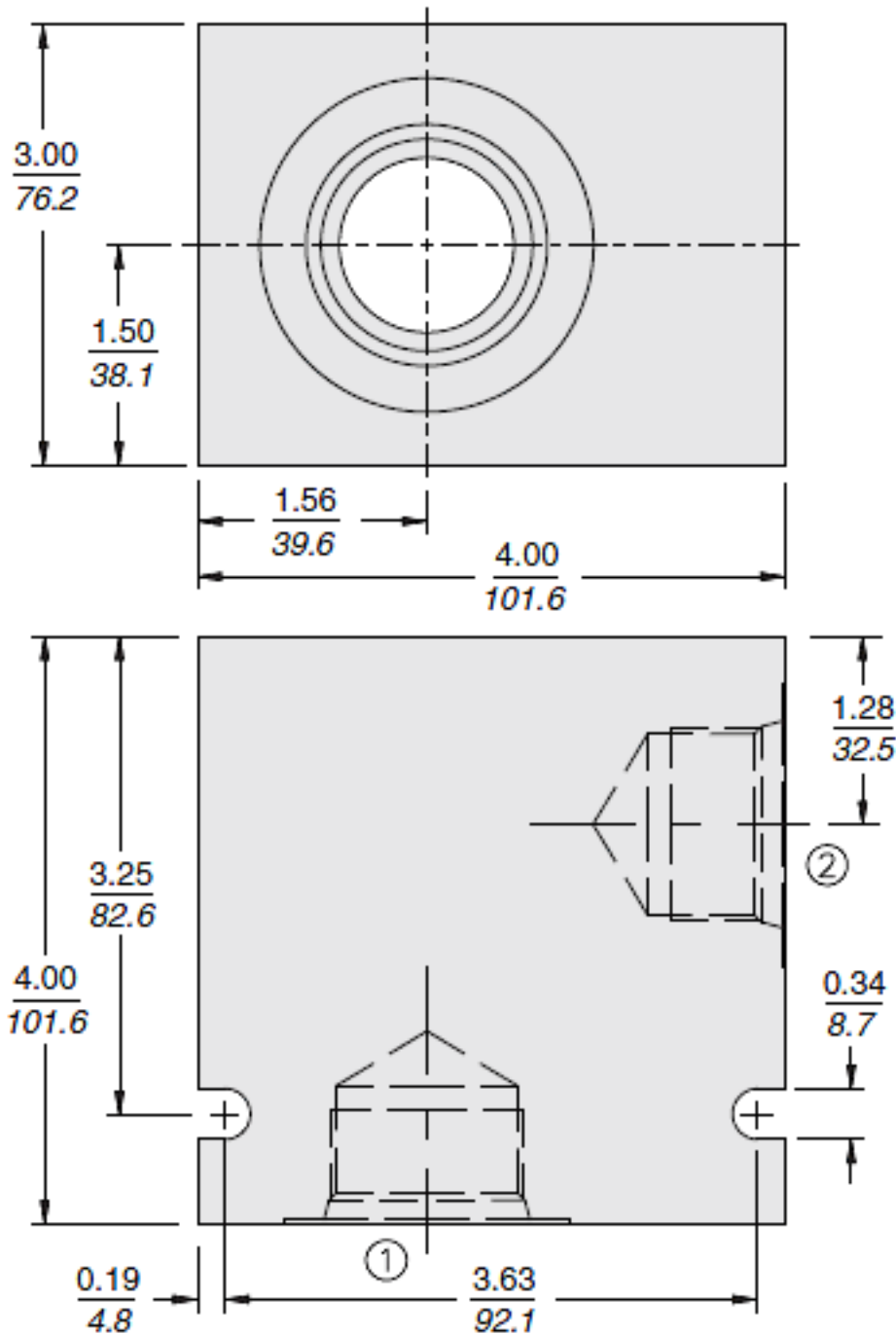
## Symbol

Material              6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

## Dimensions



**2-WAY**  
**Aluminum or Ductile Iron**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
4553840	16T	Aluminum	SAE 16	SAE 16					U.S.	
4553850	20T	Aluminum	SAE 20	SAE 20					U.S.	
4553860	16TD	Ductile iron	SAE 16	SAE 16					U.S.	





4553870 20TD

Ductile iron SAE 20 SAE 20

U.S.



## Ratings

Pressure rating      207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

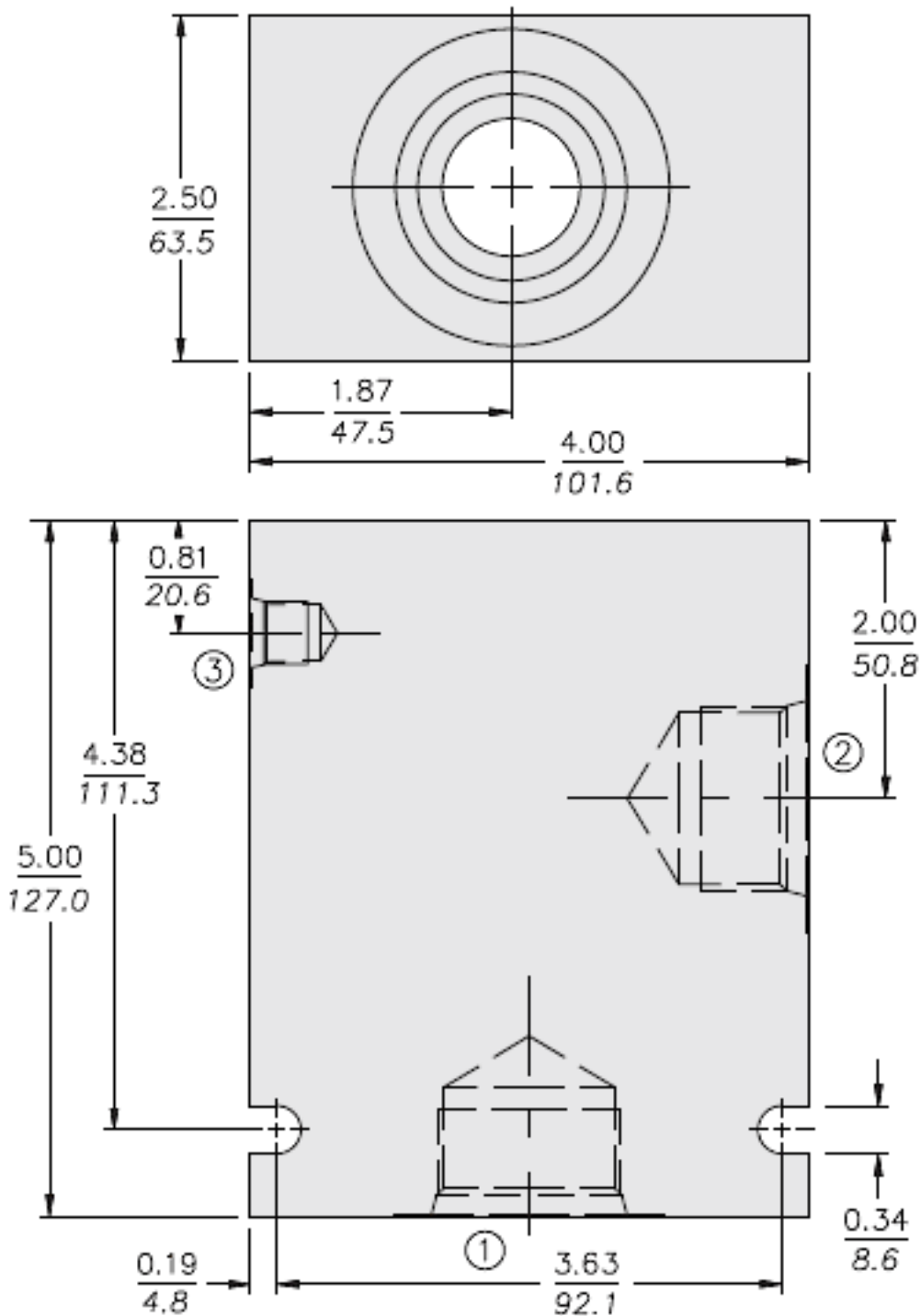
## Symbol

Material              6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

## Dimensions



### 3-WAY Short Aluminum or Ductile Iron



#### Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7023130	16T	Aluminum	SAE 16	SAE 16	SAE 6				U.S.	
7153210	16TD	Ductile iron	SAE 16	SAE 16	SAE 6				U.S.	



Ratings

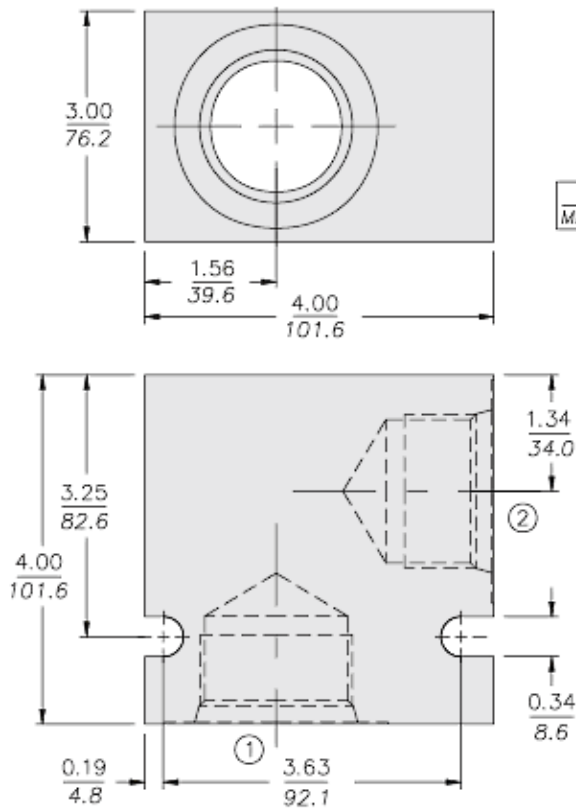
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

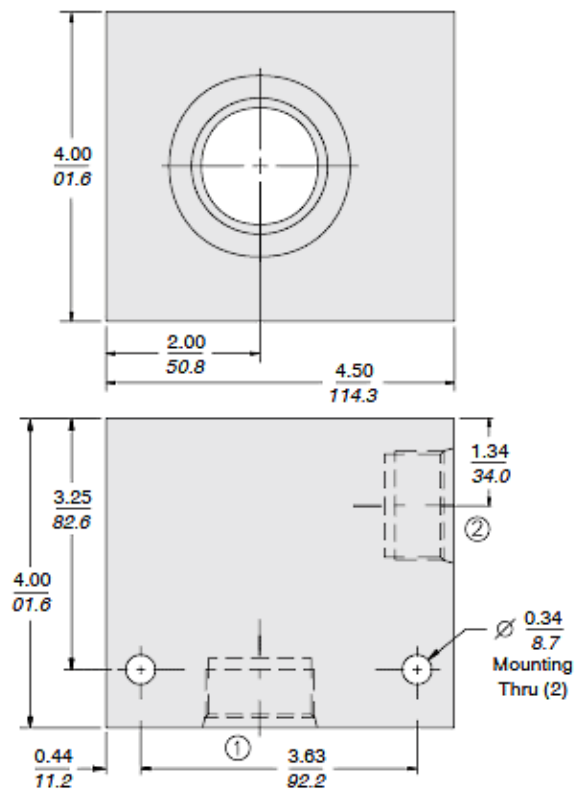
Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

2-WAY M2  
Aluminum or Ductile Iron



2-WAY M2  
Ductile Iron, H-Series



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7022580	20T	Aluminum	SAE 20	SAE 20					U.S.	
7157310	20HT	Ductile iron	SAE 20	SAE 20					U.S.	
7154010	20TD	Ductile iron	SAE 20	SAE 20					U.S.	



Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

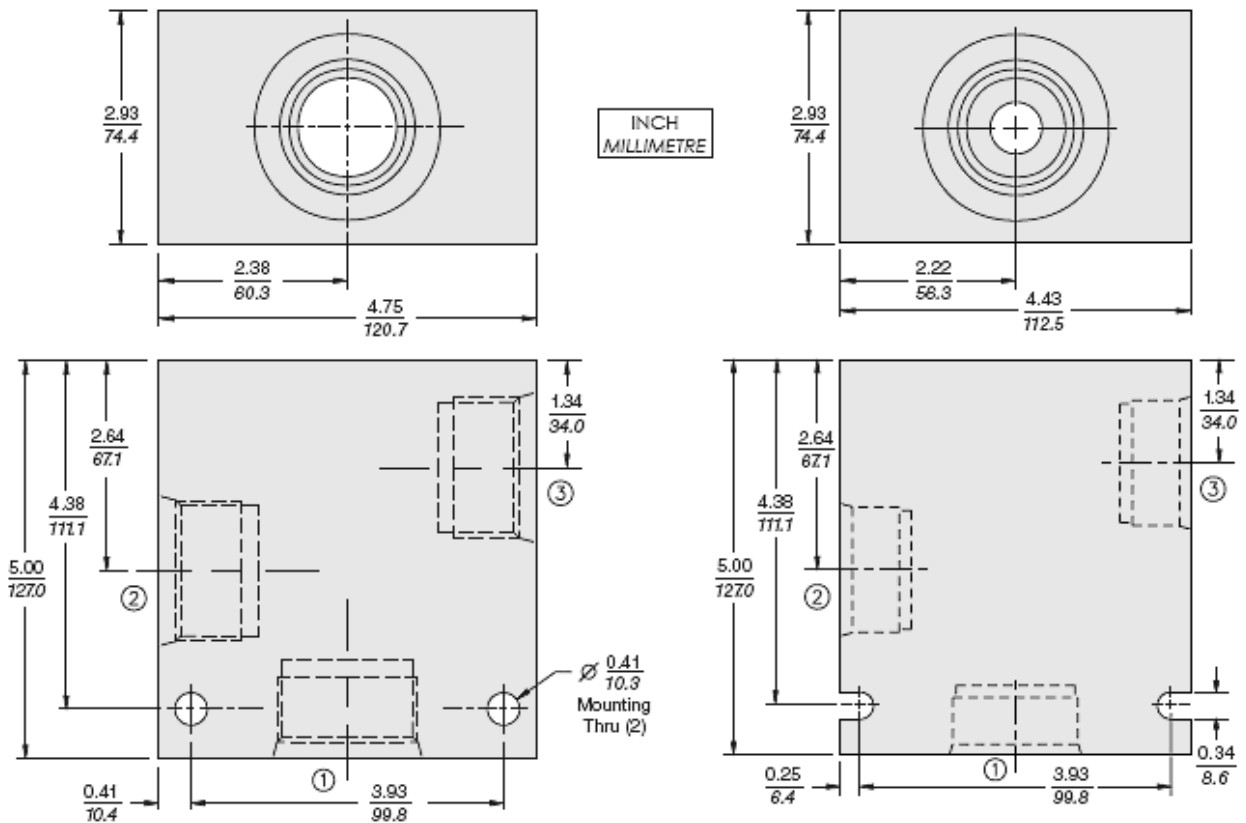
Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

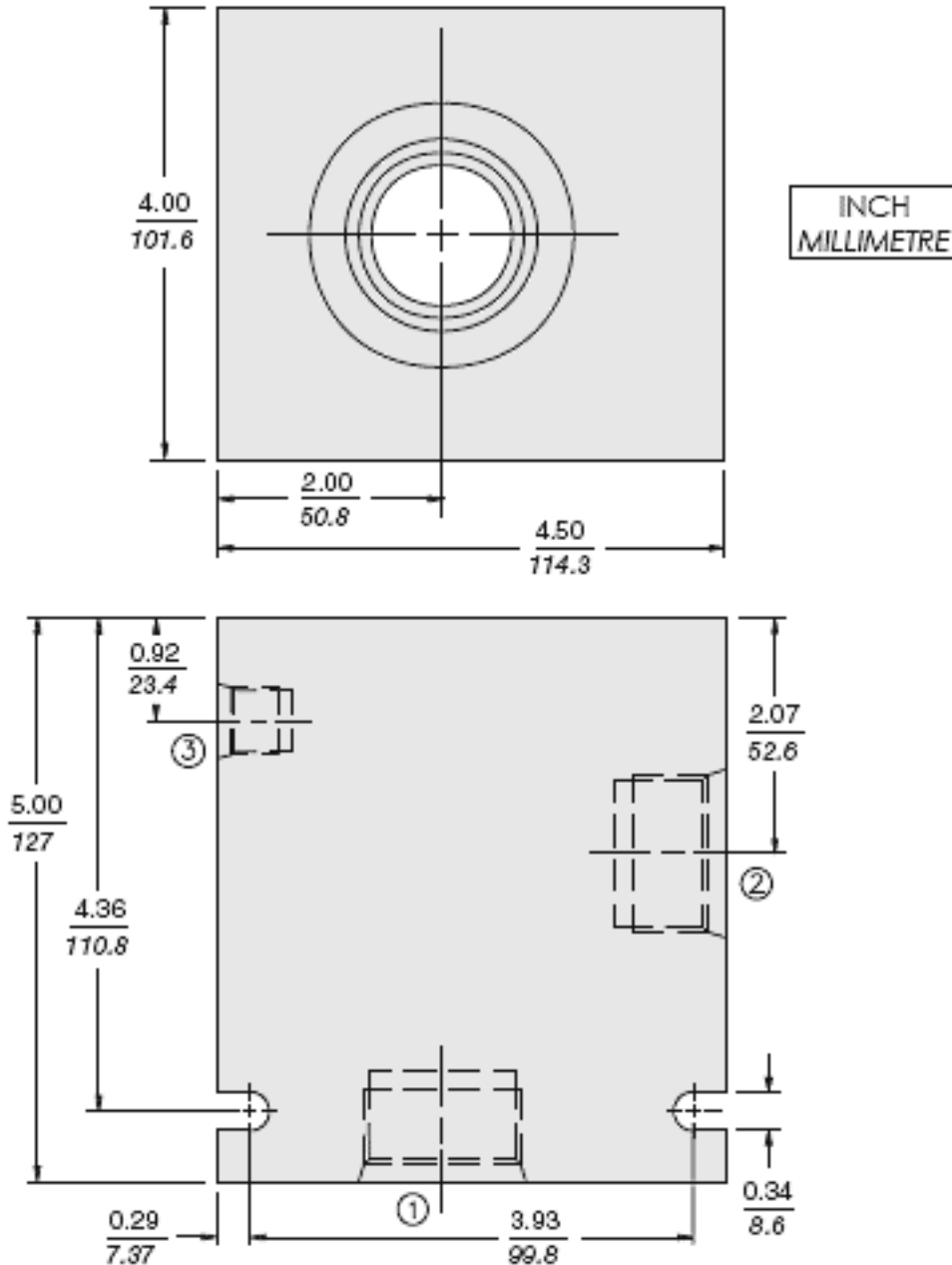
3-WAY M3  
Ductile Iron

3-WAY M3  
Aluminum





**3-WAY S3 and S3A**  
Ductile Iron, H-Series



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7021250	20T	Aluminum	SAE 20	SAE 20	SAE 20				U.S.	
7154620	20TD	Ductile iron	SAE 20	SAE 20	SAE 20				U.S.	



Ratings

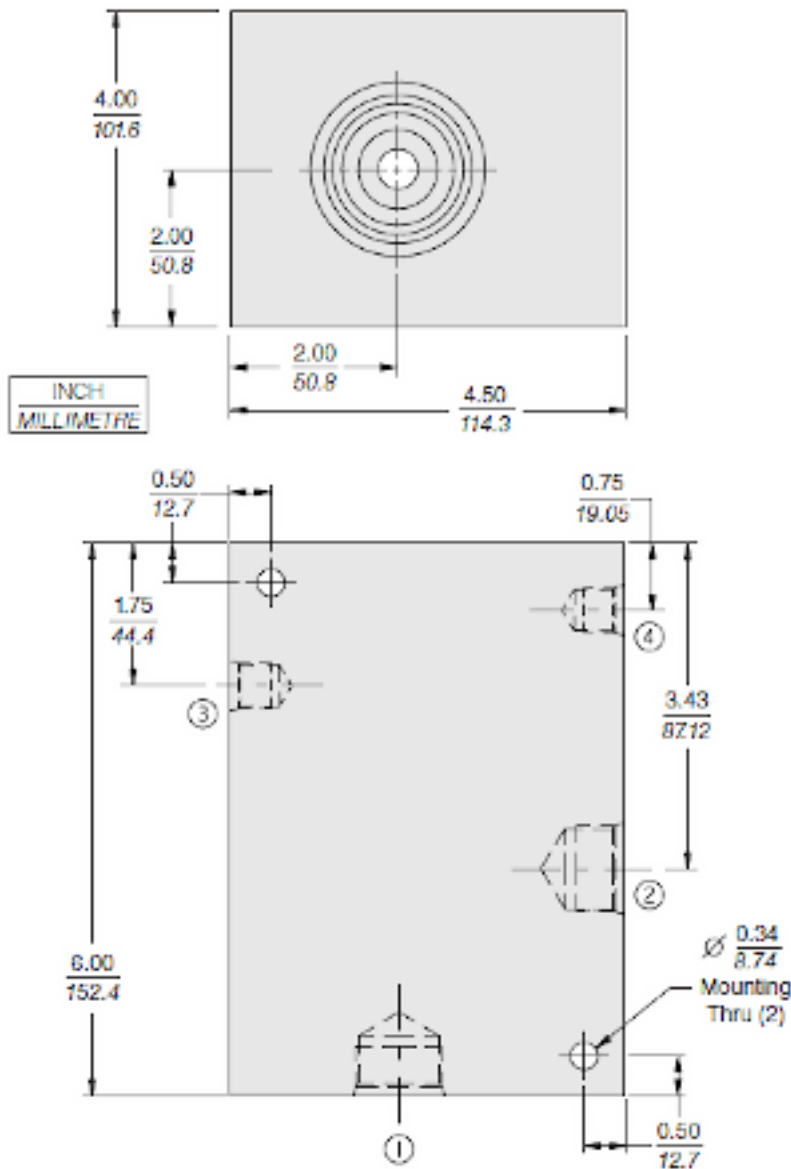
Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions

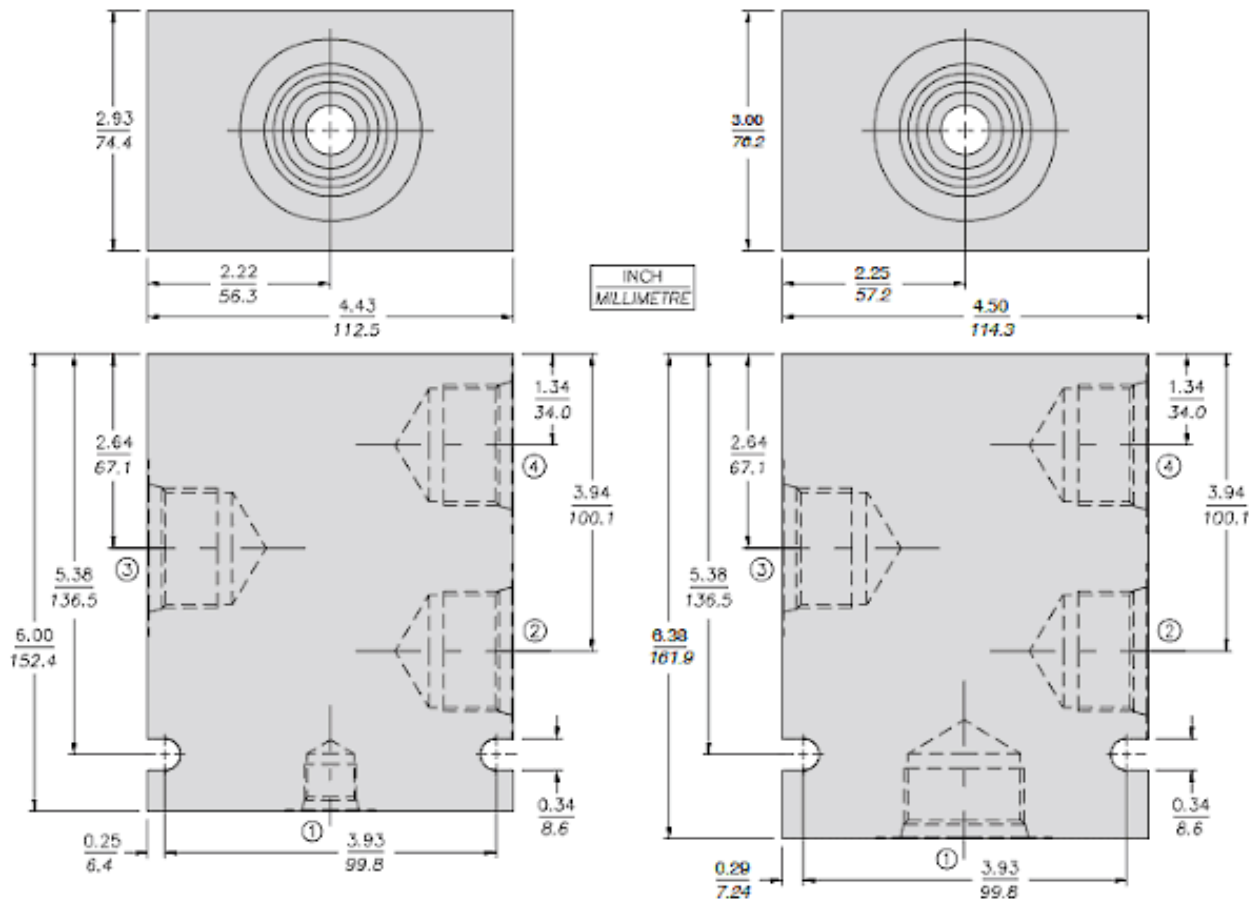
4-WAY J4  
Ductile Iron





**4-WAY M4 PD-Type**  
Aluminum or Ductile Iron

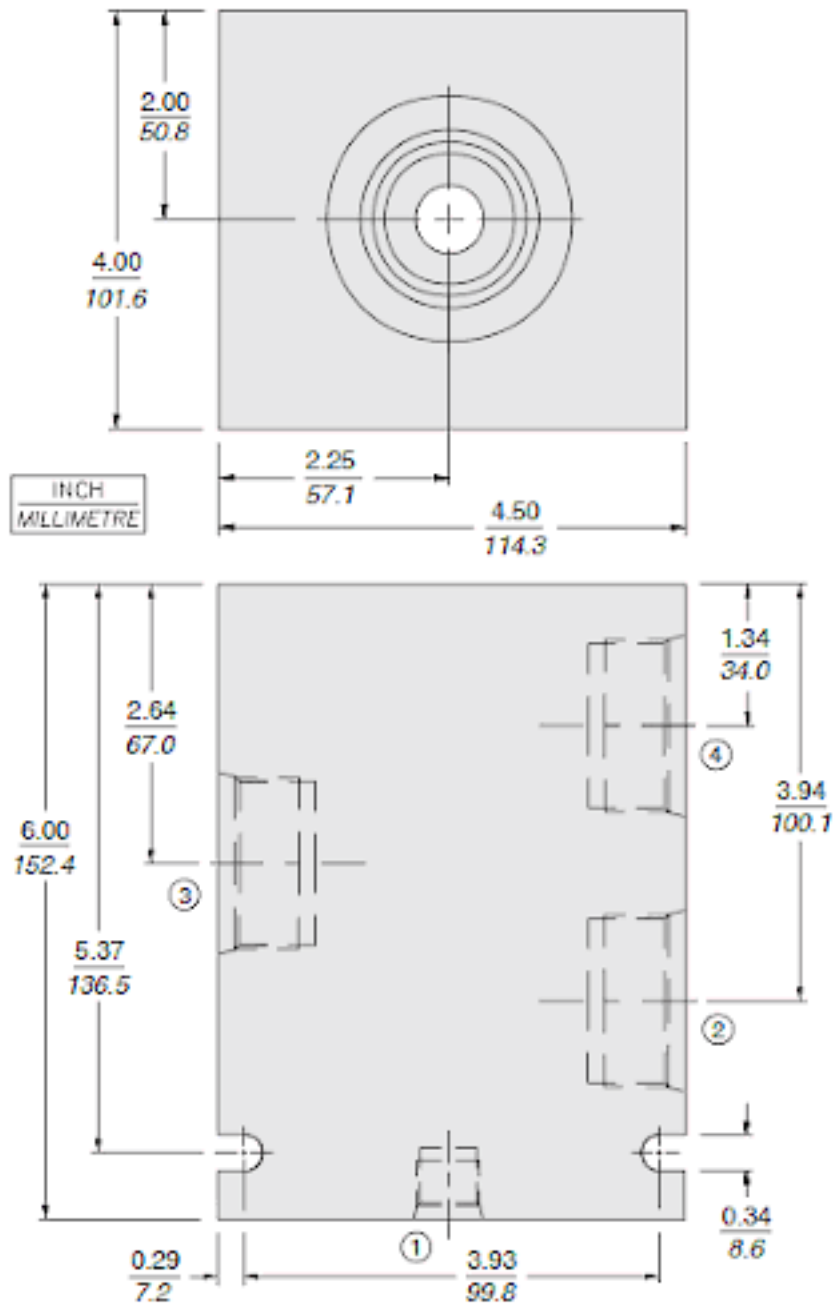
**4-WAY M4**  
Ductile Iron







**4-WAY M4 HPD/HPE-Type  
Ductile Iron, H-Series**



**Part Numbers**

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7029540	16T	Aluminum	SAE 6	SAE 16	SAE 16	SAE 16			U.S.	
7029550	20T	Aluminum	SAE 6	SAE 20	SAE 20	SAE 20			U.S.	
7160870	20HT	Ductile iron	SAE 20	SAE 20	SAE 6	SAE 6			U.S.	
7154320	20TD	Ductile iron	SAE 6	SAE 20	SAE 20	SAE 20			U.S.	



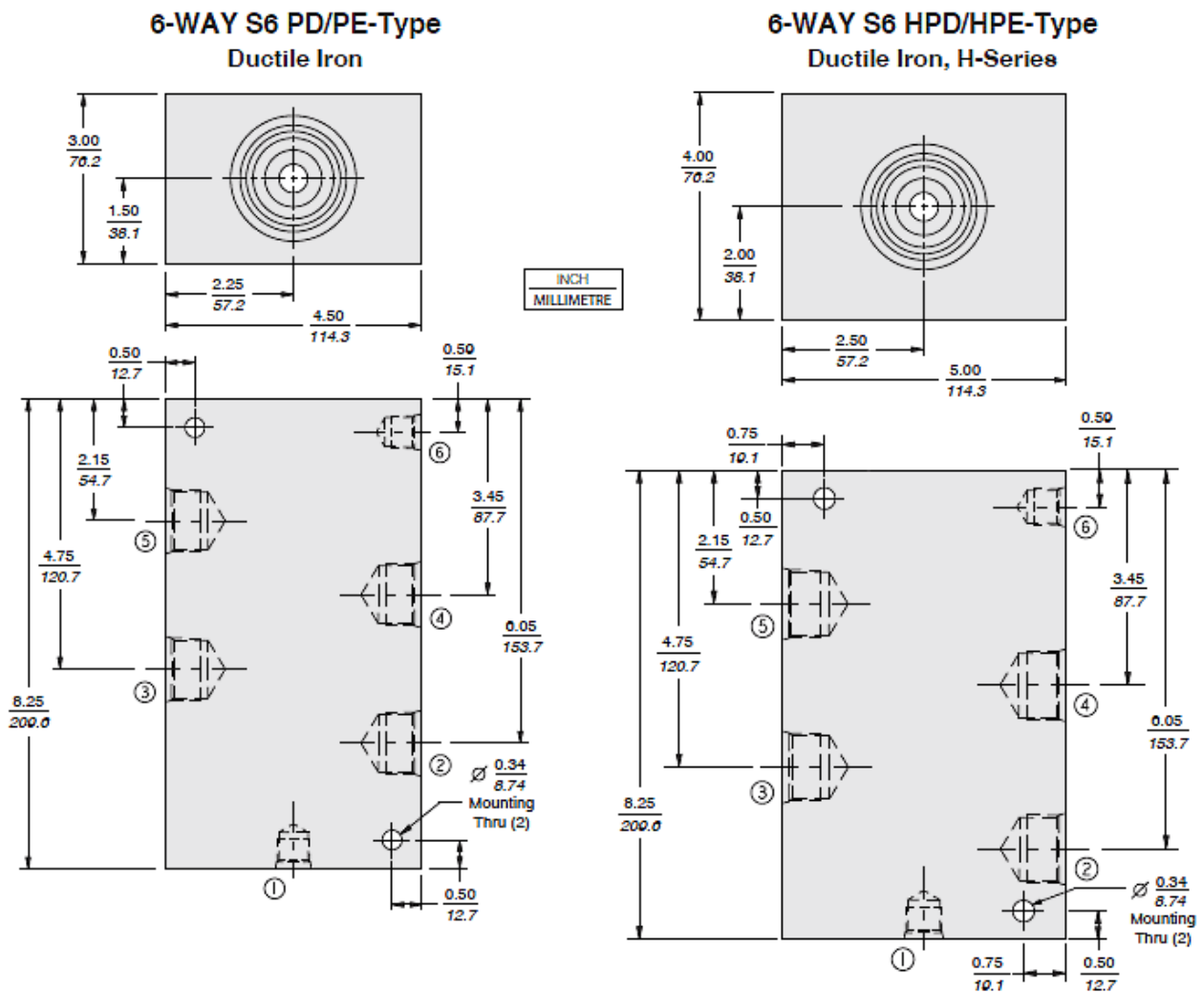
Ratings

Pressure rating 207 bar (3000 psi) - **Note:** Aluminum  
345 bar (5000 psi) - **Note:** Ductile iron

Symbol

Material 6061-T6511 - **Note:** Aluminum  
Dura-bar - **Note:** Ductile iron

Dimensions



Part Numbers

Part no.	Model code	Material	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Mfg. loc.	Note
7158070	20HT	Ductile iron	SAE 6	SAE 20	SAE 20	SAE 20	SAE 20	SAE 6	U.S.	
7150470	20TD	Ductile iron	SAE 6	SAE 20	SAE 20	SAE 20	SAE 20	SAE 6	U.S.	



## Overview

### Description

#### Symbol

Magnet wire wound on a molded 30% glass filled bobbin framed in steel and encapsulated with 30% glass filled polyester resin. Coil impregnated with anerobic sealant.

## Ratings

### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - <b>Note:</b> Weather-Pack 2 terminal male, lead wires 18 AWG

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	6.8 ohm $\pm$ 3% - <b>Note:</b> 10 Vdc coil
	9.8 ohm $\pm$ 3% - <b>Note:</b> 12 Vdc coil
	27.2 ohm $\pm$ 5% - <b>Note:</b> 20 Vdc coil
	39.3 ohm $\pm$ 5% - <b>Note:</b> 24 Vdc coil
	88.3 ohm $\pm$ 5% - <b>Note:</b> 36 Vdc coil
	765.5 ohm $\pm$ 8% - <b>Note:</b> 115 Vdc coil
	3035 ohm $\pm$ 8% - <b>Note:</b> 230 Vdc coil
Coil inductance at 20 °C (68 °F)	485.7 mH $\pm$ 5% - <b>Note:</b> 115 Vac coil
	2026.1 mH $\pm$ 5% - <b>Note:</b> 230 Vac coil
Coil initial current draw	1.47 A - <b>Note:</b> 10 Vdc coil
	1.22 A - <b>Note:</b> 12 Vdc coil
	0.74 A - <b>Note:</b> 20 Vdc coil
	0.61 A - <b>Note:</b> 24 Vdc coil
	0.41 A - <b>Note:</b> 36 Vdc coil
	0.14 A - <b>Note:</b> 115 Vac coil, @ 60 Hz
	0.15 A - <b>Note:</b> 115 Vac coil, @ 50 Hz (calculated using winding inductance)
	0.07 A - <b>Note:</b> 230 Vac coil, @ 60 Hz
	0.74 A - <b>Note:</b> 230 Vac coil, @ 50 Hz (calculated using winding inductance)
Stabilized AC current draw	98.4 mA - <b>Note:</b> 115 Vac coil, @ 60 Hz
	49 mA - <b>Note:</b> 230 Vac coil, @ 60 Hz
Coil initial power consumption	14.7 W - <b>Note:</b> DC Coils

8.55 W - **Note:** AC Coils**Bridge Rectifier (AC coils)**

Rectifier	4x IN5399
Average rectified forward current rating	1.5 A - <b>Note:</b> at 75 °C (167 °F)
Peak reverse voltage	1000 V

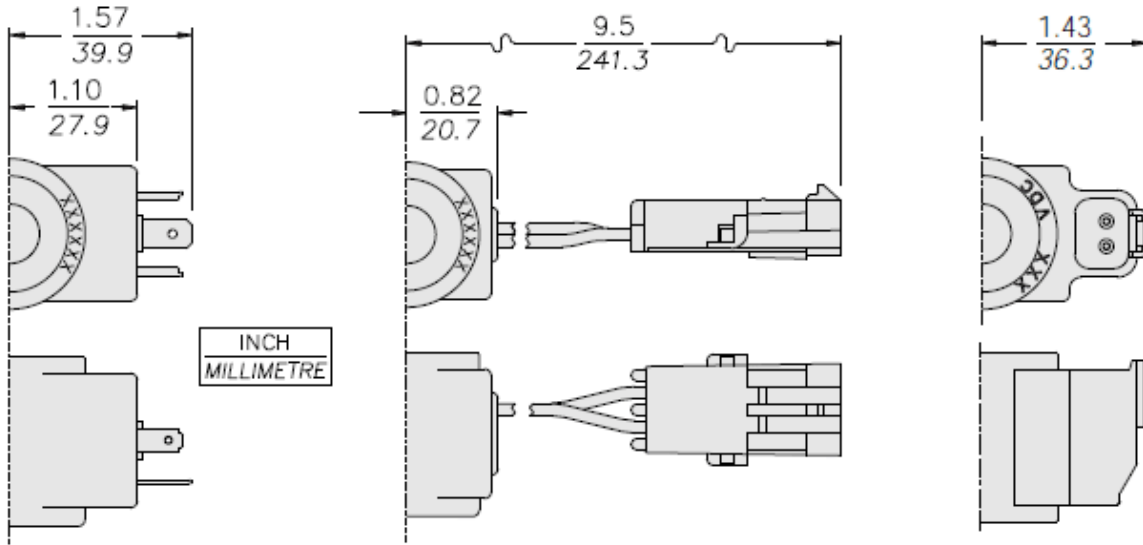
**Bidirectional Zener Diode Parameters**

Maximum clamping voltage	45.7 V - <b>Note:</b> 12 Vdc coil
	64.8 V - <b>Note:</b> 24 Vdc coil
Maximum peak pulse current	13.2 A - <b>Note:</b> 12 Vdc coil
	9.3 A - <b>Note:</b> 24 Vdc coil
Reverse standoff voltage	28.2 V - <b>Note:</b> 12 Vdc coil
	40.2 V - <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 $\mu$ A - <b>Note:</b> 12, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V - <b>Note:</b> 12 Vdc coil
	44.7 to 49.4 V - <b>Note:</b> 24 Vdc coil
Diode part number	6110163 - <b>Note:</b> 12 Vdc coil (ref)
	4000063 - <b>Note:</b> 24 Vdc coil (ref)

**Unidirectional Diode Parameters**

Average forward current	3.0 A - <b>Note:</b> Maximum, 12 Vdc coil
	1 A - <b>Note:</b> Maximum, 24 Vdc coil
Maximum repetitive peak reverse voltage	50 V
Diode part number	4002474

**Dimensions**



**G**

**DIN 43650  
Connector**

Pins 1 and 2 are not  
polarity-sensitive.  
Ground pin is not used.

**W**

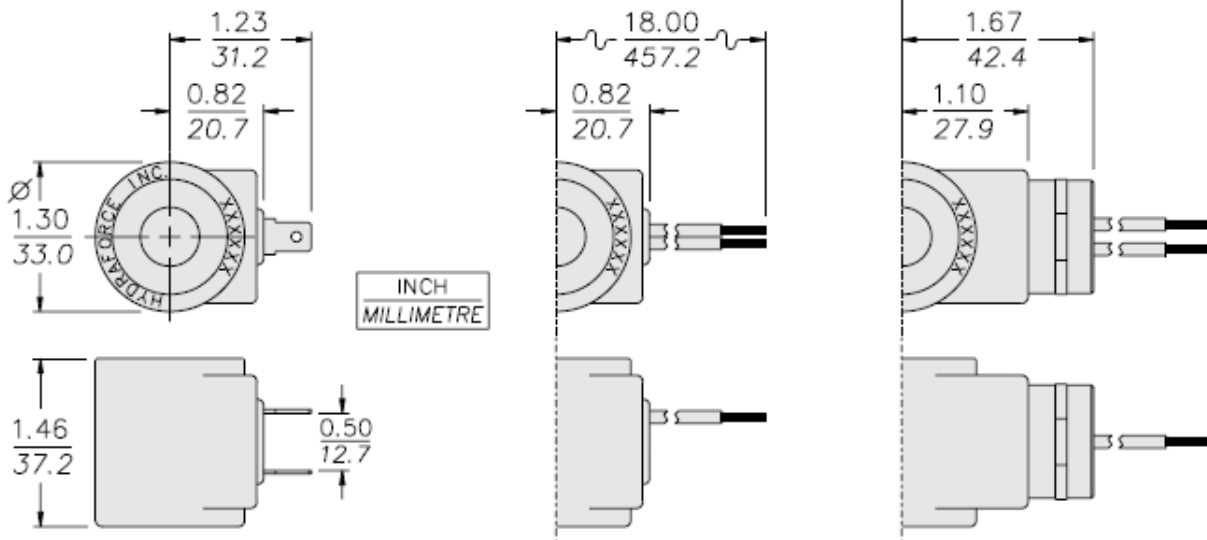
**Dual 18 Gauge Leads with  
Weather Pack® Connector**

For use with Packard  
part no. 12015792 female plug

**DR**

**Integral Deutsch  
Connector**

DR Models without Diode  
DR/D Models with Diode  
DR/Z Models with Zener Diode



**S**

**L**

**P**

**Coil Part Numbers**



Model code	Part no.	Voltage	Connector	IP rating	Diode
24AG	6316024	24	DIN 43650	IP65	
115AG	6316115	115	DIN 43650	IP65	
230AG	6316230	230	DIN 43650	IP65	
24AP	6315024	24	1/2-14 NPT internal thread	IP65	
115AP	6315115	115	1/2-14 NPT internal thread	IP65	
230AP	6315230	230	1/2-14 NPT internal thread	IP65	
12DG	6306012	12	DIN 43650	IP65	
20DG	6306020	20	DIN 43650	IP65	
24DG	6306024	24	DIN 43650	IP65	
36DG	6306036	36	DIN 43650	IP65	
10DL	6302010	10	Dual leads/no connector	IP65	
12DL	6302012	12	Dual leads/no connector	IP65	
12DL	6307012	12	Dual leads/no connector	IP65	
24DL	6302024	24	Dual leads/no connector	IP65	
24DL	6307024	24	Dual leads/no connector	IP65	
12DL/W	6309412	12	Dual leads/no connector	IP65	
24DL/W	6309424	24	Dual leads/no connector	IP65	
12DL/W/D	6309737	12	Dual leads/no connector	IP65	Ultra-fast diode
12DR	4301512	12	Deutsch DT04-2P	IP65	
24DR	4301524	24	Deutsch DT04-2P	IP65	
10DR/D	4301871	10	Deutsch DT04-2P	IP65	Ultra-fast diode
12DR/D	4301872	12	Deutsch DT04-2P	IP65	Ultra-fast diode
24DR/D	4301874	24	Deutsch DT04-2P	IP65	Ultra-fast diode
12DR/Z	4301852	12	Deutsch DT04-2P	IP65	Bidirectional zeener diode
24DR/Z	4301854	24	Deutsch DT04-2P	IP65	Bidirectional zeener diode
10DS	6301010	10	Dual spade	IP65	
12DS	6301012	12	Dual spade	IP65	
20DS	6301020	20	Dual spade	IP65	
24DS	6301024	24	Dual spade	IP65	
36DS	6301036	36	Dual spade	IP65	



## Overview

**Description****Symbol**

Magnet wire winding overmolded 30% glass filled polyester, and enclosed in a three piece zinc plated metal shell.

## Ratings

**Properties**

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12052641 - <b>Note:</b> METRI-PACK 150-2M
Coil metal frame	Plated for 1,000 hours of salt spray per ASTM B117-09 before corrosion (red rust)

**Electrical Parameters**

Coil resistance at 20 °C (68 °F)	6.18 ohm $\pm$ 3% - <b>Note:</b> 10 V coil
	8.8 ohm $\pm$ 3% - <b>Note:</b> 12 V coil
	15.6 ohm $\pm$ 5% - <b>Note:</b> 20 V coil
	33.75 ohm $\pm$ 5% - <b>Note:</b> 24 V coil
Coil inductance at 20 °C (68 °F)	6.22 mH $\pm$ 5% - <b>Note:</b> 10 V coil
	10.61 mH $\pm$ 5% - <b>Note:</b> 12 V coil
	30.48 mH $\pm$ 5% - <b>Note:</b> 20 V coil
	44 mH $\pm$ 5% - <b>Note:</b> 24 V coil
Coil initial current draw	1.62 A - <b>Note:</b> 10 V coil
	1.36 A - <b>Note:</b> 12 V coil
	0.84 A - <b>Note:</b> 20 V coil
	0.71 A - <b>Note:</b> 24 V coil
coil-initial-power-consumption	16.16 W - <b>Note:</b> 10 V coil
	16.33 W - <b>Note:</b> 12 V coil
	16.76 W - <b>Note:</b> 20 V coil
	17.07 W - <b>Note:</b> 24 V coil

**Bidirectional Zeener Diode Parameters**

Maximum clamping voltage	45.7 V - <b>Note:</b> 12 Vdc coil
	64.8 V - <b>Note:</b> 16, 24 Vdc coil
	13.2 A - <b>Note:</b> 12 Vdc coil

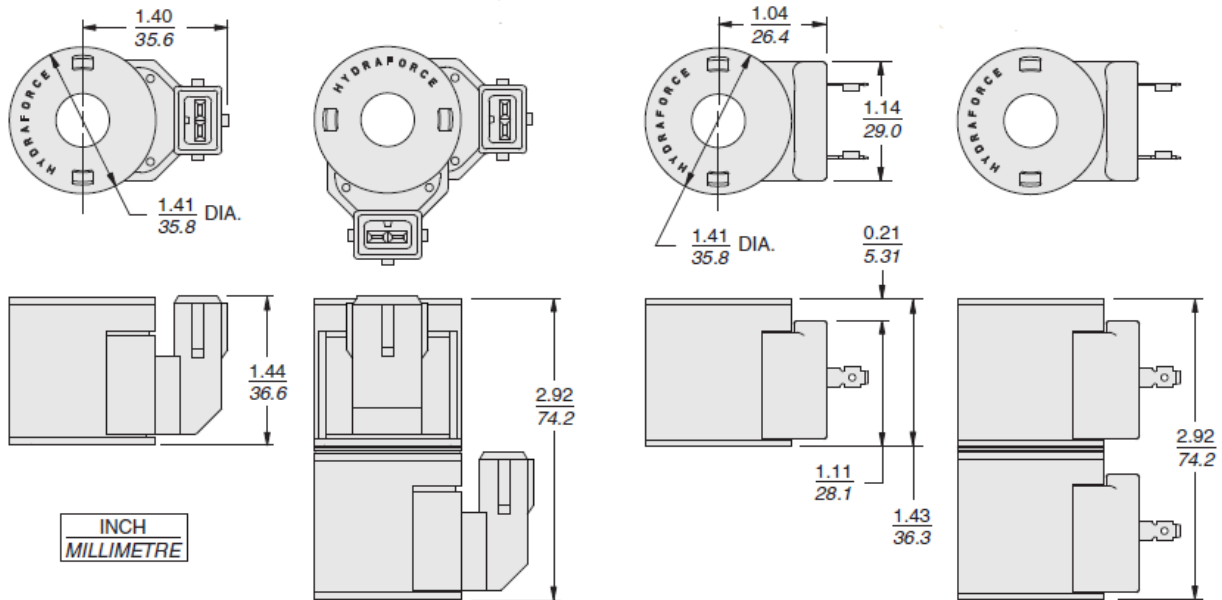


Maximum peak pulse current	9.3 A - <b>Note:</b> 16, 24 Vdc coil
Reverse standoff voltage	28.2 V - <b>Note:</b> 12 Vdc coil 40.2 V - <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 $\mu$ A - <b>Note:</b> 12, 16, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V - <b>Note:</b> 12 Vdc coil 44.7 to 49.4 V - <b>Note:</b> 16, 24 Vdc coil
Diode part number	6110163 - <b>Note:</b> 12 Vdc coil (ref) 4000063 - <b>Note:</b> 16, 24 Vdc coil (rev)

**Ultra-fast Diode Parameters (12/24 Vdc Coil)**

Average forward current	3.5 A
Repetitive peak reverse voltage	600 V
Diode part number	4002474

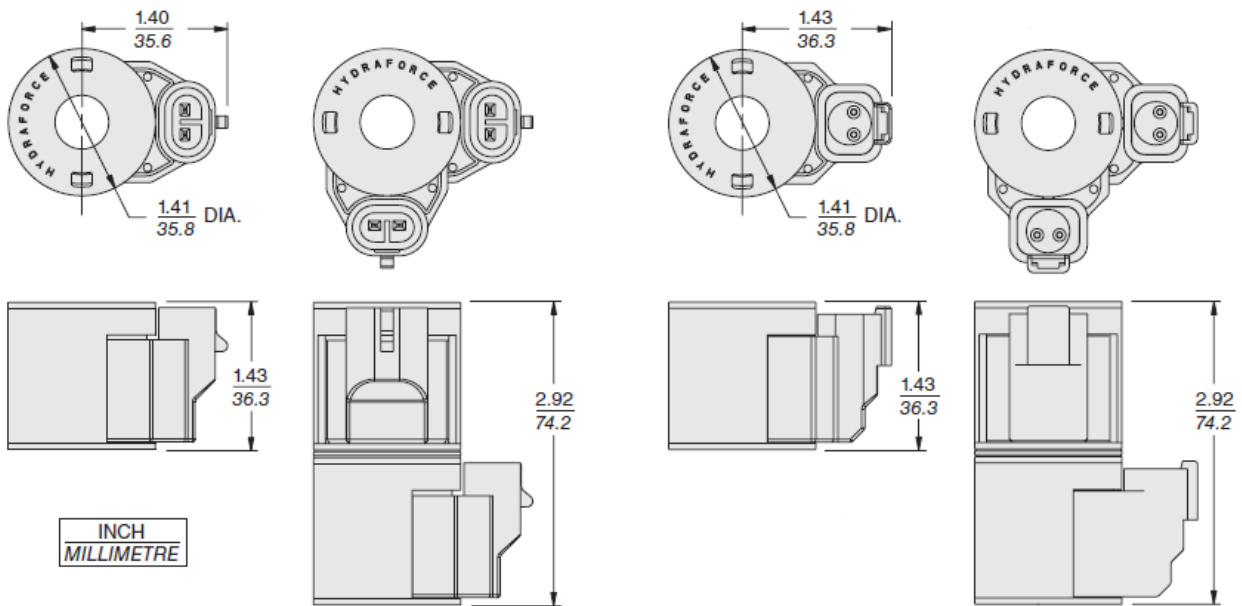
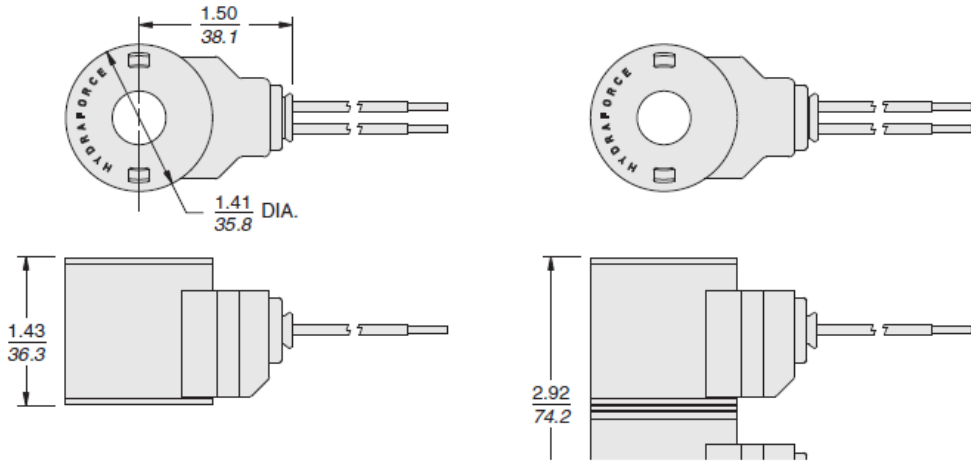
**Dimensions**



**EJ**  
IP67 Rated 08-Size Coil  
Amp Jr. Timer Connector

**EG**  
IP65 Rated 08-Size Coil; DIN 43650 Connector  
IP67 rated if used with sealed mating connector and gasket





INCH  
MILLIMETRE

**EY**

IP69K Rated 08-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Metri-Pack® 150 Connector

**ER**

IP69K Rated 08-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Deutsch DT04-2P Connector

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
10EL	4305110	10	Dual leads/no connector	IP69K	
12EL	4305112	12	Dual leads/no connector	IP69K	
24EL/D	4305124	24	Dual leads/no connector	IP69K	Ultra-fast diode



10EL	4308710	10	Dual leads/no connector	IP69K	
12EL	4308712	12	Dual leads/no connector	IP69K	
12EL/Z	4306812	12	Dual leads/no connector	IP69K	Bidirectional zeener diode
12EG	4305862	12	DIN 43650	IP65	
24EG	4305864	24	DIN 43650	IP65	
12EG/Z	4305872	12	DIN 43650	IP65	Bidirectional zeener diode
24EG/Z	4305874	24	DIN 43650	IP65	Bidirectional zeener diode
12EJ	4306112	12	AMP Jr. timer	IP67	
24EJ	4306124	24	AMP Jr. timer	IP67	
12EJ/Z	4305912	12	AMP Jr. timer	IP67	Bidirectional zeener diode
24EJ	4305924	24	AMP Jr. timer	IP67	
12EY	4303412	12	Metri-Pack 150 2M	IP69K	
24EY	4303424	24	Metri-Pack 150 2M	IP69K	
12EY/Z	4303812	12	Metri-Pack 150 2M	IP69K	Bidirectional zeener diode
24EY/Z	4303824	24	Metri-Pack 150 2M	IP69K	Bidirectional zeener diode
10ER	4303610	10	Deutsch DT04-2P	IP69K	
12ER	4303612	12	Deutsch DT04-2P	IP69K	
20ER	4303620	20	Deutsch DT04-2P	IP69K	
24ER	4303624	24	Deutsch DT04-2P	IP69K	
10ER/Z	4304010	10	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
12ER/Z	4304012	12	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
20ER/Z	4304020	20	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
24ER/Z	4304024	24	Deutsch DT04-2P	IP69K	Bidirectional zeener diode



## Overview

### Description

#### Symbol

Magnet wire wound on a molded 30% glass filled bobbin framed in steel and encapsulated with 30% glass filled polyester resin. Coil impregnated with anerobic sealant.

## Ratings

### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - <b>Note:</b> Weather-Pack 2 terminal male, lead wires 18 AWG

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	4.83 ohm $\pm$ 3% - <b>Note:</b> 10 Vdc coil
	7.2 ohm $\pm$ 3% - <b>Note:</b> 12 Vdc coil
	19.0 ohm $\pm$ 5% - <b>Note:</b> 20 Vdc coil
	28.8 ohm $\pm$ 5% - <b>Note:</b> 24 Vdc coil
	64.8 ohm $\pm$ 5% - <b>Note:</b> 36 Vdc coil
	568 ohm - <b>Note:</b> 115 Vdc coil
	2304 ohm - <b>Note:</b> 230 Vdc coil
Coil initial current draw	2.07 A - <b>Note:</b> 10 Vdc coil
	4.67 A - <b>Note:</b> 12 Vdc coil
	1.05 A - <b>Note:</b> 20 Vdc coil
	0.83 A - <b>Note:</b> 24 Vdc coil
	0.56 A - <b>Note:</b> 36 Vdc coil
	0.17 A - <b>Note:</b> 115 Vac coil
	0.09 A - <b>Note:</b> 230 Vac coil
Coil initial power consumption	20 W

### Bidirectional Zener Diode Parameters

Maximum clamping voltage	45.7 V - <b>Note:</b> 12 Vdc coil
	64.8 V - <b>Note:</b> 24 Vdc coil
Maximum peak pulse current	13.2 A - <b>Note:</b> 12 Vdc coil
	9.3 A - <b>Note:</b> 24 Vdc coil

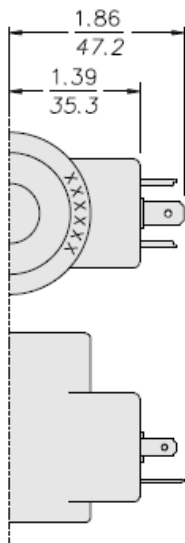


Reverse standoff voltage	28.2 V - <b>Note:</b> 12 Vdc coil 40.2 V - <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 $\mu$ A - <b>Note:</b> 12, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V - <b>Note:</b> 12 Vdc coil 44.7 to 49.4 V - <b>Note:</b> 24 Vdc coil
Diode part number	6110163 - <b>Note:</b> 12 Vdc coil (ref) 4000063 - <b>Note:</b> 24 Vdc coil (ref)

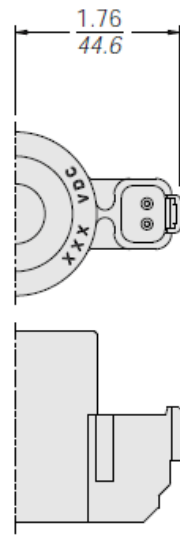
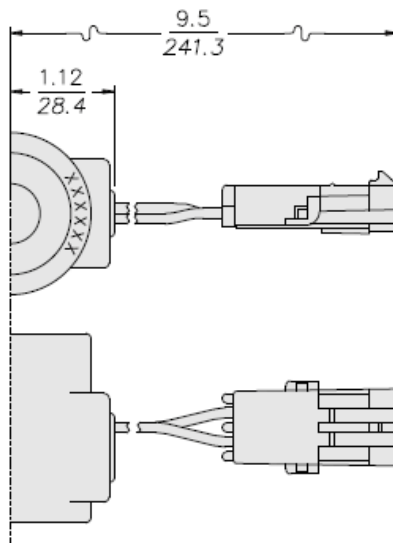
### Unidirectional Diode Parameters

Average forward current	3.0 A - <b>Note:</b> Maximum, 12 Vdc coil 1 A - <b>Note:</b> Maximum, 24 Vdc coil
Maximum repetitive peak reverse voltage	50 V - <b>Note:</b> 12 Vdc coils 400 V - <b>Note:</b> 24 Vdc coils

### Dimensions



INCH  
MILLIMETRE



#### G

#### DIN 43650 Connector

Pins 1 and 2 are not  
polarity-sensitive.  
Ground pin is not used.

#### W

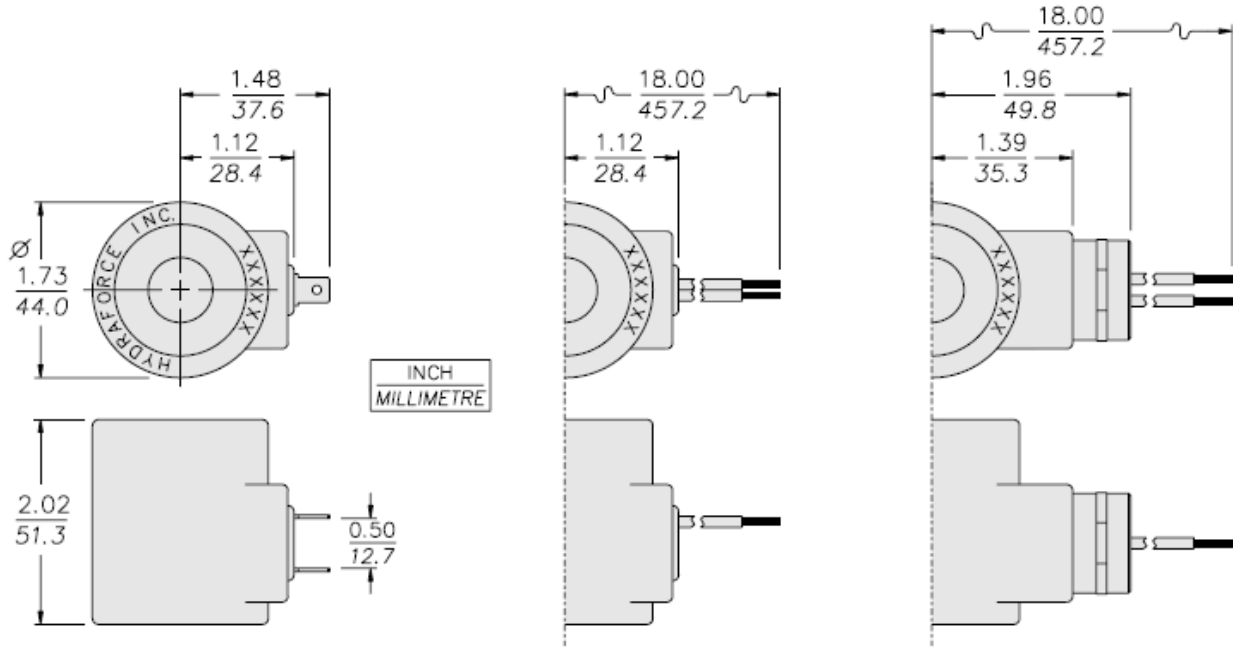
#### Dual 18 Gauge Leads with Weather Pack® Connector

For use with Packard  
part no. 12015792 female plug

#### DR

#### Integral Deutsch Connector

DR Models without Diode  
DR/D Models with Diode  
DR/Z Models with Zener Diode



**S**  
Dual Spades  
SAE J858a

**L**  
Dual Leads  
18 Gauge  
Optional 36-inch leads  
available. Consult factory.

**P**  
1/2" Conduit &  
18 Gauge Leads

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
24AG	6366024	24	DIN 43650	IP65	
115AG	6366115	115	DIN 43650	IP65	
230AG	6366230	230	DIN 43650	IP65	
24AP	6365024	24	1/2-14 NPT internal thread	IP65	
115AP	6365115	115	1/2-14 NPT internal thread	IP65	
230AP	6365230	230	1/2-14 NPT internal thread	IP65	
10DG	6356010	10	DIN 43650	IP65	
12DG	6356012	12	DIN 43650	IP65	
24DG	6356024	24	DIN 43650	IP65	
10DL	6352010	10	Dual leads/no connector	IP65	
12DL	6352012	12	Dual leads/no connector	IP65	
12DL	6357012	12	Dual leads/no connector	IP65	
24DL	6352024	24	Dual leads/no connector	IP65	
12DL/W	6359412	12	Dual leads/no connector	IP65	
24DL/W	6359424	24	Dual leads/no connector	IP65	
12DL/W/D	6359732	12	Dual leads/no connector	IP65	Ultra-fast diode
24DL/W/D	6359739	24	Dual leads/no connector	IP65	Ultra-fast diode



24DP	6355024	24	1/2-14 NPT internal thread	IP65	
12DR	4301612	12	Deutsch DT04-2P	IP65	
24DR	4301624	24	Deutsch DT04-2P	IP65	
10DR/D	4301891	10	Deutsch DT04-2P	IP65	Ultra-fast diode
12DR/D	4301892	12	Deutsch DT04-2P	IP65	Ultra-fast diode
20DR/D	4301893	20	Deutsch DT04-2P	IP65	Ultra-fast diode
24DR/D	4301894	24	Deutsch DT04-2P	IP65	Ultra-fast diode
12DR/Z	4301862	12	Deutsch DT04-2P	IP65	Bidirectional zeener diode
10DS	6351010	10	Dual spade	IP65	
12DS	6351012	12	Dual spade	IP65	
20DS	6351020	20	Dual spade	IP65	
24DS	6351024	24	Dual spade	IP65	
36DS	6351036	36	Dual spade	IP65	



## Overview

### Description

#### Symbol

Magnet wire winding overmolded 30% glass filled polyester, and enclosed in a three piece zinc plated metal shell.

## Ratings

### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12052641 - <b>Note:</b> METRI-PACK 150-2M
Coil metal frame	plated for 1,000 hours of salt spray per ASTM B117-09 before corrosion (red rust)

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	4.78 ohm $\pm$ 3% - <b>Note:</b> 10 Vdc coil
	7.09 ohm $\pm$ 3% - <b>Note:</b> 12 Vdc coil
	19.12 ohm $\pm$ 5% - <b>Note:</b> 20 Vdc coil
	28.5 ohm $\pm$ 5% - <b>Note:</b> 24 Vdc coil
Coil inductance at 20 °C (68 °F)	14.91 mH $\pm$ 5% - <b>Note:</b> 10 Vdc coil
	15.30 mH $\pm$ 5% - <b>Note:</b> 12 Vdc coil
	51.51 mH $\pm$ 5% - <b>Note:</b> 20 Vdc coil
	70.18 mH $\pm$ 5% - <b>Note:</b> 24 Vdc coil
Coil initial current draw	2.09 A - <b>Note:</b> 10 V coil
	1.69 A - <b>Note:</b> 12 V coil
	1.05 A - <b>Note:</b> 20 V coil
	0.84 A - <b>Note:</b> 24 V coil
Coil initial power consumption	20.92 W - <b>Note:</b> 10 V coil
	20.31 W - <b>Note:</b> 12 V coil
	20.92 W - <b>Note:</b> 20 V coil
	20.21 W - <b>Note:</b> 24 V coil

### Bidirectional Zeener Diode Parameters

Maximum clamping voltage	45.7 V - <b>Note:</b> 12 Vdc coil
	64.8 V - <b>Note:</b> 24 Vdc coil
	13.2 A - <b>Note:</b> 12 Vdc coil

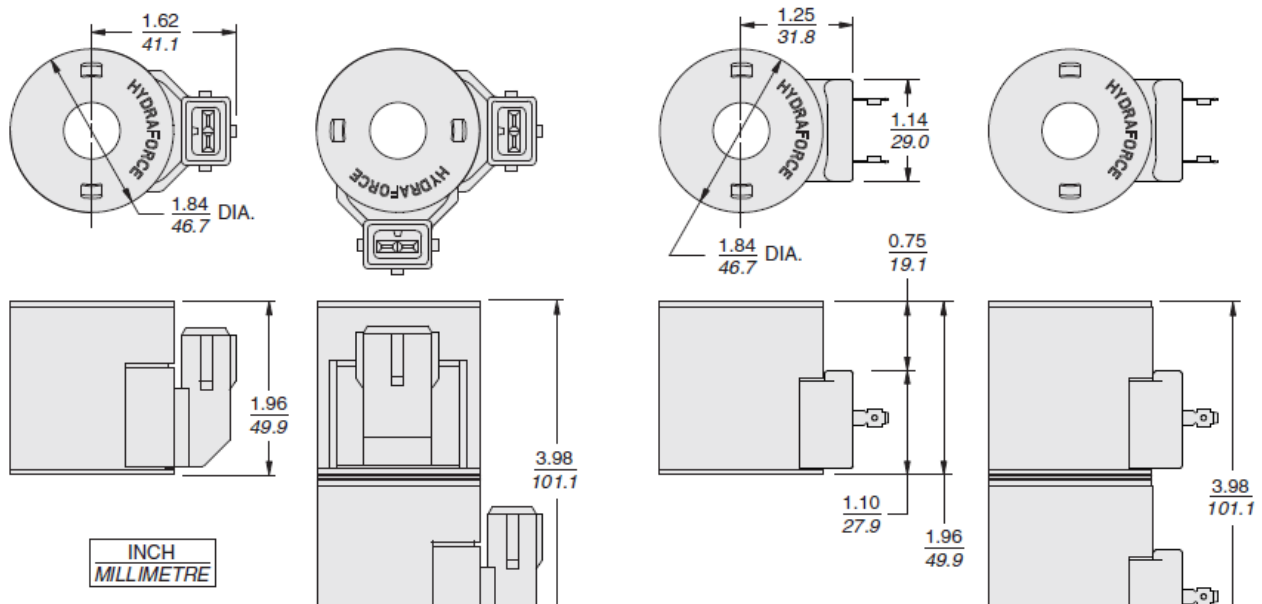


Maximum peak pulse current	9.3 A - <b>Note:</b> 24 Vdc coil
Reverse standoff voltage	28.2 V - <b>Note:</b> 12 Vdc coil
	40.2 V - <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 $\mu$ A - <b>Note:</b> 12, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V - <b>Note:</b> 12 Vdc coil
	44.7 to 49.4 V - <b>Note:</b> 24 Vdc coil
Diode part number	6110163 - <b>Note:</b> 12 Vdc coil (ref)
	4000063 - <b>Note:</b> 24 Vdc coil (ref)

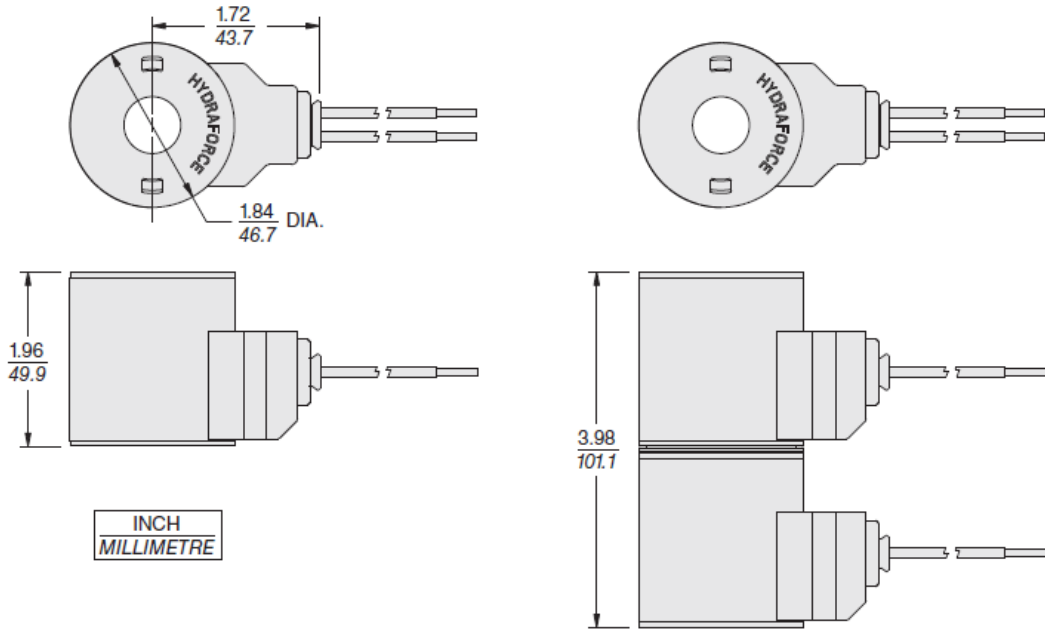
### Ultra-fast Diode Parameters (12/24 Vdc Coil)

Average forward current	3.5 A
Repetitive peak reverse voltage	600 V
Diode part number	4002474

### Dimensions

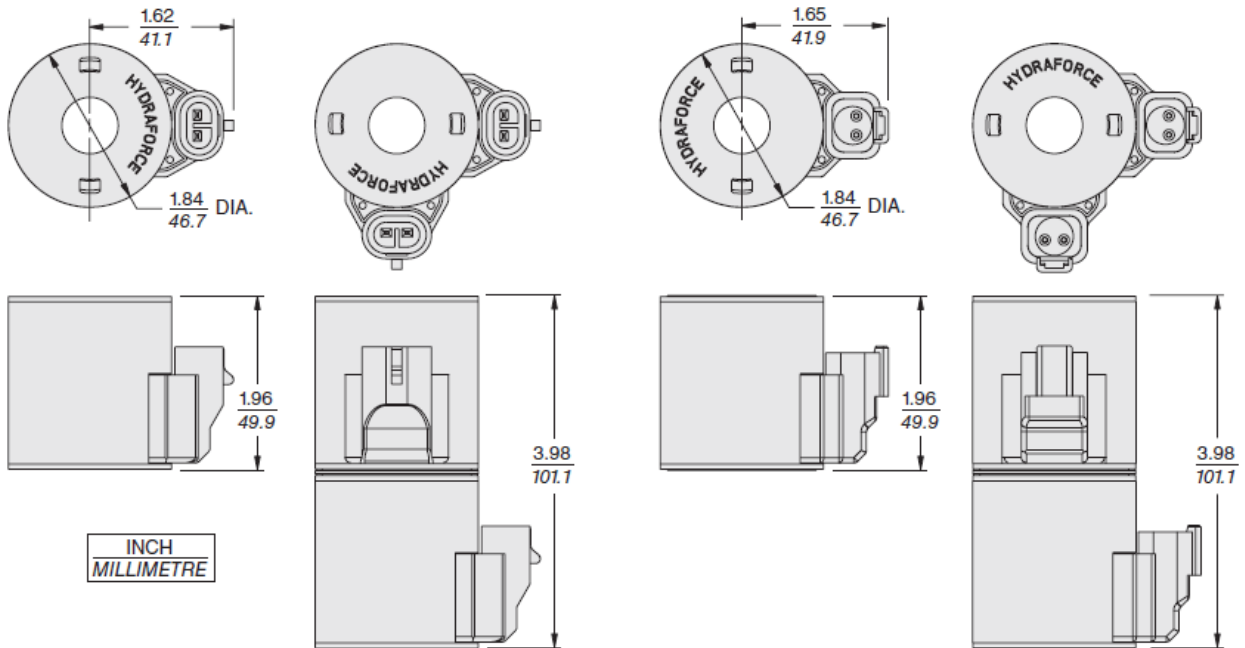






**EL**

IP69K Rated 10-Size Coil — Thermal Shock Dunk Test Rated Coil



**EY**

IP69K Rated 10-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Metri-Pack® 150 Connector

**ER**

IP69K Rated 10-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Deutsch DT04-2P Connector

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
10EL	4317210	10	Dual leads/no connector	IP69K	
10ER	4303710	10	Deutsch DT04-2P	IP69K	



10ER/Z	4304110	10	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
12EL	4305712	12	Dual leads/no connector	IP69K	
12EL	4317212	12	Dual leads/no connector	IP69K	
12EL/Z	4307112	12	Dual leads/no connector	IP69K	Bidirectional zeener diode
12EL/W/Z	4307212	12	Dual leads/no connector	IP69K	Bidirectional zeener diode
12EG	4305882	12	DIN 43650	IP65	
12EJ	4305612	12	AMP Jr. timer	IP67	
12EY	4303512	12	Metri-Pack 150 2M	IP69K	
12EY/Z	4303912	12	Metri-Pack 150 2M	IP69K	Bidirectional zeener diode
12ER	4303712	12	Deutsch DT04-2P	IP69K	
12ER/Z	4304112	12	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
20ER	4303720	20	Deutsch DT04-2P	IP69K	
24EL	4305724	24	Dual leads/no connector	IP69K	
24EL	4307124	24	Dual leads/no connector	IP69K	
24EL/W/Z	4307224	24	Dual leads/no connector	IP69K	Bidirectional zeener diode
24EG	4305884	24	DIN 43650	IP65	
24EJ	4305624	24	AMP Jr. timer	IP67	
24EY	4303524	24	Metri-Pack 150 2M	IP69K	
24EY/Z	4303924	24	Metri-Pack 150 2M	IP69K	Bidirectional zeener diode
24ER	4303724	24	Deutsch DT04-2P	IP69K	
24ER/Z	4304124	24	Deutsch DT04-2P	IP69K	Bidirectional zeener diode



## Overview

### Description

#### Symbol

Magnet wire wound on a molded 30% glass filled bobbin and encapsulated with 30% glass filled polyester resin and enclosed in a two-piece zinc-plated metal shell.

## Ratings

### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12052641 - <b>Note:</b> METRI-PACK 150-2M
Coil metal frame	Plated for 1,000 hours of salt spray per ASTM B117-09 before corrosion (red rust)

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	5.4 ohm $\pm$ 8% - <b>Note:</b> 12 V coil 21.7 ohm $\pm$ 5% - <b>Note:</b> 24 V coil
Coil initial current draw	1.2 A - <b>Note:</b> 12 V coil 0.6 A - <b>Note:</b> 24 V coil
coil-initial-power-consumption	7.8 W

### Bidirectional Zeener Diode Parameters

Maximum clamping voltage	45.7 V - <b>Note:</b> 12 Vdc coil 64.8 V - <b>Note:</b> 24 Vdc coil
Maximum peak pulse current	13.2 A - <b>Note:</b> 12 Vdc coil 9.3 A - <b>Note:</b> 24 Vdc coil
Reverse standoff voltage	28.2 V - <b>Note:</b> 12 Vdc coil 40.2 V - <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 $\mu$ A - <b>Note:</b> 12, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V - <b>Note:</b> 12 Vdc coil 44.7 to 49.4 V - <b>Note:</b> 24 Vdc coil

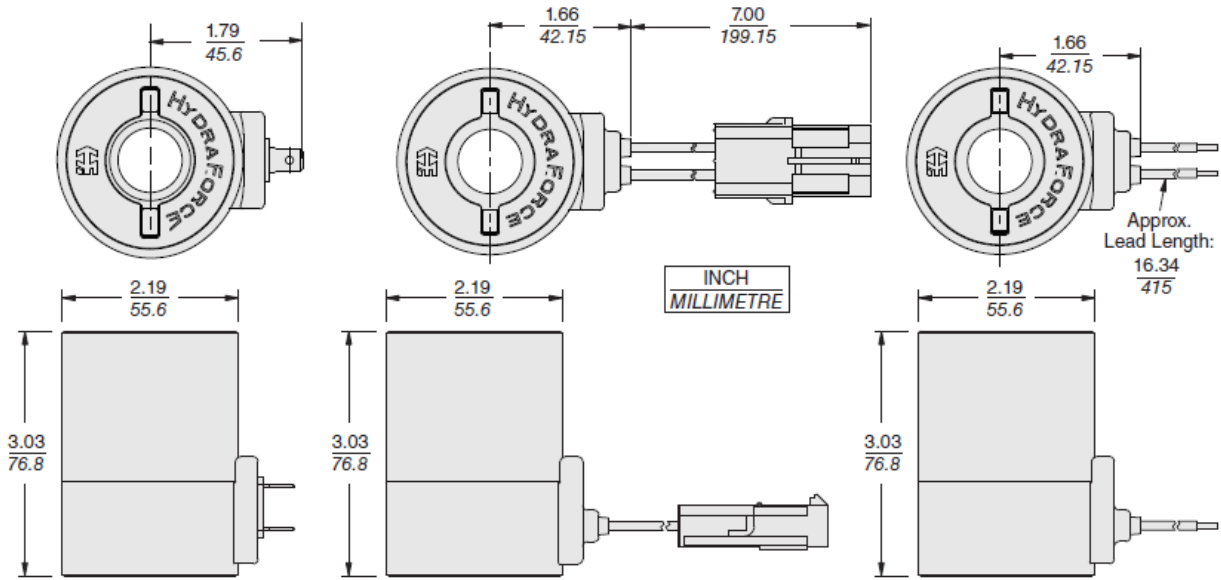


Diode part number

6110163 - **Note:** 12 Vdc coil (ref)

4000063 - **Note:** 24 Vdc coil (ref)

**Dimensions**



**ES**

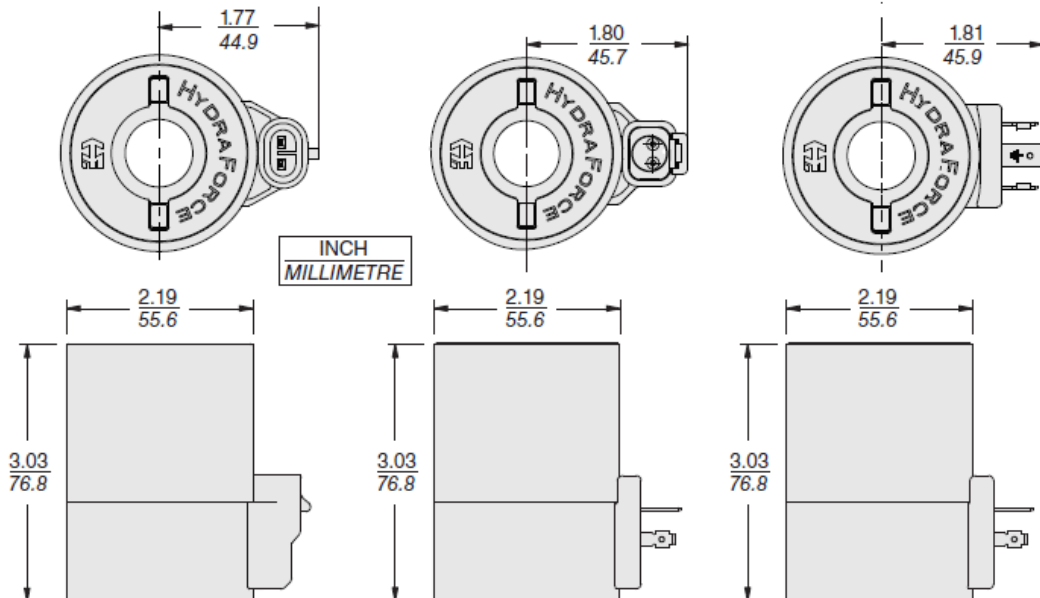
IP65 Rated 12-Size Coil  
Dual Spades SAE J858a

**EW**

IP65 Rated 12-Size Coil  
Dual 18 Gauge Leads  
with Weather-Pack® Connector

**EL**

IP65 Rated 12-Size Coil  
Dual Leads – 18 Gauge



**Coil Part Numbers**



Model code	Part no.	Voltage	Connector	IP rating	Diode
12ES	6851012	12	Dual spade	IP65	
24ES	6851024	24	Dual spade	IP65	
12EL	6852012	12	Dual leads/no connector	IP69K	
12EL/W	6853012	12	Dual leads/no connector	IP69K	
12EG	6956012	12	DIN 43650	IP65	
24EG	6956024	24	DIN 43650	IP65	
12EY	6964012	12	Metri-Pack 150 2M	IP69K	
12ER	4301212	12	Deutsch DT04-2P	IP69K	
24ER	4301224	24	Deutsch DT04-2P	IP69K	
12ER/Z	4305512	12	Deutsch DT04-2P	IP69K	Bidirectional zeener diode
24ER/Z	4305524	24	Deutsch DT04-2P	IP69K	Bidirectional zeener diode



Overview

**Description**

**Symbol**

Magnet wire wound on a molded 30% glass filled bobbin framed in steel and encapsulated with 30% glass filled polyester resin. Coil impregnated with anerobic sealant.

Ratings

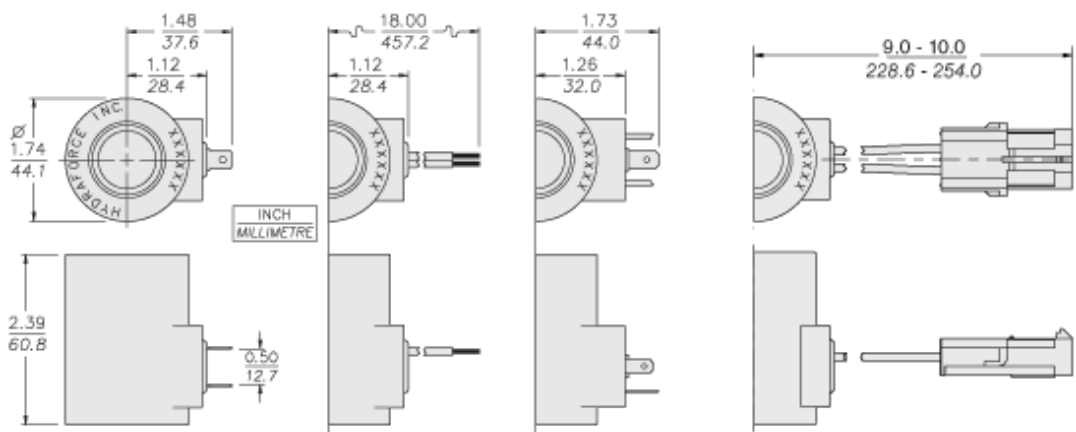
**Properties**

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - <b>Note:</b> Weather-Pack 2 terminal male, lead wires 18 AWG

**Electrical Parameters**

Coil resistance at 20 °C (68 °F)	4.5 ohm &#177;3% - <b>Note:</b> 12 Vdc coil 17.9 ohm &#177;5% - <b>Note:</b> 24 Vdc coil
Coil initial current draw	1.5 A - <b>Note:</b> 12 Vdc coil 0.75 A - <b>Note:</b> 24 Vdc coil
Coil initial power consumption	10 W

Dimensions



Coil Part Numbers

Model code	Part no.	Voltage	Connector	IP rating	Diode
12DS	6507112	12	Dual spade	IP65	



24DS	6507124	24	Dual spade	IP65
12DL	6507212	12	Dual leads/no connector	IP65
24DL	6507224	24	Dual leads/no connector	IP65
12DG	6507612	12	DIN 43650	IP65
24DG	6507624	24	DIN 43650	IP65
12DL/W	6507912	12	Dual leads/no connector	IP65



## Overview

### Description

#### Symbol

Magnet wire winding overmolded 30% glass filled polyester, and enclosed in a three piece zinc plated metal shell.

## Ratings

### Properties

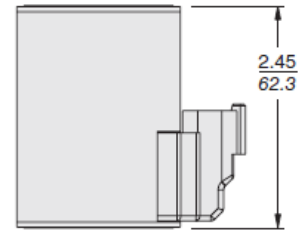
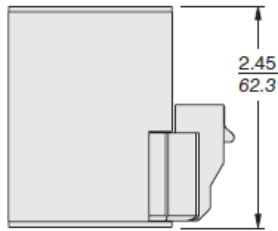
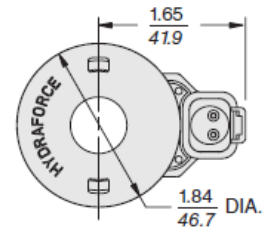
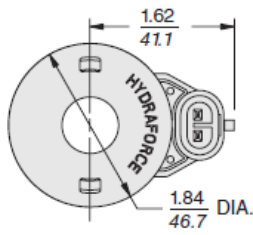
Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12052641 - <b>Note:</b> METRI-PACK 150-2M
Coil metal frame	Plated for 1,000 hours of salt spray per ASTM B117-09 before corrosion (red rust)

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	4.5 ohm $\pm$ 3% - <b>Note:</b> 12 V coil 17.9 ohm $\pm$ 5% - <b>Note:</b> 24 V coil
Coil initial current draw	1.5 A - <b>Note:</b> 12 V coil 0.75 A - <b>Note:</b> 24 V coil
coil-initial-power-consumption	10 W

## Dimensions





INCH  
MILLIMETRE

**EY**

IP69K Rated 70-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Metri-Pack® 150 Connector

**ER**

IP69K Rated 70-Size Coil  
Thermal Shock Dunk Test Rated Coil  
Deutsch DT04-2P Connector

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
12EY	4303112	12	Metri-Pack 150 2M	IP69K	
12ER	4303212	12	Deutsch DT04-2P	IP69K	
24ER	4303224	24	Deutsch DT04-2P	IP69K	



## Overview

### Description

#### Symbol

Magnet wire wound on a molded 30% glass filled bobbin framed in steel and encapsulated with 30% glass filled polyester resin. Coil impregnated with anerobic sealant.

## Ratings

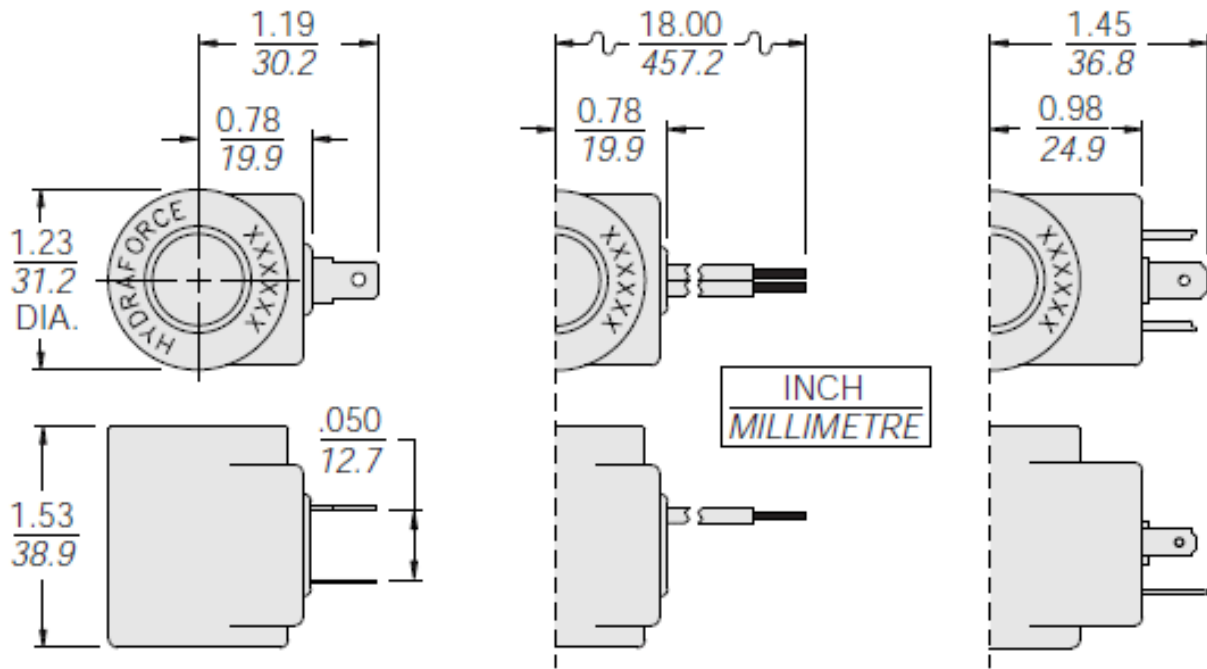
### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DELPHI/PACKARD number 12010973 - <b>Note:</b> Weather-Pack 2 terminal male, lead wires 18 AWG

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	5.4 ohm - <b>Note:</b> 12 Vdc coil
	21.7 ohm - <b>Note:</b> 24 Vdc coil
Maximum control current	1.2 A - <b>Note:</b> 12 Vdc coil
	0.60 A - <b>Note:</b> 24 Vdc coil
Coil initial power consumption	7 W

## Dimensions



**S**  
**Dual Spades**  
**SAE J858a**

**L**  
**Dual Leads**  
**18 Gauge**  
Optional 36-inch leads  
available. Consult factory.

**G**  
**DIN 43650**  
**Connector**  
Pins 1 and 2 are not  
polarity-sensitive.  
Ground pin is not used.

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
24DS	6451124	24	Dual spade	IP65	
24DL	6451224	24	Dual leads/no connector	IP65	
12DG	6451612	12	DIN 43650	IP65	
24DG	6451624	24	DIN 43650	IP65	



## Overview

### Description

#### Symbol

Magnet wire wound on a molded 30% glass filled bobbin and encapsulated with 30% glass filled polyester resin. Overmolded coil is framed in steel.

## Ratings

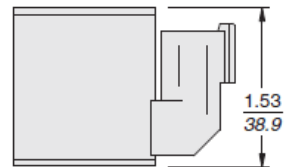
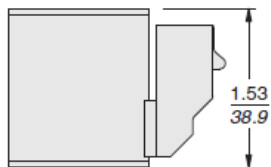
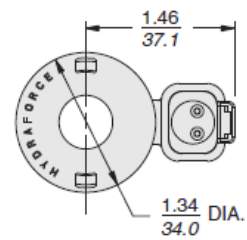
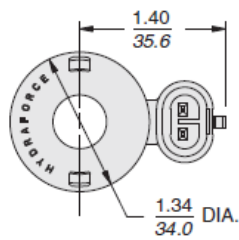
### Properties

Magnet wire	U.S. class N 200 °C (392 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12052641 - <b>Note:</b> METRI-PACK 150-2M
Coil metal frame	Plated for 1,000 hours of salt spray per ASTM B117-09 before corrosion (red rust)

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	5.4 ohm $\pm$ 3% - <b>Note:</b> 12 V coil
	21.7 ohm $\pm$ 5% - <b>Note:</b> 24 V coil
Coil initial current draw	1.2 A - <b>Note:</b> 12 V coil
	0.6 A - <b>Note:</b> 24 V coil
coil-initial-power-consumption	7.8 W

## Dimensions



INCH  
MILLIMETRE

**EY**

**IP69K Rated 08-Size Coil  
Thermal Shock Dunk Test Rated Coil**

**ER**

**IP69K Rated 08-Size Coil  
Thermal Shock Dunk Test Rated Coil**

**Coil Part Numbers**

Model code	Part no.	Voltage	Connector	IP rating	Diode
12EY	4304812	12	Metri-Pack 150 2M	IP69K	
12ER	4304712	12	Deutsch DT04-2P	IP69K	
24ER	4304724	24	Deutsch DT04-2P	IP69K	

**HYDRAFORCE parts price list - LIST prices effective for all orders 1st OCTOBER 2020**
**FROM 1ST  
OCTOBER 2020**

Category	Product type	Option	Code	Description	List price
BODY	BODY ALLOY	1-5/16"UN	4553840	BODY 20-2 16T	\$322
BODY	BODY ALLOY	1-5/8"UN	4553850	BODY 20-2 20T	\$322
BODY	BODY IRON	1-5/8"UN	4553870	BODY 20-2 20TD	\$588
BODY	BODY ALLOY	7/8" UN	7020660	BODY 10T PV72-2X, FR12-23	\$164
BODY	BODY ALLOY	3/4"UN	7021470	BODY 12-6 8T	\$477
BODY	BODY ALLOY	1-1/16" UN	7022250	BODY 12-2 12T	\$132
BODY	BODY ALLOY	1-5/16"UN	7022260	BODY 12-2 16T	\$138
BODY	BODY ALLOY	3/4"UN	7022320	BODY 12-3 8T	\$205
BODY	BODY ALLOY	7/8" UN	7022330	BODY 12-3 10T	\$199
BODY	BODY ALLOY	1-1/16" UN	7022340	BODY 12-3 12T	\$199
BODY	BODY ALLOY		7022450	BODY FD12-40 12D FD- TYPE	\$294
BODY	BODY ALLOY	1-1/16" UN	7022470	BODY 12-4 12T	\$264
BODY	BODY ALLOY	1/2"BSPP	7022610	BODY VC12-3 G1/2 PORT 4B	\$309
BODY	BODY ALLOY	1-5/16"UN	7022660	BODY 16-3 16T	\$279
BODY	BODY ALLOY	3/4"UN	7022830	BODY 10-5 8T	\$322
BODY	BODY ALLOY	1-5/16"UN	7023130	BODY 20-53 16T	\$378
BODY	BODY ALLOY	1-1/16" UN	7023230	BODY 16-2 12T	\$127
BODY	BODY ALLOY	1-5/16"UN	7023240	BODY 16-2 16T	\$136
BODY	BODY ALLOY	1-5/16"UN	7023340	BODY 16-53 16T	\$315
BODY	BODY ALLOY	1-1/16" UN	7023440	BODY F/FD16 12T PORTS	\$417
BODY	BODY ALLOY	1-5/16"UN	7023460	BODY F/FD16-40 16T PORTS	\$417
BODY	BODY ALLOY	1-5/16"UN	7023470	BODY 16-4WAY 16T PORTS	\$417
BODY	BODY ALLOY	9/16"UN	7024260	BODY 10-2 6T PORTS	\$78
BODY	BODY ALLOY	3/4"UN	7024280	BODY 10-2 8T PORTS	\$80
BODY	BODY ALLOY	9/16"UN	7024360	BODY 10-3 6T PORTS	\$104
BODY	BODY ALLOY	3/4"UN	7024380	BODY 10-3 8T PORTS	\$104
BODY	BODY ALLOY	9/16"UN	7024460	BODY 10-4 6T PORTS	\$117
BODY	BODY ALLOY	3/4"UN	7024480	BODY 10-4 8T PORTS	\$117
BODY	BODY ALLOY	7/16"UN	7024640	BODY 08-2 4T PORTS	\$91
BODY	BODY ALLOY	9/16"UN	7024660	BODY 08-2 6T PORTS	\$69
BODY	BODY ALLOY	3/4"UN	7024680	BODY 08-2 8T PORTS	\$69
BODY	BODY ALLOY	7/16"UN	7024740	BODY 08-3 4T PORTS	\$114
BODY	BODY ALLOY	9/16"UN	7024760	BODY 08-3 6T PORTS	\$91
BODY	BODY ALLOY	9/16"UN	7024860	BODY 08-4 6T PORTS	\$106
BODY	BODY ALLOY	9/16"UN	7025660	BODY 10-2 6T T PORTS	\$127
BODY	BODY ALLOY	3/4"UN	7025680	BODY 10-2 8T T PORTS	\$125
BODY	BODY ALLOY	7/8" UN	7026530	BODY 10-53 10T	\$212
BODY	BODY ALLOY		7027400	BODY 12-53	\$225
BODY	BODY ALLOY	1/4"BSPP	7028220	BODY 10-2 2B PORTS GOLD ANODIZE	\$114
BODY	BODY ALLOY	3/8"BSPP	7028230	BODY 10-2 3B PORTS	\$110
BODY	BODY ALLOY		7028240	BODY 10-2WAY 1/2" BSPP PORTS	\$110
BODY	BODY ALLOY	3/8"BSPP	7028330	BODY 10-3WAY 3B PORTS	\$147
BODY	BODY ALLOY	3/8"BSPP	7028630	BODY 08-2 3B PORTS	\$114
BODY	BODY ALLOY	3/8"BSPP	7028730	BODY 08-3 WAY 3B	\$125
BODY	BODY ALLOY	7/8" UN	7029240	BODY 10-2-10T PORTS	\$110
BODY	BODY ALLOY	1-5/16"UN	7029540	BODY 42 - 4 WAY 16T	\$905
BODY	BODY		7073910	BODY 2 X 2 08 SIZE	\$199
BODY	BODY IRON	3/4"BSPP	7150220	BODY 12-56 68D PD/PE-56	\$842
BODY	BODY IRON	1-1/16"UN	7150820	BODY 12-4 12TD DURABAR FD TYPE	\$441
BODY	BODY IRON	9/16"UN	7151010	BODY 08-2 6TD	\$147
BODY	BODY IRON	3/4"UN	7151020	BODY 08-2 8TD	\$147
BODY	BODY IRON	9/16"UN	7151110	BODY 08-3 6TD DURABAR	\$179
BODY	BODY IRON	9/16"UN	7151210	BODY 08-4 6TD DURABAR	\$264
BODY	BODY IRON	9/16"UN	7151400	BODY 10-2 6TD DURABAR	\$153
BODY	BODY IRON	3/4"UN	7151410	BODY 10-2 8TD DURABAR	\$153
BODY	BODY IRON	9/16"UN	7151500	BODY 10-3 6TD DURABAR	\$205
BODY	BODY IRON	3/4"UN	7151510	BODY 10-3 8TD DURABAR	\$205
BODY	BODY IRON	3/4"UN	7151610	BODY 10-53 8TD DURABAR SPECIAL	\$279
BODY	BODY IRON	9/16"UN	7151700	BODY 10-4 6TD DURABAR	\$315
BODY	BODY IRON	1-5/16"UN	7152420	BODY 16-4 FD 16TD	\$588
BODY	BODY IRON	1-5/16"UN	7153210	BODY 20-53 16TD DURABAR	\$626
BODY	BODY IRON	9/16"UN	7153620	BODY VC-T009 6T EHPR98-T33	\$179
BODY	BODY IRON	3/4"UN	7158310	BODY, HVC10-4 8HT	\$346
BODY	BODY IRON	1-1/16"UN	7158410	BODY, HVC12-2 12HT	\$404
BODY	BODY IRON	1-1/16"UN	7158520	BODY, HVC12-3 12HT	\$458
BODY	BODY IRON	1-5/16"UN	7159640	BODY HVC16-3SPEC DUCTILE IRON 16HT	\$806
DIRECTIONAL CONTROL	BRAKE VALVE		BV10-40-0-N	BV10-40-0-N BRAKE VALVE	\$212
DIRECTIONAL CONTROL	BRAKE VALVE		HBV10-40-0-U	HBV10-40-0-U BRAKE VALVE	\$227
ACCESSORIES	CAVITY PLUG		CP04-2-0-N	CP04-20-N CAVITY PLUG	\$37
ACCESSORIES	CAVITY PLUG		CP08-20-P	CP08-20-P CAVITY PLUG	\$43
ACCESSORIES	CAVITY PLUG		CP08-30-N	CP08-30-N CAVITY PLUG	\$52
ACCESSORIES	CAVITY PLUG		CP08-3A-N	CP08-3A-N CAVITY PLUG	\$58
ACCESSORIES	CAVITY PLUG		CP08-3B-N	CP08-3B-N CAVITY PLUG	\$58
ACCESSORIES	CAVITY PLUG		CP08-40-N	CP08-40-N CAVITY PLUG	\$58
ACCESSORIES	CAVITY PLUG		CP08-40-V	CP08-40-V CAVITY PLUG	\$67
ACCESSORIES	CAVITY PLUG		CP08-4L-N	CP08-4L-N CAVITY PLUG	\$80
ACCESSORIES	CAVITY PLUG		CP10-20-N	CP10-20-N CAVITY PLUG	\$41
ACCESSORIES	CAVITY PLUG		CP10-20-P	CP10-20-P CAVITY PLUG	\$48
ACCESSORIES	CAVITY PLUG		CP10-30-N	CP10-30-N CAVITY PLUG	\$58
ACCESSORIES	CAVITY PLUG		CP10-30-V	CP10-30-V CAVITY PLUG	\$67

Category	Product type	Option	Code	Description	List price
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ACCESSORIES	CAVITY PLUG		CP10-3B-N	CP10-3B-N CAVITY PLUG	\$78
ACCESSORIES	CAVITY PLUG		CP10-40-N	CP10-40-N CAVITY PLUG	\$67
ACCESSORIES	CAVITY PLUG		CP10-530-N	CP10-530-N CAVITY PLUG	\$58
ACCESSORIES	CAVITY PLUG		CP12-20N	CP12-20-N CAVITY PLUG	\$84
ACCESSORIES	CAVITY PLUG		CP12-20-P	CP12-20-P CAVITY PLUG	\$110
ACCESSORIES	CAVITY PLUG		CP12-30N	CP12-30-N CAVITY PLUG	\$95
ACCESSORIES	CAVITY PLUG		CP12-3BN	CP12-3B-N CAVITY PLUG	\$151
ACCESSORIES	CAVITY PLUG		CP16-20-N	CP16-20-N CAVITY PLUG	\$95
ACCESSORIES	CAVITY PLUG		CP16-40-N	CP16-40-N CAVITY PLUG	\$162
ACCESSORIES	CAVITY PLUG		CP16-530-N	CP16-530-N CAVITY PLUG	\$179
ACCESSORIES	CAVITY PLUG		CP42-M30-N	CP42-M30-N CAVITY PLUG	\$238
DIRECTIONAL CONTROL	CHECK VALVE		CV04-20-0-N-5	CV04-20-0-N-05 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-10	CV08-20-0-N-10 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-100	CV08-20-0-N-100 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-150	CV08-20-0-N-150 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-200	CV08-20-0-N-200 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-25	CV08-20-0-N-25 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-270	CV08-20-0-N-270 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-4	CV08-20-0-N-04 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-40	CV08-20-0-N-40 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-60	CV08-20-0-N-60 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-N-M25	CV08-20-0-N-M25 CHECK VALVE	\$43
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-P-10	CV08-20-0-P-10 CHECK VALVE	\$58
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-P-150	CV08-20-0-P-150 CHECK VALVE	\$58
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-V-10	CV08-20-0-V-10 CHECK VALVE	\$52
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-V-200	CV08-20-0-V-200 CHECK VALVE	\$52
DIRECTIONAL CONTROL	CHECK VALVE		CV08-20-0-V-4	CV08-20-0-V-40 CHECK VALVE	\$52
DIRECTIONAL CONTROL	CHECK VALVE		CV08-21-0-N-30	CV08-21-0-N-30 CHECK VALVE	\$67
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-100	CV10-20-0-N-100 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-15	CV10-20-0-N-15 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-2	CV10-20-0-N-02 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-200	CV10-20-0-N-200 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-30	CV10-20-0-N-30 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-40	CV10-20-0-N-40 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-5	CV10-20-0-N-05 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-N-70	CV10-20-0-N-70 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-V-200	CV10-20-0-V-200 CHECK VALVE	\$58
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-V-30	CV10-20-0-V-30 CHECK VALVE	\$58
DIRECTIONAL CONTROL	CHECK VALVE		CV10-20-0-V-5	CV10-20-0-V-05 CHECK VALVE	\$58
DIRECTIONAL CONTROL	CHECK VALVE		CV10-24-0-N-05	CV10-24-0-N-05 CHECK VALVE	\$73
DIRECTIONAL CONTROL	CHECK VALVE		CV10-28-0-N-65/45	CV10-28-0-N-65/45 THERMAL RELIEF	\$132
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-N-05	CV12-20-0-N-05 CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-N-25	CV12-20-0-N-25 CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-N-30	CV12-20-0-N-30 CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-N-60	CV12-20-0-N-60 CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-N-80	CV12-20-0-N-80 CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		CV12-20-0-V-05	CV12-20-0-V-05 CHECK VALVE	\$121
DIRECTIONAL CONTROL	CHECK VALVE		CV12-21-0-N-26	CV12-21-0-N-26 CHECK VALVE	\$138
DIRECTIONAL CONTROL	CHECK VALVE		CV12-21-0-N-56	CV12-21-0-N-56 CHECK VALVE	\$138
DIRECTIONAL CONTROL	CHECK VALVE		CV12-21-0-N-6	CV12-21-0-N-06 CHECK VALVE	\$138
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-N-25	CV16-20-0-N-25 CHECK VALVE	\$132
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-N-5	CV16-20-0-N-05 CHECK VALVE	\$132
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-N-60	CV16-20-0-N-60 CHECK VALVE	\$132
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-P-25	CV16-20-0-P-25 CHECK VALVE	\$164
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-V-25	CV16-20-0-V-25 CHECK VALVE	\$151
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20-0-V-5	CV16-20-0-V-05 CHECK VALVE	\$151
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20T-0-N-100	CV16-20T-0-N-100 CHECK VALVE	\$199
DIRECTIONAL CONTROL	CHECK VALVE		CV16-20T-0-N-150	CV16-20T-0-N-150 CHECK VALVE	\$199
DIRECTIONAL CONTROL	CHECK VALVE		CV42-M20-0-N-100	CV42-M20-0-N-100 CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		CV42-M20-0-N-15	CV42-M20-0-N-15 CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		CV42-M20-0-N-30	CV42-M20-0-N-30 CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		CV42-M20-0-N-5	CV42-M20-0-N-05 CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		CV42-M20-0-N-60	CV42-M20-0-N-60 CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		CV50-20-0-P-100	CV50-20-0-P-100 CHECK VALVE	\$80
DIRECTIONAL CONTROL	CHECK VALVE		CV50-20-0-P-15	CV50-20-0-P-15 CHECK VALVE	\$80
DIRECTIONAL CONTROL	CHECK VALVE		CV50-20-0-P-30	CV50-20-0-P-30 CHECK VALVE	\$80
DIRECTIONAL CONTROL	CHECK VALVE		CV50-20-0-P-5	CV50-20-0-P-05 CHECK VALVE	\$80
DIRECTIONAL CONTROL	CHECK VALVE		CV50-20-0-P-70	CV50-20-0-P-70 CHECK VALVE	\$80
DIRECTIONAL CONTROL	CHECK VALVE		CVD08	CVD08 CHECK VALVE DISC	\$41
DIRECTIONAL CONTROL	CHECK VALVE		HCV06-20-0-U-05	HCV06-20-0-U-05 CHECK VALVE	\$48
DIRECTIONAL CONTROL	CHECK VALVE		HCV08-20-0-U-03	HCV08-20-0-U-03 CHECK VALVE	\$67
DIRECTIONAL CONTROL	CHECK VALVE		HCV12-20-0-U-05	HCV12-20-0-U-05 CHECK VALVE	\$110
DIRECTIONAL CONTROL	CHECK VALVE		HCV12-20-0-U-25	HCV12-20-0-U-25 CHECK VALVE	\$110
DIRECTIONAL CONTROL	CHECK VALVE		HCV12-20-0-U-80	HCV12-20-0-U-80 CHECK VALVE	\$110
DIRECTIONAL CONTROL	CHECK VALVE		HCV16-20-0-N-05	HCV16-20-0-N-05 CARTRIDGE	\$162
DIRECTIONAL CONTROL	CHECK VALVE		HCV16-20-0-U-25	HCV16-20-0-U-25 CARTRIDGE	\$147
DIRECTIONAL CONTROL	CHECK VALVE		HCV16-20-0-U-60	HCV16-20-0-U-60 CARTRIDGE	\$147
DIRECTIONAL CONTROL	CHECK VALVE		HCV42-M20-0-U-05	HCV42-M20-0-U-05 CARTRIDGE	\$257
DIRECTIONAL CONTROL	CHECK VALVE		HCV42-M20-0-U-30	HCV42-M20-0-U-30 CHECK VALVE	\$257
DIRECTIONAL CONTROL	CHECK VALVE		HPC08-30-0-US-140	HPC08-30-0-US-140 CHECK VALVE	\$121
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-N	PC08-30-0-N P.O. CHECK VALVE	\$99
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-N-120	PC08-30-0-N-120 P.O. CHECK VALVE	\$99
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-N-270	PC08-30-0-N-270 P.O. CHECK VALVE	199 \$99
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-N-70	PC08-30-0-N-70 P.O. CHECK VALVE	\$99
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-N-90	PC08-30-0-N-90 P.O. CHECK VALVE	\$99
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-NS-90	PC08-30-0-NS-90 P.O. CHECK VALVE	\$104
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-V-270	PC08-30-0-V-270 P.O. CHECK VALVE	\$110
DIRECTIONAL CONTROL	CHECK VALVE		PC08-30-0-VS-270	PC08-30-0-VS-270 P.O. CHECK VALVE	\$110

Category	Product type	Option	Code	Description	List price
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-N	PC10-30-0-N P.O. CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-N-120	PC10-30-0-N-120 P.O CHECK VALVE	\$106
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-N-270	PC10-30-0-N-270 PILOTED CHECK	\$106
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-N-70	PC10-30-0-N-70 P.O. CHECK	\$106
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-N-90	PC10-30-0-N-90 P.O. CHECK	\$106
DIRECTIONAL CONTROL	CHECK VALVE		PC10-30-0-V	PC10-30-0-V P.O. CHECK VALVE	\$117
DIRECTIONAL CONTROL	CHECK VALVE		PC10-32-0-N-30	PC10-32-0-N-30 2:1 P.O. CHECK	\$125
DIRECTIONAL CONTROL	CHECK VALVE		PC10-32-8T-N-30	PC10-32-8T-N-30 P.O. CHECK VALVE	\$242
DIRECTIONAL CONTROL	CHECK VALVE		PC10-38-0-N-100-25	PC10-38-0-N-100/25 CONTROL VALVE	\$175
DIRECTIONAL CONTROL	CHECK VALVE		PC10-38-0-N-100-30	PC10-38-0-N-100/30 CONTROL VALVE	\$175
DIRECTIONAL CONTROL	CHECK VALVE		PC10-38-0-VS-100-25	PC10-38-0-VS-100/25 CONTROL VALVE	\$190
COIL	COIL	DEUTSCH CON.	4301212	COIL 12 12V ER	\$190
COIL	COIL	DEUTSCH CON.	4301224	COIL 12 24V ER	\$190
COIL	COIL	INTEGRAL DEUTSCH CON	4301512	COIL 08 12V DR	\$58
COIL	COIL	INTEGRAL DEUTSCH CON	4301524	COIL 08 24V DR	\$58
COIL	COIL	INTEGRAL DEUTSCH CON	4301612	COIL 10 12V DR	\$73
COIL	COIL	INTEGRAL DEUTSCH CON	4301624	COIL 10 24V DR	\$73
COIL	COIL	INTEGRAL DEUTSCH CON	4301852	COIL 08 12V DR/Z	\$67
COIL	COIL	INTEGRAL DEUTSCH CON	4301854	COIL 08 24V DR/Z	\$67
COIL	COIL	INTEGRAL DEUTSCH CON	4301862	COIL 10 12V DR/Z	\$80
COIL	COIL	INTEGRAL DEUTSCH CON	4301872	COIL 08 12V DR/D	\$67
COIL	COIL	INTEGRAL DEUTSCH CON	4301874	COIL 08 24V DR/D	\$67
COIL	COIL	INTEGRAL DEUTSCH CON	4301891	COIL 10 10V DR/D	\$80
COIL	COIL	INTEGRAL DEUTSCH CON	4301892	COIL 10 12V DR/D	\$80
COIL	COIL	INTEGRAL DEUTSCH CON	4301893	COIL 10 20V DR/D	\$80
COIL	COIL	INTEGRAL DEUTSCH CON	4301894	COIL 10 24V DR/D	\$80
COIL	COIL	DEUTSCH CON.	4302682	COIL D03 12V ER	\$95
COIL	COIL	DEUTSCH CON.	4302684	COIL D03 24V ER	\$95
COIL	COIL	DEUTSCH CON.	4303212	COIL 70 12V ER	\$110
COIL	COIL	DEUTSCH CON.	4303224	COIL 70 24V ER	\$110
COIL	COIL	METRIC PACK 150 CON	4303412	COIL 08 12V EY	\$58
COIL	COIL	METRIC PACK 150 CON	4303424	COIL 08 24V EY	\$58
COIL	COIL	METRIC PACK 150 CON	4303524	COIL 10 24V EY	\$78
COIL	COIL	DEUTSCH CON.	4303612	COIL 08 12V ER	\$58
COIL	COIL	DEUTSCH CON.	4303620	COIL 08 20V ER	\$58
COIL	COIL	DEUTSCH CON.	4303624	COIL 08 24V ER	\$58
COIL	COIL	DEUTSCH CON.	4303710	COIL 10 10V ER	\$73
COIL	COIL	DEUTSCH CON.	4303712	COIL 10 12V ER	\$73
COIL	COIL	DEUTSCH CON.	4303724	COIL 10 24V ER	\$73
COIL	COIL	METRIC PACK 150 CON	4303812	COIL 08 12V EY/Z	\$69
COIL	COIL	DEUTSCH CON.	4304012	COIL 08 12V ER/Z	\$67
COIL	COIL	DEUTSCH CON.	4304024	COIL 08 24V ER/Z	\$67
COIL	COIL	DEUTSCH CON.	4304112	COIL 10 12V ER/Z	\$80
COIL	COIL	DEUTSCH CON.	4304124	COIL 10 24V ER/Z	\$80
COIL	COIL	DEUTSCH CON.	4304712	COIL EH 12V ER	\$58
COIL	COIL	DEUTSCH CON.	4304724	COIL EH 24V ER	\$58
COIL	COIL	FLYING LEAD	4305112	COIL 08 12V EL	\$69
COIL	COIL	FLYING LEAD	4305120	COIL 08 20V EL	\$69
COIL	COIL	FLYING LEAD	4305124	COIL 08 24V EL	\$69
COIL	COIL	DEUTSCH CON.	4305524	COIL 12 24V ER/Z	\$201
COIL	COIL	TIMER CONECTOR	4305624	COIL 10 24V EJ	\$91
COIL	COIL	FLYING LEAD	4305712	COIL 10 12V EL	\$89
COIL	COIL	DIN CONNECTOR	4305862	COIL 08 12V EG	\$73
COIL	COIL	DIN CONNECTOR	4305864	COIL 08 24V EG	\$73
COIL	COIL	DIN CONNECTOR	4305882	COIL 10 12V EG	\$91
COIL	COIL	DIN CONNECTOR	4305884	COIL 10 24V EG	\$91
COIL	COIL	DIN CONNECTOR	4305894	COIL 10 24V EG/Z	\$99
COIL	COIL	DUAL SPADE CONNECTOR	6301012	COIL 08 12V DS	\$54
COIL	COIL	DUAL SPADE CONNECTOR	6301020	COIL 08 20V DS	\$58
COIL	COIL	DUAL SPADE CONNECTOR	6301024	COIL 08 24V DS	\$54
COIL	COIL	DUAL LEADS	6302010	COIL 08 10V DL	\$58
COIL	COIL	DUAL LEADS	6302012	COIL 08 12V DL	\$54
COIL	COIL	DUAL LEADS	6302024	COIL 08 24V DL	\$54
COIL	COIL	DIN CONNECTOR	6306012	COIL 08 12V DG	\$67
COIL	COIL	DIN CONNECTOR	6306024	COIL 08 24V DG	\$67
COIL	COIL	DIN CONNECTOR	6306036	COIL 08 36V DG	\$73
COIL	COIL	DUAL LEADS	6309412	COIL 08 12V DL/W	\$73
COIL	COIL	DUAL LEADS	6309424	COIL 08 24V DL/W	\$78
COIL	COIL	AC DIN CONNECTOR	6316024	COIL 08 24V AG	\$114
COIL	COIL	AC DIN CONNECTOR	6316115	COIL 08 115V AG	\$114
COIL	COIL	AC DIN CONNECTOR	6316230	COIL 08 230V AG	\$117
COIL	COIL	DUAL SPADE CONNECTOR	6351012	COIL 10 12V DS	\$69
COIL	COIL	DUAL SPADE CONNECTOR	6351024	COIL 10 24V DS	\$69
COIL	COIL	DUAL LEADS	6352012	COIL 10 12V DL	\$69
COIL	COIL	DUAL LEADS	6352024	COIL 10 24V DL	\$69
COIL	COIL	DIN CONNECTOR	6356010	COIL 10 10V DG	\$80
COIL	COIL	DIN CONNECTOR	6356012	COIL 10 12V DG	\$78
COIL	COIL	DIN CONNECTOR	6356020	COIL 10 20V DG	\$80
COIL	COIL	DIN CONNECTOR	6356024	COIL 10 24V DG	\$78
COIL	COIL	DIN CONNECTOR	6356036	COIL 10 36V DG	\$117
COIL	COIL	DIN CONNECTOR	6356048	COIL 10 48V DG	\$117
COIL	COIL	DIN CONNECTOR	6356110	COIL 10 110V DG	\$117
COIL	COIL	DUAL LEADS	6359412	COIL 10 12V DL/W	\$95
COIL	COIL	AC DIN CONNECTOR	6366024	COIL 10 24V AG	200 \$132
COIL	COIL	AC DIN CONNECTOR	6366115	COIL 10 115V AG	\$132
COIL	COIL	AC DIN CONNECTOR	6366230	COIL 10 230V AG	\$132
COIL	COIL	DIN CONNECTOR	6451612	COIL EH 12V DG	\$80
COIL	COIL	DIN CONNECTOR	6451624	COIL EH 24V DG	\$80
COIL	COIL	DUAL LEADS	6507212	COIL 70 12V DL	\$91



Category	Product type	Option	Code	Description	List price
COIL	COIL	DUAL LEADS	6507224	COIL 70 24V DL	\$91
COIL	COIL	DIN CONNECTOR	6507612	COIL 70 12V DG	\$104
COIL	COIL	DIN CONNECTOR	6507624	COIL 70 24V DG	\$104
COIL	COIL	DUAL LEADS	6507912	COIL 70 12V DL/W	\$95
COIL	COIL	DIN CONNECTOR	6956012	COIL 12 12V EG	\$194
COIL	COIL	DIN CONNECTOR	6956024	COIL 12 24V EG	\$194
COIL	COIL	METRIC PACK 150 CON	6964012	COIL 12 12V EY	\$190
COIL	COIL	METRIC PACK 150 CON	6964024	COIL 12 24V EY	\$190
PRESSURE CONTROL	COUNTERBALANCE		CB10-30A-0-N-30	CB10-30A-0-N-30/ CONTROL VALVE	\$346
PRESSURE CONTROL	CROSS OVER RELIEF		CR08-38A-0-N-10	CR08-38A-0-N-10/ CROSS OVER RELIEF	\$199
PRESSURE CONTROL	CROSS OVER RELIEF		CR08-38A-0-N-30	CR08-38A-0-N-30/ CROSS OVER RELIEF	\$199
PRESSURE CONTROL	CROSS OVER RELIEF		CR10-28A-0-N-24	CR10-28A-0-N-24/ CROSS RELIEF VALVE	\$322
PRESSURE CONTROL	CROSS OVER RELIEF		CR10-28A-0-N-30	CR10-28A-0-N-30/ CROSS RELIEF VALVE	\$322
DIRECTIONAL CONTROL	DUAL CHECK		DC08-40-0-N-135	DC08-40-0-N-135 DUAL CHECK	\$175
DIRECTIONAL CONTROL	DUAL CHECK		DC08-40-0-N-25	DC08-40-0-N-25 DUAL CHECK	\$175
DIRECTIONAL CONTROL	DUAL CHECK		DC10-40-0-N-25	DC10-40-0-N-25 DUAL CHECK	\$210
ELECTRONIC	CONTROLLER		4000350	CONTROLLER ECU-0809	\$2,309
ELECTRONIC	CONTROLLER		4204700	EVDR-0201A VALVE CONTROLLER	\$1,041
ELECTRONIC	CONTROLLER		4204800	EVDR-0101A CONTROLLER	\$542
ELECTRONIC	CONTROLLER		4208230	ECDR-0203A-001 CONTROLLER	\$1,458
ELECTRONIC	CONTROLLER		4208560	ECDR-0506A-002 CONTROLLER	\$1,942
FLOW CONTROL	FLOW CONTROL		FC08-20F-0-N-C-10	FC08-20F-0-N-C10 FLOW CONTROL	\$99
FLOW CONTROL	FLOW CONTROL		FC08-20F-0-N-F-10	FC08-20F-0-N-F10 FLOW CONTROL	\$99
FLOW CONTROL	FLOW CONTROL		FC10-20A-0-N	FC10-20A-0-N FLOW CONTROL VALVE	\$114
FLOW CONTROL	FLOW CONTROL		FC10-20A-0-V	FC10-20A-0-V FLOW CONTROL VALVE	\$121
FLOW CONTROL	FLOW CONTROL		FC10-20B-0-N	FC10-20B-0-N FLOW CONTROL VALVE	\$132
FLOW CONTROL	FLOW CONTROL		FC10-21A-0-N-5	FC10-21A-0-N-05 FLOW CONTROL VALVE	\$127
FLOW CONTROL	FLOW CONTROL		FC12-20A-0-N	FC12-20A-0-N FLOW CONTROL VALVE	\$168
FLOW CONTROL	FLOW CONTROL		FD50-44-0-N-11	FD50-44-0-N-11 FLOW DIVIDER	\$417
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-22	FD50-45-0-N-22 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-33	FD50-45-0-N-33 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-44	FD50-45-0-N-44 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-55	FD50-45-0-N-55 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-66	FD50-45-0-N-66 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-N-88	FD50-45-0-N-88 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-V-33	FD50-45-0-V-33 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD50-45-0-V-66	FD50-45-0-V-66 FLOW DIVIDER	\$199
FLOW CONTROL	FLOW CONTROL		FD52-45-0-N-22	FD52-45-0-N-22 FLOW DIVIDER	\$309
FLOW CONTROL	FLOW CONTROL		FD52-45-0-N-44	FD52-45-0-N-44 FLOW DIVIDER	\$309
FLOW CONTROL	FLOW CONTROL		FD52-45-0-N-66	FD52-45-0-N-66 FLOW DIVIDER	\$309
FLOW CONTROL	FLOW CONTROL		FD56-45-0-N-44	FD56-45-0-N-44 FLOW DIVIDER	\$367
FLOW CONTROL	FLOW CONTROL		FD56-45-0-N-66	FD56-45-0-N-66 FLOW DIVIDER	\$367
FLOW CONTROL	FLOW CONTROL		FD56-45-0-N-84	FD56-45-0-N-84 FLOW DIVIDER	\$367
FLOW CONTROL	FLOW CONTROL		FD56-45-0-N-88	FD56-45-0-N-88 FLOW DIVIDER	\$367
FLOW CONTROL	FLOW CONTROL		FD56-45-0-N-99	FD56-45-0-N-99 FLOW DIVIDER	\$367
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N-/0.5	FR08-20F-0-N-/ 0.50 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M0.2	FR08-20F-0-N-/ M0.2 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M0.3	FR08-20F-0-N-/ M0.3 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M0.4	FR08-20F-0-N-/ M0.4 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M0.5	FR08-20F-0-N-/ M0.5 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M1.0	FR08-20F-0-N-/ M1.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M2.0	FR08-20F-0-N-/ M2.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M2.3	FR08-20F-0-N-/ M2.3 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M3.0	FR08-20F-0-N-/ M3.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M3.8	FR08-20F-0-N-/ M3.8 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M4.0	FR08-20F-0-N-/ M4.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M5.0	FR08-20F-0-N-/ M5.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-N/M6.0	FR08-20F-0-N-/ M6.0 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-V/M0.4	FR08-20F-0-V-/ 0.40 FLOW REGULATOR	\$125
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-V/M1.0	FR08-20F-0-V-/ 1.00 FLOW REGULATOR	\$125
FLOW CONTROL	FLOW CONTROL		FR08-20F-0-V/M5.0	FR08-20F-0-V-/ M5 FLOW REGULATOR	\$125
FLOW CONTROL	FLOW CONTROL		FR08-30F-0-N-M0.5	FR08-30F-0-N-/ M0.5 FLOW REGULATOR	\$110
FLOW CONTROL	FLOW CONTROL		FR08-30F-0-N-M3.5	FR08-30F-0-N-/ M3.5 FLOW REGULATOR	\$110
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M10	FR10-20F-0-N-/ M10 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M12	FR10-20F-0-N-/ M12 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M15	FR10-20F-0-N-/ M15 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M20	FR10-20F-0-N-/ M20 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M5.0	FR10-20F-0-N-/ M5 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M8.5	FR10-20F-0-N-/ M8.5 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-20F-0-N/M9	FR10-20F-0-N-/ M9 FLOW REGULATOR	\$121
FLOW CONTROL	FLOW CONTROL		FR10-30F-0-N/0.2	FR10-30F-0-N-/ 0.20 FLOW REGULATOR	\$117
FLOW CONTROL	FLOW CONTROL		FR10-33A-0-N	FR10-33A-0-N FLOW CONTROL	\$212
FLOW CONTROL	FLOW CONTROL		FR10-33E-0-N	FR10-33E-0-N FLOW CONTROL	\$227
FLOW CONTROL	FLOW CONTROL		FR10-39A-0-N	FR10-39A-0-N FLOW REGULATOR	\$220
FLOW CONTROL	FLOW CONTROL		FR10-39C-0-N	FR10-39C-0-N FLOW CONTROL	\$235
FLOW CONTROL	FLOW CONTROL		FR10-39E-0-N	FR10-39E-0-N FLOW REGULATOR	\$235
FLOW CONTROL	FLOW CONTROL		FR12-20F-0-N-M34	FR12-20F-0-N-/ M34 FLOW REGULATOR	\$168
FLOW CONTROL	FLOW CONTROL		FR12-23A-0-N	FR12-23A-0-N FLOW CONTROL	\$285
FLOW CONTROL	FLOW CONTROL		FR12-23A-0-N\M23	FR12-23A-0-N-/M23 FLOW CONTROL	\$285
FLOW CONTROL	FLOW CONTROL		FR12-23A-0-N\M32	FR12-23A-0-N-/M32 FLOW CONTROL	\$285
FLOW CONTROL	FLOW CONTROL		FR12-23E-0-N	FR12-23E-0-N FLOW CONTROL	\$300
FLOW CONTROL	FLOW CONTROL		FR12-30F-0-N/M15	FR12-30F-0-N-/ M15 FLOW REGULATOR	\$194
FLOW CONTROL	FLOW CONTROL		FR12-30F-0-N/M5	FR12-30F-0-N-/M5 FLOW REGULATOR	\$194
FLOW CONTROL	FLOW CONTROL		FR12-33A-0-N	FR12-33A-0-N FLOW CONTROL	\$410
FLOW CONTROL	FLOW CONTROL		FR12-33E-0-N	FR12-33E-0-N FLOW CONTROL	\$426
FLOW CONTROL	FLOW CONTROL		FR16-20F-0-N/M56	FR16-20F-0-N-/M56 FLOW REGULATOR	\$190
FLOW CONTROL	FLOW CONTROL		FR16-20F-0-N/M80	FR16-20F-0-N-/M80 FLOW REGULATOR	\$190
FLOW CONTROL	FLOW CONTROL		FR16-20F-0-N/M97	FR16-20F-0-N-/M97 FLOW REGULATOR	\$190
FLOW CONTROL	FLOW CONTROL		FR16-30F-0-N-M70	FR16-30F-0-N-/M70 FLOW REGULATOR	\$272

Category	Product type	Option	Code	Description	List price
FLOW CONTROL	FLOW CONTROL		FR50-20F-0-P/M1.0	FR50-20F-0-P-/M1.0 FLOW REGULATOR	\$168
FLOW CONTROL	FLOW CONTROL		FR50-23A-0-N	FR50-23A-0-N-/ FLOW REGULATOR	\$248
FLOW CONTROL	FLOW CONTROL		FR50-23C-0-N/M4.5	FR50-23C-0-N-/M4.5 FLOW REGULATOR	\$264
FLOW CONTROL	FLOW CONTROL		FR50-28A-0-N	FR50-28A-0-N-/ FLOW REGULATOR	\$272
FLOW CONTROL	FLOW CONTROL		FRRV10-41FA-0-NM3.0	FRRV10-41F/A-0-N-M3.0/	\$242
FLOW CONTROL	FLOW CONTROL		FRRV12-41FA-0-NM23.	FRRV12-41F/A-0-N-M23.0/ FC REL	\$346
FLOW CONTROL	FLOW CONTROL		HPV12-20-0-U-0	HPV12-20-0-U-0 CARTRIDGE	\$600
FLOW CONTROL	FLOW CONTROL		HPV12-21-0-U-0	HPV12-21-0-U-0 CARTRIDGE	\$611
FLOW CONTROL	FLOW CONTROL		HPV12-30T-0-U-0	HPV12-30T-0-U-0 FLOW CONTROL	\$756
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		HSP10-20-0-U-0	HSP10-20-0-U-0 SOLENOID VALVE	\$285
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		HSP10-47DB-0-U-0	HSP10-47DB-0-U-0 SOLENOID VALVE	\$652
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		HSPEC10-30A-0-U-0	HSPEC10-30A-0-U-0 SOLENOID VALVE	\$605
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		HSPEC12-30A-0-U-0	HSPEC12-30A-0-U-0 SOLENOID VALVE	\$678
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		HSPEC16-30-0-U-0	HSPEC16-30-0-U-0	\$732
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV08-30A-0-N-0	PV08-30A-0-N-0 FLOW CONTROL	\$417
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV08-30AM-0-N-0	PV08-30AM-0-N-0 FLOW CONTROL	\$499
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV08-30BM-0-N-0	PV08-30BM-0-N-0 FLOW CONTROL	\$499
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV42-M30A-0-N-0	PV42-M30A-0-N-0 FLOW CONTROL	\$968
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV42-M30B-0-N-0	PV42-M30B-0-N-0 FLOW CONTROL	\$968
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV70-30A-0-N-0	PV70-30A-0-N-0 FLOW CONTROL	\$542
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV70-30AG-0-N-0	PV70-30AG-0-N-0 FLOW CONTROL	\$637
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV70-30AM-0-N-0	PV70-30AM-0-N-0 FLOW CONTROL	\$622
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV70-30BG-0-N-0	PV70-30BG-0-N-0 FLOW CONTROL	\$637
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV70-33A-0-N-0	PV70-33A-0-N-0 CARTRIDGE ASSEMBLY	\$505
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV70-33AM-0-N-0	PV70-33AM-0-N-0 CARTRIDGE ASSEMBLY	\$588
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV70-33B-0-N-0	PV70-33B-0-N-0 CARTRIDGE ASSEMBLY	\$505
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV70-33C-0-N-0	PV70-33C-0-N-0 CARTRIDGE ASSEMBLY	\$505
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-20-0-N-0	PV72-20-0-N-0 FLOW CONTROL	\$588
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV72-20BG-0-N-0	PV72-20BG-0-N-0 FLOW CONTROL	\$683
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV72-20G-0-N-0	PV72-20G-0-N-0 FLOW CONTROL	\$683
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-21-0-N-0	PV72-21-0-N-0 FLOW CONTROL	\$588
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-30A-0-N-0	PV72-30A-0-N-0 FLOW CONTROL	\$631
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV72-30AG-0-N-0	PV72-30AG-0-N-0 FLOW CONTROL	\$726
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-30B-0-N-0	PV72-30B-0-N-0 FLOW CONTROL	\$631
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	PV72-30BM-0-N-0	PV72-30BM-0-N-0 FLOW CONTROL	\$711
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-33A-0-N-0	PV72-33A-0-N-0 FLOW CONTROL	\$562
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV72-33AG-0-N-0	PV72-33AG-0-N-0 FLOW CONTROL	\$659
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV72-33B-0-N-0	PV72-33B-0-N-0 FLOW CONTROL	\$562
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV72-33BG-0-N-0	PV72-33BG-0-N-0 FLOW CONTROL	\$659
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		PV76-30A-0-N-0	PV76-30A-0-N-0 N.C. FLOW CONTROL	\$788
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH GAURD	PV76-30AG-0-N-0	PV76-30AG-0-N-0 N.C. FLOW CONTROL	\$883
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-20-0-N-0	SP08-20-0-N-0 SOLENOID VALVE	\$235
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-20A-0-N-0	SP08-20A-0-N-0 SOLENOID VALVE	\$257
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP08-20M-0-N-0	SP08-20M-0-N-0 SOLENOID VALVE	\$315
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-21-0-N-0	SP08-21-0-N-0 SOLENOID VALVE	\$296
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-24-0-N-0	SP08-24-0-N-0 SOLENOID VALVE	\$294
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-47C-0-N-0	SP08-47C-0-N-0 PROPORTIONAL VALVE	\$274
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-47CL-0-N-0	SP08-47CL-0-N-0 SOLENOID VALVE	\$294
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP08-47CM-0-N-0	SP08-47CM-0-N-0 SOLENOID VALVE	\$374
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-47D-0-N-0	SP08-47D-0-N-0 PROPORTIONAL VALVE	\$279
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-47DB-0-N-0	SP08-47DB-0-N-0 SOLENOID VALVE	\$393
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-47DL-0-N-0	SP08-47DL-0-N-0 SOLENOID VALVE	\$300
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP08-57DB-0-N-0	SP08-57DB-0-N-0 SOLENOID VALVE	\$443
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP08-57DM-0-N-0	SP08-57DM-0-N-0 SOLENOID VALVE	\$432
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-20-0-N-0	SP10-20-0-N-0 SOLENOID VALVE	\$248
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-21-0-N-0	SP10-21-0-N-0 SOLENOID VALVE	\$369
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-24-0-N-0	SP10-24-0-N-0 SOLENOID VALVE	\$330
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH KNOB	SP10-24K-0-N-0	SP10-24K-0-N-0 SOLENOID VALVE	\$378
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH PIN	SP10-24P-0-N-0	SP10-24P-0-N-0 SOLENOID VALVE	\$367
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-47C-0-N-0	SP10-47C-0-N-0 PROPORTIONAL VALVE	\$330
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-47D-0-N-0	SP10-47D-0-N-0 SOLENOID VALVE	\$326
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP10-47DM-0-N-0	SP10-47DM-0-N-0 SOLENOID VALVE	\$426
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-57C-0-N-0	SP10-57C-0-N-0 SOLENOID VALVE	\$374
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-57D-0-N-0	SP10-57D-0-N-0 SOLENOID VALVE	\$369
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP10-58D-0-N-0	SP10-58D-0-N-0 SOLENOID VALVE	\$374
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP10-58DM-0-N-0	SP10-58DM-0-N-0 SOLENOID VALVE	\$469
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP12-20-0-N-0	SP12-20-0-N-0 SOLENOID VALVE	\$322
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP12-20M-0-N-0	SP12-20M-0-N-0 SOLENOID VALVE	\$404
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP12-21-0-N-0	SP12-21-0-N-0 SOLENOID VALVE	\$369
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SP16-20-0-N-0	SP16-20-0-N-0 SOLENOID VALVE	\$359
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SP16-20M-0-N-0	SP16-20M-0-N-0 SOLENOID VALVE	\$441
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MAN O/RIDE WITH KNUR	SP16-20Y-0-N-0	SP16-20Y-0-N-0 SOLENOID VALVE	\$469
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		SPCL10-32-0-N-0	SPCL10-32-0-N-0 SOLENOID VALVE	\$315
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL	MANUAL OVERRIDE	SPCL10-32M-0-N-0	SPCL10-32M-0-N-0 SOLENOID VALVE	\$395
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		ZL70-30A-0-N-0	ZL70-30A-0-N-0 FLOW CONTROL	\$590
PROPORTIONAL VALVES	FLOW CONTROL - PROPORTIONAL		ZL70-30B-0-N-0	ZL70-30B-0-N-0 FLOW CONTROL	\$590
ACCESSORIES	HAND PUMP		HP10-20D-0-N	HP10-20D-0-N HAND PUMP	\$199
ACCESSORIES	HAND PUMP		HP10-21A-0-N-A	HP10-21A-0-N-A HAND PUMP	\$320
ACCESSORIES	HAND PUMP		HP10-21A-0-N-B	HP10-21A-0-N-B HAND PUMP	\$320
ACCESSORIES	HAND PUMP		HP10-21B-0-N-A	HP10-21B-0-N-A HAND PUMP	\$320
ACCESSORIES	HAND PUMP		HP10-21B-0-N-B	HP10-21B-0-N-B HAND PUMP	\$320
ACCESSORIES	HAND PUMP		HP16-21A-0-N	HP16-21A-0-N HAND PUMP	\$417
ACCESSORIES	HAND PUMP		HP16-21A-0-V	HP16-21A-0-V HAND PUMP	\$432
LOCK VALVE	LOCK VALVE		DCV08-6T-N	DCV08-6T-N LOCK VALVE	202 \$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-6T-N-100	DCV08-6T-N-100 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-6T-N-200	DCV08-6T-N-200 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-6T-N-270	DCV08-6T-N-270 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-6T-N-60	DCV08-6T-N-60 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-8T-N	DCV08-8T-N LOCK VALVE	\$279

Category	Product type	Option	Code	Description	List price
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-8T-N-100	DCV08-8T-N-100 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-8T-N-200	DCV08-8T-N-200 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV08-8T-N-60	DCV08-8T-N-60 LOCK VALVE	\$279
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-6T-N	DCV10-6T-N LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-6T-N-100	DCV10-6T-N-100 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-6T-N-200	DCV10-6T-N-200 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-6T-N-40	DCV10-6T-N-40 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N	DCV10-8T-N LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N-100	DCV10-8T-N-100 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N-200	DCV10-8T-N-200 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N-300	DCV10-8T-N-300 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N-40	DCV10-8T-N-40 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOCK VALVE		DCV10-8T-N-70	DCV10-8T-N-70 LOCK VALVE	\$285
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP08-35-0-N-110	EP08-35-0-N-110 LOGIC ELEMENT	\$106
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP08-35-0-N-150	EP08-35-0-N-150 LOGIC ELEMENT	\$106
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP08-35-0-N-40	EP08-35-0-N-40 LOGIC ELEMENT	\$106
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP08-35-0-N-80	EP08-35-0-N-80 LOGIC ELEMENT	\$106
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35-0-N-10	EP10-S35-0-N-10 PILOTED ELEMENT	\$127
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35-0-N-110	EP10-S35-0-N-110 PILOTED ELEMENT	\$127
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35-0-N-40	EP10-S35-0-N-40 PILOTED ELEMENT	\$127
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35-0-N-80	EP10-S35-0-N-80 PILOTED ELEMENT	\$127
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35T-0-N-160	EP10-S35T-0-N-160 LOGIC ELEMENT	\$147
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S35T-0-N-230	EP10-S35T-0-N-230 LOGIC ELEMENT	\$147
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S38-0-N-160	EP10-S38-0-N-160 LOGIC ELEMENT	\$153
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP10-S38-0-N-80	EP10-S38-0-N-80 LOGIC ELEMENT	\$153
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35-0-N-10	EP12-S35-0-N-10 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35-0-N-100	EP12-S35-0-N-100 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35-0-N-40	EP12-S35-0-N-40 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35-0-N-80	EP12-S35-0-N-80 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35T-0-N-160	EP12-S35T-0-N-160 LOGIC ELEMENT	\$175
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35T-0-N-240	EP12-S35T-0-N-240 LOGIC ELEMENT	\$175
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP12-S35TG-0-N-160	EP12-S35TG-0-N-160 LOGIC ELEMENT	\$190
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35-0-N-70	EP16-S35-0-N-70 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-N-110	EP16-S35T-0-N-110 LOGIC ELEMENT	\$199
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-N-160	EP16-S35T-0-N-160 LOGIC ELEMENT	\$199
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-N-240	EP16-S35T-0-N-240 LOGIC ELEMENT	\$199
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-V-110	EP16-S35T-0-V-110 LOGIC ELEMENT	\$220
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-V-160	EP16-S35T-0-V-160 LOGIC ELEMENT	\$220
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP16-S35T-0-V-240	EP16-S35T-0-V-240 LOGIC ELEMENT	\$220
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S35-0-N-160	EP20-S35-0-N-160 ELEMENT (PILOTED)	\$285
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S35-0-N-20	EP20-S35-0-N-20 ELEMENT (PILOTED)	\$285
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S35-0-N-80	EP20-S35-0-N-80 ELEMENT (PILOTED)	\$285
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S38-0-P-40	EP20-S38-0-P-40 LOGIC ELEMENT	\$395
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S38-0-P-80	EP20-S38-0-P-80 LOGIC ELEMENT	\$395
DIRECTIONAL CONTROL	LOGIC ELEMENT		EP20-S39-0-P-160	EP20-S39-0-P-160 LOGIC ELEMENT	\$490
DIRECTIONAL CONTROL	LOGIC ELEMENT		EPFR50-S35T-0-N-160	EPFR50-S35T-0-N-160 PILOTED ELEMENT	\$248
DIRECTIONAL CONTROL	LOGIC ELEMENT		EPFR50-S35T-0-N-230	EPFR50-S35T-0-N-230 PILOTED ELEMENT	\$248
DIRECTIONAL CONTROL	LOGIC ELEMENT		EPFR52-S35T-0-N-240	EPFR52-S35T-0-N-240 PILOTED ELE.	\$272
DIRECTIONAL CONTROL	LOGIC ELEMENT		EPFR58-35-0-N-110	EPFR58-35-0-N-110 LOGIC ELEMENT	\$184
DIRECTIONAL CONTROL	LOGIC ELEMENT		ER10-S30-0-N	ER10-S30-0-N CARTRIDGE	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV10-S34-0-N-10	EV10-S34-0-N-10 VENTED ELEMENT	\$147
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV10-S34-0-N-110	EV10-S34-0-N-110 VENTED ELEMENT	\$147
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV10-S34-0-N-80	EV10-S34-0-N-80 VENTED ELEMENT	\$147
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV10-S34T-0-N-160	EV10-S34T-0-N-160 LOGIC ELEMENT	\$162
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV12-S34-0-N-10	EV12-S34-0-N-10 CARTRIDGE	\$173
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV12-S34-0-N-100	EV12-S34-0-N-100 CARTRIDGE	\$173
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV12-S34-0-N-80	EV12-S34-0-N-80 CARTRIDGE	\$173
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV16-S34-0-N-10	EV16-S34-0-N-10 LOGIC ELEMENT	\$184
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV16-S34-0-N-70	EV16-S34-0-N-70 LOGIC ELEMENT	\$184
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV16-S34T-0-N-160	EV16-S34T-0-N-160 LOGIC ELEMENT	\$212
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV16-S34T-0-N-240	EV16-S34T-0-N-240 LOGIC ELEMENT	\$212
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV20-S34-0-N-20	EV20-S34-0-N-20 ELEMENT (VENTED)	\$294
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV20-S34-0-P-50	EV20-S34-0-P-50 ELEMENT (VENTED)	\$359
DIRECTIONAL CONTROL	LOGIC ELEMENT		EV20-S34-0-P-80	EV20-S34-0-P-80 ELEMENT (VENTED)	\$359
DIRECTIONAL CONTROL	LOGIC ELEMENT		HEP42-S35-0-U-80	HEP42-S35-0-U-80 CARTRIDGE	\$322
DIRECTIONAL CONTROL	MANUAL VALVE	CABLE OVERRIDE	MP08-20J-0-N	MP08-20J-0-N MANUAL PULL VALVE	\$143
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP08-20K-0-N	MP08-20K-0-N MANUAL PULL VALVE	\$138
DIRECTIONAL CONTROL	MANUAL VALVE	THREADED SPRING RETURN	MP08-20T-0-N	MP08-20T-0-N MANUAL PULL VALVE	\$127
DIRECTIONAL CONTROL	MANUAL VALVE	KNOB W/ POSITION PIN	MP08-30D-0-N	MP08-30D-0-N MANUAL PULL VALVE	\$199
DIRECTIONAL CONTROL	MANUAL VALVE	CABLE OVERRIDE	MP08-30J-0-N	MP08-30J-0-N MANUAL PULL VALVE	\$199
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP08-30K-0-N	MP08-30K-0-N MANUAL PULL VALVE	\$194
DIRECTIONAL CONTROL	MANUAL VALVE	THREADED SPRING RETURN	MP08-30T-0-N	MP08-30T-0-N MANUAL PULL VALVE	\$184
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP08-34K-0-N	MP08-34K-0-N MANUAL PULL VALVE	\$194
DIRECTIONAL CONTROL	MANUAL VALVE	THREADED SPRING RETURN	MP08-34T-0-N	MP08-34T-0-N MANUAL PULL VALVE	\$184
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP08-40K-0-N	MP08-40K-0-N MANUAL PULL VALVE	\$220
DIRECTIONAL CONTROL	MANUAL VALVE	KNOB W/ POSITION PIN	MP10-20D-0-N	MP10-20D-0-N MANUAL PULL VALVE	\$143
DIRECTIONAL CONTROL	MANUAL VALVE	CABLE OVERRIDE	MP10-20J-0-N	MP10-20J-0-N MANUAL PULL VALVE	\$147
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP10-20K-0-N	MP10-20K-0-N MANUAL PULL VALVE	\$138
DIRECTIONAL CONTROL	MANUAL VALVE	THREADED SPRING RETURN	MP10-20T-0-N	MP10-20T-0-N MANUAL PULL VALVE	\$132
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP10-22-K-0-N	MP10-22K-0-N MANUAL PULL VALVE	\$199
DIRECTIONAL CONTROL	MANUAL VALVE	RED KNOB W/POS PIN	MP10-22L-0-N	MP10-22L-0-N MANUAL PULL VALVE	\$205
DIRECTIONAL CONTROL	MANUAL VALVE	RED KNOB W/POS PIN	MP10-22L-0-V	MP10-22L-0-V MANUAL PULL VALVE	\$216
DIRECTIONAL CONTROL	MANUAL VALVE	KNOB W/ POSITION PIN	MP10-40D-0-N	MP10-40D-0-N MANUAL PULL VALVE	\$227
DIRECTIONAL CONTROL	MANUAL VALVE	THREADED SPRING RETURN	MP10-40T-0-N	MP10-40T-0-N MANUAL PULL VALVE	\$212
DIRECTIONAL CONTROL	MANUAL VALVE	PLASTIC KNOB	MP10-42K-0-N	MP10-42K-0-N MANUAL PULL VALVE	\$225
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-20-A-0-N	MR10-20A-0-N MANUAL ROTARY VALVE	\$175
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-20-B-0-N	MR10-20B-0-N MANUAL ROTARY VALVE	\$175
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-20-C-0-N	MR10-20C-0-N MANUAL ROTARY VALVE	\$175
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-31-0-N	MR10-31-0-N CARTRIDGE ASSEMBLY	\$201

Category	Product type	Option	Code	Description	List price
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-40-0-N	MR10-40-0-N CARTRIDGE ASSEMBLY	\$289
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-47A-0-N	MR10-47A-0-N CARTRIDGE ASSEMBLY	\$300
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-47B-0-N	MR10-47B-0-N CARTRIDGE ASSEMBLY	\$300
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-47C-0-N	MR10-47C-0-N CARTRIDGE ASSEMBLY	\$300
DIRECTIONAL CONTROL	MANUAL VALVE		MR10-47D-0-N	MR10-47D-0-N CARTRIDGE ASSEMBLY	\$300
DIRECTIONAL CONTROL	MANUAL VALVE		MV08-22-N	MV08-22-0-N MANUAL RELEASE VALVE	\$125
FLOW CONTROL	NEEDLE VALVE		NV08-20A-0-N	NV08-20A-0-N NEEDLE VALVE	\$89
FLOW CONTROL	NEEDLE VALVE		NV08-20B-0-N	NV08-20B-0-N NEEDLE VALVE	\$110
FLOW CONTROL	NEEDLE VALVE		NV08-20C-0-N	NV08-20C-0-N NEEDLE VALVE CARTRIDG	\$99
FLOW CONTROL	NEEDLE VALVE		NV08-20D-0-N	NV08-20D-0-N NEEDLE VALVE	\$104
FLOW CONTROL	NEEDLE VALVE		NV08-20D-0-V	NV08-20D-0-V NEEDLE VALVE	\$110
FLOW CONTROL	NEEDLE VALVE		NV08-21E-0-N	NV08-21E-0-N NEEDLE VALVE W/KNOB	\$104
FLOW CONTROL	NEEDLE VALVE		NV08-23A-0-N	NV08-23A-0-N NEEDLE VALVE	\$106
FLOW CONTROL	NEEDLE VALVE		NV08-23B-0-N	NV08-23B-0-N NEEDLE VALVE	\$125
FLOW CONTROL	NEEDLE VALVE		NV10-20A-0-N	NV10-20A-0-N NEEDLE VALVE	\$89
FLOW CONTROL	NEEDLE VALVE		NV10-20B-0-N	NV10-20B-0-N NEEDLE VALVE	\$110
FLOW CONTROL	NEEDLE VALVE		NV10-20C-0-N	NV10-20C-0-N NEEDLE VALVE	\$104
FLOW CONTROL	NEEDLE VALVE		NV10-21E-0-N	NV10-21E-0-N NEEDLE VALVE	\$110
FLOW CONTROL	NEEDLE VALVE		NV10-21T-0-N	NV10-21T-0-N NEEDLE VALVE	\$95
FLOW CONTROL	NEEDLE VALVE		NV10-22A-0-N	NV10-22A-0-N NEEDLE VALVE	\$104
FLOW CONTROL	NEEDLE VALVE		NV10-22C-0-N	NV10-22C-0-N NEEDLE VALVE	\$114
FLOW CONTROL	NEEDLE VALVE		NV12-20A-0-N-0	NV12-20A-0-N NEEDLE VALVE	\$153
FLOW CONTROL	NEEDLE VALVE		NV12-20B-0-N-0	NV12-20B-0-N NEEDLE VALVE	\$175
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD16-44-0-U-150	HPD16-44-0-U-150 PILOTED 5-WAY	\$359
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD16-45-0-U-150	HPD16-45-0-U-150 PILOTED 5-WAY	\$359
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD16-550-0-US-150	HPD16-550-0-US-150 PILOTED 4-WAY	\$389
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD42-550-0-US-160	HPD42-550-0-US-160 PILOTED 4 WAY	\$659
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD42-561-0-U-160	HPD42-561-0-U-160 PILOTED 4 WAY	\$715
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPD42-567C-0-U-170	HPD42-567C-0-U-170 PILOTED 5 WAY	\$715
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPE16-45-0-U	HPE16-45-0-U CARTRIDGE	\$551
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		HPE42-M44-0-U	HPE42-M44-0-U CARTRIDGE	\$667
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD08-41-0-N-60	PD08-41-0-N-60 PILOTED 3-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD08-41N-0-N-60	PD08-41N-0-N-60 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-N-110	PD10-30-0-N-110 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-N-170	PD10-30-0-N-170 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-N-40	PD10-30-0-N-40 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-N-60	PD10-30-0-N-60 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-NS-110	PD10-30-0-NS-110 PILOTED 2-WAY	\$151
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-NS-170	PD10-30-0-NS-170 PILOTED 2-WAY	\$151
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-30-0-V-40	PD10-30-0-V-40 PILOTED 2-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-32-0-N-110	PD10-32-0-N-110 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-32-0-N-170	PD10-32-0-N-170 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-32-0-N-40	PD10-32-0-N-40 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-32-0-N-60	PD10-32-0-N-60 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-32-0-NS-170	PD10-32-0-NS-170 PILOTED 2-WAY	\$147
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-34-0-N-110	PD10-34-0-N-110 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-34-0-N-170	PD10-34-0-N-170 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-34-0-N-40	PD10-34-0-N-40 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-34-0-N-60	PD10-34-0-N-60 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-34-0-NS-110	PD10-34-0-NS-110 PILOTED 2-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-35-0-N-110	PD10-35-0-N-110 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-35-0-N-170	PD10-35-0-N-170 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-35-0-N-40	PD10-35-0-N-40 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-35-0-N-60	PD10-35-0-N-60 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-35-0-NS-170	PD10-35-0-NS-170 PILOTED 2-WAY	\$153
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-N-110	PD10-40-0-N-110 PILOTED 3-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-N-130	PD10-40-0-N-130 PILOTED 3-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-N-170	PD10-40-0-N-170 PILOTED 3-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-N-40	PD10-40-0-N-40 PILOTED 3-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-N-60	PD10-40-0-N-60 PILOTED 3-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-NS-110	PD10-40-0-NS-110 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40-0-NS-170	PD10-40-0-NS-170 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40N-0-N-170	PD10-40N-0-N-170 PILOTED 3-WAY	\$164
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-40N-0-NS-110	PD10-40N-0-NS-110 PILOTED 3-WAY	\$168
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-41-0-N-110	PD10-41-0-N-110 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-41-0-N-170	PD10-41-0-N-170 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-41-0-N-60	PD10-41-0-N-60 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-41-0-NS-110	PD10-41-0-NS-110 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-41T-0-N-200	PD10-41T-0-N-200 PILOTED 3-WAY	\$205
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-42-0-N-110	PD10-42-0-N-110 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-42-0-NS-110	PD10-42-0-NS-110 PILOTED 3-WAY	\$162
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-42-0-VS-110	PD10-42-0-VS-110 PILOTED 3-WAY	\$175
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-44-0-N-170	PD10-44-0-N-170 PILOTED 2-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-44-0-N-60	PD10-44-0-N-60 PILOTED 2-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-44-0-VS-110	PD10-44-0-VS-110 PILOTED 2-WAY	\$175
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-45-0-N-110	PD10-45-0-N-110 PILOTED 2-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-45-0-N-60	PD10-45-0-N-60 PILOTED 2-WAY	\$158
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-50N-0-N-100	PD10-50N-0-N-100 PILOTED 3-WAY	\$225
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-50N-0-N-150	PD10-50N-0-N-150 PILOTED 4-WAY	\$225
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-50N-0-N-230	PD10-50N-0-N-230 PILOTED 4-WAY	\$225
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD10-562-0-N-150	PD10-562-0-N-150 PILOTED 5 WAY	\$248
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-30-0-N-110	PD12-30-0-N-110 PILOTED 2-WAY	\$199
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-30-0-N-170	PD12-30-0-N-170 PILOTED 2-WAY	\$199
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-34-0-N-110	PD12-34-0-N-110 PILOTED 2-WAY	\$199
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-34-0-N-170	PD12-34-0-N-170 PILOTED 2-WAY	\$199
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-34-0-NS-110	PD12-34-0-NS-110 PILOTED 2-WAY	\$205
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-40-0-N-110	PD12-40-0-N-110 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-40-0-NS-110	PD12-40-0-NS-110 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-40-0-NS-170	PD12-40-0-NS-170 PILOTED 3-WAY	\$235

Category	Product type	Option	Code	Description	List price
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-40N-0-PS-110	PD12-40N-0-PS-110 PILOTED 3-WAY	\$309
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-40-N-170	PD12-40-0-N-170 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-41-0-N-110	PD12-41-0-N-110 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-41-0-N-170	PD12-41-0-N-170 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-44-0-N-110	PD12-44-0-N-110 PILOTED 2-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-44-0-N-170	PD12-44-0-N-170 PILOTED 2-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-45-0-N-170	PD12-45-0-N-170 PILOTED 3-WAY	\$235
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-550-0-N-110	PD12-550-0-N-110 PILOTED 4-WAY	\$264
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-550-0-NS-110	PD12-550N-0-NS-110 PILOTED 4-WAY	\$264
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-560N-0-N-110	PD12-560N-0-N-110 PILOTED 5-WAY	\$294
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD12-561N-0-N-110	PD12-561N-0-N-110 CARTRIDGE	\$296
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-40-0-N-110	PD16-40-0-N-110 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-40-0-N-80	PD16-40-0-N-80 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-40-0-VS-170	PD16-40-0-VS-170 PILOTED 3-WAY	\$315
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-40N-0-VS-170	PD16-40N-0-VS-170 PILOTED 3-WAY	\$322
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-41-0-N-110	PD16-41-0-N-110 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-41-0-N-170	PD16-41-0-N-170 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-41-0-N-60	PD16-41-0-N-60 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-42-0-N-110	PD16-42-0-N-110 PILOTED 3-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-44-0-N-170	PD16-44-0-N-170 PILOTED 2-WAY	\$283
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-44-0-NS-110	PD16-44-0-NS-110 PILOTED 2-WAY	\$285
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-44-0-NS-170	PD16-44-0-NS-170 PILOTED 2-WAY	\$285
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-45-0-N-170	PD16-45-0-N-170 PILOTED 2-WAY	\$274
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-45-0-VS-170	PD16-45-0-VS-170 PILOTED 2-WAY	\$309
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-560N-0-N-170	PD16-560N-0-N-170 PILOTED 5-WAY	\$315
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-561N-0-N-170	PD16-561N-0-N-170 PILOTED 5-WAY	\$315
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-561N-0-VS-170	PD16-561N-0-VS-170 PILOTED 5-WAY	\$367
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-567C-0-N-170	PD16-567C-0-N-170 PILOTED 5-WAY	\$322
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-567D-0-N-110	PD16-567D-0-N-110 PILOTED 5-WAY	\$322
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD16-567D-0-N-170	PD16-567D-0-N-170 PILOTED 5-WAY	\$322
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M40-0-N-160	PD42-M40-0-N-160 PILOTED 3-WAY	\$568
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M40-0-P-160	PD42-M40-0-P-160 PILOTED 3-WAY	\$672
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M40N-0-N-160	PD42-M40N-0-N-160 PILOTED 3-WAY	\$583
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M41-0-PS-160	PD42-M41-0-PS-160 PILOTED 3-WAY	\$678
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M42-0-N-160	PD42-M42-0-N-160 PILOTED 3-WAY	\$568
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M42-0-P-160	PD42-M42-0-P-160 PILOTED 3-WAY	\$672
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M42-0-PS-160	PD42-M42-0-PS-160 PILOTED 3-WAY	\$678
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-M45-0-N-160	PD42-M45-0-N-160 PILOTED 2-WAY	\$568
DIRECTIONAL CONTROL	PILOTED SPOOL VALVE		PD42-S60N-0-N-170	PD42-S60N-0-N-170 PILOTED 5 WAY	\$579
FLOW CONTROL	PRESSURE COMPENSATOR		EC08-32-0-N-150	EC08-32-0-N-150 COMPENSATOR	\$125
FLOW CONTROL	PRESSURE COMPENSATOR		EC08-32-0-N-250	EC08-32-0-N-250 COMPENSATOR	\$125
FLOW CONTROL	PRESSURE COMPENSATOR		EC08-32-0-N-80	EC08-32-0-N-80 COMPENSATOR	\$125
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-30-0-N-40	EC10-30-0-N-40 COMPENSATOR	\$125
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-30-0-N-80	EC10-30-0-N-80 COMPENSATOR	\$125
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-32-0-N-150	EC10-32-0-N-150 COMPENSATOR	\$147
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-32-0-N-80	EC10-32-0-N-80 COMPENSATOR	\$147
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-32-3B-N-150	EC10-32-3B-N-150 COMPENSATOR	\$309
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-40-0-N-160	EC10-40-0-N-160 COMPENSATOR	\$136
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-40-0-N-80	EC10-40-0-N-80 COMPENSATOR	\$136
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-42-0-N-150	EC10-42-0-N-150 COMPENSATOR	\$147
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-42-0-N-80	EC10-42-0-N-80 COMPENSATOR	\$147
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-43-0-N-150	EC10-43-0-N-150 COMPENSATOR	\$188
FLOW CONTROL	PRESSURE COMPENSATOR		EC10-43-0-N-80	EC10-43-0-N-80 COMPENSATOR	\$188
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-30-0-N-100	EC12-30-0-N-100 COMPENSATOR	\$175
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-30-0-N-160	EC12-30-0-N-160 COMPENSATOR	\$175
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-32-0-N-160	EC12-32-0-N-160 COMPENSATOR	\$227
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-32-0-N-220	EC12-32-0-N-220 COMPENSATOR	\$227
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-32-0-N-80	EC12-32-0-N-80 COMPENSATOR	\$227
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-34-0-N-200	EC12-34-0-N-200 COMPENSATOR	\$294
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-40-0-N-100	EC12-40-0-N-100 COMPENSATOR	\$225
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-40-0-N-160	EC12-40-0-N-160 COMPENSATOR	\$225
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-42-0-N-160	EC12-42-0-N-160 COMPENSATOR	\$238
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-42-0-N-80	EC12-42-0-N-80 COMPENSATOR	\$238
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-43-0-N-160	EC12-43-0-N-160 COMPENSATOR	\$279
FLOW CONTROL	PRESSURE COMPENSATOR		EC12-43-0-N-80	EC12-43-0-N-80	\$279
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-32-0-N-160	EC16-32-0-N-160 COMPENSATOR	\$257
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-32-0-N-80	EC16-32-0-N-80 COMPENSATOR	\$257
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-34-0-N-200	EC16-34-0-N-200 COMPENSATOR	\$315
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-42-0-N-150	EC16-42-0-N-150 COMPENSATOR	\$274
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-42-0-N-80	EC16-42-0-N-80 COMPENSATOR	\$274
FLOW CONTROL	PRESSURE COMPENSATOR		EC16-43-0-N-80	EC16-43-0-N-80 COMPENSATOR	\$320
FLOW CONTROL	PRESSURE COMPENSATOR		EC42-M42-0-N-150	EC42-M42-0-N-150 COMPENSATOR	\$421
FLOW CONTROL	PRESSURE COMPENSATOR		EC42-M42-0-N-80	EC42-M42-0-N-80 COMPENSATOR	\$421
FLOW CONTROL	PRESSURE COMPENSATOR		EC50-30-0-P-80	EC50-30-0-P-80 COMPENSATOR	\$190
FLOW CONTROL	PRESSURE COMPENSATOR		EC50-42-0-P-150	EC50-42-0-P-150 COMPENSATOR	\$199
FLOW CONTROL	PRESSURE COMPENSATOR		EC50-42-0-P-80	EC50-42-0-P-80 COMPENSATOR	\$199
FLOW CONTROL	PRESSURE COMPENSATOR		EC50-43-0-P-150	EC50-43-0-P-150 COMPENSATOR	\$227
FLOW CONTROL	PRESSURE COMPENSATOR		HEC32-43-0-N-150	HEC32-43-0-N-150 COMPENSATOR	\$1,452
FLOW CONTROL	PRESSURE COMPENSATOR		HEC42-M43-0-U-150	HEC42-M43-0-U-150 COMPENSATOR	\$546
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-N-12	PR08-32A-0-N-12/ REDUCING VALVE	\$162
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-N-22	PR08-32A-0-N-22/ REDUCING VALVE	\$162
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-N-3	PR08-32A-0-N-03/ REDUCING VALVE	\$162
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-N-6	PR08-32A-0-N-06/ REDUCING VALVE	\$162
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-V-12	PR08-32A-0-V-12/ REDUCING VALVE	205 \$168
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-V-22	PR08-32A-0-V-22/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32A-0-V-6	PR08-32A-0-V-06/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32B-0-N-12	PR08-32B-0-N-12/ REDUCING VALVE	\$184
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32C-0-V-6	PR08-32C-0-V-06/ REDUCING VALVE	\$179
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32C-6T-V-06	PR08-32C-6T-V-06/ REDUCING VALVE	\$285

Category	Product type	Option	Code	Description	List price
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32F-0-N-3/M4.0	PR08-32F-0-N-03/M4 REDUCING VLV	\$158
PRESSURE CONTROL	PRESSURE REDUCING		PR08-32F-0-N-6/M26	PR08-32F-0-N-06/ M26 REDUCING VALVE	\$158
PRESSURE CONTROL	PRESSURE REDUCING		PR10-32A-0-N-15	PR10-32A-0-N-15/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR10-32A-0-N-21	PR10-32A-0-N-21/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR10-32A-0-N-4	PR10-32A-0-N-04/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR10-32A-0-N-8	PR10-32A-0-N-08/ REDUCING VALVE	\$168
PRESSURE CONTROL	PRESSURE REDUCING		PR10-32B-0-N-21	PR10-32B-0-N-21/ REDUCING VALVE	\$190
PRESSURE CONTROL	PRESSURE REDUCING		PR10-36A-0-N-15	PR10-36A-0-N-15/ REDUCING VALVE	\$205
PRESSURE CONTROL	PRESSURE REDUCING		PR10-36A-0-N-30	PR10-36A-0-N-30/ REDUCING VALVE	\$205
PRESSURE CONTROL	PRESSURE REDUCING		PR10-36A-0-N-4	PR10-36A-0-N-04/ REDUCING VALVE	\$205
PRESSURE CONTROL	PRESSURE REDUCING		PR10-36AS-0-N-15	PR10-36A-0-N-15/01.5 REDUCING VALVE	\$205
PRESSURE CONTROL	PRESSURE REDUCING		PR10-36H-0-N-15	PR10-36H-0-N-15/ REDUCING VALVE	\$201
PRESSURE CONTROL	PRESSURE REDUCING		PR12-36A-0-N-15	PR12-36A-0-N-15/ REDUCING VALVE	\$279
PRESSURE CONTROL	PRESSURE REDUCING		PR12-36A-0-N-30	PR12-36A-0-N-30/ REDUCING VALVE	\$279
PRESSURE CONTROL	PRESSURE REDUCING		PR12-36A-0-N-4	PR12-36A-0-N-04/ REDUCING VALVE	\$279
PRESSURE CONTROL	PRESSURE REDUCING		PR12-36B-0-N-30	PR12-36B-0-N-30/ REDUCING VALVE	\$300
PRESSURE CONTROL	PRESSURE REDUCING		PR12-36H-0-N15/12.0	PR12-36H-0-N-15/12 REDUCING	\$274
PRESSURE CONTROL	PRESSURE REDUCING		PR50-36A-0-P-15	PR50-36A-0-P-15 /M29 REDUCING VALVE	\$216
PRESSURE CONTROL	PRESSURE REDUCING		PR50-36A-0-P-30	PR50-36A-0-P-30/ REDUCING VALVE	\$216
PRESSURE CONTROL	PRESSURE REDUCING		PR50-36A-0-P-50	PR50-36A-0-P-50/ REDUCING VALVE	\$216
PRESSURE CONTROL	PRESSURE REDUCING		PR50-36H-0-P-15	PR50-36H-0-P-15/ REDUCING VALVE	\$212
PRESSURE CONTROL	PRESSURE REDUCING		PR50-38A-0-P-05	PR50-38A-0-P-05/ REDUCING VALVE	\$285
PRESSURE CONTROL	PRESSURE REDUCING		PR50-38A-0-P-21	PR50-38A-0-P-21/ REDUCING VALV	\$285
PRESSURE CONTROL	PRESSURE REDUCING		PR50-38A-0-U-15	PR50-38A-0-U-15/ REDUCING VALVE	\$285
PRESSURE CONTROL	PRESSURE REDUCING		PR50-38B-0-N-21	PR50-38B-0-N-21/ REDUCING VALVE	\$285
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38A-0-P-05	PR58-38A-0-P-05/ REDUCE/RELIEVE	\$246
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38A-0-P-20	PR58-38A-0-P-20/ REDUCE/RELIEVE	\$246
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38A-0-P-32/26.	PR58-38A-0-P-32/26 REDUCE/RELIEVE	\$246
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38A-0-P-42	PR58-38A-0-P-42/ REDUCING VALVE	\$246
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38H-0-P-05	PR58-38H-0-P-05/ REDUCE/RELIEVE	\$242
PRESSURE CONTROL	PRESSURE REDUCING		PR58-38RAS-0-P-05/M25	PR58-38RAS-0-P-05/M25 REDUCE/RELIEVE	\$283
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE12-567C-0-N	PE12-567C-0-N PROPORTIONAL ELEMENT	\$300
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE12-567D-0-N	PE12-567D-0-N PROPORTIONAL ELEMENT	\$300
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE12-567H-0-N	PE12-567H-0-N PROPORTIONAL ELEMENT	\$300
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE16-567C-0-N	PE16-567C-0-N PROPORTIONAL ELEMENT	\$363
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE16-567D-0-N	PE16-567D-0-N PROPORTIONAL ELEMENT	\$363
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE16-567H-0-N	PE16-567H-0-N PROPORTIONAL ELEMENT	\$363
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE16-567K-0-N	PE16-567K-0-N PROPORTIONAL ELEMENT	\$363
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE42-567C-0-N	PE42-567C-0-N PROPORTIONAL ELEMEN	\$652
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE42-567D-0-N	PE42-567D-0-N PROPORTIONAL ELEMENT	\$663
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE42-567H-0-N	PE42-567H-0-N PROPORTIONAL ELEMENT	\$652
DIRECTIONAL CONTROL	PROPORTIONAL PILOTED		PE42-567K-0-N	PE42-567K-0-N PROPORIONAL ELEMENT	\$648
PROPORTIONAL VALVES	PROPORTIONAL REDUCING		EHPRO8-33-0-N-0	EHPRO8-33-0-N-00 CARTRIDGE	\$337
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DIN CONNECTOR	EHPRO8-33-0-N-12DG	EHPRO8-33-0-N-12DG CARTRIDGE	\$430
PROPORTIONAL VALVES	PROPORTIONAL REDUCING		EHPRO8-33M-0-N-0	EHPRO8-33M-0-N-00 CARTRIDGE	\$410
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DEUTSCH CON.	EHPRO8-33M-0-N-12ER	EHPRO8-33M-0-N-12ER CARTRIDGE	\$484
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DEUTSCH CON.	EHPRO8-33M-0-N-24ER	EHPRO8-33M-0-N-24ER CARTRIDGE	\$484
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DEUTSCH CON.	EHPR98-T33-0-N-12ER	EHPR98-T33-0-N-12ER CONTROL VALVE	\$199
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DEUTSCH CON.	EHPR98-T33-0-N-24ER	EHPR98-T33-0-N-24ER CARTRIDGE	\$199
PROPORTIONAL VALVES	PROPORTIONAL REDUCING	DEUTSCH CON.	EHPR98-T38B-6TN24ER	EHPR98-T38B-6T-N-24ER CARTRIDGE	\$490
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS08-20A-0-N-0	TS08-20A-0-N-00 PRESSURE CONTROL	\$294
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS08-20B-0-N-0	TS08-20B-0-N-00 PRESSURE CONTROL	\$294
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS08-27A-0-N-0	TS08-27A-0-N-00 PRESSURE CONTROL	\$346
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS08-27B-0-N-0	TS08-27B-0-N-00 PRESSURE CONTROLS	\$346
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS08-27B-0-V-0	TS08-27B-0-V-00 PRESSURE CONTROLS	\$352
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-26A-0-N-0	TS10-26A-0-N-00 PRESSURE CONTROL	\$384
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-26A-0-N-24	TS10-26A-0-N-24DG PRESSURE CONTROL	\$473
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-26B-0-N-0	TS10-26B-0-N-00 PRESSURE CONTROL	\$384
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-26C-0-N-0	TS10-26C-0-N-00 PRESSURE CONTROL	\$384
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-27A-0-N-0	TS10-27A-0-N-00 PRESSURE CONTROL	\$393
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-27B-0-N-0	TS10-27B-0-N-00 PRESSURE CONTROL	\$393
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-27B-0-V-0	TS10-27B-0-V-00 PRESSURE CONTROL	\$404
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-27C-0-N-0	TS10-27C-0-N-00 SOLENOID VALVE	\$393
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-36A-0-N-0	TS10-36A-0-N-00 PRESSURE CONTROL	\$443
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS10-36AM-0-N-0	TS10-36AM-0-N-00 PRESSURE CONTROL	\$514
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-36B-0-N-0	TS10-36B-0-N-00 PRESSURE CONTROL	\$443
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS10-36BM-0-N-0	TS10-36BM-0-N-00 PRESSURE CONTROL	\$514
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS10-36C-0-N-0	TS10-36C-0-N-00 PRESSURE CONTROL	\$443
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS10-36CM-0-N-0	TS10-36CM-0-N-00 PRESSURE CONTROL	\$514
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-26A-0-N-0	TS12-26A-0-N-00 PRESSURE CONTROL	\$441
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-26B-0-N-0	TS12-26B-0-N-00 PRESSURE CONTROL	\$441
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-26C-0-N-0	TS12-26C-0-N-00 PRESSURE CONTROLS	\$441
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS12-26CM-0-N-0	TS12-26CM-0-N-00 PRESSURE CONTROLS	\$505
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-27A-0-N-0	TS12-27A-0-N-00 PRESSURE CONTROLS	\$484
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-27A-0-V-0	TS12-27A-0-V-00 PRESSURE CONTROL	\$499
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-27B-0-N-0	TS12-27B-0-N-00 PRESSURE CONTROL	\$484
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-27C-0-N-0	TS12-27C-0-N-00 PRESURE CONTROL	\$484
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-36A-0-N-0	TS12-36A-0-N-00 PRESSURE CONTROL	\$499
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-36B-0-N-0	TS12-36B-0-N-00 PRESSURE CONTROL	\$499
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS12-36BM-0-N-0	TS12-36BM-0-N-00 PRESSURE CONTROL	\$572
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS12-36C-0-N-0	TS12-36C-0-N-00 PRESSURE CONTROL	\$499
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS12-36CM-0-N-0	TS12-36CM-0-N-00 PRESSURE CONTROL	\$572
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-20A-0-N-0	TS38-20A-0-N-00 PRESSURE CONTROL	\$322
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS38-20AM-0-N-0	TS38-20AM-0-N-00 CARTRIDGE ASSEMBLY	\$393
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-20B-0-N-0	TS38-20B-0-N-00 PRESSURE CONTROL	\$322
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-20C-0-N-0	TS38-20C-0-N-00 PRESSURE CONTROL	\$322
PROPORTIONAL VALVES	PROPORTIONAL RELIEF	MANUAL OVERRIDE	TS38-20CM-0-N-0	TS38-20CM-0-N-00 CARTRIDGE ASSEMBLY	\$393
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-21A-0-N-0	TS38-21A-0-N-00 PRESSURE CONTROL	\$359
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-21B-0-N-0	TS38-21B-0-N-00 PRESSURE CONTROL	\$359

Category	Product type	Option	Code	Description	List price
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS38-21C-0-N-0	TS38-21C-0-N-00 PRESSURE CONTROL	\$359
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS58-2040-0-N-0	TS58-20-40-0-N-00 PRESSURE CONTROL	\$454
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS58-2050-0-N-0	TS58-20-50-0-N-00 PRESSURE CONTROL	\$454
PROPORTIONAL VALVES	PROPORTIONAL RELIEF		TS98-T34-0-N-12	TS98-T34-0-N-12DJ PRESSURE CONTROL	\$268
PRESSURE CONTROL	RELIEF VALVE		HRVD08-20A-0-N-14	HRVD08-20A-0-N-14/	\$210
PRESSURE CONTROL	RELIEF VALVE		HRVD08-20A-0-U-61	HRVD08-20A-0-U-61/M420	\$205
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-N-18	RV08-20A-0-N-18/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-N-33	RV08-20A-0-N-33/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-N-5	RV08-20A-0-N-05/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-N-9	RV08-20A-0-N-09/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-NC-33	RV08-20A-0-NC-33/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-NC-9	RV08-20A-0-NC-09/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-P-18	RV08-20A-0-P-18/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV08-20A-0-P-9	RV08-20A-0-P-09/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV08-20B-0-N-18	RV08-20B-0-N-18/ RELIEF VALVE	\$143
PRESSURE CONTROL	RELIEF VALVE		RV08-20B-0-N-33	RV08-20B-0-N-33/ RELIEF VALVE	\$143
PRESSURE CONTROL	RELIEF VALVE		RV08-20B-0-N-9	RV08-20B-0-N-09/ RELIEF VALVE	\$143
PRESSURE CONTROL	RELIEF VALVE		RV08-20C-0-N-18	RV08-20C-0-N-18/ RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV08-20C-0-N-33	RV08-20C-0-N-33/ RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV08-20C-0-N-9	RV08-20C-0-N-09/ RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-N-13	RV08-22A-0-N-13/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-N-26	RV08-22A-0-N-26/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-N-4	RV08-22A-0-N-04/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-N-7	RV08-22A-0-N-07/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-NC-13	RV08-22A-0-NC-13/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22A-0-NC-26	RV08-22A-0-NC-26/ RELIEF VALVE	\$121
PRESSURE CONTROL	RELIEF VALVE		RV08-22B-0-N-13	RV08-22B-0-N-13/ RELIEF VALVE	\$143
PRESSURE CONTROL	RELIEF VALVE		RV08-22H-0-N26/M131	RV08-22H-0-N-26/M131 RELIEF VALVE	\$117
PRESSURE CONTROL	RELIEF VALVE		RV08-22H-0-N26/M207	RV08-22H-0-N-26/ M207 RELIEF VALVE	\$117
PRESSURE CONTROL	RELIEF VALVE		RV08-29A-0-N-35	RV08-29A-0-N-35/ RELIEF VALVE	\$125
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-12	RV10-20A-0-N-12/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-12/M20	RV10-20A-0-N-12/M20 RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-23	RV10-20A-0-N-23/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-6	RV10-20A-0-N-06/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-NC-12	RV10-20A-0-NC-12/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-C-33	RV10-20A-0-NC-33/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-20A-0-N-33	RV10-20A-0-N-33/ RELIEF VALVE	\$136
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-N-13	RV10-22A-0-N-13/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-N-25	RV10-22A-0-N-25/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-N-35	RV10-22A-0-N-35/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-N-6	RV10-22A-0-N-06/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-NC-13	RV10-22A-0-NC-13/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-NC-25	RV10-22A-0-NC-25/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-NC25/M55	RELIEF 114L/MIN DIFF AREA 17-165B - SETT 55 BAR	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-NC-35	RV10-22A-0-NC-35/ RELIEF VALVE	\$138
PRESSURE CONTROL	RELIEF VALVE		RV10-22A-0-V-35	RV10-22A-0-V-35/ RELIEF VALVE	\$147
PRESSURE CONTROL	RELIEF VALVE		RV10-22B-0-N-35	RV10-22B-0-N-35/ RELIEF VALVE	\$162
PRESSURE CONTROL	RELIEF VALVE		RV10-22H-0-N-25/12	RV10-22H-0-N-25/12 RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV10-22H-0-N-35/30	RV10-22H-0-N-35/30 RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV10-26A-0-N-15	RV10-26A-0-N-15/ RELIEF VALVE	\$164
PRESSURE CONTROL	RELIEF VALVE		RV10-26A-0-N-30	RV10-26A-0-N-30/ RELIEF VALVE	\$164
PRESSURE CONTROL	RELIEF VALVE		RV10-26A-0-N-4	RV10-26A-0-N-04/ RELIEF VALVE	\$164
PRESSURE CONTROL	RELIEF VALVE		RV10-26B-0-N-15	RV10-26B-0-N-15/ RELIEF VALVE	\$188
PRESSURE CONTROL	RELIEF VALVE		RV10-26B-0-N-30	RV10-26B-0-N-30/ RELIEF VALVE	\$188
PRESSURE CONTROL	RELIEF VALVE		RV10-26F-0N-30/2500	RV10-26F-0-N-30/25 RELIEF VALVE	\$162
PRESSURE CONTROL	RELIEF VALVE		RV10-26H-0-N-30/30	RV10-26H-0-N-30/30 RELIEF VALVE	\$162
PRESSURE CONTROL	RELIEF VALVE		RV10-26L0-N-30/2500	RV10-26L-0-N-30/25 RELIEF VALVE	\$190
PRESSURE CONTROL	RELIEF VALVE		RV10-28A-0-N-07	RV10-28A-0-N-07/ RELIEF VALVE	\$212
PRESSURE CONTROL	RELIEF VALVE		RV10-28A-0-N-35	RV10-28A-0-N-35/ RELIEF VALVE	\$212
PRESSURE CONTROL	RELIEF VALVE		RV12-26A-0-N-15	RV12-26A-0-N-15/ RELIEF VALVE	\$238
PRESSURE CONTROL	RELIEF VALVE		RV12-26A-0-N-35	RV12-26A-0-N-35/ RELIEF VALVE	\$238
PRESSURE CONTROL	RELIEF VALVE		RV12-26A-0-N-4	RV12-26A-0-N-04/ RELIEF VALVE	\$238
PRESSURE CONTROL	RELIEF VALVE		RV12-26C-0-N-35	RV12-26C-0-N-35/ RELIEF VALVE	\$248
PRESSURE CONTROL	RELIEF VALVE		RV16-26A-0-N-03	RV16-26A-0-N-03/ RELIEF VALVE	\$417
PRESSURE CONTROL	RELIEF VALVE		RV16-26A-0-N-06	RV16-26A-0-N-06/ RELIEF VALVE	\$417
PRESSURE CONTROL	RELIEF VALVE		RV16-26A-0-N-15	RV16-26A-0-N-15/ RELIEF VALVE	\$417
PRESSURE CONTROL	RELIEF VALVE		RV16-26A-0-N-35	RV16-26A-0-N-35/ RELIEF VALVE	\$417
PRESSURE CONTROL	RELIEF VALVE		RV16-26A-0-P-35	RV16-26A-0-P-35/ RELIEF VALVE	\$451
PRESSURE CONTROL	RELIEF VALVE		RV16-26H-0-N-35/25	RV16-26H-0-N-35/25 RELIEF VALVE	\$415
PRESSURE CONTROL	RELIEF VALVE		RV50-22A-P-50	RV50-22A-0-P-50/ RELIEF VALVE	\$162
PRESSURE CONTROL	RELIEF VALVE		RV50-22H0-P-50/37.5	RV50-22H-0-P-50/37.5 RELIEF VALVE	\$158
PRESSURE CONTROL	RELIEF VALVE		RV50-26A-P-50	RV50-26A-0-P-50/ RELIEF VALVE	\$184
PRESSURE CONTROL	RELIEF VALVE		RV50-26B-P-50	RV50-26B-0-P-50/ RELIEF VALVE	\$205
PRESSURE CONTROL	RELIEF VALVE		RV50-26C-P-50/35	RV50-26C-0-P-50/35 RELIEF VALVE	\$190
PRESSURE CONTROL	RELIEF VALVE		RV50-28A-P-50	RV50-28A-0-P-50/ RELIEF VALVE	\$248
PRESSURE CONTROL	RELIEF VALVE		RV52-26A-P-50	RV52-26A-0-P-50/ RELIEF VALVE	\$257
PRESSURE CONTROL	RELIEF VALVE		RV52-26C-P-50	RV52-26C-0-P-50/ RELIEF VALVE	\$264
PRESSURE CONTROL	RELIEF VALVE		RV56-26A-P-50	RV56-26A-0-P-50/ RELIEF VALVE	\$415
PRESSURE CONTROL	RELIEF VALVE		RV58-20A-P-46	RV58-20A-0-P-46/ RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV58-20B-P-46	RV58-20B-0-P-46/ RELIEF VALVE	\$153
PRESSURE CONTROL	RELIEF VALVE		RV58-20H-P-46/08	RV58-20H-0-P-46/08 RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RV58-20H-P46/M260	RV58-20H-0-P-46/ M260 RELIEF VALVE	\$132
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-08	RVD50-20A-0-N-08/ RELIEF	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-15	RVD50-20A-0-N-15/ RELIEF	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-24	RVD50-20A-0-N-24/ RELIEF	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-32	RVD50-20A-0-N-32/ RELIEF VALVE	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-42	RVD50-20A-0-N-42/ RELIEF	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-N-50	RVD50-20A-0-N-50/ RELIEF	\$238
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-NC-32	RVD50-20A-0-NC-32/ RELIEF	\$238

Category	Product type	Option	Code	Description	List price
PRESSURE CONTROL	RELIEF VALVE		RVD50-20A-0-U-50	RVD50-20A-0-U-50/ RELIEF	\$257
PRESSURE CONTROL	RELIEF VALVE		RVD50-20C-0-N-08	RVD50-20C-0-N-08/M36 RELIEF	\$248
PRESSURE CONTROL	RELIEF VALVE		RVD50-20C-0-N-15	RVD50-20C-0-N-15/ RELIEF VALVE	\$248
PRESSURE CONTROL	RELIEF VALVE		RVD50-20C-0-N-32	RVD50-20C-0-N-32/ RELIEF	\$248
PRESSURE CONTROL	RELIEF VALVE		RVD50-20H0N-15/M100	RVD50-20H-0-N-15/M100 RELIEF	\$235
PRESSURE CONTROL	RELIEF VALVE		RVD50-20L-0-N-32	RVD50-20L-0-N-32/ RELIEF	\$264
PRESSURE CONTROL	RELIEF VALVE		RVD50-20L-0-N-42	RVD50-20L-0-N-42/ RELIEF	\$264
PRESSURE CONTROL	RELIEF VALVE		RVD50-20P-0-N42M240	RVD50-20P-0-N-42/M240 RELIEF VALVE	\$337
PRESSURE CONTROL	RELIEF VALVE		TR04-B20-0-N-40	TR04-B20-0-N-40/ THERMAL RELIEF	\$136
ACCESSORIES	SCREEN		SC08-20-0-N-100	SC08-20-0-N-100 SCREEN CARTRIDGE	\$41
ACCESSORIES	SCREEN		SC10-20-0-N-100	SC10-20-0-N-100 SCREEN CARTRIDGE	\$52
SEAL KITS	SEAL KIT		SK04-B3N-M	SK04-B3N-M SEAL KIT	\$11
SEAL KITS	SEAL KIT		SK07-3N-MM	SK07-3N-MM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-2N-M	SK08-2N-M SEAL KIT	\$11
SEAL KITS	SEAL KIT		SK08-2N-T	SK08-2N-T/B SEAL KIT	\$11
SEAL KITS	SEAL KIT		SK08-2P-B	SK08-2P-T/B SEAL KIT	\$17
SEAL KITS	SEAL KIT		SK08-2V-M	SK08-2V-M SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-3N-BM	SK08-3N-BM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-3N-MM	SK08-3N-MM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-3N-TM	SK08-3N-TM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-3P-MM	SK08-3P-MM SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK08-3V-MM	SK08-3V-MM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-3V-TM	SK08-3V-TM/BM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-4N-MMM	SK08-4N-MMM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK08-4V-MMM	SK08-4V-MMM SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK10-2N-M	SK10-2N-M SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-2N-T	SK10-2N-T/B SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-2P-B	SK10-2P-T/B SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK10-2V-M	SK10-2V-M SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-2V-T	SK10-2V-T/B SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-3N-BM	SK10-3N-BM/TM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-3N-MM	SK10-3N-MM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-3N-TB	SK10-3N-TT/BB SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-3N-TM	SK10-3N-BM/TM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-3P-BM	SK10-3P-BM/TM SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK10-3V-MM	SK10-3V-MM SEAL KIT	\$17
SEAL KITS	SEAL KIT		SK10-4N-BMM	SK10-4N-BMM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-4N-MMM	SK10-4N-MMM SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK10-4V-MMM	SK10-4V-MMM SEAL KIT	\$17
SEAL KITS	SEAL KIT		SK10-S3N-MM	SK10-S3N-MM SEAL KIT 70 DURO	\$15
SEAL KITS	SEAL KIT		SK10-S3V-MM	SK10-S3V-MM SEAL KIT	\$17
SEAL KITS	SEAL KIT		SK12-2N-M	SK12-2N-M SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK12-2N-T	SK12-2N-T/B SEAL KIT	\$15
SEAL KITS	SEAL KIT		SK12-2P-B	SK12-2P-T/B SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK12-2V-M	SK12-2V-M SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK12-3N-BM	SK12-3N-BM SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK12-3N-MM	SK12-3N-MM SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK12-3S-V-MM	SEAL KIT VITON - VC12-3S	\$30
SEAL KITS	SEAL KIT		SK12-3V-MM	SK12-3V-MM SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK12-4N-MMM	SK12-4N-MMM SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK12-4V-MMM	SK12-4V-MMM SEAL KIT	\$37
SEAL KITS	SEAL KIT		SK12-S3N-MM	SK12-S3N-MM SEAL KIT	\$22
SEAL KITS	SEAL KIT		SK16-2N-T	SK16-2N-T/B SEAL KIT	\$17
SEAL KITS	SEAL KIT		SK16-2P-B	SK16-2P-T/B SEAL KIT	\$37
SEAL KITS	SEAL KIT		SK16-2U-O	SK16-2U-O SEAL KIT	\$37
SEAL KITS	SEAL KIT		SK16-2V-M	SK16-2V-M SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK16-4N-MMM	SK16-4N-MMM SEAL KIT	\$32
SEAL KITS	SEAL KIT		SK16-4V-MMM	SK16-4V-MMM SEAL KIT	\$43
SEAL KITS	SEAL KIT		SK16-S3N-MM	SK16-S3N-MM SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK16-S3V-MM	SK16-S3V-MM SEAL KIT	\$37
SEAL KITS	SEAL KIT		SK16-S6P-BMMMM	SK16-S6P-BMMMM SEAL KIT	\$80
SEAL KITS	SEAL KIT		SK20-2P-T	SK20-2P-T SEAL KIT	\$43
SEAL KITS	SEAL KIT		SK20-S3N-MM	SK20-S3N-MM SEAL KIT	\$32
SEAL KITS	SEAL KIT		SK42-M2N-T	SK42-M2N-T SEAL KIT	\$30
SEAL KITS	SEAL KIT		SK42-S3U-00	SK42-S3U-00 SEAL KIT	\$80
SEAL KITS	SEAL KIT		SK98-T39N	SK98-T39N SEAL KIT	\$15
PRESSURE CONTROL	SEQUENCE VALVES		PS08-30A-0-N-13	PS08-30A-0-N-13/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-30A-0-N-24	PS08-30A-0-N-24/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-30A-0-V-24	PS08-30A-0-V-24/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS08-30C-0-N-24	PS08-30C-0-N-24/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS08-30H-0-P-24/16	PS08-30H-0-P-24/16 SEQUENCE VALVE	\$173
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32A-0-N-13	PS08-32A-0-N-13/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32A-0-N-24	PS08-32A-0-N-24/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32A-0-N-3	PS08-32A-0-N-03/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32A-0-N-6	PS08-32A-0-N-06/ SEQUENCE VALVE	\$158
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32C-0-N-13	PS08-32C-0-N-13/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS08-32C-0-N-24	PS08-32C-0-N-24/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS10-30A-0-N-21	PS10-30A-0-N-21/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS10-30A-0-N-4	PS10-30A-0-N-04/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS10-31A-0-N-35	PS10-31A-0-N-35/ SEQUENCE VALVE	\$179
PRESSURE CONTROL	SEQUENCE VALVES		PS10-32A-0-N-15	PS10-32A-0-N-15/ SEQUENCE VALVE	\$173
PRESSURE CONTROL	SEQUENCE VALVES		PS10-32A-0-N-21	PS10-32A-0-N-21/ SEQUENCE VALVE	\$173
PRESSURE CONTROL	SEQUENCE VALVES		PS10-32A-0-N-4	PS10-32A-0-N-04/ SEQUENCE VALVE	\$173
PRESSURE CONTROL	SEQUENCE VALVES		PS10-32A-0-N-8	PS10-32A-0-N-08/ SEQUENCE VALVE	208 \$173
PRESSURE CONTROL	SEQUENCE VALVES		PS10-32B-0-N-21	PS10-32B-0-N-21/ SEQUENCE VALVE	\$194
PRESSURE CONTROL	SEQUENCE VALVES		PS10-33A-0-N-35	PS10-33A-0-N-35/ SEQUENCE VALVE	\$179
PRESSURE CONTROL	SEQUENCE VALVES		PS10-34A-0-N-17	PS10-34A-0-N-17/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS10-34A-0-N-7	PS10-34A-0-N-07/ SEQUENCE VALVE	\$168
PRESSURE CONTROL	SEQUENCE VALVES		PS10-36A-0-N-04	PS10-36A-0-N-04/ SEQUENCE VALVE	\$210



Category	Product type	Option	Code	Description	List price
PRESSURE CONTROL	SEQUENCE VALVES		PS10-36A-0-N-15	PS10-36A-0-N-15/ SEQUENCE VALVE	\$210
PRESSURE CONTROL	SEQUENCE VALVES		PS10-36A-0-N-30	PS10-36A-0-N-30/ SEQUENCE VALVE	\$210
PRESSURE CONTROL	SEQUENCE VALVES		PS10-40A-0-N-22	PS10-40A-0-N-22/ SEQUENCE VALVE	\$216
PRESSURE CONTROL	SEQUENCE VALVES		PS10-40A-0-N-4	PS10-40A-0-N-04/ SEQUENCE VALVE	\$216
PRESSURE CONTROL	SEQUENCE VALVES		PS10-41A-0-N-22	PS10-41A-0-N-22/ SEQUENCE VALVE	\$216
PRESSURE CONTROL	SEQUENCE VALVES		PS10-41A-0-N-4	PS10-41A-0-N-04/ SEQUENCE VALVE	\$216
PRESSURE CONTROL	SEQUENCE VALVES		PS10-43A-0-N-22	PS10-43A-0-N-22/ SEQUENCE VALVE	\$225
PRESSURE CONTROL	SEQUENCE VALVES		P550-36A-0-P-50	P550-36A-0-P-50/ SEQUENCE VALVE	\$216
PRESSURE CONTROL	SEQUENCE VALVES		P550-40A-0-P-35	P550-40A-0-P-35/ SEQUENCE VALVE	\$225
DIRECTIONAL CONTROL	SHUTTLE VALVE		HLS06-30-0-U	HLS06-30-0-U SHUTTLE VALVE	\$84
DIRECTIONAL CONTROL	SHUTTLE VALVE		HLS06-B30-0-U	HLS06-B30-0-U SHUTTLE VALVE	\$80
DIRECTIONAL CONTROL	SHUTTLE VALVE		HS10-42-0-N	HS10-42-0-N HOT OIL SHUTTLE VALVE	\$199
DIRECTIONAL CONTROL	SHUTTLE VALVE		HS50-42-0-P	HS50-42-0-P HOT OIL SHUTTLE VALVE	\$216
DIRECTIONAL CONTROL	SHUTTLE VALVE		HS50-43-0-P	HS50-43-0-P HOT OIL SHUTTLE VALVE	\$248
DIRECTIONAL CONTROL	SHUTTLE VALVE		HS52-42-0-P	HS52-42-0-P HOT OIL SHUTTLE VALVE	\$367
DIRECTIONAL CONTROL	SHUTTLE VALVE		HS52-43-0-P	HS52-43-0-P HOT OIL SHUTTLE VALVE	\$384
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS04-B30-0-N	LS04-B30-0-N SHUTTLE VALVE	\$63
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS08-30-0-N	LS08-30-0-N SHUTTLE VALVE CARTRIDGE	\$69
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS08-30-0-V	LS08-30-0-V SHUTTLE VALVE	\$80
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS10-30-0-N	LS10-30-0-N SHUTTLE VALVE	\$80
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS10-41-0-N	LS10-41-0-N SHUTTLE VALVE	\$132
DIRECTIONAL CONTROL	SHUTTLE VALVE		LS50-30-0-P	LS50-30-0-P SHUTTLE VALVE	\$104
SOLENOID VALVE	SOLENOID VALVE		HSV10-20-0-N-0	HSV10-20-0-N-00 SOLENOID VALVE	\$201
SOLENOID VALVE	SOLENOID VALVE		HSV10-21-0-U-0	HSV10-21-0-U-00 SOLENOID VALVE	\$259
SOLENOID VALVE	SOLENOID VALVE		HSV10-22-0-U-0	HSV10-22-0-U-0 SOLENOID VALVE	\$205
SOLENOID VALVE	SOLENOID VALVE		HSV10-23-0-U-0	HSV10-23-0-U-00 SOLENOID VALVE	\$257
SOLENOID VALVE	SOLENOID VALVE		HSV10-28-0-N-0	HSV10-28-0-N-0 SOLENOID VALVE	\$395
SOLENOID VALVE	SOLENOID VALVE		HSV10-28-0-U-0	HSV10-28-0-U-0 SOLENOID VALVE	\$389
SOLENOID VALVE	SOLENOID VALVE		HSV10-29-0-U-0	HSV10-29-0-U-00 SOLENOID VALVE	\$421
SOLENOID VALVE	SOLENOID VALVE		HSV10-40R-0-U-00	HSV10-40R-0-U-0 CARTRIDGE	\$238
SOLENOID VALVE	SOLENOID VALVE		HSV10-47C-0-U-0	HSV10-47C-0-U-00 SOLENOID VALVE	\$484
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	HSV10-47CB-0-U-0	HSV10-47CB-0-U-0 SOLENOID VALVE	\$609
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	HSV10-47CM-0-N-0	HSV10-47CM-0-N-0 SOLENOID VALVE	\$605
SOLENOID VALVE	SOLENOID VALVE		HSV10-47D-0-U-0	HSV10-47D-0-U-00 SOLENOID VALVE	\$484
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	HSV10-47DB-0-U-0	HSV10-47DB-0-U-0 SOLENOID VALVE	\$609
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	HSV10-47DM-0-N-0	HSV10-47DM-0-U-0 SOLENOID VALVE	\$594
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	HSV12-20M-0-U-0	HSV12-20M-0-U-00 SOLENOID VALVE	\$410
SOLENOID VALVE	SOLENOID VALVE		HSV12-21-0-U-00	HSV12-21-0-U-0 SOLENOID VALVE	\$359
SOLENOID VALVE	SOLENOID VALVE		HSV12-47C-0-U-0	HSV12-47C-0-U-0 SOLENOID VALVE	\$704
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	HSV12-47CB-0-U-0	HSV12-47CB-0-U-0 SOLENOID VALVE	\$829
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	HSV12-47DB-0-U-0	HSV12-47DB-0-U-0 SOLENOID VALVE	\$829
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	HSV12-P28M-0-U-0-N3	HSV12-P28M-0-U-0-N3 PILOTREL	\$1,531
SOLENOID VALVE	SOLENOID VALVE		SF08-20-0-P-0	SF08-20-0-P-00 SOLENOID VALVE	\$132
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SF08-20M-0-P-0	SF08-20M-0-P-00 W/NUT	\$190
SOLENOID VALVE	SOLENOID VALVE		SF08-21-0-P-0	SF08-21-0-P-00 CARTRIDGE ASSEMBLY	\$199
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SF08-21K-0-P-0	SF08-21K-0-P-00 SOLENOID VALVE	\$246
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SF08-21P-0-P-0	SF08-21P-0-P-00 SOLENOID VALVE	\$235
SOLENOID VALVE	SOLENOID VALVE		SF08-22-0-P-0	SF08-22-0-P-00 SOLENOID VALVE	\$162
SOLENOID VALVE	SOLENOID VALVE		SF08-23-0-P-0	SF08-23-0-P-00 CARTRIDGE ASS'Y/NUT	\$205
SOLENOID VALVE	SOLENOID VALVE		SF20-22-0-N-0	SF20-22-0-N-00 SOLENOID VALVE	\$443
SOLENOID VALVE	SOLENOID VALVE		SF20-22-0-P-0	SF20-22-0-P-00 SOLENOID VALVE	\$443
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SF20-22M-0-P-0	SF20-22M-0-P-00 SOLENOID VALVE	\$514
SOLENOID VALVE	SOLENOID VALVE		SF20-23-0-N-0	SF20-23-0-N-00 SOLENOID VALVE	\$499
SOLENOID VALVE	SOLENOID VALVE		SL08-22-0-N-0	SL08-22-0-N-00 W/ 7004406 NUT	\$106
SOLENOID VALVE	SOLENOID VALVE		SV07-31-0-N-0	SV07-31-0-N-00 SOLENOID VALVE	\$162
SOLENOID VALVE	SOLENOID VALVE		SV07-31-0-V-0	SV07-31-0-V-00 W/ 7004406 NUT	\$168
SOLENOID VALVE	SOLENOID VALVE		SV07-34-0-N-0	SV07-34-0-N-00 SOLENOID VALVE	\$162
SOLENOID VALVE	SOLENOID VALVE		SV07-35-0-N-0	SV07-35-0-N-00 W/ 7004406 NUT	\$162
SOLENOID VALVE	SOLENOID VALVE		SV08-20-0-N-0	SV08-20-0-N-00 W/ 7004406 NUT	\$104
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV08-20J-0-N-0	SV08-20J-0-N-00 SOLENOID VALVE	\$210
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-20M-0-N-0	SV08-20M-0-N-00 W/ 7004496 NUT	\$164
SOLENOID VALVE	SOLENOID VALVE		SV08-21-0-N-0	SV08-21-0-N-00 W/ 7004416 NUT	\$143
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV08-21K-0-N-0	SV08-21K-0-N-00 W/ 7004416 NUT	\$190
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV08-21P-0-N-0	SV08-21P-0-N-00 W/ 7004416 NUT	\$179
SOLENOID VALVE	SOLENOID VALVE		SV08-22-0-N-0	SV08-22-0-N-00 W/ 7004406 NUT	\$117
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-22M-0-N-0	SV08-22M-0-N-00 W/ 7004496 NUT	\$179
SOLENOID VALVE	SOLENOID VALVE		SV08-23-0-N-0	SV08-23-0-N-00 W/ 7004416 NUT	\$162
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV08-23K-0-N-0	SV08-23K-0-N-00 W/ 7004416 NUT	\$210
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV08-23P-0-N-0	SV08-23P-0-N-00 W/ 7004416 NUT	\$199
SOLENOID VALVE	SOLENOID VALVE		SV08-24-0-N-0	SV08-24-0-N-00 W/ 7004406 NUT	\$95
SOLENOID VALVE	SOLENOID VALVE		SV08-24-0-V-0	SV08-24-0-V-00 W/ 7004406 NUT	\$104
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-24M-0-N-0	SV08-24M-0-N-00 W/ 7004496 NUT	\$158
SOLENOID VALVE	SOLENOID VALVE		SV08-25-0-N-0	SV08-25-0-N-00 W/ 7004406 NUT	\$106
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-25M-0-N-0	SV08-25M-0-N-00 W/ 7004496 NUT	\$168
SOLENOID VALVE	SOLENOID VALVE		SV08-26-0-N-0	SV08-26-0-N-00 W/ 7004406 NUT	\$114
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-26M-0-N-0	SV08-26M-0-N-00 W/ 7004496 NUT	\$175
SOLENOID VALVE	SOLENOID VALVE		SV08-28-0-N-0	SV08-28-0-N-00 SOLENOID VALVE	\$184
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV08-28P-0-N-0	SV08-28P-0-N-00 SOLENOID VALVE	\$220
SOLENOID VALVE	SOLENOID VALVE		SV08-30-0-N-0	SV08-30-0-N-00 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE		SV08-30-0-V-0	SV08-30-0-V-00 W/ 7004406 NUT	\$132
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-30M-0-N-0	SV08-30M-0-N-00 W/ 7004496 NUT	\$188
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-30M-0-V-0	SV08-30M-0-V-00 W/ 7004496 NUT	\$199
SOLENOID VALVE	SOLENOID VALVE	WITH SCREEN	SV08-30S-0-V-0	SV08-20S-0-V-00 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE		SV08-31-0-N-0	SV08-31-0-N-00 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-31M-0-N-0	SV08-31M-0-N-00 W/ 7004496 NUT	\$188
SOLENOID VALVE	SOLENOID VALVE		SV08-33-0-N-0	SV08-33-0-N-00 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-33M-0-N-0	SV08-33M-0-N-00 W/ 7004496 NUT	\$188
SOLENOID VALVE	SOLENOID VALVE		SV08-35-0-N-0	SV08-35-0-N-00 SOLENOID VALVE	\$125
SOLENOID VALVE	SOLENOID VALVE		SV08-40-0-N-0	SV08-40-0-N-00 W/ 7004406 NUT	\$138

Category	Product type	Option	Code	Description	List price
SOLENOID VALVE	SOLENOID VALVE		SV08-40-O-P-0	SV08-40-O-P-00 W/ 7004406 NUT	\$164
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-40M-0-N-0	SV08-40M-0-N-00 W/ 7004496 NUT	\$201
SOLENOID VALVE	SOLENOID VALVE		SV08-41-O-N-0	SV08-41-O-N-00 W/ 7004406 NUT	\$138
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-41M-0-N-0	SV08-41M-0-N-00 SOLENOID VALVE	\$201
SOLENOID VALVE	SOLENOID VALVE		SV08-42-O-N-0	SV08-42-O-N-00 W/ 7004406 NUT	\$138
SOLENOID VALVE	SOLENOID VALVE		SV08-43-O-N-0	SV08-43-O-N-00 W/ 7004406 NUT	\$138
SOLENOID VALVE	SOLENOID VALVE		SV08-44-O-N-0	SV08-44-O-N-00 W/ 7004406 NUT	\$138
SOLENOID VALVE	SOLENOID VALVE		SV08-45-O-N-0	SV08-45-O-N-00 W/ 7004406 NUT	\$147
SOLENOID VALVE	SOLENOID VALVE		SV08-47A-O-N-0	SV08-47A-O-N-00 HIGH FLOW VALVE	\$220
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-47AM-0-N-0	SV08-47AM-0-N-00 SOLENOID VALVE	\$330
SOLENOID VALVE	SOLENOID VALVE		SV08-47B-O-N-0	SV08-47B-O-N-0 SOLENOID VALVE	\$220
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-47BM-0-N-0	SV08-47BM-0-N-00 SOLENOID VALVE	\$330
SOLENOID VALVE	SOLENOID VALVE		SV08-47C-O-N-0	SV08-47C-O-N-00 W/ 7004406 NUT	\$210
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-47CM-0-N-0	SV08-47CM-0-N-00 SOLENOID VALVE	\$315
SOLENOID VALVE	SOLENOID VALVE		SV08-47D-O-N-0	SV08-47D-O-N-00 W/ 7004406 NUT	\$210
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV08-47DB-0-N-0	SV08-47DB-0-N-00 SOLENOID VALVE	\$330
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV08-47DK-0-N-0	SV08-47DK-0-N-00 SOLENOID VALVE	\$352
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-47DM-0-N-0	SV08-47DM-0-N-00 SOLENOID VALVE	\$315
SOLENOID VALVE	SOLENOID VALVE		SV08-47E-0-N-0	SV08-47E-0-N-00 W/ 7004406 NUT	\$205
SOLENOID VALVE	SOLENOID VALVE		SV08-58C-0-N-0	SV08-58C-0-N-00 SOLENOID VALVE	\$309
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV08-58CM-0-N-0	SV08-58CM-0-N-00 SOLENOID VALVE	\$415
SOLENOID VALVE	SOLENOID VALVE		SV08-58D-0-N-0	SV08-58D-0-N-00 SOLENOID VALVE	\$309
SOLENOID VALVE	SOLENOID VALVE		SV10-20-O-N-0	SV10-20-O-N-00 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE		SV10-20-O-V-0	SV10-20-O-V-00 W/ 7004406 NUT	\$136
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-20M-0-N-0	SV10-20M-0-N-00 W/ 7004596 NUT	\$194
SOLENOID VALVE	SOLENOID VALVE	WITH SCREEN	SV10-20S-0-N-0	SV10-20S-0-N-00 W/ 7004406 NUT	\$143
SOLENOID VALVE	SOLENOID VALVE	MAN O/RIDE SMALL KNUR	SV10-20Y-0-N-0	SV10-20Y-0-N-00 CARTRIDGE	\$231
SOLENOID VALVE	SOLENOID VALVE		SV10-21-O-N-0	SV10-21-O-N-00 W/ 7004426 NUT	\$168
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV10-21K-0-N-0	SV10-21K-0-N-00 W/ 7004426 NUT	\$216
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-21P-0-N-0	SV10-21P-0-N-00 W/ 7004426 NUT	\$205
SOLENOID VALVE	SOLENOID VALVE		SV10-22-O-N-0	SV10-22-O-N-00 W/ 7004406 NUT	\$138
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV10-22J-0-N-0	SV10-22J-0-N-00 CARTRIDGE	\$242
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-22M-0-N-0	SV10-22M-0-N-00 W/ 7004596 NUT	\$205
SOLENOID VALVE	SOLENOID VALVE		SV10-23-O-N-0	SV10-23-O-N-00 W/ 7004426 NUT	\$179
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV10-23K-0-N-0	SV10-23K-0-N-00 W/ 7004426 NUT	\$227
SOLENOID VALVE	SOLENOID VALVE		SV10-24-O-N-0	SV10-24-O-N-0 W/ 7004406 NUT	\$125
SOLENOID VALVE	SOLENOID VALVE		SV10-24-O-V-0	SV10-24-O-V-0 W/ 7004406 NUT	\$132
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-24M-0-N-0	SV10-24M-0-N-0 W/ 7004596 NUT	\$190
SOLENOID VALVE	SOLENOID VALVE		SV10-25-O-N-0	SV10-25-O-N-00 W/ 7004406 NUT	\$132
SOLENOID VALVE	SOLENOID VALVE		SV10-25-O-V-0	SV10-25-O-V-00 W/ 7004406 NUT	\$143
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-25M-0-N-0	SV10-25M-0-N-0 W/ 7004596 NUT	\$205
SOLENOID VALVE	SOLENOID VALVE		SV10-28-O-N-0	SV10-28-O-N-00 SOLENOID VALVE	\$231
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-28M-0-N-0	SV10-28M-0-N-00 SOLENOID VALVE	\$300
SOLENOID VALVE	SOLENOID VALVE		SV10-29-O-N-00	SV10-29-O-N-00 SOLENOID VALVE	\$268
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV10-29P-0-N-0	SV10-29P-0-N-00 SOLENOID VALVE	\$305
SOLENOID VALVE	SOLENOID VALVE		SV10-31-O-N-0	SV10-31-O-N-0 W/ 7004406 NUT	\$147
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-31M-0-N-0	SV10-31M-0-N-00 W/ 7004596 NUT	\$216
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-31M-0-V-0	SV10-31M-0-V-00 W/ 7004596 NUT	\$227
SOLENOID VALVE	SOLENOID VALVE		SV10-33-O-N-0	SV10-33-O-N-00 W/ 7004406 NUT	\$153
SOLENOID VALVE	SOLENOID VALVE		SV10-33-O-V-0	SV10-33-O-V-00 W/ 7004406 NUT	\$162
SOLENOID VALVE	SOLENOID VALVE		SV10-34-O-N-0	SV10-34-O-N-00 W/ 7004406 NUT	\$153
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-34M-0-N-0	SV10-34M-0-N-0 W/ 7004596 NUT	\$220
SOLENOID VALVE	SOLENOID VALVE		SV10-40-O-N-0	SV10-40-O-N-00 W/ 7004406 NUT	\$158
SOLENOID VALVE	SOLENOID VALVE		SV10-40-O-P-0	SV10-40-O-P-00 W/ 7004406 NUT	\$188
SOLENOID VALVE	SOLENOID VALVE		SV10-40-O-V-0	SV10-40-O-V-00 W/ 7004406 NUT	\$173
SOLENOID VALVE	SOLENOID VALVE		SV10-40A-O-N-0	SV10-40A-O-N-0 SOLENOID VALVE	\$175
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV10-40J-0-N-0	SV10-40J-0-N-00 SOLENOID VALVE	\$264
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-40M-0-N-0	SV10-40M-0-N-00 W/ 7004596 NUT SOLENOID	\$227
SOLENOID VALVE	SOLENOID VALVE		SV10-41-O-N-0	SV10-41-O-N-00 W/ 7004406 NUT	\$162
SOLENOID VALVE	SOLENOID VALVE		SV10-42-O-N-0	SV10-42-O-N-00 W/ 7004406 NUT	\$164
SOLENOID VALVE	SOLENOID VALVE		SV10-43-O-N-0	SV10-43-O-N-00 W/ 7004406 NUT	\$164
SOLENOID VALVE	SOLENOID VALVE		SV10-44-O-N-0	SV10-44-O-N-00 W/ 7004406 NUT	\$168
SOLENOID VALVE	SOLENOID VALVE		SV10-47A-O-N-0	SV10-47A-O-N-00 W/ 7004406 NUT	\$285
SOLENOID VALVE	SOLENOID VALVE		SV10-47B-O-N-0	SV10-47B-O-N-00 W/ 7004406	\$294
SOLENOID VALVE	SOLENOID VALVE		SV10-47B-O-V-0	SV10-47B-O-V-00 W/ 7004406	\$309
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-47BM-0-N-0	SV10-47BM-0-N-00 SOLENOID VALVE	\$404
SOLENOID VALVE	SOLENOID VALVE		SV10-47C-O-N-0	SV10-47C-0-N-00 SOLENOID VALVE	\$279
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV10-47CK-0-N-0	SV10-47CK-0-N-00 SOLENOID VALVE	\$421
SOLENOID VALVE	SOLENOID VALVE		SV10-47D-O-N-0	SV10-47D-O-N-00 SOLENOID VALVE	\$279
SOLENOID VALVE	SOLENOID VALVE		SV10-47D-O-P-0	SV10-47D-O-P-00 W/ 7004406 NUT	\$309
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV10-47DB-0-N-0	SV10-47DB-0-N-00 SOLENOID VALVE	\$395
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV10-47DK-0-N-0	SV10-47DK-0-N-00 SOLENOID VALVE	\$421
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-47DM-0-N-0	SV10-47DM-0-N-00 SOLENOID VALVE	\$384
SOLENOID VALVE	SOLENOID VALVE		SV10-57C-0-N-0	SV10-57C-0-N-00 SOLENOID VALVE	\$346
SOLENOID VALVE	SOLENOID VALVE		SV10-57D-0-N-0	SV10-57D-0-N-00 SOLENOID VALVE	\$352
SOLENOID VALVE	SOLENOID VALVE		SV10-58C-0-N-0	SV10-58C-0-N-00 SOLENOID VALVE	\$367
SOLENOID VALVE	SOLENOID VALVE		SV10-58D-0-N-0	SV10-58D-0-N-00 SOLENOID VALVE	\$367
SOLENOID VALVE	SOLENOID VALVE		SV10-P20A0N24ERZ-N3	SV10-P20A-0-N-24ER/Z-N3 SOLENOID VALVE	\$989
SOLENOID VALVE	SOLENOID VALVE		SV10-P21A0N24ERZ-N3	SV10-P21A-0-N-24ER/Z-N3 SOLENOID VALVE	\$1,035
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV10-P22AM-0-N-0-M3	SV10-P22AM-0-N-0-M3 SOLENOID VALVE	\$974
SOLENOID VALVE	SOLENOID VALVE		SV10-P40-0-N-0-N3	SV10-P40-0-N-0-N3 SOLENOID VALVE	\$927
SOLENOID VALVE	SOLENOID VALVE		SV10-P40-0-N-24ER/Z	SV10-P40-0-N-24ER/Z-N3 SOLENOID VALVE	\$1,020
SOLENOID VALVE	SOLENOID VALVE		SV12-20-O-N-0	SV12-20-O-N-00 W/ 7004406 NUT	\$210
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV12-20M-0-N-0	SV12-20M-0-N-00 W/ 7004596 NUT	210 \$279
SOLENOID VALVE	SOLENOID VALVE		SV12-21-O-N-0	SV12-21-O-N-00 W/ 7004426 NUT	\$257
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV12-21K-0-N-0	SV12-21K-0-N-00 CARTRIDGE	\$305
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV12-21P-0-N-0	SV12-21P-0-N-00 W/ 7004426 NUT	\$294
SOLENOID VALVE	SOLENOID VALVE		SV12-22-O-N-0	SV12-22-O-N-00 W/ 7004406 NUT	\$227
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV12-22M-0-N-0	SV12-22M-0-N-00 W/ 7004596 NUT	\$296

Category	Product type	Option	Code	Description	List price
SOLENOID VALVE	SOLENOID VALVE		SV12-23-0-N-0	SV12-23-0-N-00 W/ 7004426 NUT	\$268
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV12-23K-0-N-0	SV12-23K-0-N-00 CARTRIDGE	\$315
SOLENOID VALVE	SOLENOID VALVE		SV12-28-0-N-0	SV12-28-0-N-00 SOLENOID VALVE	\$322
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV12-28J-0-N-0	SV12-28J-0-N-00 SOLENOID VALVE	\$430
SOLENOID VALVE	SOLENOID VALVE		SV12-29-0-N-0	SV12-29-0-N-00 SOLENOID VALVE	\$337
SOLENOID VALVE	SOLENOID VALVE		SV12-31-0-N-0	SV12-31-0-N-00 SOLENOID VALVE	\$359
SOLENOID VALVE	SOLENOID VALVE		SV12-33-0-N-0	SV12-33-0-N-00 SOLENOID VALVE	\$359
SOLENOID VALVE	SOLENOID VALVE		SV12-33-0-V-0	SV12-33-0-V-00 SOLENOID VALVE	\$374
SOLENOID VALVE	SOLENOID VALVE		SV12-34-0-N-0	SV12-34-0-N-00 SOLENOID VALVE	\$369
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV12-34K-0-N-0	SV12-34K-0-N-00 SOLENOID VALVE	\$514
SOLENOID VALVE	SOLENOID VALVE		SV12-40R-0-N-0	SV12-40R-0-N-00 SOLENOID VALVE	\$384
SOLENOID VALVE	SOLENOID VALVE		SV12-41-0-N-0	SV12-41-0-N-00 W/ 7085186	\$410
SOLENOID VALVE	SOLENOID VALVE		SV12-60-0-N-0	SV12-60-0-N-00 SOLENOID VALVE	\$527
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV12-P20AM-0-N-0-N3	SV12-P20AM-0-N-0-N3 SOLENOID VALVE	\$1,048
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV12-P22AM-0-N-0-N3	SV12-P22AM-0-N-0-N3 SOLENOID VALVE	\$1,067
SOLENOID VALVE	SOLENOID VALVE		SV16-20-0-N-0	SV16-20-0-N-00 W/ 7004406 NUT SOLENOID VALVE	\$259
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV16-20J-0-N-0	SV16-20J-0-N-00 CARTRIDGE	\$367
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV16-20M-0-N-0	SV16-20M-0-N-00 W/ 7004596 NUT	\$330
SOLENOID VALVE	SOLENOID VALVE		SV16-21-0-N-0	SV16-21-0-N-00 W/ 7004426 NUT SOLENOID VALVE	\$300
SOLENOID VALVE	SOLENOID VALVE		SV16-22-0-N-0	SV16-22-0-N-00 W/ 7004406 NUT	\$272
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV16-22M-0-N-0	SV16-22M-0-N-00 W/ 7004596 NUT	\$346
SOLENOID VALVE	SOLENOID VALVE		SV16-23-0-N-0	SV16-23-0-N-00 W/ 7004426 NUT	\$309
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV16-23P-0-N-0	SV16-23P-0-N-00 W/ 7004426 NUT	\$346
SOLENOID VALVE	SOLENOID VALVE	CABLE OVERRIDE	SV38-20J-0-N-0	SV38-20J-0-N-00 CARTRIDGE	\$283
SOLENOID VALVE	SOLENOID VALVE		SV38-26-0-N-0	SV38-26-0-N-00 W/ 7004406 NUT	\$179
SOLENOID VALVE	SOLENOID VALVE	WITH SCREEN	SV38-26S-0-V-0	SV38-26S-0-V-00 W/ 7004406 NUT	\$201
SOLENOID VALVE	SOLENOID VALVE		SV38-28-0-N-0	SV38-28-0-N-00 W/ 7004426 NUT	\$268
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV38-28K-0-N-0	SV38-28K-0-N-00 SOLENOID VALVE	\$315
SOLENOID VALVE	SOLENOID VALVE		SV38-30-0-N-0	SV38-30-0-N-00 W/7004406 NUT	\$158
SOLENOID VALVE	SOLENOID VALVE		SV38-38-0-N-0	SV38-38-0-N-00 W/ 7004426 NUT	\$337
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE KNOB	SV38-38K-0-N-0	SV38-38K-0-N-00 SOLENOID VALVE	\$384
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV38-38P-0-N-0	SV38-38P-0-N-00 SOLENOID VALVE	\$374
SOLENOID VALVE	SOLENOID VALVE	MANUAL O/RIDE NO KNOB	SV38-38P-0-V-0	SV38-38P-0-V-00 SOLENOID VALVE	\$380
SOLENOID VALVE	SOLENOID VALVE		SV58-24-0-P-0	SV58-24-0-P-00 W/ 7004406 NUT	\$175
SOLENOID VALVE	SOLENOID VALVE		SV58-25-0-P-0	SV58-25-0-P-00 W/ 7004406 NUT	\$175
SOLENOID VALVE	SOLENOID VALVE		SV58-26-0-P-0	SV58-26-0-P-00 W/ 7004406 NUT	\$190
SOLENOID VALVE	SOLENOID VALVE		SV58-30-0-P-0	SV58-30-0-P-00 W/ 7004406 NUT	\$190
SOLENOID VALVE	SOLENOID VALVE	MANUAL OVERRIDE	SV58-30M-0-P-0	SV58-30M-0-P-00 W/ 7004596 NUT	\$272
SOLENOID VALVE	SOLENOID VALVE		SV58-40-0-P-0	SV58-40-0-P-00 W/ 7004406 NUT	\$227
SOLENOID VALVE	SOLENOID VALVE		SVCL10-30-0-N-0	SVCL10-30-0-N-00 SOLENOID	\$212
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV10-26A-0-N-0	SVRV10-26A-0-N-0 SV VENTED RELIEF	\$326
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV10-26B-0-N-0	SVRV10-26B-0-N-0 SV VENTED RELIEF	\$326
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV10-26C-0-N-0	SVRV10-26C-0-N-0 SV VENTED RELIEF	\$326
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV10-26D-0-N	SVRV10-26D-0-N-0 VENTED SVRV	\$326
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M120	SVRV12-26F-0-N-00-M120 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M140	SVRV12-26F-0-N-00-M140 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M159	SVRV12-26F-0-N-00-M159 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M170	SVRV12-26F-0-N-00-M170 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M190	SVRV12-26F-0-N-00-M190 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M207	SVRV12-26F-0-N-00-M207 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M210	SVRV12-26F-0-N-00-M210 CARTRIDGE	\$380
SOLENOID VALVE	SOLENOID VALVE - RELIEF		SVRV12-26F-0-N-M240	SVRV12-26F-0-N-00-M240 CARTRIDGE	\$380
PRESSURE CONTROL	UNLOADING VALVE		UP10-31A-0-N-60	UP10-31A-0-N-60-30/ CARTRIDGE	\$315
PRESSURE CONTROL	UNLOADING VALVE		UP10-31A-0-N-70	UP10-31A-0-N-70-30/ CARTRIDGE	\$315
PRESSURE CONTROL	UNLOADING VALVE		UP10-31A-0-N-80	UP10-31A-0-N-80-30/ CARTRIDGE	\$315

**Disclaimer**

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