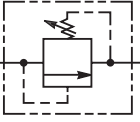
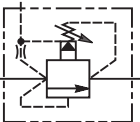
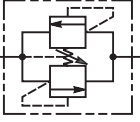
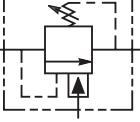


Contents

Pressure Control Valves

		SERIES	CAVITY	DESCRIPTION	FLOW LPM/GPM	PRESSURE BAR/PSI	PAGE NO.
CV Check Valves							
SH Shuttle Valves							
LM Load/Motor Controls							
FC Flow Controls							
PC Pressure Controls							
LE Logic Elements							
DC Directional Controls							
MV Manual Valves							
SV Solenoid Valves							
PV Proportional Valves							
CE Coils & Electronics							
BC Bodies & Cavities							
TD Technical Data							
	RELIEF VALVES						
	DIRECT ACTING						
	RDH042 C04-2 Direct Acting Relief, Poppet Type 3.8/1 350/5000 PC7-PC8						
	A02A2 C08-2 Direct Acting Relief, Ball Type 6/1.6 420/6000 PC9-PC10						
	A02B2 C08-2 Direct Acting Relief, Poppet Type 8/30 420/6000 PC11-PC12						
	RD102 C10-2 Direct Acting Relief, Poppet Type 38/10 250/3600 PC13-PC14						
	A04B2 C10-2 Direct Acting Relief, Poppet Type 100/26 420/6000 PC15-PC16						
	A04B2*CE C10-2 Direct Acting Relief, Poppet Type* PC17-PC18						
	A04C2 C10-2 Direct Acting Relief, Spool Type 200/53 100/1450 PC19-PC20						
						*CE marked, PED Compliant	
	DIFFERENTIAL AREA						
	RDH083 C08-2 Direct Acting Differential Area Relief 53/14 350/5000 PC21-PC22						
	RDH103 C10-2 Direct Acting Differential Area Relief 75/20 350/5000 PC23-PC24						
	RD163 C16-2 Direct Acting Differential Area Relief 151/40 210/3000 PC25-PC26						
	PILOT OPERATED						
	RAH081 C08-2 Pilot Operated Spool Type 75.8/20 350/5000 PC27-PC28						
	RAH101 C10-2 Pilot Operated Spool Type 113/30 350/5000 PC29-PC30						
	RAH161 C16-2 Pilot Operated Spool Type 303/80 380/5500 PC31-PC32						
	A06G2 C16-2 Pilot Operated Spool Type 400/106 420/6000 PC33-PC34						
	RAH201 C20-2 Pilot Operated Spool Type 379/100 350/5000 PC35-PC36						
	A04K2 C10-2 Pilot Operated Spool Type Kick Down 160/42 420/6000 PC37-PC38						
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	RAH101V C10-3 Pilot Operated Vented Relief 68/18 380/5500 PC39-PC40						
	A04H3 C10-3S Pilot Operated Vented Relief 190/50 420/6000 PC41-PC42						
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	A04J2 C10-2 Direct Acting Cross-over Relief 120/32 350/5000 PC45-PC46						
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						*CE marked, PED Compliant	
	UNLOADING						
	RU101 C10-3 Direct Acting Unloading 3.75/1 210/3000 PC49-PC50						
	M04A4J C10-4 Direct Acting Piloting Unloading 2/0.53 420/6000 PC51-PC52						
	PILOT OPERATED WITH REVERSE CHECK						
	A06P2 C16-2 Pilot Operated Poppet Type 400/106 420/6000 PC53-PC54						
	SEQUENCE VALVES						
	PILOT OPERATED						
	SVH081 C08-3 Pilot Operated, Int. Pilot, Ext. Drain 45/12 350/5000 PC55-PC56						
	SVH101 C10-3 Pilot Operated, Int. Pilot, Ext. Drain 56.3/15 350/5000 PC57-PC58						
	SVH161 C16-3 Pilot Operated, Int. Pilot, Ext. Drain 151.6/40 350/5000 PC59-PC60						
	SVH102 C10-3 Pilot Operated, Ext. Pilot, Int. Drain 56.3/15 350/5000 PC61-PC62						
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Contents**Pressure Control Valves**

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SEQUENCE VALVES			Pilot Operated (Continued)			
	B04D3	C10-3S	Pilot Operated, Reverse Check, Ext. Drain	120/32	420/6000	PC65-PC66
	B04C3	C10-3S	Pilot Operated, Kick Down	160/42	420/6000	PC67-PC68
			DIRECT ACTING			
	B02E3F	C08-3	Direct Acting, 2P-3W, Int. Pilot, Int. Drain	30/8	420/6000	PC69-PC70
	B04E3	C10-3	Direct Acting, 2P-3W, Int. Pilot, Int. Drain	50/13	420/6000	PC71-PC72
	B04F3	C10-3	Direct Acting, 2P-2W, NC, Ext. Pilot, Int. Drain	34/9	420/6000	PC73-PC74
	B04G3	C10-3	Direct Acting, 2P-2W, NO, Ext. Pilot, Int. Drain	40/10.6	420/6000	PC75-PC76
	B04H4	C10-4	Direct Acting, 2P-2W, NC, Ext. Pilot, Ext. Drain	47/12	420/6000	PC77-PC78
	B04J4	C10-4	Direct Acting, 2P-2W, NO, Ext. Pilot, Ext. Drain	47/12	420/6000	PC79-PC80
	B04K4	C10-4	Direct Acting, 2P-3W, NO, Ext. Pilot, Int. Drain	42/11	420/6000	PC81-PC82
REDUCING VALVES			DIRECT ACTING			
	C02A3	C08-3	Direct Acting Reducing/Relieving	20/5	420/6000	PC83-PC84
	PR103	C10-3	Direct Acting Reducing/Relieving	56/13	210/3000	PC85-PC86
			PILOT OPERATED			
	PRH082	C08-3	Pilot Operated Reducing	30/8	350/5000	PC87-PC88
	PRH102	C10-3	Pilot Operated Reducing	56.3/15	350/5000	PC89-PC90
	PRH122	C12-3	Pilot Operated Reducing	113.7/30	350/5000	PC91-PC92
	PRH162	C16-3	Pilot Operated Reducing	150/40	350/5000	PC92-PC94
	PRH081	C08-3	Pilot Operated Reducing/Relieving	30/8	350/5000	PC95-PC96
	PRH101	C10-3	Pilot Operated Reducing/Relieving	56.3/15	350/5000	PC97-PC98
	PRH121	C12-3	Pilot Operated Reducing/Relieving	113.7/30	350/5000	PC99-PC100
	PRH161	C16-3	Pilot Operated Reducing/Relieving	150/40	350/5000	PC101-PC102

CVCheck
Valves**SH**Shuttle
Valves**LM**Load/Motor
Controls**FC**Flow
Controls**PC**Pressure
Controls**LE**Logic
Elements**DC**Directional
Controls**MV**Manual
Valves**SV**Solenoid
Valves**PV**Proportional
Valves**CE**Coils &
Electronics**BC**Bodies &
Cavities**TD**Technical
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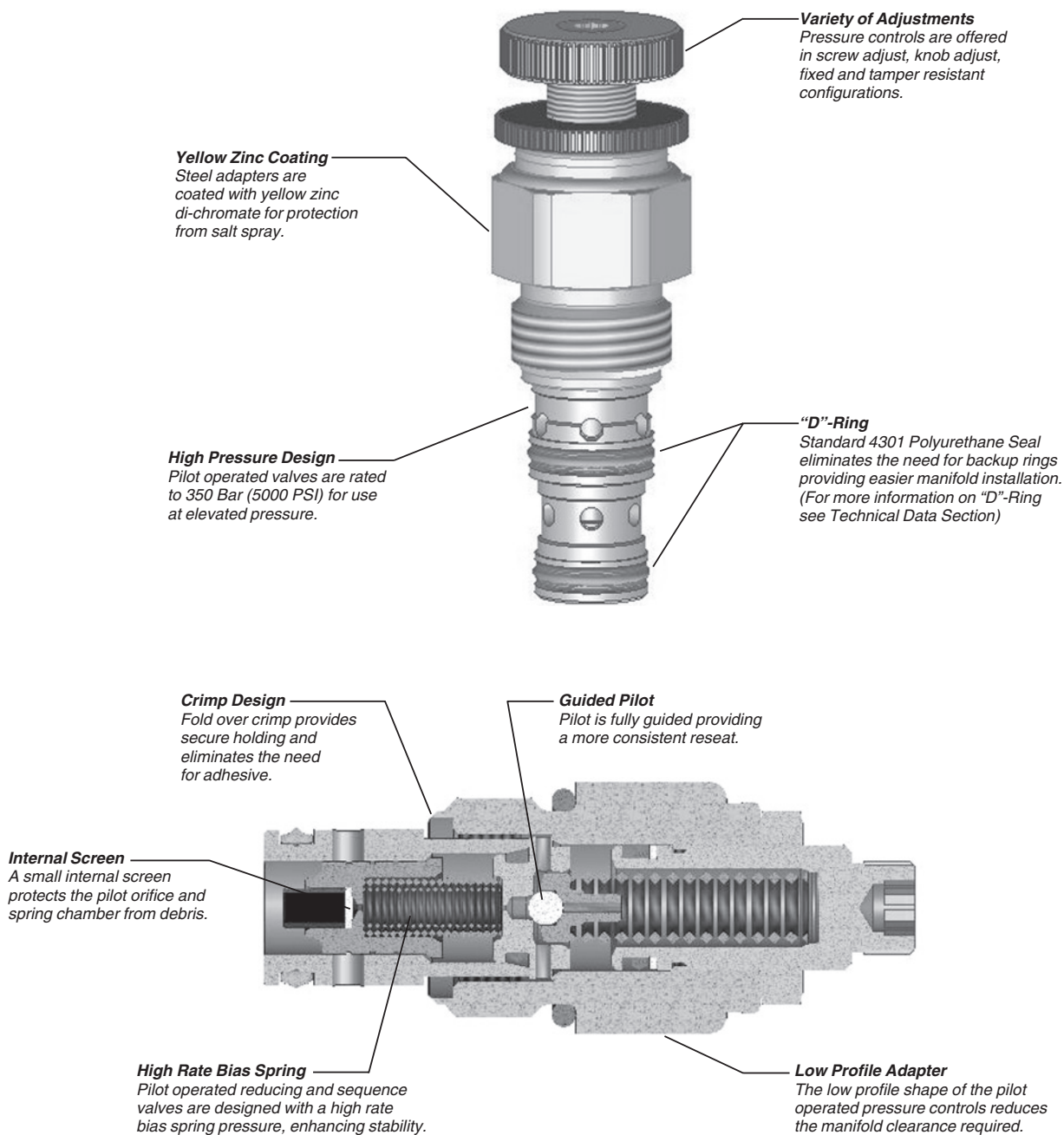
INTRODUCTION

This technical tips section is designed to help familiarize you with the Parker line of Pressure Controls. In this section we highlight new products to this catalog as well as some design features of our pressure control line. In addition we present common options available to help you in selecting products for your application. Finally we give a brief synopsis of the operation and applications of the various product offered in this section.

NEW PRODUCTS

There are several new additions and product improvements to our Pressure Controls product line.

Here are just some of the design features and advantages to the "Winner's Circle" product line.

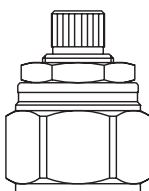


COMMON OPTIONS

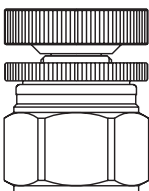
As you will see, Parker offers a variety of Pressure Control products. As such, some of the options mentioned below may not be available on all valves. Consult the model coding and dimensions for each valve for specifics. Here are some of the common options available.

Adjustment Types: Parker offers four primary types of adjustments for most of the pressure control products. Samples of these types are shown below. Please note all options may not be available for all valves. Consult the individual catalog pages for more details.

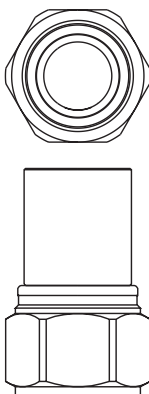
Screw Adjustment - Valve can be adjusted with an allen wrench. Lock nut included to maintain desired setting after adjustment. This is the most common adjustment option available on most Parker products.



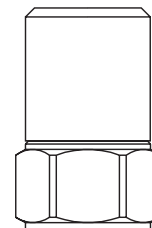
Knob Adjustment - An aluminum knob is added to the standard screw adjustment. A lock knob is provided to help maintain the desired setting after adjustment. Parker offers knob conversion kits for most pressure control valves. For kit numbers consult individual valve pages.



Fixed Style - In most cases, the Fixed Style product is a screw adjustable product with a steel collet threaded over the screw adjustment. These valves are preset at the factory.



Tamper Resistant - The tamper resistant option is a screw adjustable valve with a steel cap installed to conceal the adjustment. The cap is designed so that the internal edges clamp into the groove of the valve adapter. Once the cap is installed, it cannot be removed without damaging the cap and the valve. When a valve is ordered with the tamper resistant option, it will be preset at the factory, and the cap will be included in a separate plastic bag to allow for fine tuning at the customer site. Parker offers tamper resistant cap conversion kits for most pressure control valves. For kit numbers consult individual valve pages.



Seals: The Winner's Circle products feature a standard 4301 Polyurethane "D"-Ring. The "D"-Ring eliminates the need for backup rings. The majority of the products are available in Nitrile or Fluorocarbon Seals. You should match the seal compatibility to the temperature and fluid being used in your application.

Pressure Range: Parker offers a range of spring settings for the Pressure Control product line. You want to choose the setting that best meets the operating range. The model callout is equivalent to the maximum setting (in psi) of the spring divided by 100 (i.e. 50 = 5000 psi).

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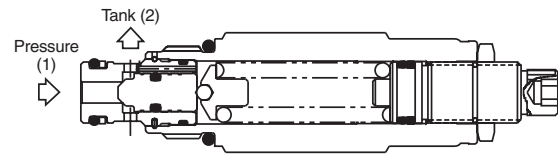
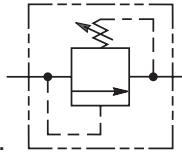
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PRODUCT TYPES / APPLICATIONS

Direct Acting Relief Valves

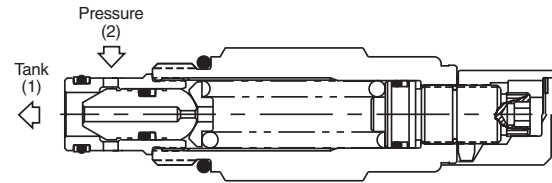
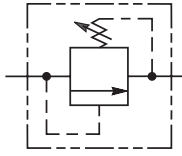
Direct acting relief valves are designed for fast response in intermittent duty applications. They are often used as an economical solution to clip pressure spikes. The poppet design allows for low leakage.



OPERATION - The valve poppet is held against the seat by the spring force. Inlet pressure on the nose (port 1) of the poppet acts against the spring force to unseat the poppet at the valve setting and allow flow to pass to tank. Since the pressure is working directly on the spring, this valve is very fast responding. It is not the best choice for system pressure regulation as it is slightly noisier than pilot operated relief valves and has higher pressure rise. *Note:* Any backpressure on port 2 would be additive to the spring setting.

Differential Area Relief Valves

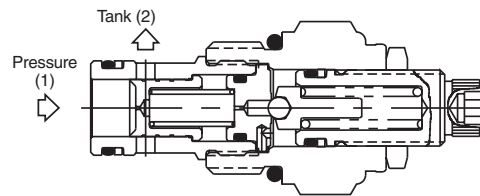
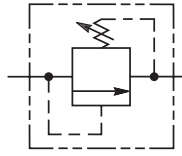
Differential area relief valves also are also best suited for intermittent applications where fast response is critical. These valves are often used as cross-over relief valves to chop pressure spikes. Due to their design, they generally can handle a larger flow rate and have a lower pressure rise than the standard directing acting relief. The poppet design allows for low leakage.



OPERATION - Pressure on the inlet (port 2) of the valve acts on the differential area of the poppet (difference between the O.D. of the poppet and the seat diameter) to produce a force which is opposed by the spring force. When pressure reaches the valve setting, the poppet is pushed off its seat, permitting flow to tank. *Note:* Any backpressure on port 1 would be additive to the spring setting.

Pilot Operated Relief

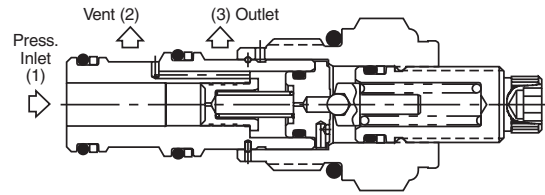
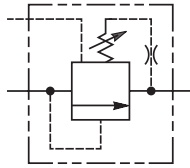
Pilot operated relief valves are designed for continuous duty applications. Due to their stability and low pressure rise, the pilot operated relief is the best option for setting the pressure of a hydraulic system.



OPERATION - When inlet pressure at the nose (port 1) exceeds the valve setting, the pilot ball unseats. The pilot flow creates a pressure imbalance across the main spool causing the spool to move and allowing flow from inlet (port) 1 to tank (port 2.) *Note:* Any backpressure on port 2 would be additive to the spring setting.

Ventable Pilot Operated Relief

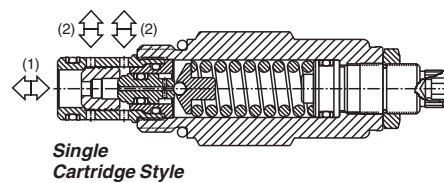
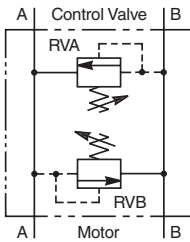
Ventable relief valves are a unique type of pilot operated relief. With this valve, you can control the pressure setting with the internal adjustment as well as via remote circuit. These valves are ideal in circuits where multiple pressures are needed.



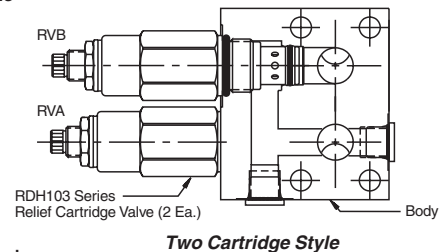
OPERATION - This valve can be controlled by the adjustment setting on the valve, or a remote circuit via the vent line. When the vent line is used, the smaller of the two pressure settings will determine the valve setting. In other words, if the pressure setting of the remote circuit is less than the adjusted setting, then the valve will relieve at the remote setting. If the pressure setting of the remote circuit is greater than the adjusted setting, then the valve will relieve at the adjusted setting. With the vent port (port 2) blocked, the valve operates like a standard pilot operated relief valve. Thus, a solenoid valve could be used on the vent port to select control between this valve another remote valve.

Dual Crossover Relief Valves

Dual crossover relief valves provide pressure surge protection for double acting hydraulic actuators. For best results, you always want to install the valve as close to the actuator as possible. The dual crossover feature can be achieved in two different methods. One way is to manifold two Differential Area Relief Valves into a single body. Parker offers three versions of this two cartridge arrangement. The advantage gained is higher flows can be pushed through this arrangement. The second method is to combine this dual function into a single cartridge. The single cartridge arrangement reduces cost considerably of the total package. In addition, a standard common cavity line body can be used instead of a special two body arrangement. The operation for the single cartridge style is shown below.



Single Cartridge Style

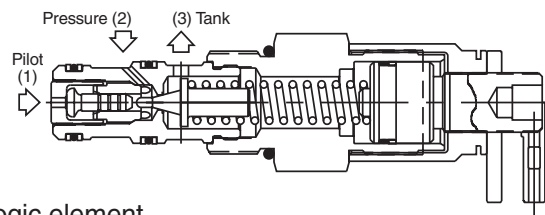
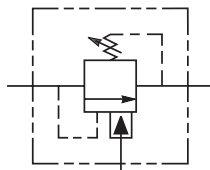


Two Cartridge Style

OPERATION - Pressure at port 1 acts on the spool to produce a force which is opposed by the spring setting. When pressure reaches the valve setting, the spool and poppet move relieving flow from port 1 to port 2. When port 2 is pressurized, the pressure acts on the differential area poppet to produce a force which is opposed by the spring force. When the pressure reaches the valve setting, the poppet is pushed off of its seat, relieving flow from port 2 to port 1. *Note:* Due to the construction and flow paths through the valve, the relief pressure settings may vary by approximately 300 psi from one direction to the other.

Differential Area Unloading Relief Valve

Unloading valves are differential area relief valves that can also be fully dumped or unloaded via a remote signal. They are best suited for low flow accumulator unloading circuits. They provide a fixed percentage between load and unload pressures. This pilot valve would generally be used in conjunction with a logic element.



OPERATION - The fixed differential is provided by the pilot piston which has greater area than the dart seat. With its greater area, the piston is able to hold the dart off its seat, permitting flow from pressure to tank, until pressure on the pilot piston falls below the fixed percentage of the valve settings.

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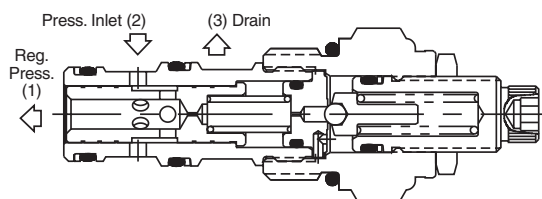
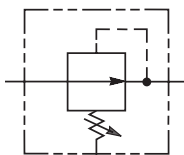
BC

Bodies &
Cavities

TD

Technical
Data**Pilot Operated Reducing Valve**

Pilot operated pressure reducing valves can be used to reduce the pressure in a leg of the circuit lower than system pressure. Thus, they can be used to provide protection to downstream components from higher pressures.



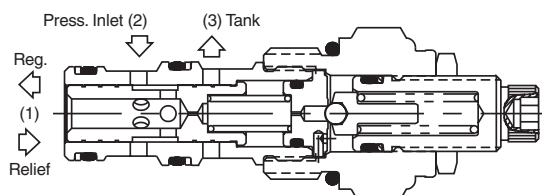
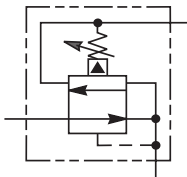
OPERATION - The pilot section controls the valve setting when reducing. As pressure at the regulated port exceeds the valve setting, the pilot ball is unseated. The pilot flow creates a pressure imbalance across the main spool causing the spool to throttle in order to maintain constant downstream pressure. The normally open design will allow flow to pass from inlet to reduced port with the only restriction being the pressure drop.

Pressure Reducing / Relieving Valves

Pressure reducing / relieving valves can be used to reduce the pressure in a leg of the circuit lower than system pressure. The valve also acts as a relief valve, relieving any shocks or surges that occur between the regulated port and the actuator. When the valve is in the relieving mode, the inlet port is blocked. Parker offers pressure reducing/relieving valves in both pilot operated and directing acting styles. The direct acting version is generally used in static applications where response is critical, or leakage is a concern.

Pilot Operated

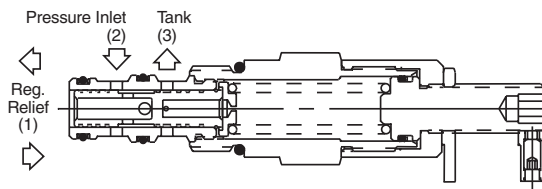
OPERATION - The pilot section controls the valve setting when reducing. As pressure at the regulated port exceeds the valve setting, the pilot ball is unseated. The pilot flow creates a pressure imbalance across the main spool causing the spool to throttle in order to maintain constant downstream pressure.



A shock or surge at the regulated port shifts the spool, relieving flow to tank.

Direct Acting

OPERATION - As pressure at the regulated port exceeds the valve setting, the valve throttles or closes in order to maintain constant downstream pressure. A shock or surge at the regulated port further shifts the spool, relieving flow to tank. This valve is not intended for rapidly changing flows which could lead to instability.

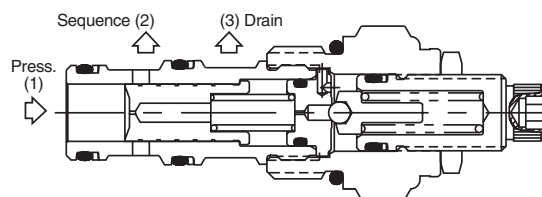


Pilot Operated Sequence Valves

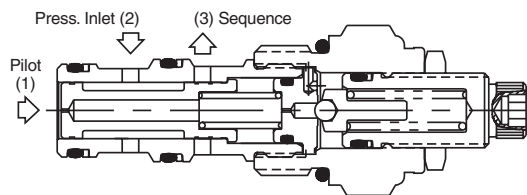
Sequence valves are used to control the sequence of operation of two or more hydraulic actuators. The sequence valve pressure is set higher than the first actuator operation pressure. Once the first actuator has completed its cycle, the sequence valve opens allowing the second actuator to move. Parker's line of pilot operated sequence valves include a series of internally piloted, externally drained valves and a series of externally piloted, internally vented valves. Parker also offers a line of direct acting sequence valves which are ideal for piloting logic elements in steady state applications.

P.O. Sequence (Internally Piloted, Externally Drained)

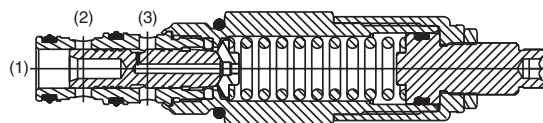
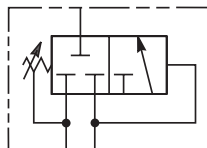
OPERATION - For this valve, the pilot pressure is sensed from the inlet of the valve (port 1). When the pilot pressure exceeds the valve setting, the pilot section opens creating a pressure imbalance across the main spool. This causes the spool to move allowing the flow to pass from the nose of the cartridge (port 1) to the actuator port (port 2). By externally draining the pilot flow directly to tank (port 3), the valve is insensitive to back pressure at the sequence port.

**P.O. Sequence (Externally Piloted, Internally Vented)**

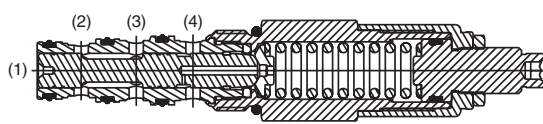
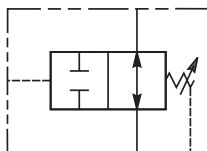
OPERATION - For this valve, the pilot pressure is obtained from an external source and not from the pressure port. When the external pilot pressure (port 1) exceeds the valve setting, the pilot section opens creating a pressure imbalance across the main spool. This causes the spool to move allowing the flow to pass from the side of the cartridge (port 2) to the actuator port (port 3). Any pressure at port 3 is additive to the pressure setting. It is most common for port 3 to be connected to tank.

**D.A. Sequence (Internally Piloted, Externally Drained)**

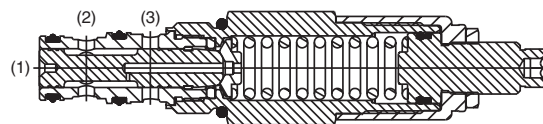
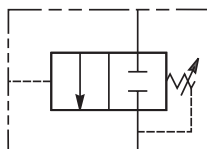
OPERATION - In the steady state condition, all three ports are blocked with the spring chamber drained to port 3. When the pressure at port 1 exceeds the valve setting, the spool moves allowing flow from the nose of the cartridge (port 1) to the actuator port (port 2). By externally draining the spring chamber directly to tank (port 3), the valve is insensitive to back pressure at the sequence port.

**D.A. Sequence, N.O. (Externally Piloted, Externally Drained)**

OPERATION - With no pressure at the pilot port (port 1), bi-directional flow is allowed between port 3 and port 2. When the pilot pressure at port 1 exceeds the valve setting the spool moves blocking both port 3 and port 2. By externally draining the spring chamber to tank (port 4), the valve is insensitive to back pressure at the sequencing ports.

**D.A. Sequence, N.C. (Externally Piloted)**

OPERATION - With no pressure at the pilot port (port 1), both port 3 and port 2 are blocked. When the pilot pressure at port 1 exceeds the valve setting, the spool moves opening a path and allowing flow from port 3 to port 2. This valve internally drains the spring chamber to tank via the sequencing port, thus any backpressure on port 2 would be additive to the spring setting.



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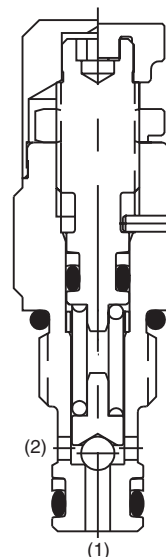
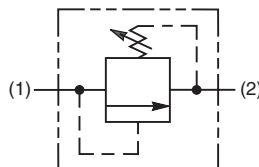
Technical
Data

General Description

Direct Acting Ball-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- Low leakage design
- Fast response
- All external parts zinc plated



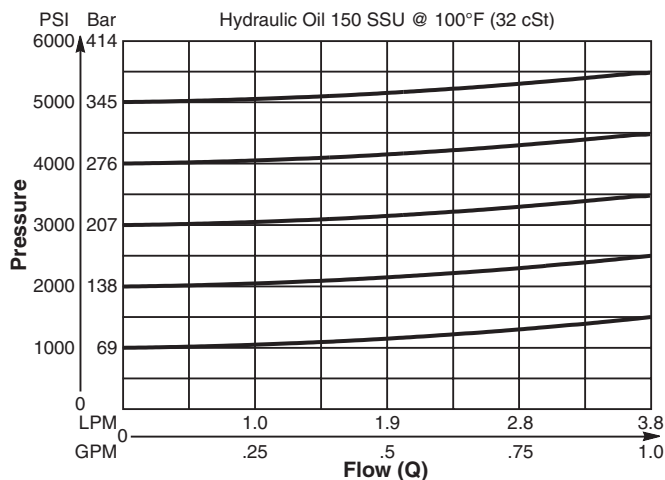
Specifications

Rated Flow	3.8 LPM (1 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	10 drops/min. (.66 cc/min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.03 kg (.07 lbs.)
Cavity	C04-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT04-2F

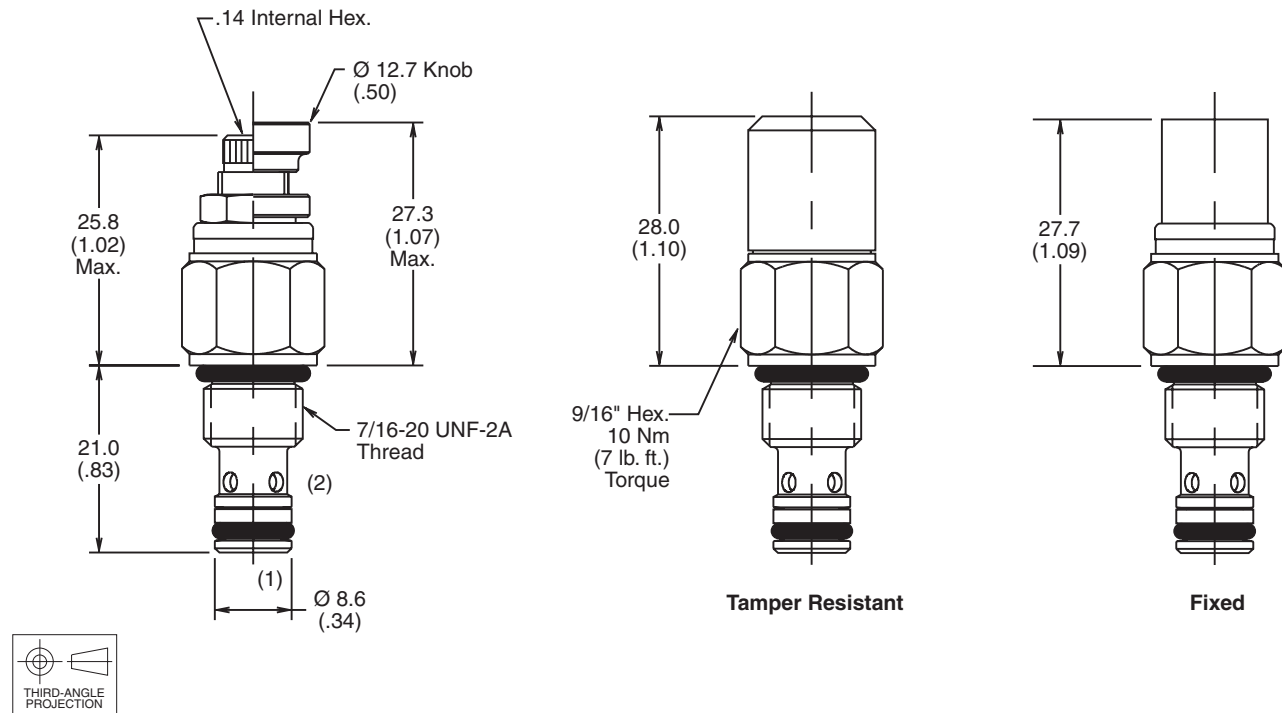
Performance Curve

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

RDH042						
04 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (852544)
S	Screw Adjust
T	Tamper Resistant Cap (852519)

Code	Pressure Range
30	6.9 - 207 Bar (100 - 3000 PSI) Standard Setting: 103 Bar (1500 PSI) @ 1.9 LPM (.5 GPM)
50	103 - 345 Bar (1500 - 5000 PSI) Standard Setting: 172 Bar (2500 PSI) @ 1.9 LPM (.5 GPM)

Code	Seals / Kit No.
Omit	Nitrile / (SK04-2)
V	Fluorocarbon / (SK04-2V)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 1.9 LPM (.5 GPM)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4T	SAE-4	(B04-2-*4T)

* Add "A" for aluminum, omit for steel.

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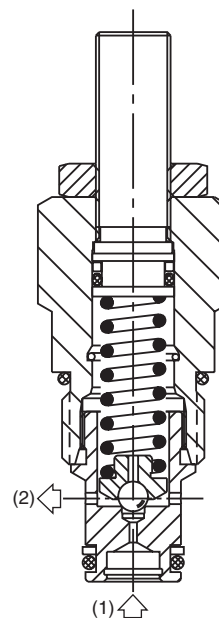
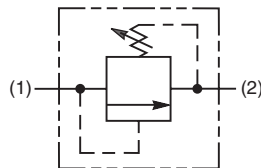
Technical
Data

General Description

Direct Acting Ball-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Fast response
- Ideal for controlling ventable relief valves, or for thermal relief
- Hardened working parts for maximum durability
- Integral 250 micron inlet filter available
- All external parts zinc plated



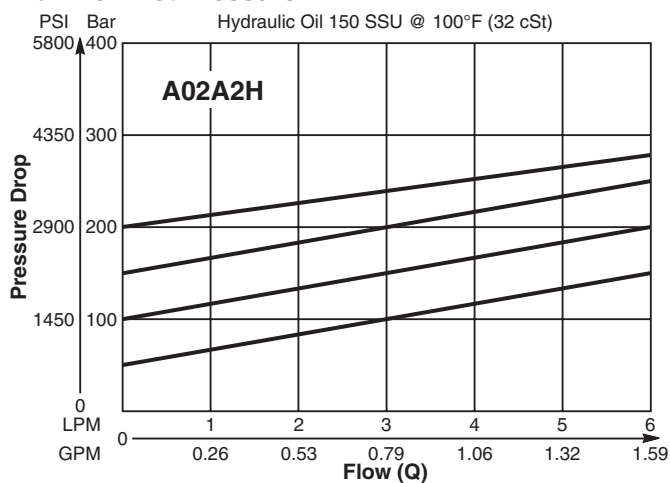
Specifications

Rated Flow	6 LPM (1.6 GPM)
Maximum Inlet Pressure	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.11 kg (0.24 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

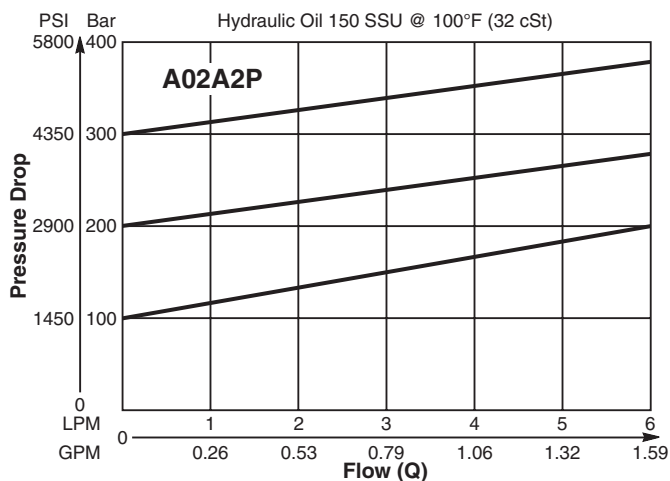
Performance Curves

(Pressure rise through cartridge only)

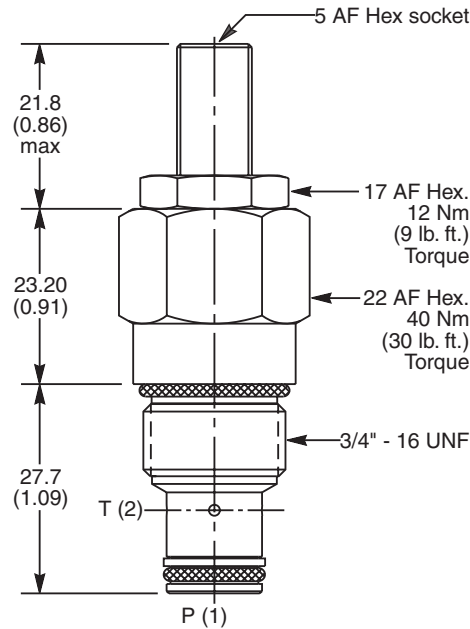
Flow vs. Inlet Pressure



Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A02A2							
08 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Filter	Body Material	Port Size

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30515N-1)
V	Fluorocarbon / (SK30515V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Filter
Omit	Omit for no filter (Std.)
F	250 micron inlet filter

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

* Add "A" for aluminum, omit for steel.

Optional Pressure Setting	
Specify setting if required (Bar)	
A02A2H Standard Setting: 100 Bar (1400 PSI) @ 0.5 LPM (0.13 GPM)	
A02A2P Standard Setting: 200 Bar (2900 PSI) @ 0.5 LPM (0.13 GPM)	

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General Description

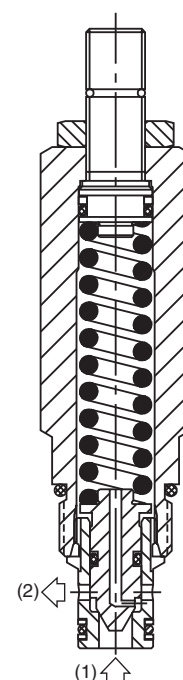
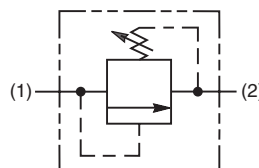
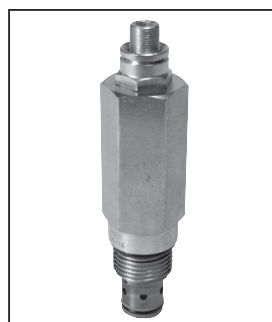
Direct Acting Poppet-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Fast response
- Excellent stability throughout flow range
- Virtually leak free
- Hardened working parts for maximum durability
- Adjustable, preset and tamper resistant versions available
- Preset version is tamper resistant and compact
- All external parts zinc plated

Specifications

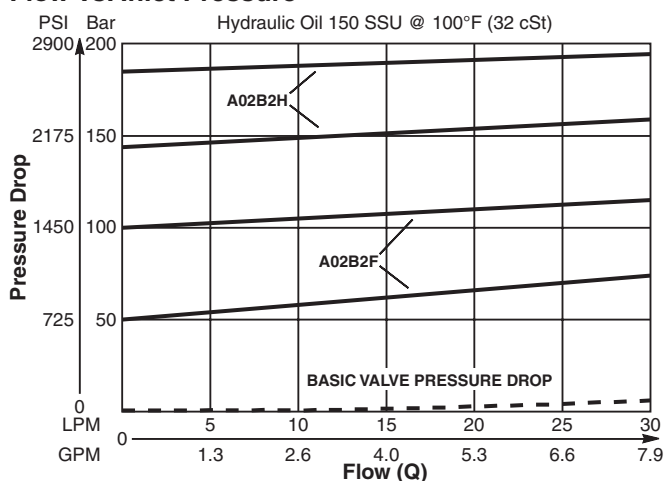
Rated Flow	8 LPM (30 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	F - 2-100 Bar (29-1450 PSI) H - 5-210 Bar (72-3000 PSI) P - 5-420 Bar (72-6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.20 kg (0.44 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F



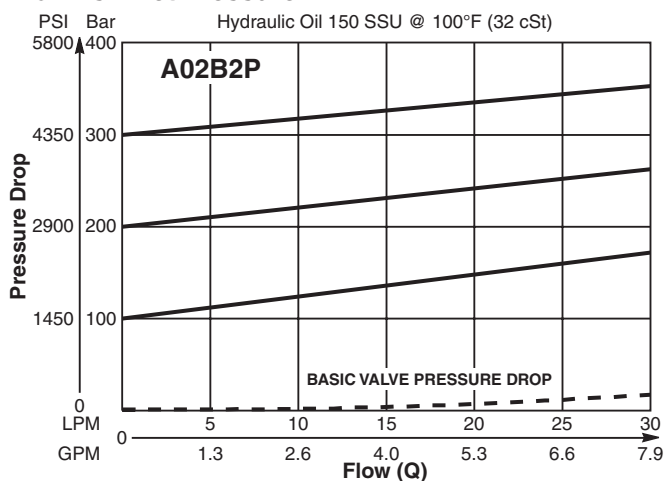
Performance Curves

(Pressure rise through cartridge only)

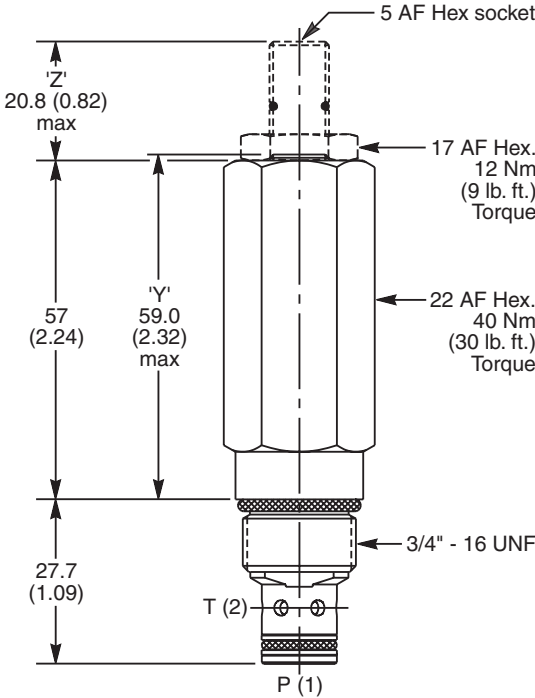
Flow vs. Inlet Pressure



Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A02B2						
08 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
F	2 - 100 Bar (29 - 1450 PSI)
H	5 - 210 Bar (72 - 3000 PSI)
P	5 - 420 Bar (72 - 6000 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)
Y	Non Adjustable Preset

Optional Pressure Setting
Specify setting if required (Bar) Y Setting must be specified
A02B2F Standard Setting: 50 Bar (725 PSI) @ 2 LPM (0.5 GPM)
A02B2H Standard Setting: 100 Bar (1450 PSI) @ 2 LPM (0.5 GPM)
A02B2P Standard Setting: 200 Bar (2900 PSI) @ 2 LPM (0.5 GPM)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30500N-1)
V	Fluorocarbon / (SK30500V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

* Add "A" for aluminum, omit for steel.

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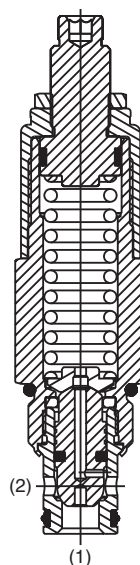
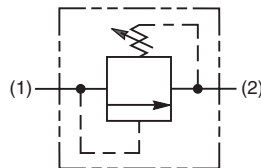
Technical
Data

General Description

Direct Acting Poppet-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Internal mechanical stop limits poppet travel eliminating spring solidification
- Spherical poppets for low leakage
- "D"-Ring eliminates backup rings
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.
- Fast response



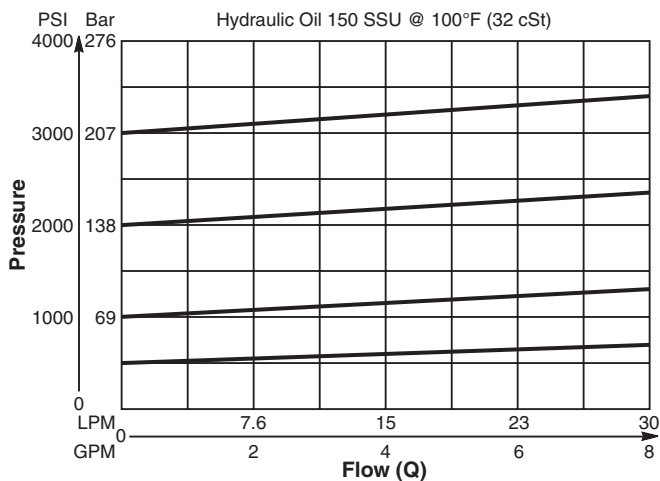
Specifications

Rated Flow	38 LPM (10 GPM)
Maximum Inlet Pressure	250 Bar (3600 PSI)
Maximum Pressure Setting	210 Bar (3000 PSI)
Maximum Tank Pressure	210 Bar (3000 PSI)
Reseat Pressure	85% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range (Ambient)	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluids	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F

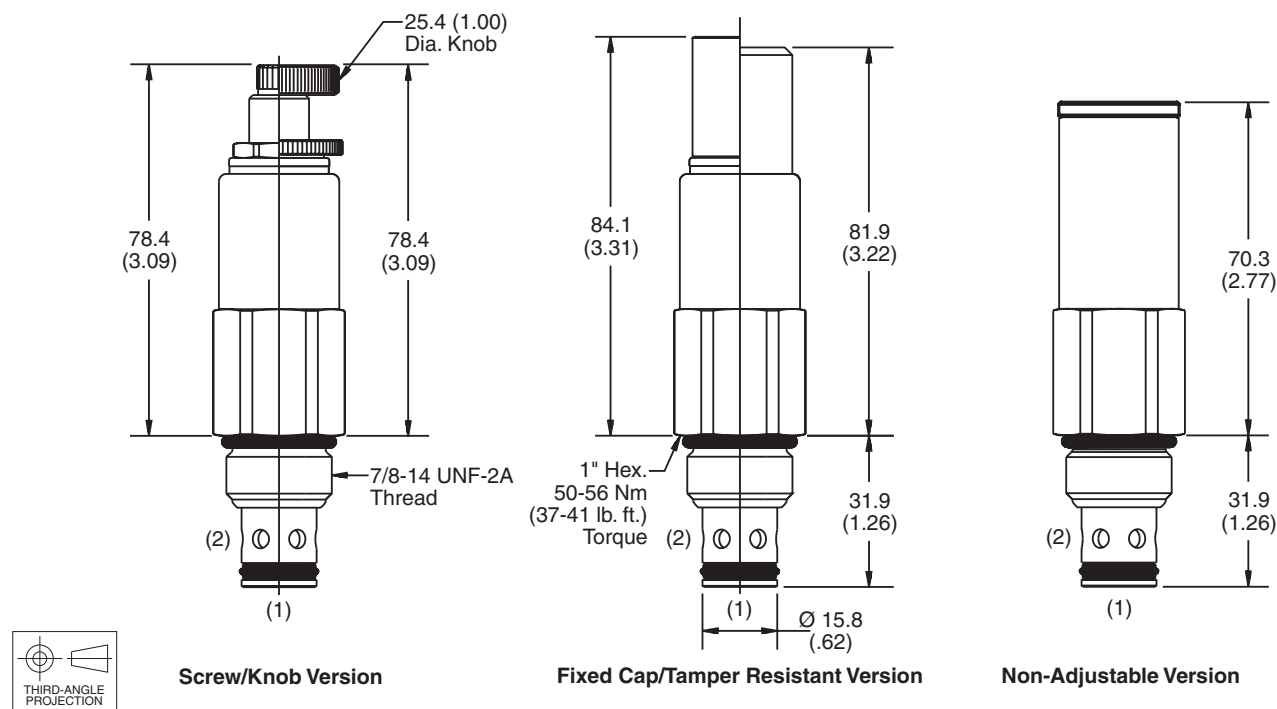
Performance Curve

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

RD102						
10 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
N	Non-Adjustable
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-2)
N	Nitrile / (SK10-2N)
V	Fluorocarbon / (SK10-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
03	6.9 - 20.7 Bar (100 - 300 PSI) Standard Setting: 10.3 Bar (150 PSI) @ .95 LPM (.25 GPM)
09	13.8 - 62.1 Bar (200 - 900 PSI) Standard Setting: 31.0 Bar (450 PSI) @ .95 LPM (.25 GPM)
18	20.7 - 124 Bar (300 - 1800 PSI) Standard Setting: 62.1 Bar (900 PSI) @ .95 LPM (.25 GPM)
30	41.4 - 207 Bar (600 - 3000 PSI) Standard Setting: 103.4 Bar (1500 PSI) @ .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 3000 PSI All settings at .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
 † Steel body only.

CV

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General Description

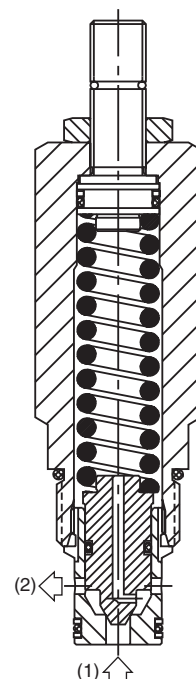
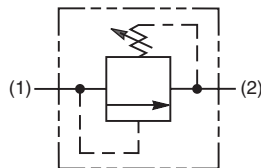
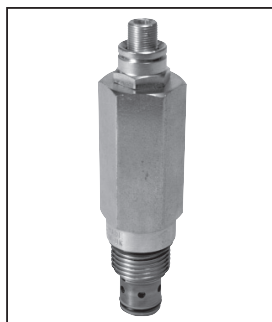
Direct Acting Poppet-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Fast response with good stability
- Virtually leak-free
- Hardened working parts for maximum durability
- Adjustable, preset and tamperproof versions available
- Preset version is tamperproof and compact
- All external parts zinc plated

Specifications

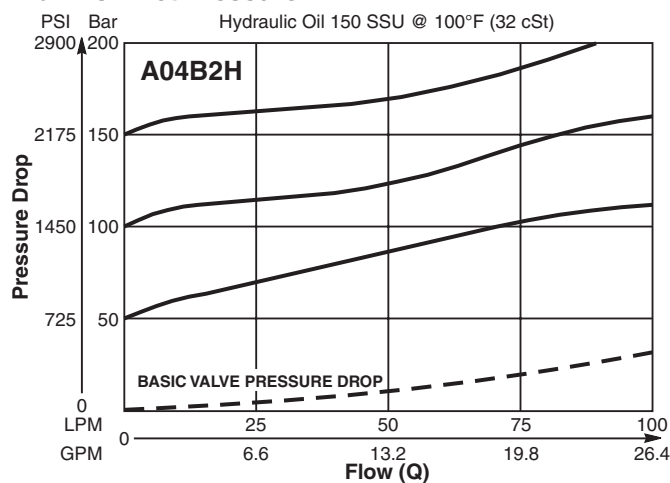
Rated Flow	100 LPM (26 GPM)
Maximum Inlet Pressure	H - 5-210 Bar (72-3000 PSI) P - 5-420 Bar (72-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.28 kg (0.62 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F



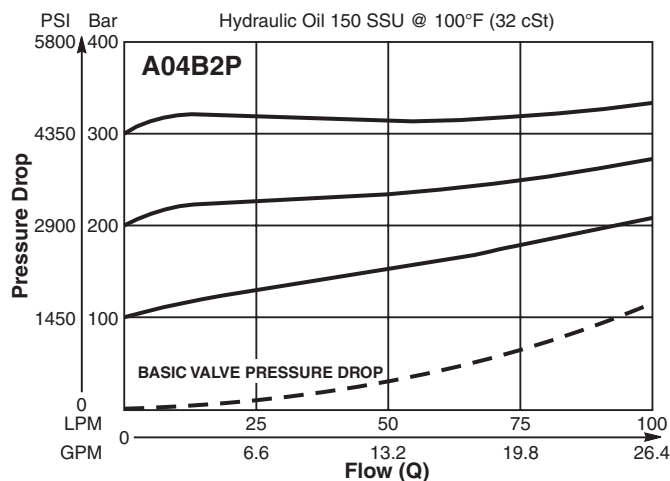
Performance Curves

(Pressure rise through cartridge only)

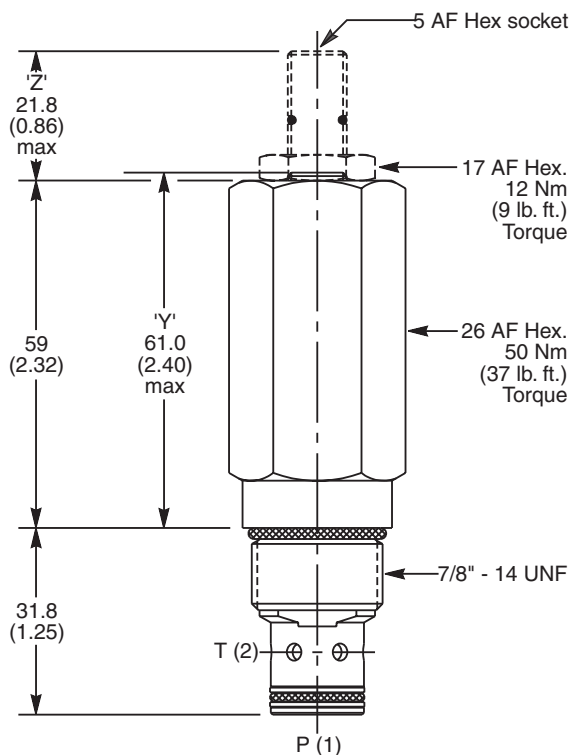
Flow vs. Inlet Pressure



Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A04B2						
10 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	5 - 210 Bar (72 - 3000 PSI)
P	5 - 420 Bar (72 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30503N-1)
V	Fluorocarbon / (SK30503V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)
Y	Non Adjustable Preset

Optional Pressure Setting	
Specify setting if required (Bar)	
Y Setting must be specified	
A04B2H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)	
A04B2P Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

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General Description

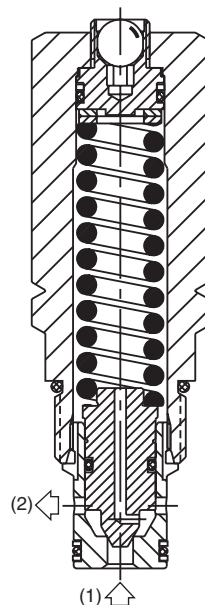
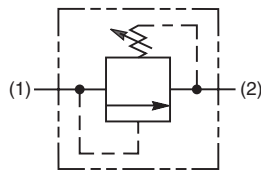
Direct Acting Poppet-Type Relief Valve. Pressure Equipment Directive (PED 97/23/EC) compliant to hazard category IV. For additional information see Technical Tips on pages PC1-PC6.

Features

- Fast response with good stability
- Compact space saving design
- Poppet type construction for lower leakage
- Full 420 Bar (6000 PSI) pressure capability
- Hardened working parts for maximum durability
- Tamperproof setting
- All external parts zinc plated

Specifications

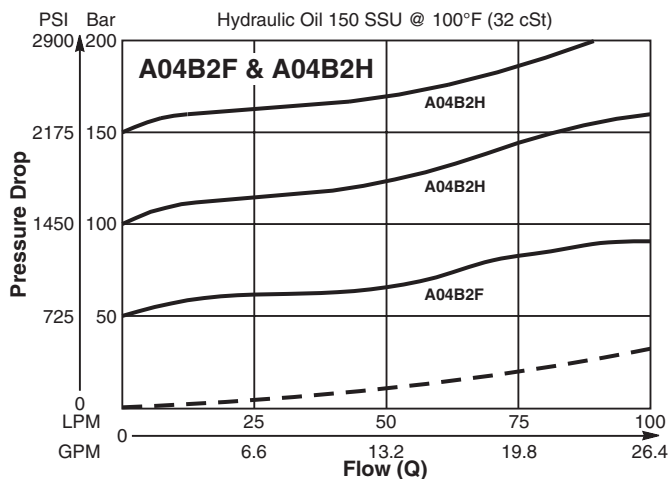
Rated Flow	100 LPM (26 GPM)
Maximum Inlet Pressure	FY - 2-100 Bar (29-1450 PSI) HY - 5-210 Bar (72-3000 PSI) PY - 5-420 Bar (72-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Sensitivity: Pressure/Turn	FY - 11 Bar (165 PSI) HY - 21 Bar (305 PSI) PY - 44 Bar (630 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.25 kg (0.55 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F



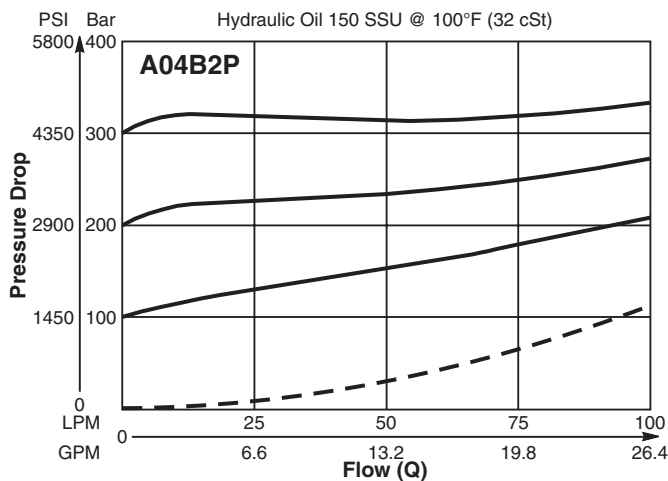
Performance Curves

(Pressure rise through cartridge only)

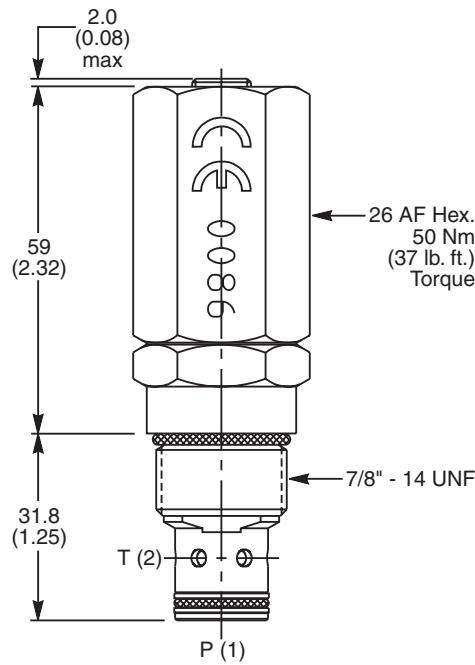
Flow vs. Inlet Pressure



Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A04B2 ☐ **Y** — ☐ ☐ **CE** — ☐ ☐

10 Size Pressure Adjustment Optional Seals Body Port
Direct Acting Adjustment Style Pressure Material Size
Relief Valve Range Setting

Code	Pressure Adjustment Range
F	2 - 100 Bar (29 - 1450 PSI)
H	5 - 210 Bar (72 - 3000 PSI)
P	5 - 420 Bar (72 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30503NP-1)
V	Fluorocarbon / (SK30503VP-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Y	Non Adjustable Preset (Std.)

Optional Pressure Setting	
Setting must be specified (Bar)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

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Valves

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Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

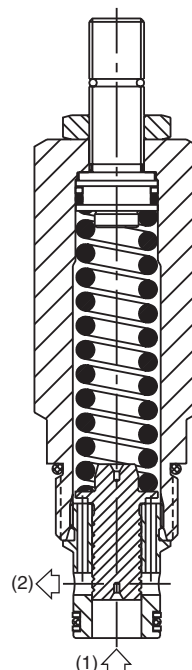
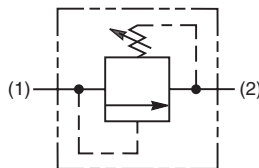
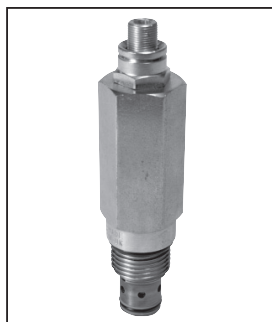
Direct Acting Spool-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- High flow capacity
- Fast response with good stability
- Low pressure setting
- Full 420 Bar 6000 PSI tank line back pressure
- Hardened working parts for maximum durability
- Adjustable, preset and tamperproof versions available
- All external parts zinc plated

Specifications

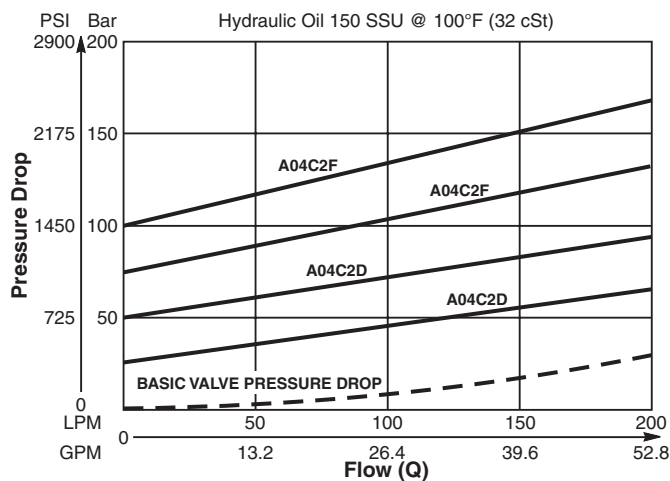
Rated Flow	200 LPM (53 GPM)
Maximum Inlet Pressure	D - 2-50 Bar (29-725 PSI) F - 2-100 Bar (29-1450 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 50 Bar (725 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.28 kg (0.62 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F



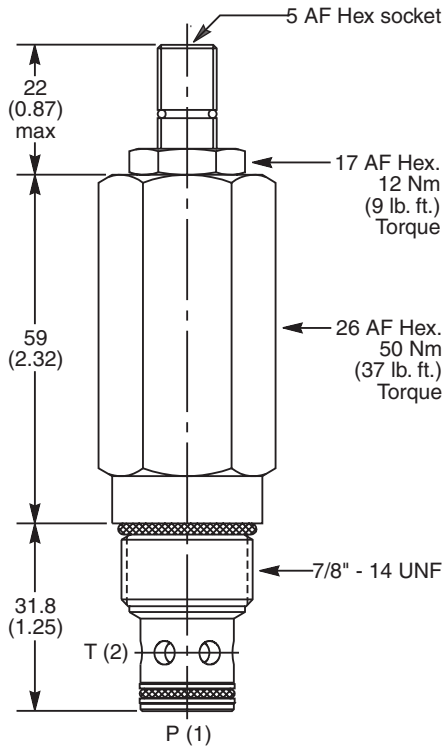
Performance Curve

(Pressure rise through cartridge only)

Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A04C2						
10 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
D	2 - 50 Bar (29 - 725 PSI)
F	2 - 100 Bar (29 - 1450 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30503N-1)
V	Fluorocarbon / (SK30503V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting
Specify setting if required (Bar)
A04C2D Standard Setting: 25 Bar (360 PSI) @ 15 LPM (4.0 GPM)
A04C2F Standard Setting: 50 Bar (725 PSI) @ 15 LPM (4.0 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

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Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

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Controls

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Flow
Controls

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Solenoid
Valves

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Valves

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Coils &
Electronics

BC

Bodies &
Cavities

TD

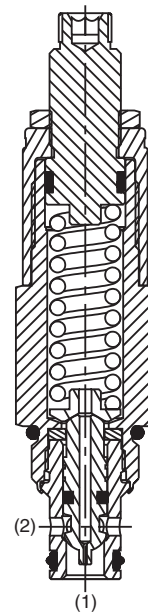
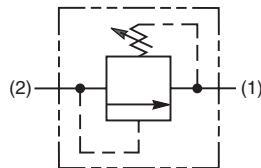
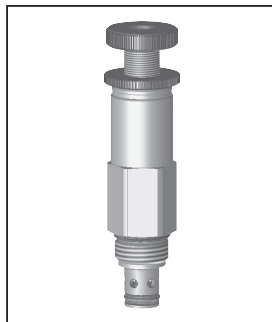
Technical
Data

General Description

Differential Area Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Spherical poppets for low leakage
- High flow capacity
- Internal mechanical stop limits poppet travel eliminating spring solidification
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis



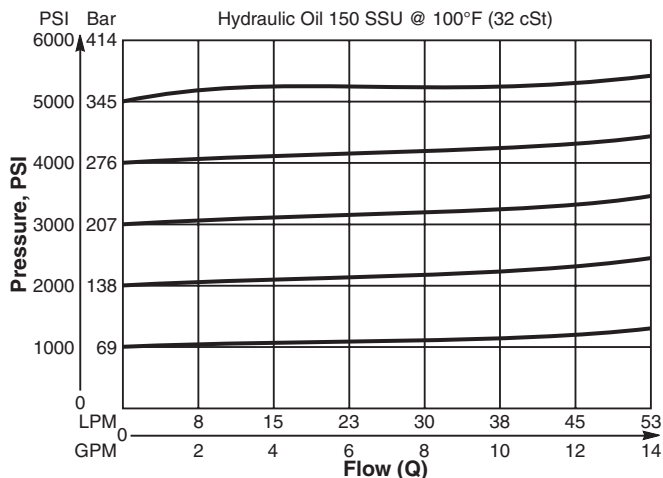
Specifications

Rated Flow	53 LPM (14 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	85% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.19 kg (.43 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

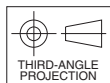
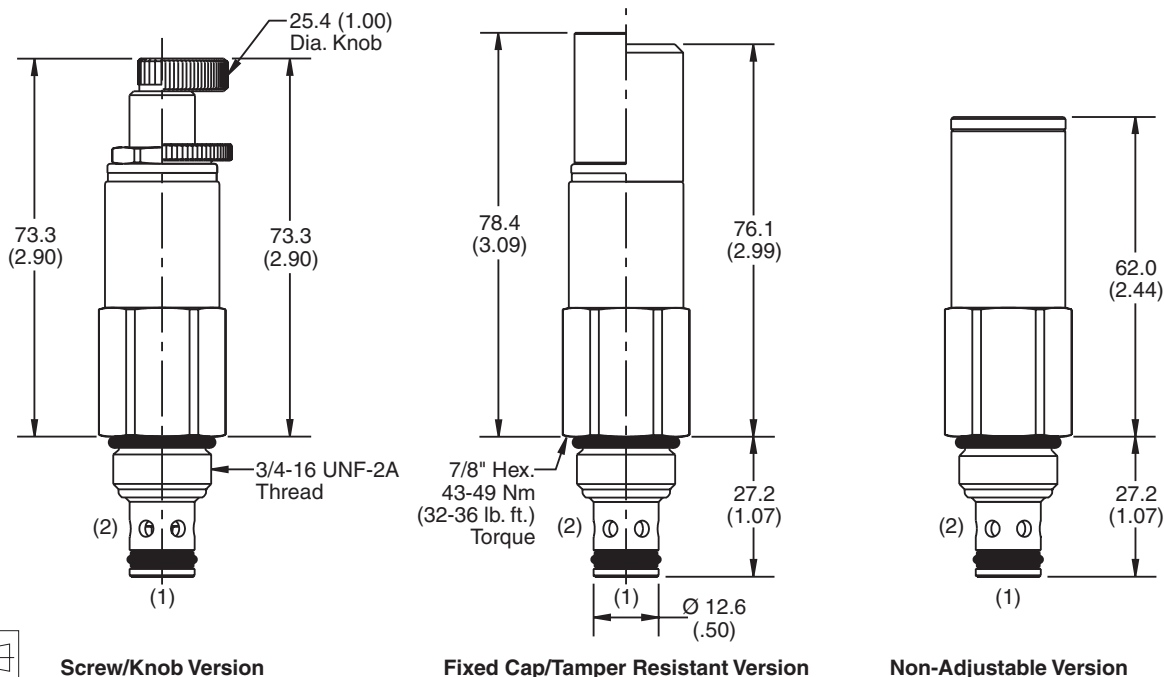
Performance Curve

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version

Fixed Cap/Tamper Resistant Version

Non-Adjustable Version

Ordering Information

RDH083						
08 Size Differential Area Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
N	Non-Adjustable
S	Screw Adjust
T	Tamper Resistant Cap (718083)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK08-2)
N	Nitrile / (SK08-2N)
V	Fluorocarbon / (SK08-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
15	6.9 - 103 Bar (100 - 1500 PSI) Standard Setting: 51.7 Bar (750 PSI) @ crack pressure approximately .95 LPM (.25 GPM)
30	17.2 - 207 Bar (250 - 3000 PSI) Standard Setting: 103 Bar (1500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

* Add "A" for aluminum, omit for steel.

CV

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Controls

PC

Pressure
Controls

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Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

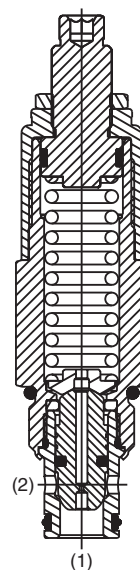
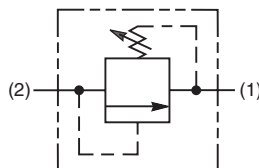
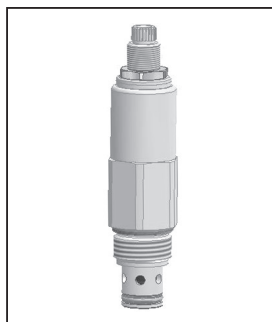
Technical
Data

General Description

Differential Area Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Internal mechanical stop limits poppet travel eliminating spring solidification
- Spherical poppets for low leakage
- "D"-Ring eliminates backup rings
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.
- High flow capacity



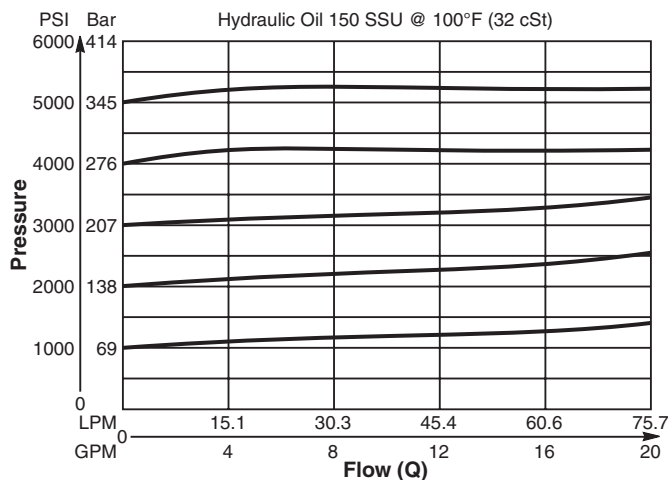
Specifications

Rated Flow	75 LPM (20 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	85% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F

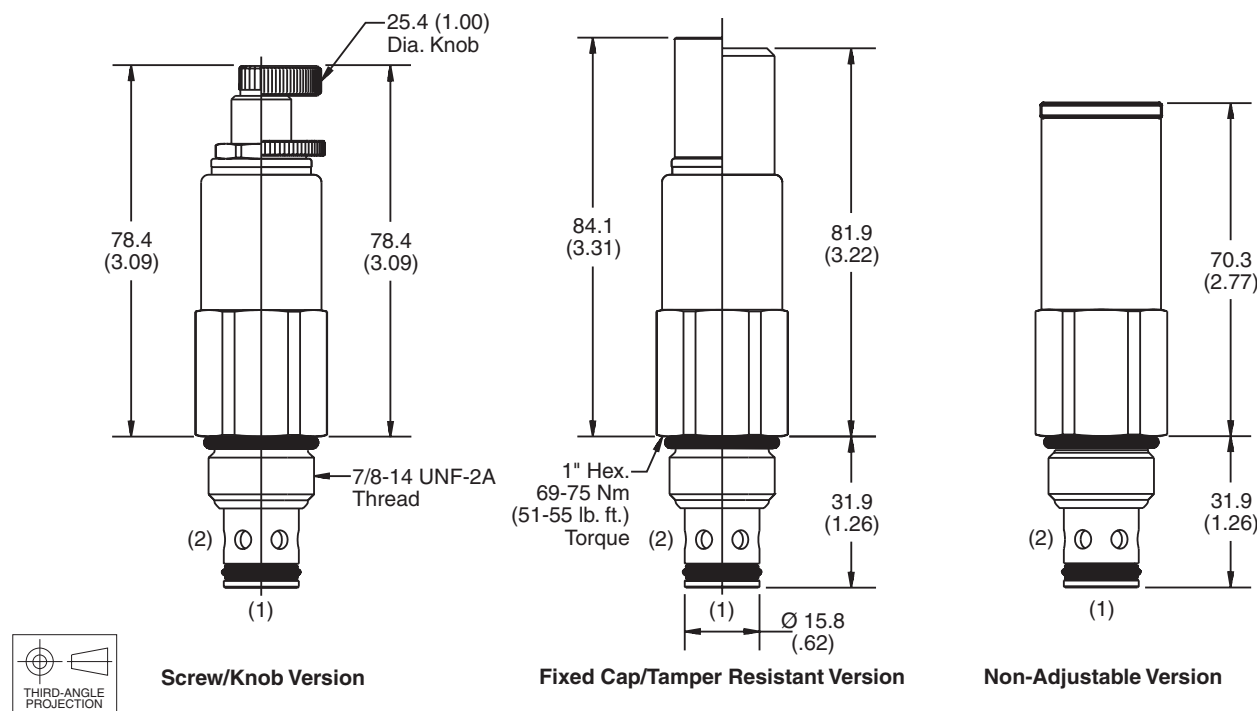
Performance Curve

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

RDH103						
10 Size	Adjustment	Pressure	Seals	Optional	Body	Port
Differential Area	Style	Range		Pressure	Material	Size
Relief Valve				Setting		

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
N	Non-Adjustable
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-2)
N	Nitrile / (SK10-2N)
V	Fluorocarbon / (SK10-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ .95 LPM (.25 GPM)
20	34.5 - 138 Bar (500 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ .95 LPM (.25 GPM)
30	34.5 - 207 Bar (500 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ .95 LPM (.25 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
ControlsFC
Flow
Controls

PC

Pressure
Controls

LE

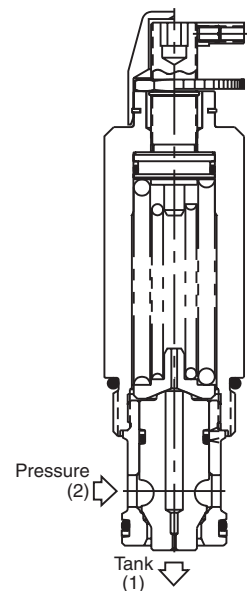
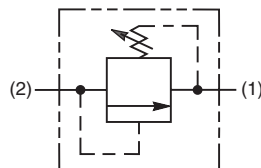
Logic
ElementsDC
Directional
ControlsMV
Manual
ValvesSV
Solenoid
ValvesPV
Proportional
ValvesCE
Coils &
ElectronicsBC
Bodies &
CavitiesTD
Technical
Data

General Description

Differential Area Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- Low leakage design
- Fast response
- All external parts zinc plated



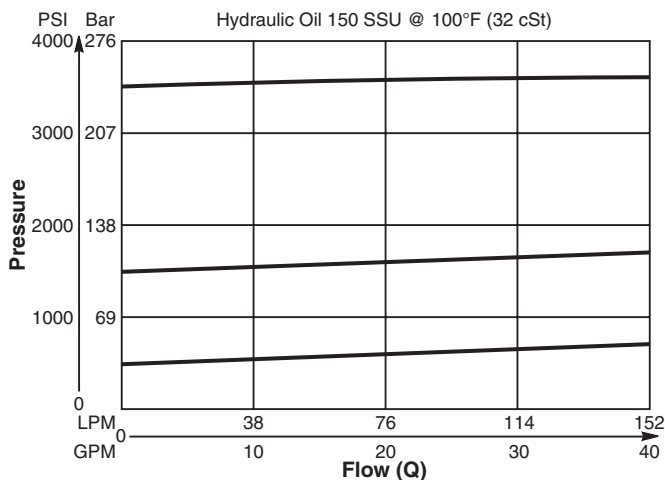
Specifications

Rated Flow	151 LPM (40 GPM)
Maximum Inlet Pressure	240 Bar (3500 PSI)
Maximum Pressure Setting	210 Bar (3000 PSI)
Maximum Tank Pressure	210 Bar (3000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	10 drops/min. (.66 cc/min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C16-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT16-2F

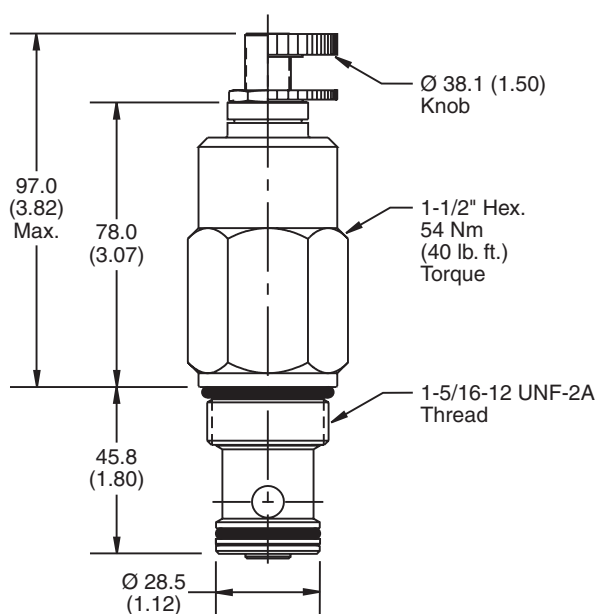
Performance Curve

Flow vs. Inlet Pressure

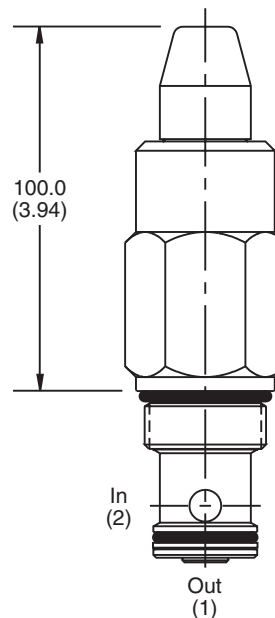
(Pressure rise through cartridge only)



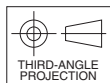
Dimensions Millimeters (Inches)



Screw/Knob Version



Tamper Resistant Version



Ordering Information

RD163						
16 Size Differential Area Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
K	Knob Adjust (840208K)
S	Screw Adjust
T	Tamper Resistant Cap (717783)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-2)
V	Fluorocarbon / (SK16-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	13.8 - 69 Bar (200 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	27.6 - 138 Bar (400 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	41.4 - 207 Bar (600 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 3000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12P	3/4" NPTF	(B16-2-*12P)
16P	1" NPTF	(B16-2-*16P)
8T	SAE-8	(B16-2-*8T)
12T	SAE-12	(B16-2-*12T)
16T	SAE-16	(B16-2-*16T)
12B	3/4" BSPG	(B16-2-12B)†
16B	1" BSPG	(B16-2-*16B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

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Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
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Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

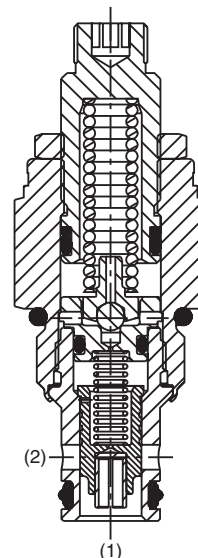
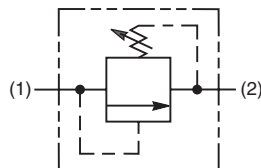
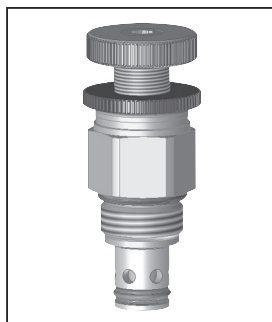
Technical
Data

General Description

Pilot Operated Spool-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided pilot for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris



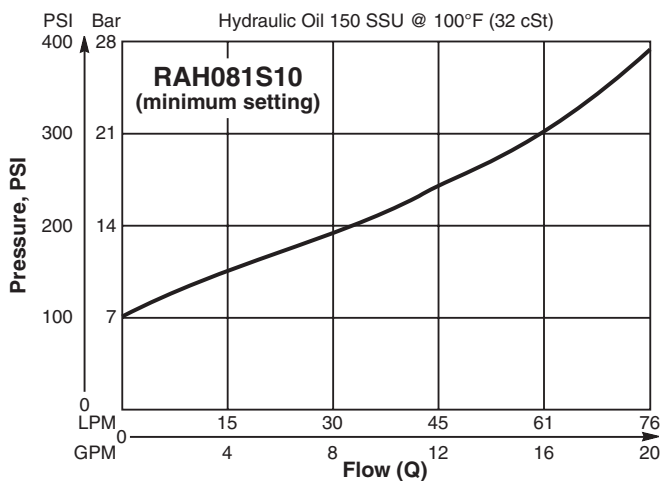
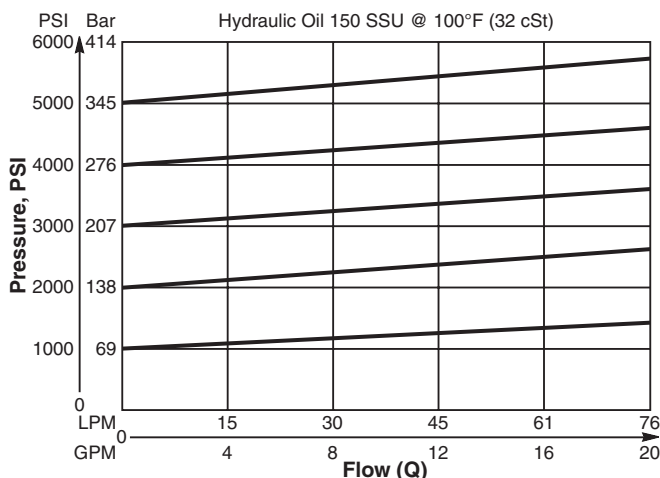
Specifications

Rated Flow	75.8 LPM (20 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.09 kg (.20 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

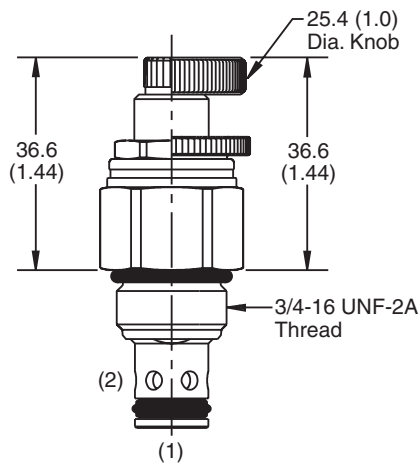
Performance Curves

Flow vs. Inlet Pressure

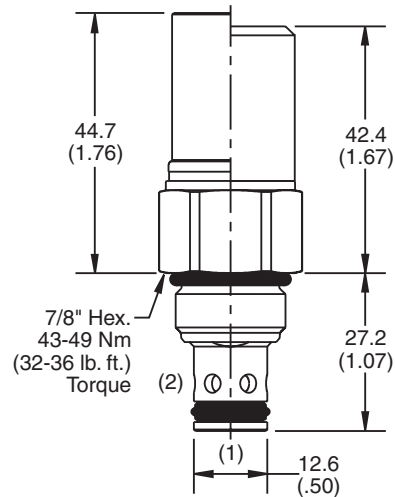
(Pressure rise through cartridge only)



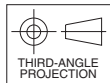
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

RAH081				—			
08 Size Pilot Operated Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size	

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK08-2)
N	Nitrile / (SK08-2N)
V	Fluorocarbon / (SK08-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

* Add "A" for aluminum, omit for steel.

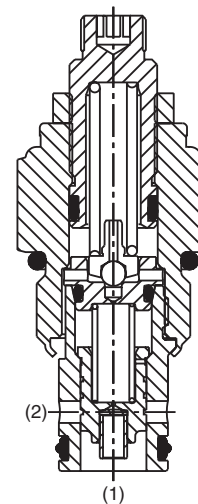
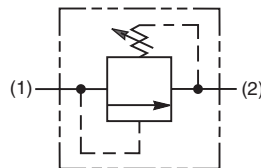
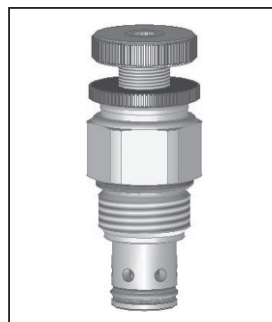
CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
FC Flow Controls
PC Pressure Controls
LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
PV Proportional Valves
CE Coils & Electronics
BC Bodies & Cavities
TD Technical Data

General Description

Pilot Operated Spool-Type Relief Valve. For addition information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris



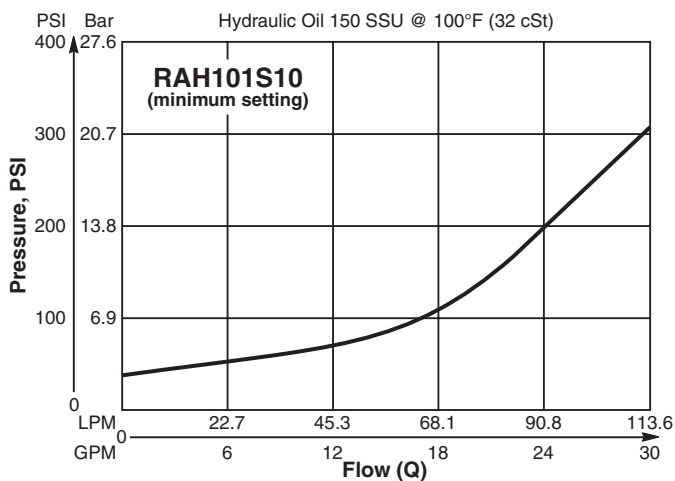
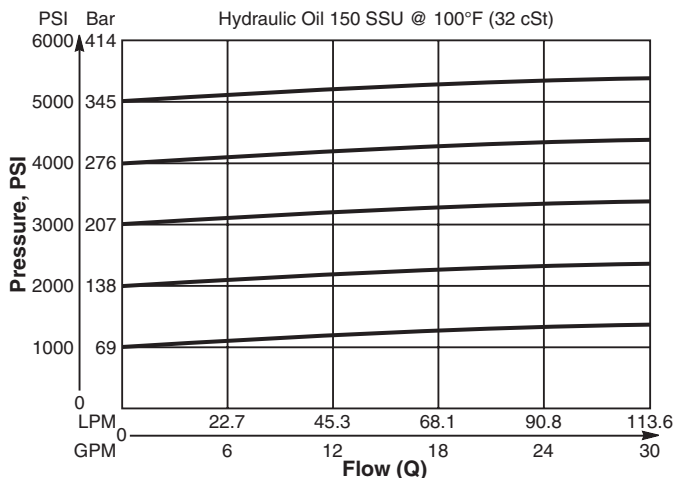
Specifications

Rated Flow	113 LPM (30 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (.50 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F

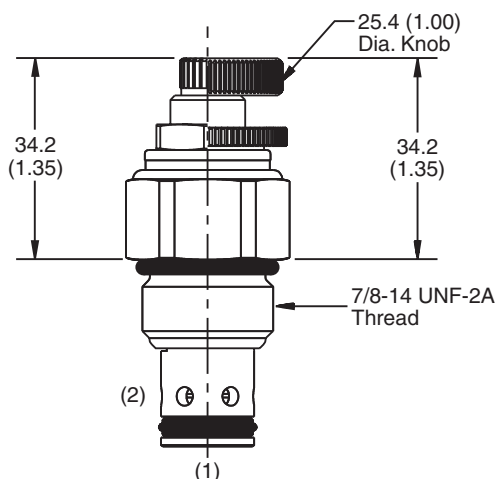
Performance Curves

Flow vs. Inlet Pressure

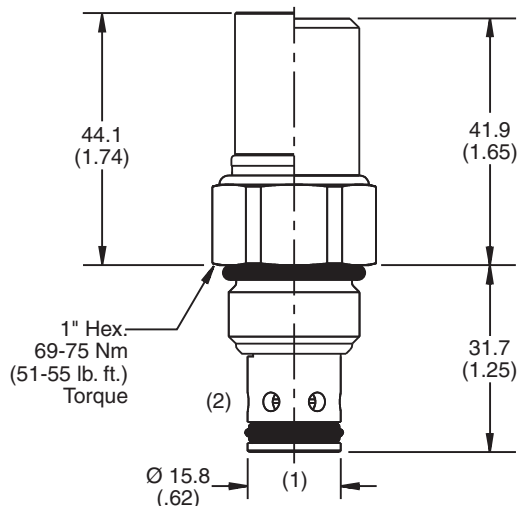
(Pressure rise through cartridge only)



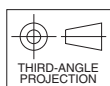
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

RAH101						
10 Size Pilot Operated Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (125407)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-2)
N	Nitrile / (SK10-2N)
V	Fluorocarbon / (SK10-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

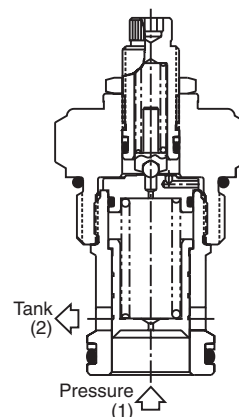
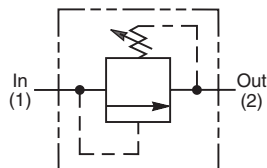
CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
FC Flow Controls
PC Pressure Controls
LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
PV Proportional Valves
CE Coils & Electronics
BC Bodies & Cavities
TD Technical Data

General Description

Pilot Operated Spool-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Low override curve
- Ball-type pilot for added stability
- High accuracy - pilot operated design
- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



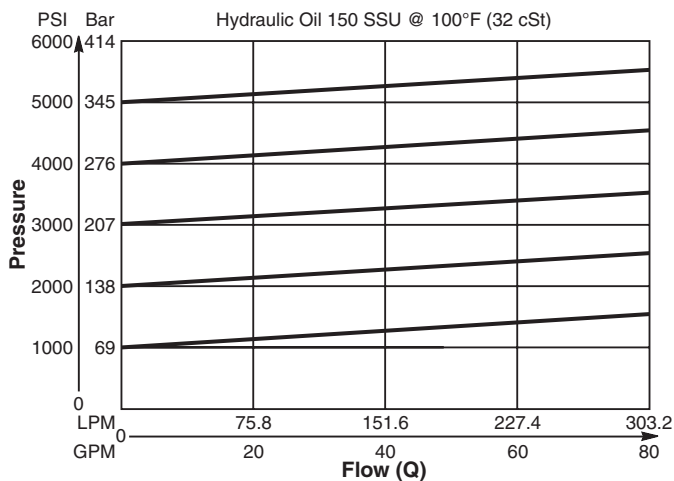
Specifications

Maximum Flow	302.8 LPM (80 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.9 kg (2.0 lbs.)
Cavity	C16-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT16-2F

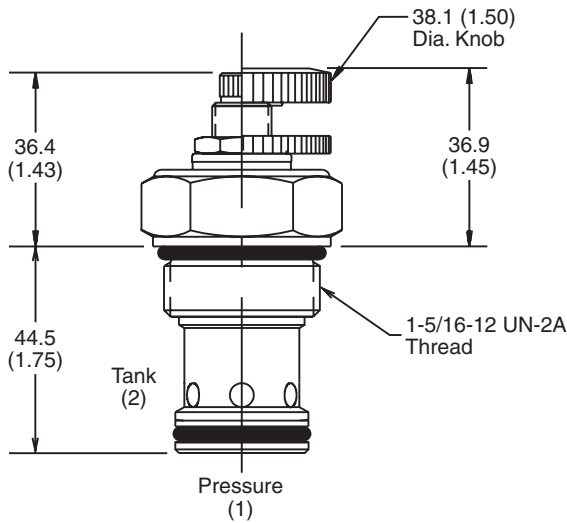
Performance Curve

Flow vs. Inlet Pressure

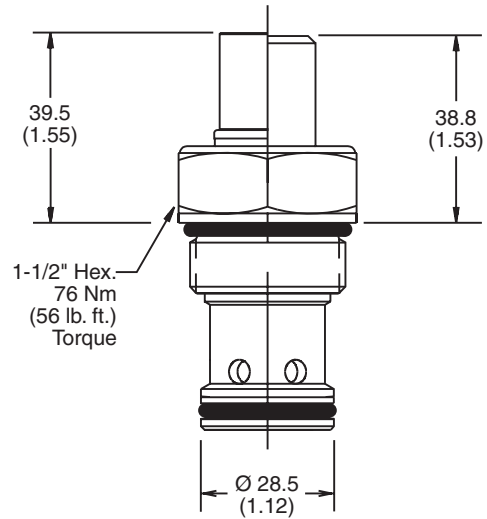
(Pressure rise through cartridge only)



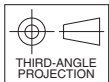
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

RAH161						
16 Size Pilot Operated Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-2)
V	Fluorocarbon / (SK16-2V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 37.5 LPM (10 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 37.5 LPM (10 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 37.5 LPM (10 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 37.5 LPM (10 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 37.5 LPM (10 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12P	3/4" NPTF	(B16-2-*12P)
16P	1" NPTF	(B16-2-*16P)
8T	SAE-8	(B16-2-*8T)
12T	SAE-12	(B16-2-*12T)
16T	SAE-16	(B16-2-*16T)
12B	3/4" BSPG	(B16-2-12B)†
16B	1" BSPG	(B16-2-*16B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

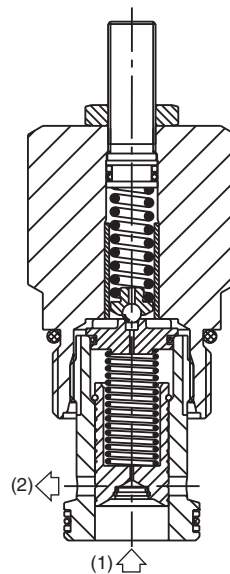
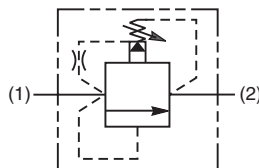
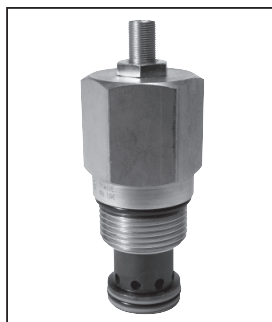
Technical
Data

General Description

Pilot Operated, Spool-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Very high flow capacity
- Minimal pressure variation with flow change
- Full tank line back pressure capability, ideal for crossline relief applications
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated



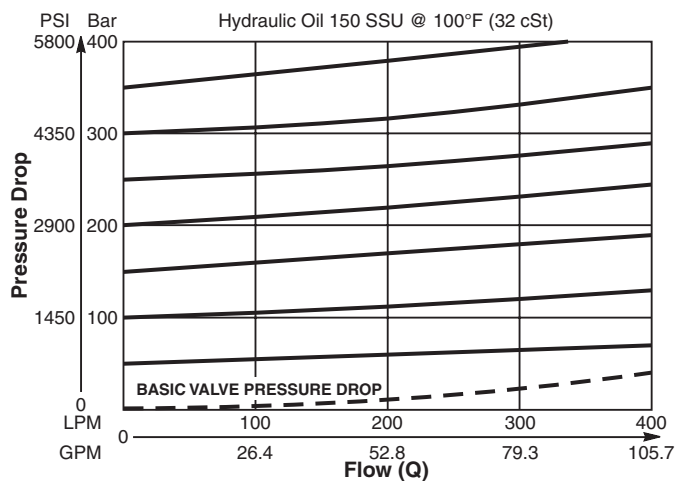
Specifications

Rated Flow	400 LPM (106 GPM)
Maximum Inlet Pressure	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	100 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.57 kg (1.26 lbs.)
Cavity	C16-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT16-2F

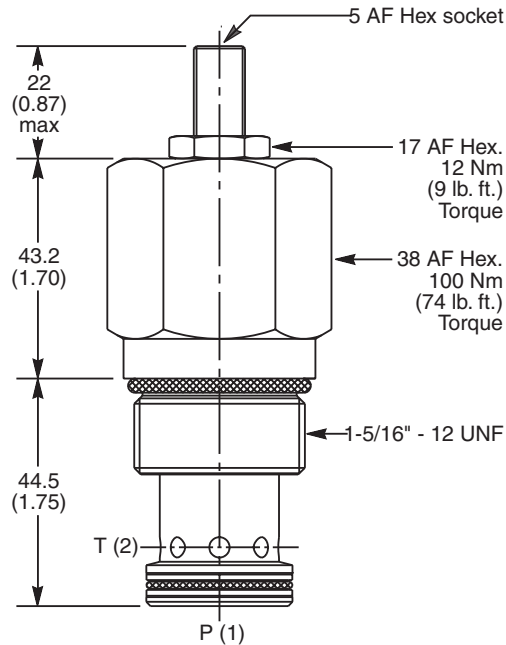
Performance Curve

(Pressure rise through cartridge only)

Flow vs. Inlet Pressure



Dimensions Millimeters (Inches)



Ordering Information

A06G2						
16 Size Pilot Operated Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30507N-1)
V	Fluorocarbon / (SK30507V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
A06G2H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)	
A06G2P Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12P	3/4" NPTF	(B16-2-*12P)
16P	1" NPTF	(B16-2-*16P)
8T	SAE-8	(B16-2-*8T)
12T	SAE-12	(B16-2-*12T)
16T	SAE-16	(B16-2-*16T)
12B	3/4" BSPG	(B16-2-12B)†
16B	1" BSPG	(B16-2-*16B)

* Add "A" for aluminum, omit for steel.
 † Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

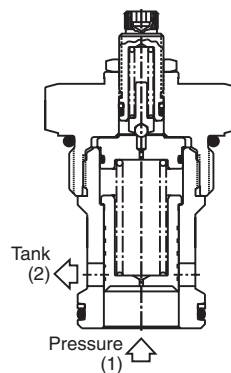
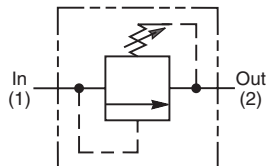
Technical
Data

General Description

Pilot Operated Spool-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Low override curve
- Ball-type pilot for added stability
- High accuracy - pilot operated design
- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



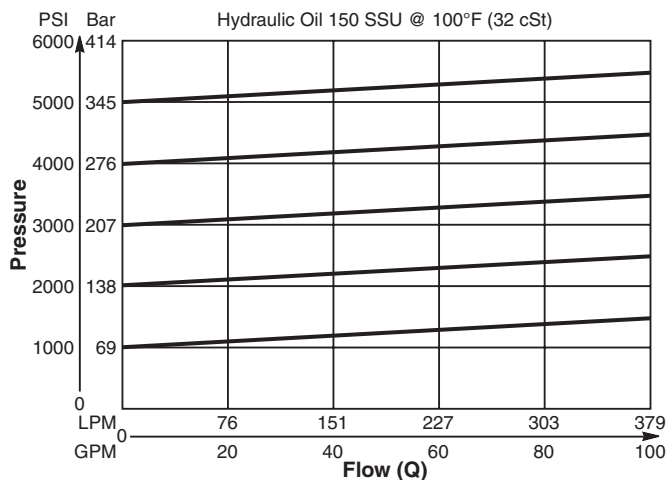
Specifications

Rated Flow	379 LPM (100 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.9 kg (2.0 lbs.)
Cavity	C20-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT20-2F

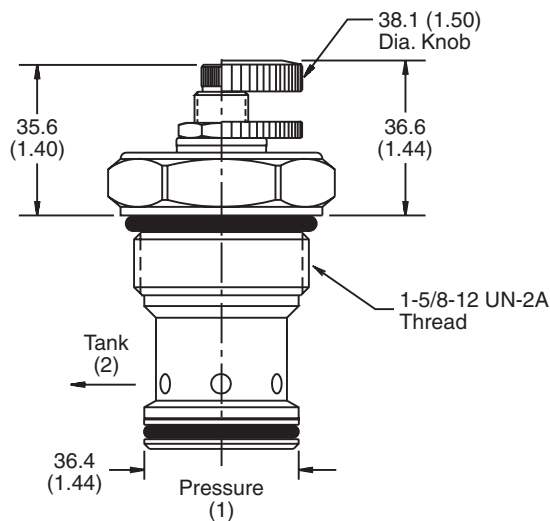
Performance Curve

Flow vs. Inlet Pressure

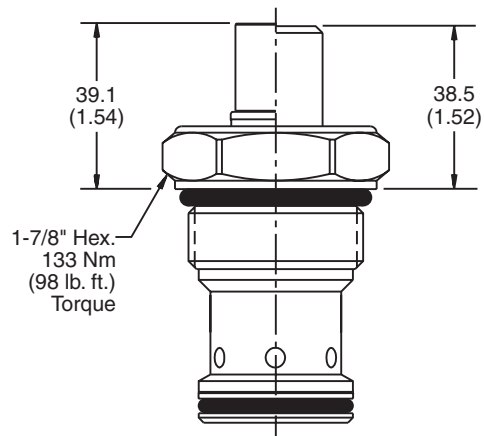
(Pressure rise through cartridge only)



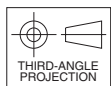
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

RAH201						
20 Size Pilot Operated Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK20-2)
V	Fluorocarbon / (SK20-2V)

Code	Body Material
Omit	Steel

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 37.5 LPM (10 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 37.5 LPM (10 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 37.5 LPM (10 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 37.5 LPM (10 GPM)

Optional Pressure Setting
Pressure \div 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 37.5 LPM (10 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
20T	SAE-20	(B20-2-20T)
20B	1-1/4" BSPG	(B20-2-20B)

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

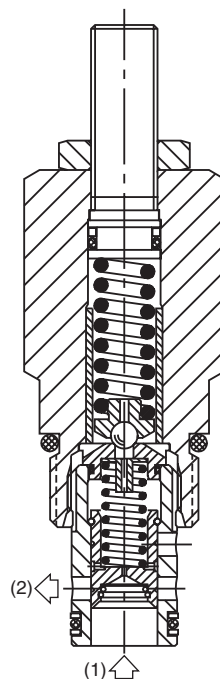
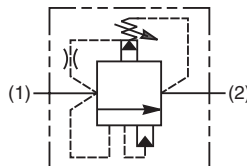
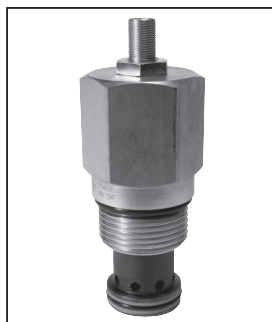
Technical
Data

General Description

Kick-Down, Pilot Operated Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- High flow capacity
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamper resistant versions available
- All external parts zinc plated



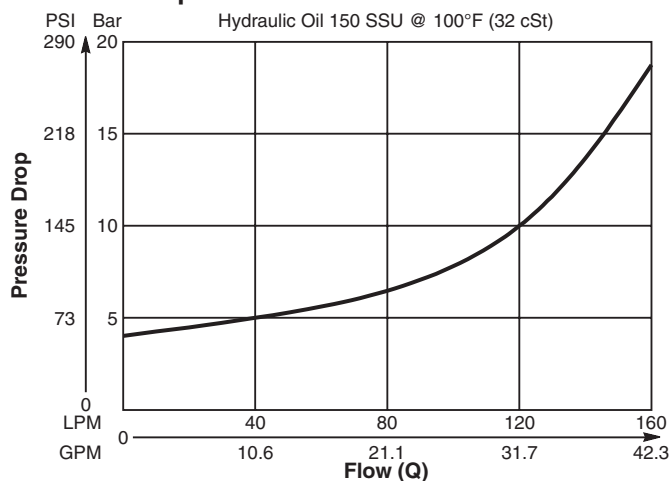
Specifications

Rated Flow	160 LPM (42 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (144-6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Sensitivity: Pressure/Turn	H - 30 Bar (435 PSI) P - 55 Bar (800 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 50 Bar (725 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.29 kg (0.64 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher

Performance Curve

(Pressure rise through cartridge only)

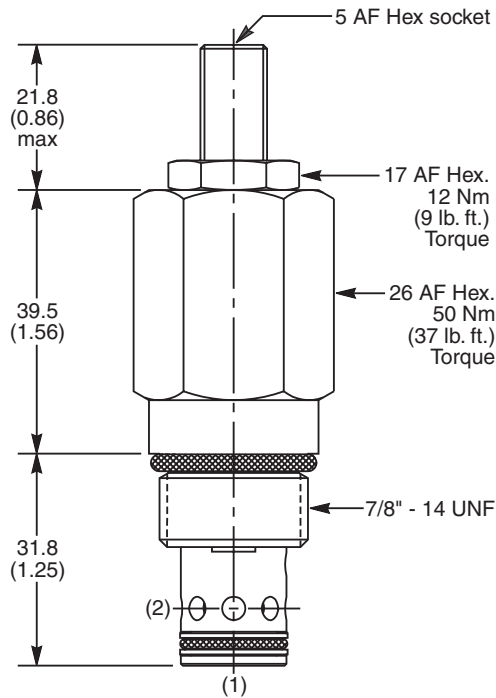
Pressure Drop vs. Flow



Application Note

Valve unloads completely when setting is reached and resets when fluid supply is removed.

Dimensions Millimeters (Inches)



Ordering Information

A04K2						
10 Size Kick-Down Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30503N-1)
V	Fluorocarbon / (SK30503V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
A04K2H Standard Setting: 100 Bar (1450 PSI)	
A04K2P Standard Setting: 200 Bar (2900 PSI)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

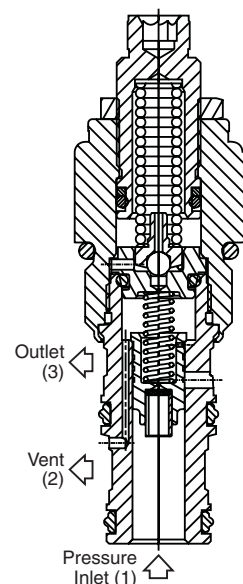
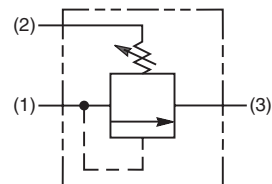
Ventable Pilot Operated Spool-Type Relief Valve. This valve controls pressure via the internal spring chamber or via an external vent line. For addition information see Technical Tips on pages PC1-PC6.

Features

- Low override curve
- Ball-type pilot for added stability
- High accuracy - pilot operated design
- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.

Specifications

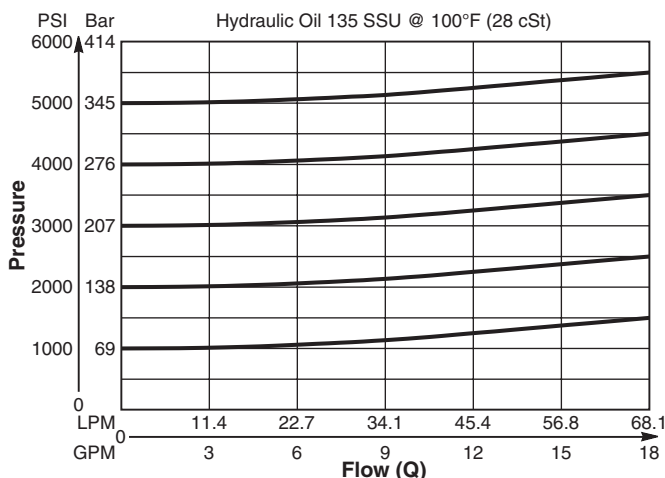
Rated Flow	68 LPM (18 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of crack pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (.50 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NFT10-3R Finisher NFT10-3F



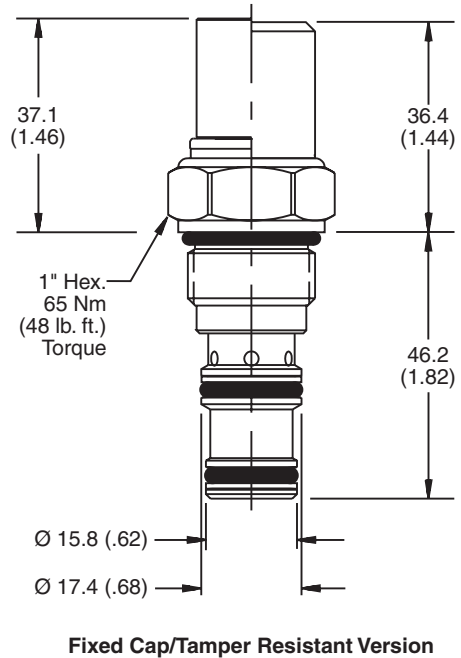
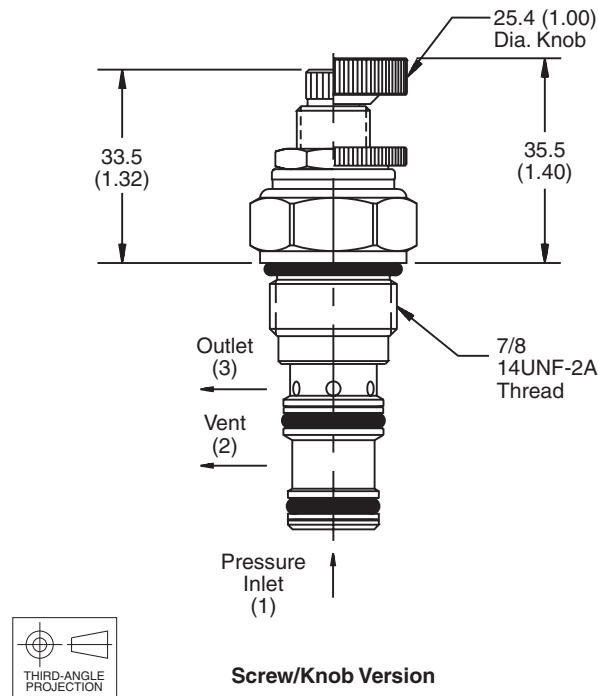
Performance Curves

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

RAH101V						
10 Size Ventable Pilot Operated Relief Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure ± 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
4B	1/4" BSPG	(B10-3-4B)†
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

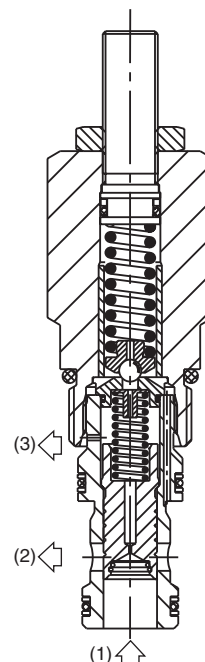
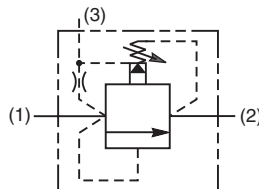
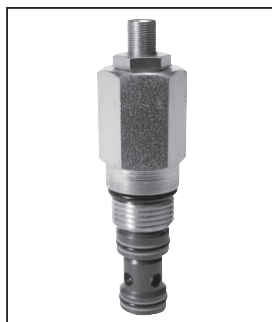
Technical
Data

General Description

Pilot Operated, Spool-Type, Ventable Relief Valve.
For additional information see Technical Tips on
pages PC1-PC6.

Features

- High flow capacity
- Full tank line back pressure capability
- Excellent flow pressure characteristics for consistent pressure setting
- Ideal for pump relief and remote control or unloading via vent (port 3)
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated



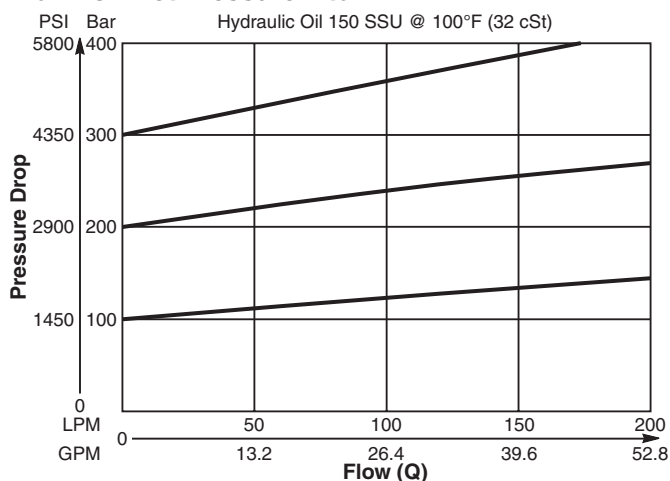
Specifications

Rated Flow	190 LPM (50 GPM)
Maximum Inlet Pressure	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.25 kg (0.55 lbs.)
Cavity	C10-3S (See BC Section for more details)
Form Tool	Rougher None Finisher

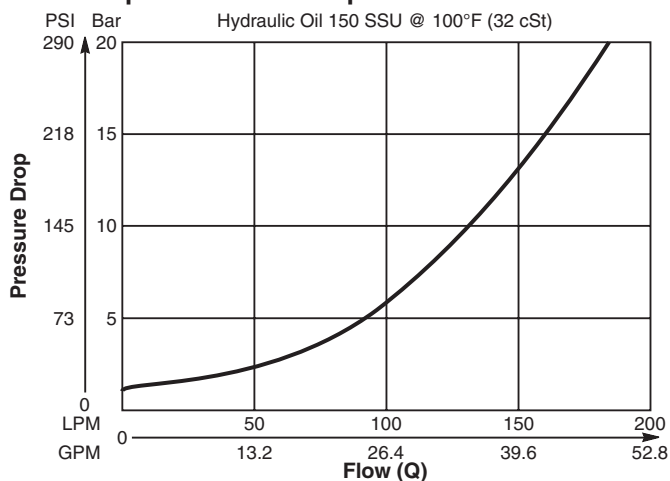
Performance Curves

(Pressure rise through cartridge only)

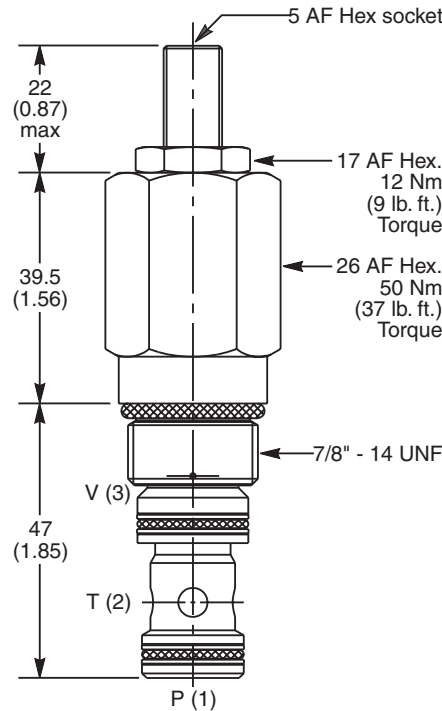
Flow vs. Inlet Pressure 1 to 2



Vented Open Pressure Drop 1 to 2



Dimensions Millimeters (Inches)



Ordering Information

A04H3				
10 Size Pilot Operated Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
A04H3H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)	
A04H3P Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)	

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30504N-1)
V	Fluorocarbon / (SK30504V-1)

Order Bodies Separately

LB10		
Line Body	Porting	Body Material

Code	Porting
710	5/8" SAE (main) 3/8" SAE (aux)
711	3/4" BSP (main) 1/4" BSP (aux)

Code	Body Material
A	Aluminum
S	Steel

CV

Check
Valves

SH

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Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

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Controls

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Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

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Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

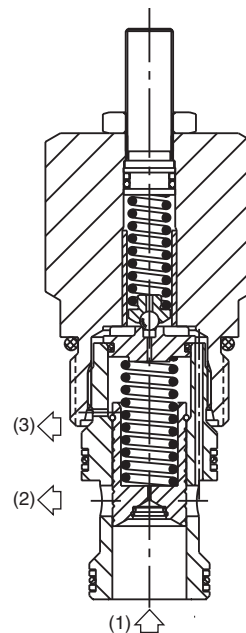
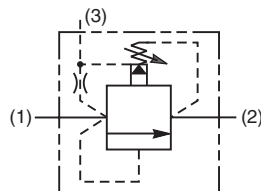
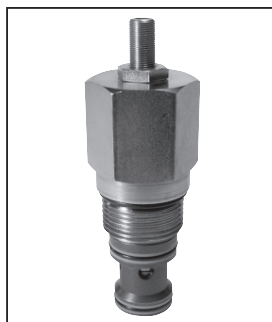
Technical
Data

General Description

Pilot Operated, Spool-Type, Ventable Relief Valve.
For additional information see Technical Tips on
pages PC1-PC6.

Features

- High flow capacity
- Full tank line back pressure
- Excellent pressure flow characteristics
- Ideal for pump relief and remote control or unloading via vent (port 3)
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated



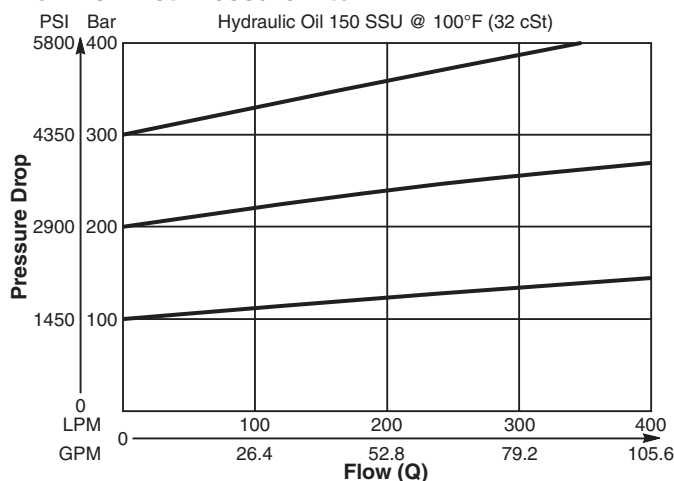
Specifications

Rated Flow	400 LPM (106 GPM)
Maximum Inlet Pressure	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	100ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.58 kg (1.28 lbs.)
Cavity	C16-3S (See BC Section for more details)
Form Tool	Rougher None Finisher

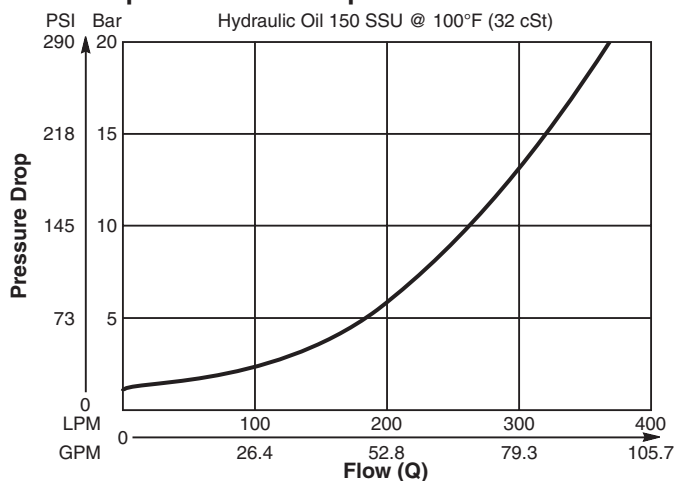
Performance Curves

(Pressure rise through cartridge only)

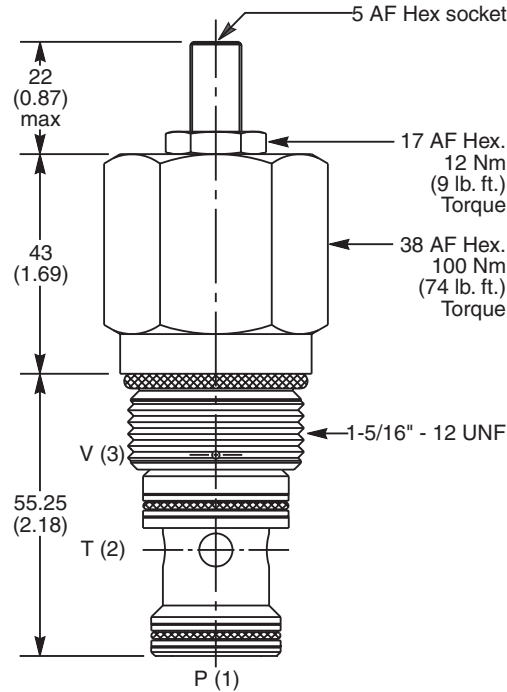
Flow vs. Inlet Pressure 1 to 2



Vented Open Pressure Drop 1 to 2



Dimensions Millimeters (Inches)



Ordering Information

A06H3						
16 Size Pilot Operated Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting
Specify setting if required (Bar)
A06H3H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)
A06H3P Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30508N-1)
V	Fluorocarbon / (SK30508V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
16T	SAE-16	(B16-3S-*16T)
16B	1" BSPG	(B16-3S-*16B)

* Add "A" for aluminum, omit for steel.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

Check
Valves

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ValvesLM
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Controls

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Flow
Controls

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Directional
Controls

MV

Manual
Valves

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Solenoid
Valves

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Proportional
Valves

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Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

Direct Acting, Dual Poppet-Type, Cross-over Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

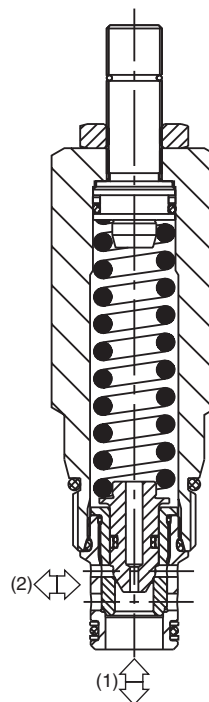
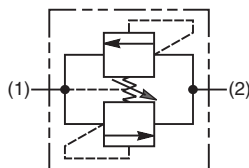
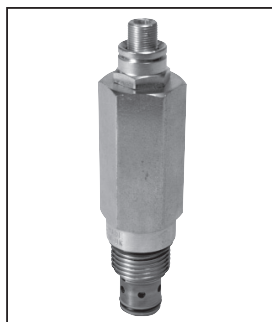
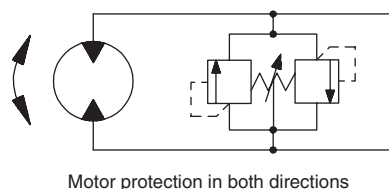
Features

- Compact space saving design
- Cost effective - only requires one cavity
- Poppet-type construction for lower leakage
- Full 350 Bar, 5000 PSI pressure capability
- High flow capability for the size of valve
- Minimal pressure variation with flow change
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- Available as CE marked valve in compliance with Pressure Equipment Directive
- All external parts zinc plated

Specifications

Rated Flow	120 LPM (32 GPM)
Maximum Inlet Pressure	H - 5-210 Bar (72-3000 PSI) M - 10-350 Bar (144-5000 PSI)
Maximum Pressure Setting	420 Bar (6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	10 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.29 kg (0.64 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher

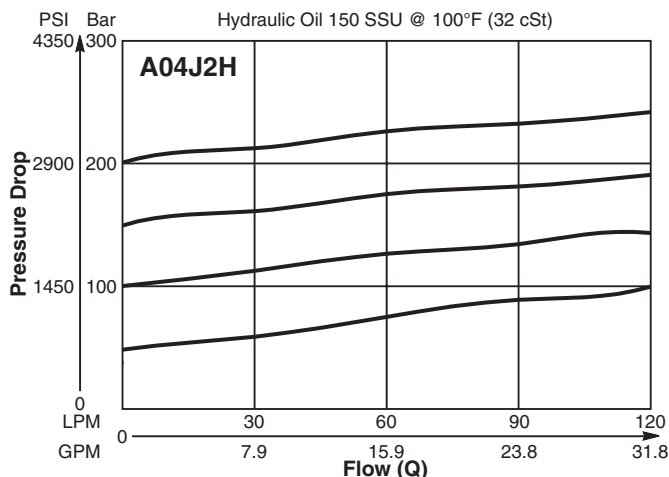
Application



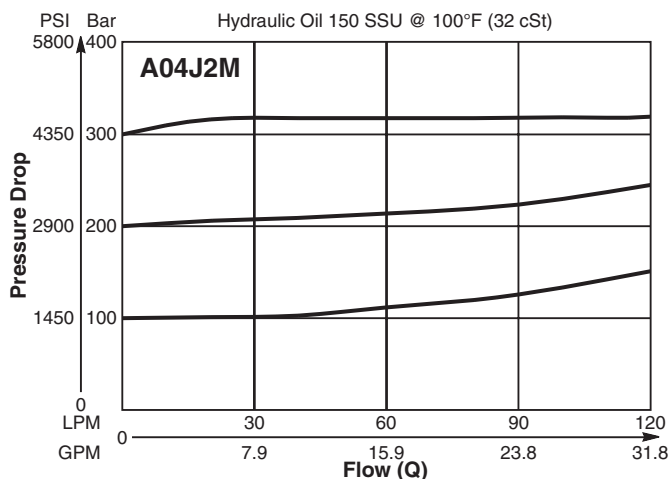
Performance Curves

(Pressure rise through cartridge only)

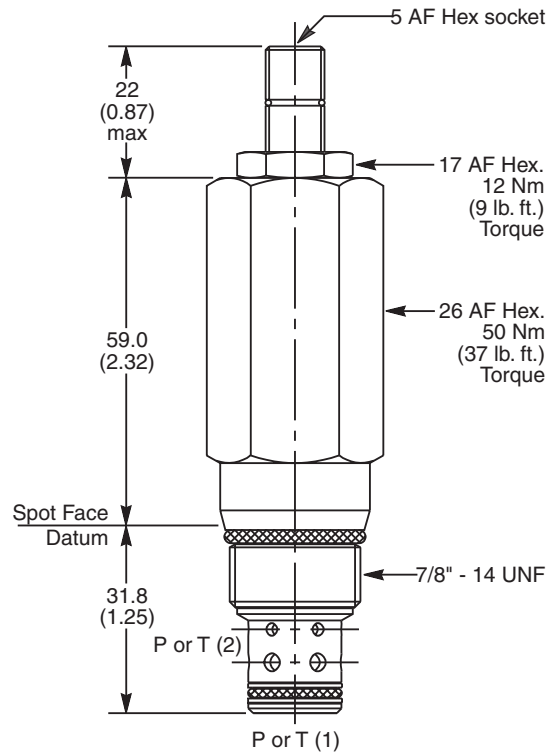
Flow vs. Inlet Pressure 1 to 2 and 2 to 1



Flow vs. Inlet Pressure 1 to 2 and 2 to 1



Dimensions Millimeters (Inches)



Ordering Information

A04J2						
10 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	5 - 210 Bar (72 - 3000 PSI)
M	10 - 350 Bar (144 - 5000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30529N-1)
V	Fluorocarbon / (SK30529V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
A04J2H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)	
A04J2M Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

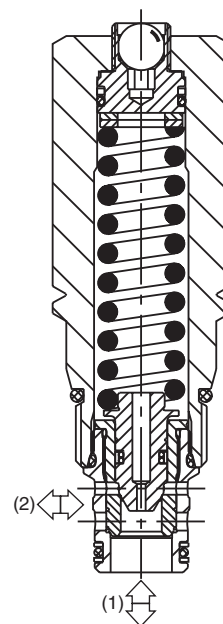
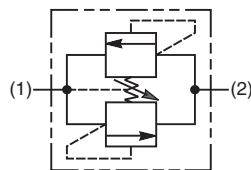
Direct Acting Poppet-Type Relief Valve. Pressure Equipment Directive (PED 97/23/EC) compliant to hazard category IV. For additional information see Technical Tips on pages PC1-PC6.

Features

- Bi-directional flow design for installation flexibility and security
- Compact space saving design
- Poppet type construction for lower leakage
- Full 350 Bar (5000 PSI) pressure capability
- High flow compatibility for the size of valve
- Minimal pressure variation with flow change
- Hardened working parts for maximum durability
- Tamperproof setting
- All external parts zinc plated

Specifications

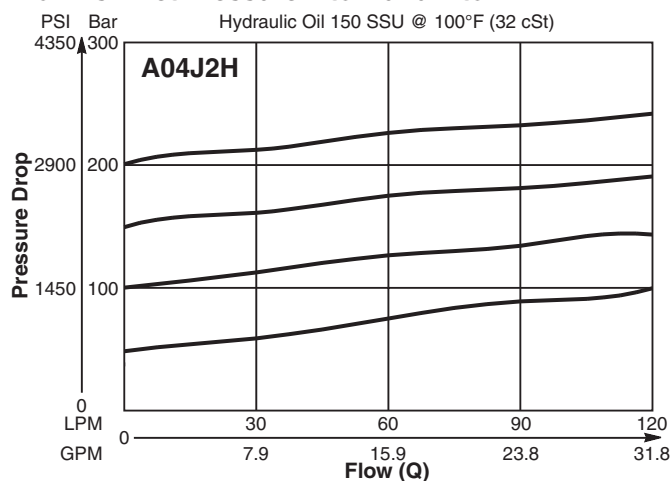
Rated Flow	120 LPM (32 GPM)
Maximum Inlet Pressure	350 Bar (5000 PSI)
Maximum Pressure Setting	HY - 5-210 Bar (72-3000 PSI) MY - 10-350 Bar (145-5000 PSI)
Sensitivity: Pressure/Turn	HY - 25 Bar (362 PSI) MY - 34 Bar (493 PSI)
Leakage at 150 SSU (32 cSt)	10 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.29 kg (0.64 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F



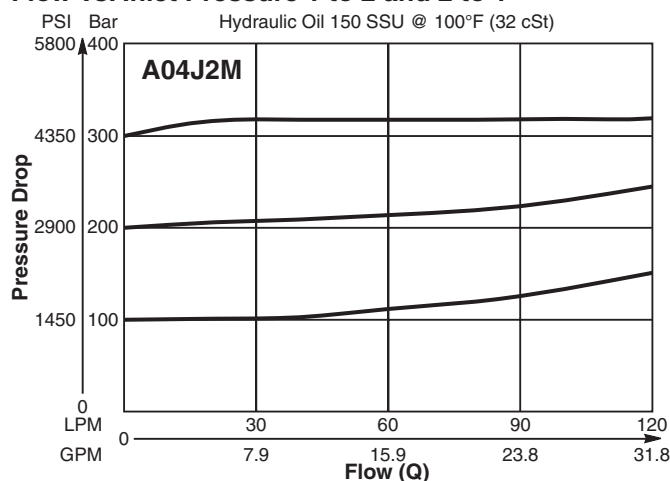
Performance Curves

(Pressure rise through cartridge only)

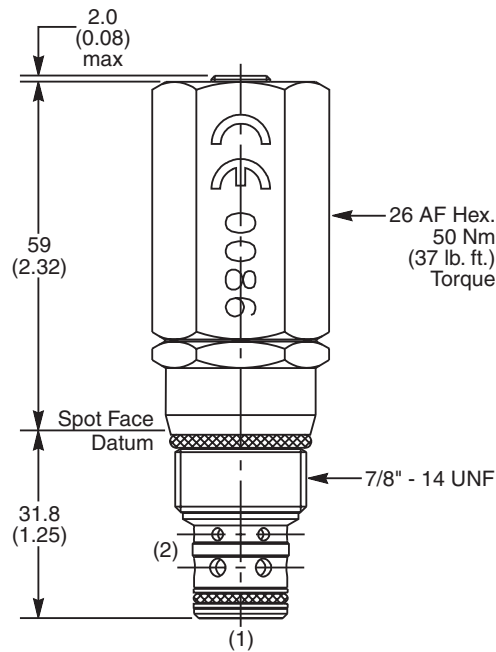
Flow vs. Inlet Pressure 1 to 2 and 2 to 1



Flow vs. Inlet Pressure 1 to 2 and 2 to 1



Dimensions Millimeters (Inches)



Ordering Information

A04J2		Y				CE		
10 Size Direct Acting Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Suffix Number	Body Material	Port Size	

Code	Pressure Adjustment Range
H	5 - 210 Bar (72 - 3000 PSI)
M	10 - 350 Bar (145 - 5000 PSI)

Code	Adjustment Style / Kit No.
Y	Non Adjustable Preset (Std.)

Optional Pressure Setting
Setting must be specified (Bar)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30529N-1)
V	Fluorocarbon / (SK30529V-1)

Code	Suffix Number
Omit	Omit for valve to be set side to nose (2 to 1)
580	For valve to be set nose to side (1 to 2)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

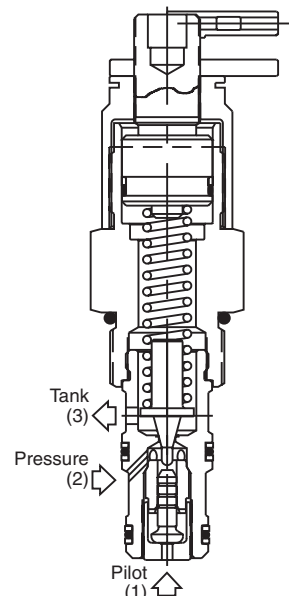
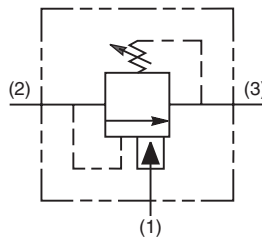
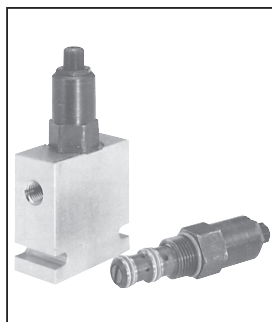
Differential Area Unloading Relief Valve. This valve is best suited for low flow accumulator unloading circuits or can be used as remote pilot valves. They provide a fixed percentage between load and unload pressures. For additional information see Technical Tips on pages PC1-PC6.

Features

- Low hysteresis
- Cartridge design
- All external parts zinc plated

Specifications

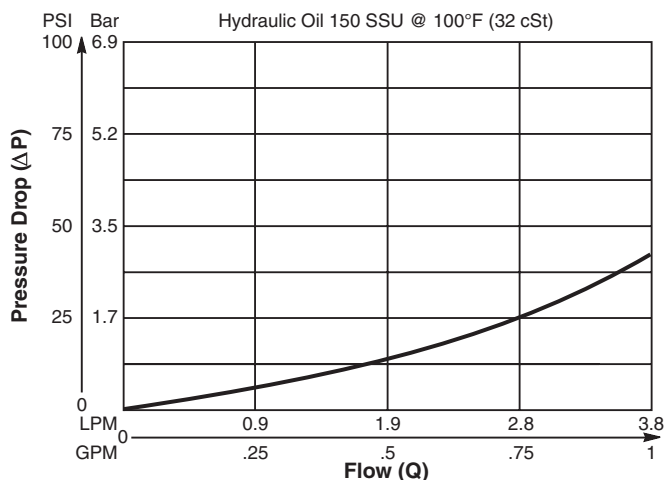
Rated Flow	3.75 LPM (1 GPM)
Maximum Pilot Flow	.94 LPM (.25 GPM)
Maximum Inlet Pressure	245 Bar (3500 PSI)
Maximum Pressure Setting	210 Bar (3000 PSI)
Maximum Tank Pressure	210 Bar (3000 PSI)
Leakage at 150 SSU (32 cSt)	10 drops/min. (66 cc/min.)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (.50 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NFT10-3R Finisher NFT10-3F



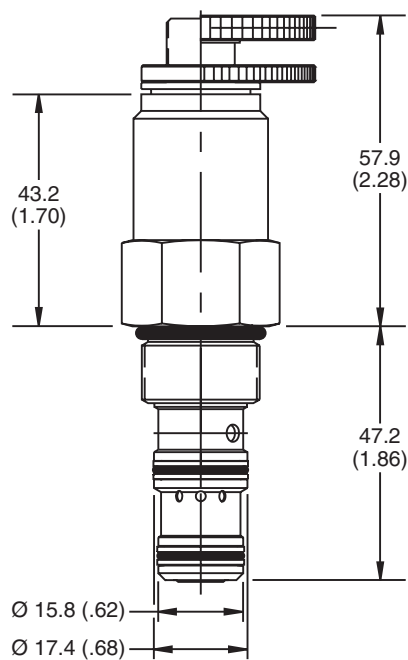
Performance Curve

Inlet Flow vs. Pressure Drop

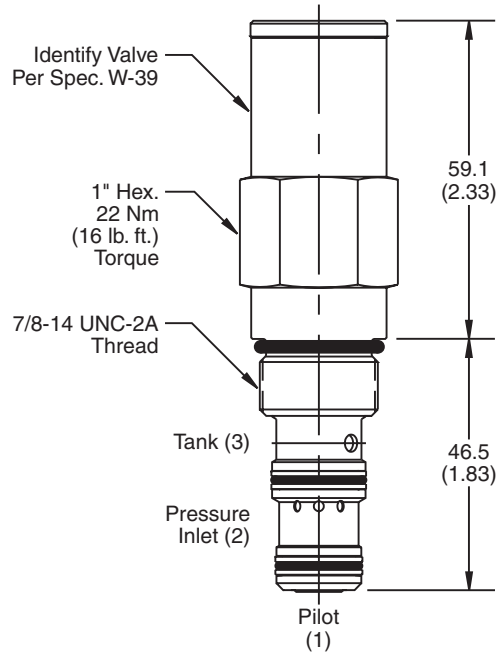
Without pilot assist (Through cartridge only)



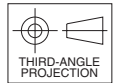
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap Version



Ordering Information

RU101			C				
10 Size Differential Area Unloading Relief Valve	Adjustment Style	Pressure Range	Reload	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (840208K)
S	Screw Adjust

Code	Reload
C	80% ±5% of Pressure Setting

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 1.1 LPM (.3 GPM)
20	10.3 - 138 Bar (150 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 1.1 LPM (.3 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 1.1 LPM (.3 GPM)

Optional Pressure Setting	
Pressure ± 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 3000 PSI All settings at 1.1 LPM (0.3 GPM)	

Code	Seals / Kit No.
Omit	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel.
 † Steel body only.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

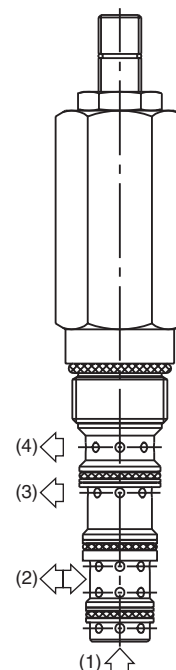
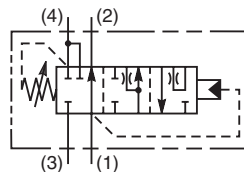
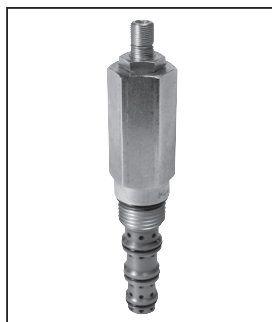
Direct Acting, Spool-Type, Unloading Relief Valve with Internal Pilot. For additional information see Technical Tips on pages PC1-PC6.

Features

- Use to unload a load sense pump in an accumulator circuit
- One size unloading valve for all flow size applications
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

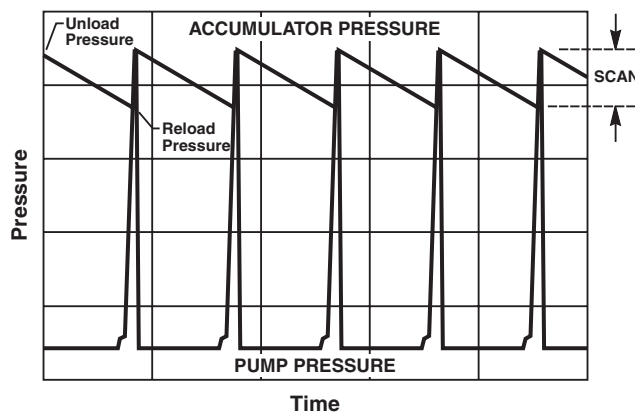
Specifications

Rated Flow	2 LPM (0.53 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	200 Bar (2900 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.33 kg (0.73 lbs.)
Cavity	C10-4 (See BC Section for more details)
Form Tool	Rougher None Finisher

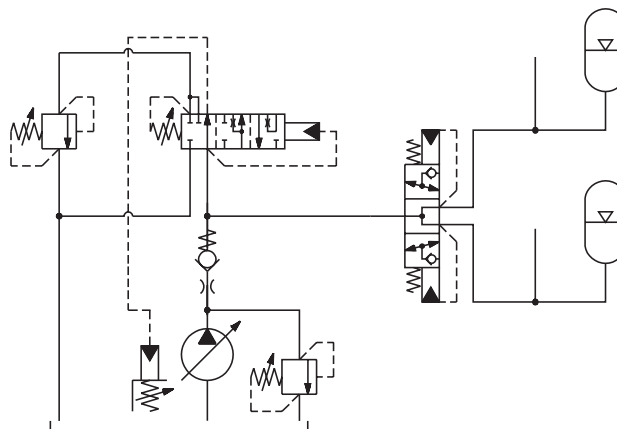


Performance Curve

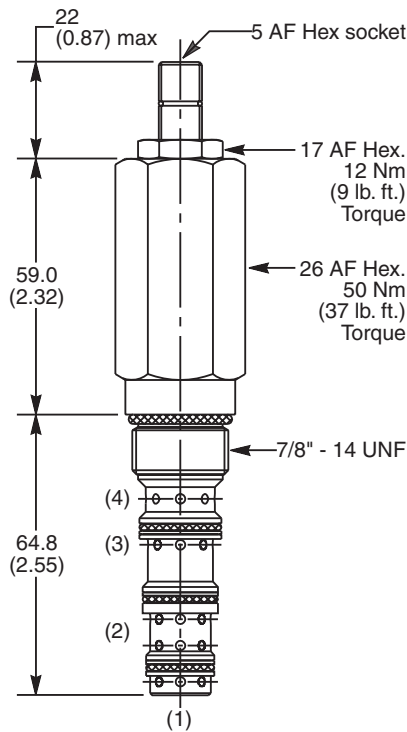
Accumulator Circuit



Application



Dimensions Millimeters (Inches)



Ordering Information

M04A4	J					
10 Size Direct Acting Unloading Relief Valve	Reload Pressure Adjustment Range	Adjustment Style	Reload Pressure Setting	Seals	Body Material	Port Size

Code	Reload Pressure Adjustment Range
J	50 - 200 Bar (725 - 2900 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
T	Tamper Resistant Cap (TC1130)

Code	Reload Pressure Setting
Omit	Omit for standard setting Specify setting if required M04A4J Standard Setting: 125 Bar (1850 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30530N-1)
V	Fluorocarbon / (SK30530V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
T6T	SAE-6	(B10-2-T6T)†
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†
6B	3/8" BSPG	(B10-2-6B)†

* Add "A" for aluminum. omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

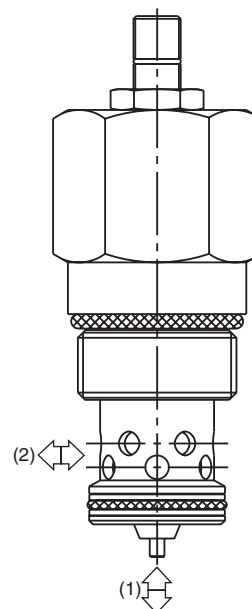
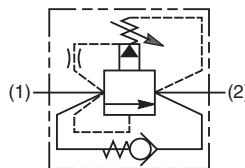
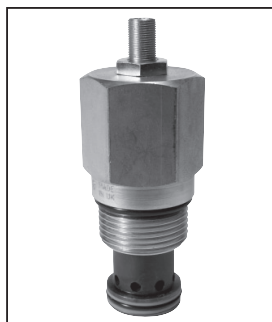
Pilot Operated, Poppet-Type Relief Valve with Free Reverse Check. For additional information see Technical Tips on pages PC1-PC6.

Features

- High flow capacity
- Virtually leak free, can be used for load holding applications
- Compact space saving design
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

Specifications

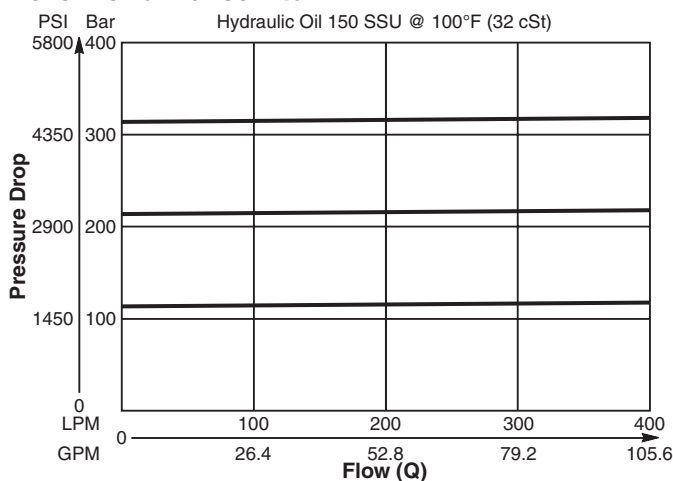
Rated Flow	200 LPM (53 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.57 kg (1.26 lbs.)
Cavity	C16-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT16-2F



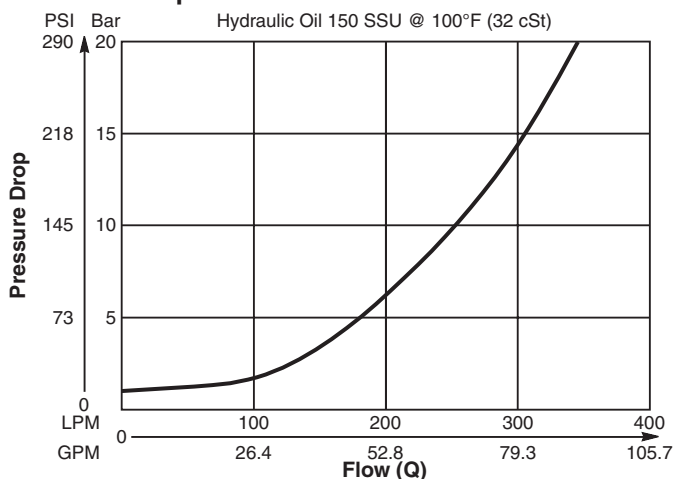
Performance Curves

(Pressure rise through cartridge only)

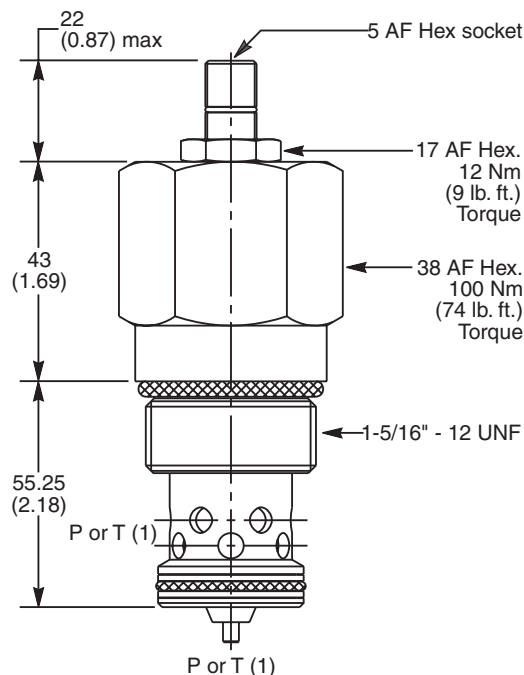
Relief Performance 1 to 2



Pressure Drop vs. Flow 2 to 1



Dimensions Millimeters (Inches)



Ordering Information

A06P2						
16 Size Pilot Operated Relief Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30507N-1)
V	Fluorocarbon / (SK30507V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
A06P2H Standard Setting: 100 Bar (1450 PSI) @ 20 LPM (5.3 GPM)	
A06P2P Standard Setting: 200 Bar (2900 PSI) @ 20 LPM (5.3 GPM)	

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12P	3/4" NPTF	(B16-2-*12P)
16P	1" NPTF	(B16-2-*16P)
8T	SAE-8	(B16-2-*8T)
12T	SAE-12	(B16-2-*12T)
16T	SAE-16	(B16-2-*16T)
12B	3/4" BSPG	(B16-2-12B)†
16B	1" BSPG	(B16-2-*16B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

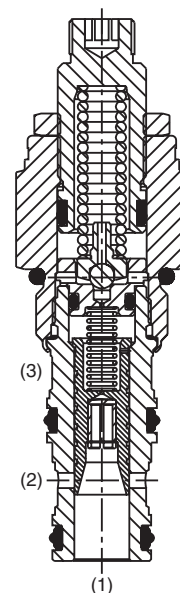
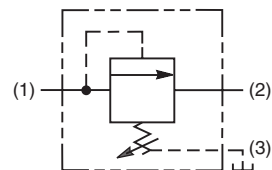
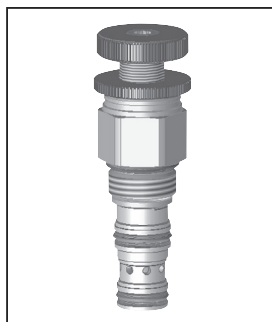
Pilot Operated Sequence Valve (Internally Piloted, Externally Vented). For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided pilot for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

Specifications

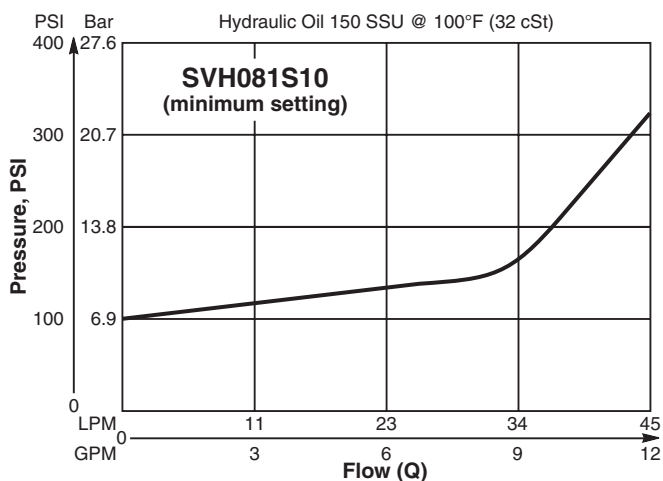
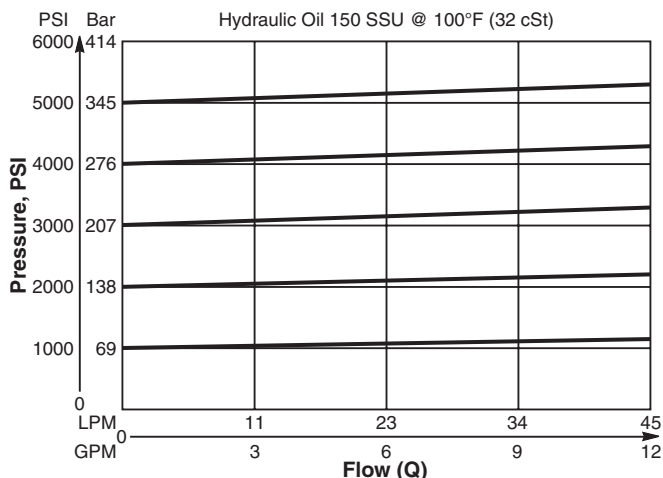
Rated Flow	45 LPM (12 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.56 LPM (0.15 GPM)
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 210 Bar (3000 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.11 kg (.25 lbs.)
Cavity	C08-3 (See BC Section for more details)
Form Tool	Rougher NTF08-3R Finisher NFT08-3F



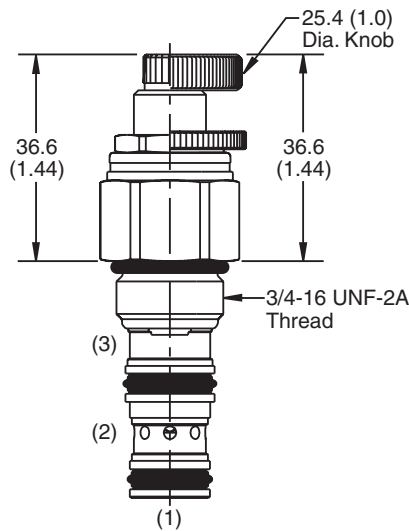
Performance Curves

Flow vs. Inlet Pressure

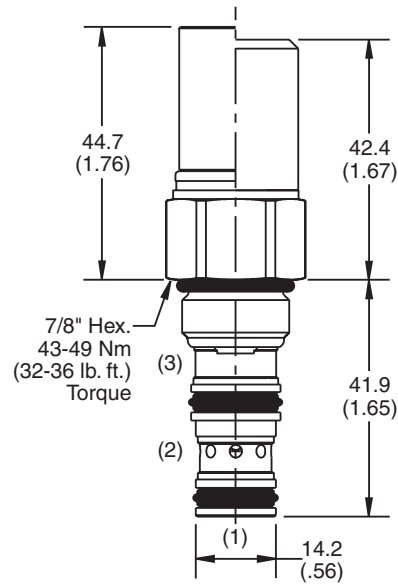
(Pressure rise through cartridge only)



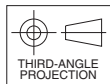
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

SVH081

08 Size
P.O. Sequence
Valve
(Internal Pilot)



Adjustment
Style



Pressure
Range



Seals



Optional
Pressure
Setting



Body
Material



Port
Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK08-3)
N	Nitrile / (SK08-3N)
V	Fluorocarbon / (SK08-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-3-*4P)
4T	SAE-4	(B08-3-*4T)
6T	SAE-6	(B08-3-*6T)
6B	3/8" BSPG	(B08-3-*6B)

* Add "A" for aluminum, omit for steel.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

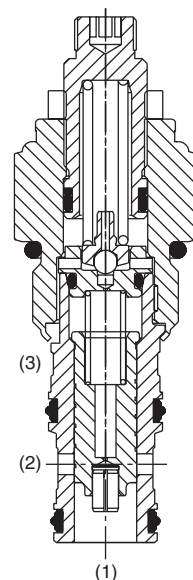
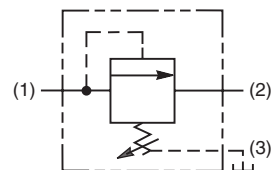
Pilot Operated Sequence Valve (Internally Piloted, Externally Drained). For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

Specifications

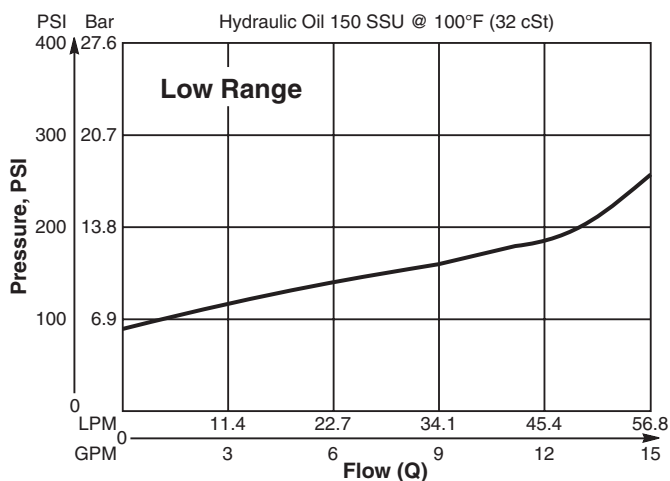
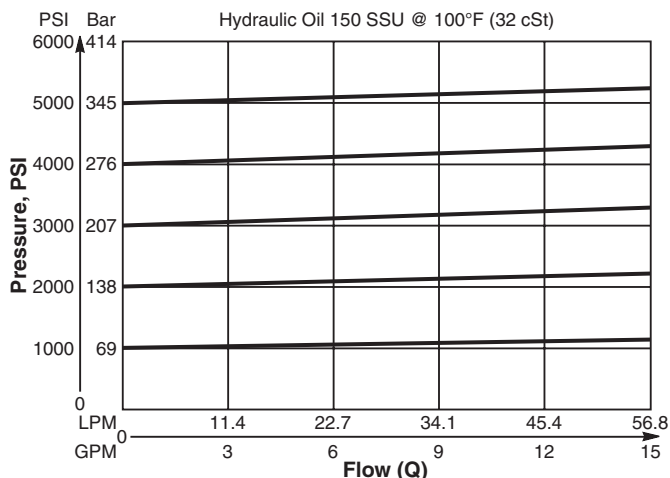
Rated Flow	56.3 LPM (15 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow (Port 3)	0.94 LPM (0.25 GPM)
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 210 Bar (3000 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.45 kg (1.0 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NTF10-3R Finisher NFT10-3F



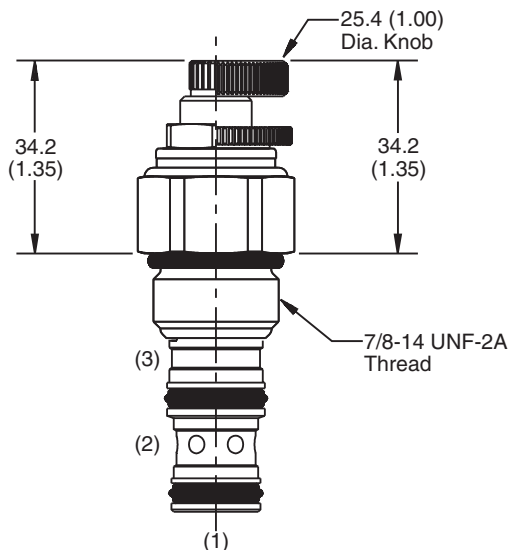
Performance Curves

Flow vs. Inlet Pressure

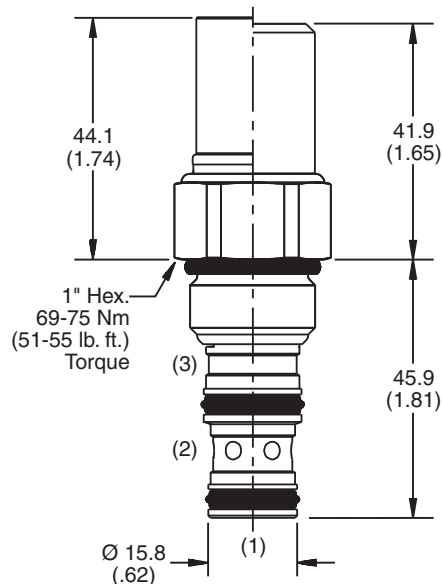
(Pressure rise through cartridge only)



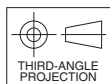
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

SVH101

10 Size
P.O. Sequence
Valve
(Internal Pilot)

Adjustment
Style

Pressure
Range

Seals

Optional
Pressure
Setting

Body
Material

Port
Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (718083)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure ± 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

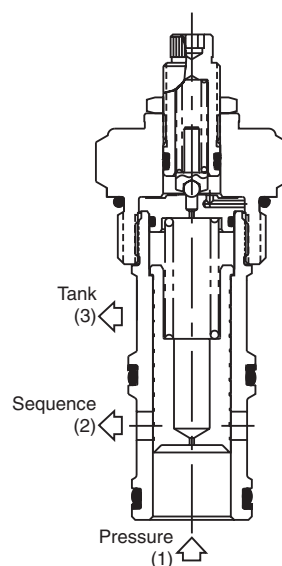
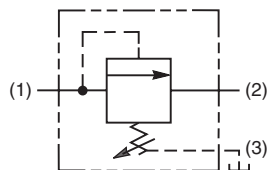
Pilot Operated Sequence Valve (Internally Piloted, Externally Drained). For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- High accuracy, pilot operation design
- Ball-type pilot for added stability
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.

Specifications

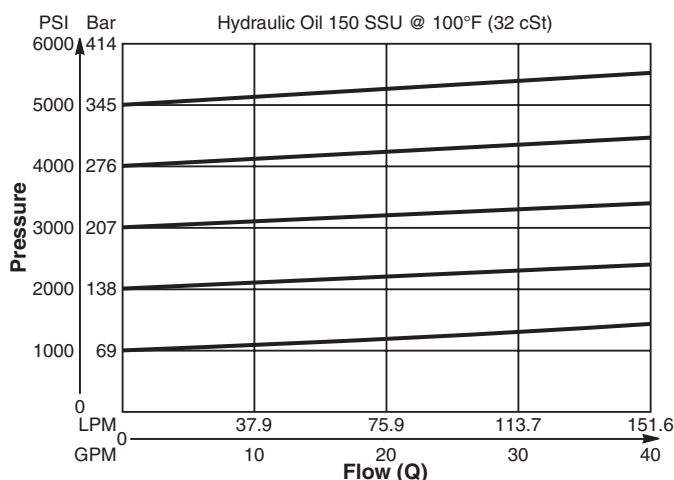
Rated Flow	151.6 LPM (40 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	1.9 LPM (0.5 GPM)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of Crack Pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.45 kg (1.0 lbs.)
Cavity	C16-3 (See BC Section for more details)
Form Tool	Rougher NTF16-3R Finisher NFT16-3F



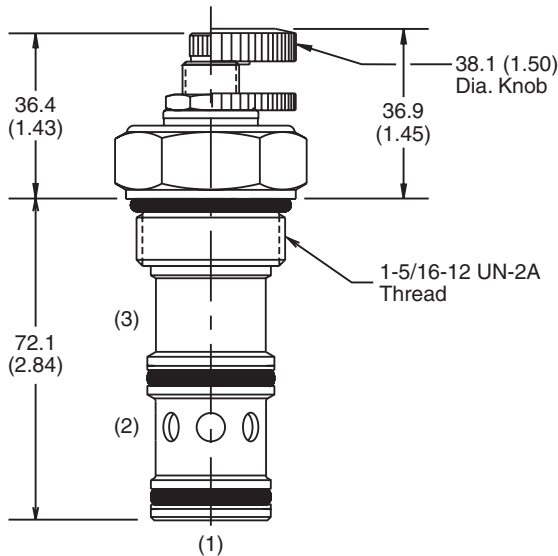
Performance Curve

Flow vs. Inlet Pressure

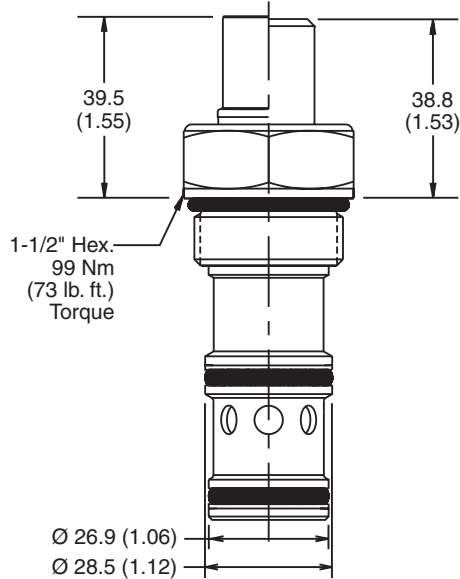
(Pressure rise through cartridge only)



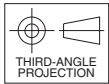
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

SVH161						
16 Size P.O. Sequence Valve (Internal Pilot)	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-3)
V	Fluorocarbon / (SK16-3V)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B16-3-*12T)
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

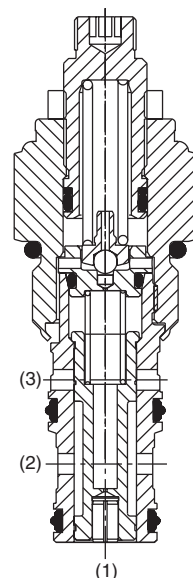
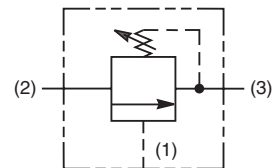
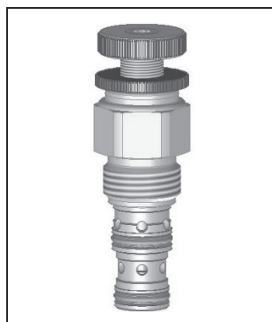
Pilot Operated Sequence Valve (Externally Piloted, Internally Vented). For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

Specifications

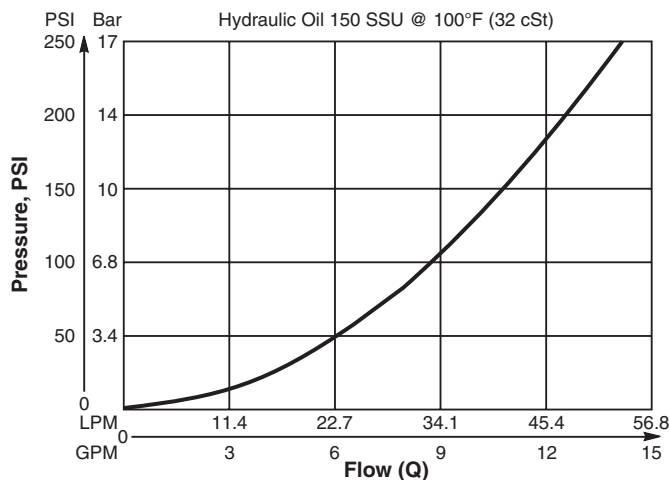
Rated Flow	56.3 LPM (15 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	See maximum drain flow chart (Lower right)
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 210 Bar (3000 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.45 kg (1.0 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NTF10-3R Finisher NFT10-3F



Performance Curve

Flow vs. Inlet Pressure

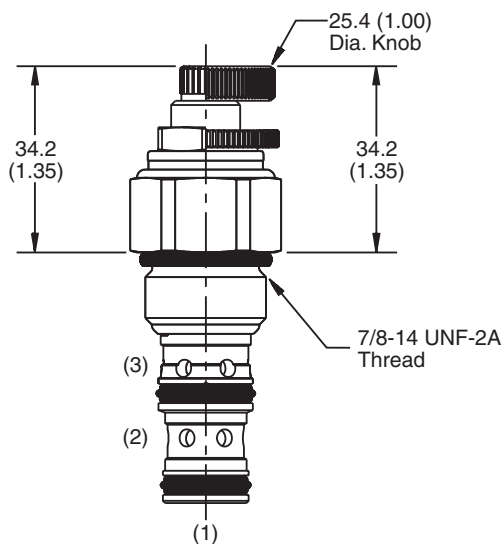
(Pressure rise through cartridge only)



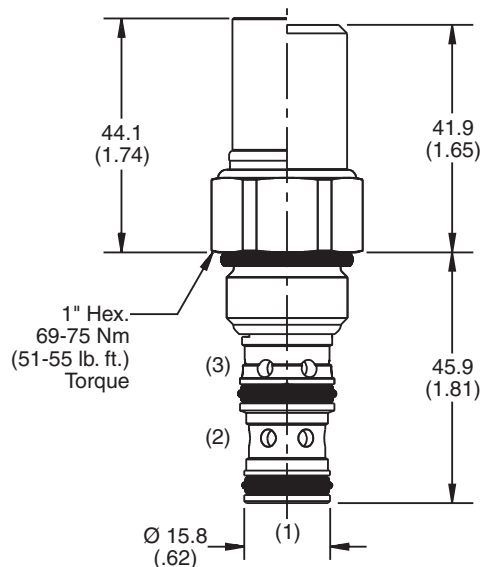
Maximum Drain Flow

P _{PILOT} - P _{SETTING}	Drain Flow
6.9 Bar (100 PSI)	0.34 LPM (0.09 GPM)
35 Bar (500 PSI)	0.76 LPM (0.20 GPM)
69 Bar (1000 PSI)	1.08 LPM (0.29 GPM)
138 Bar (2000 PSI)	1.53 LPM (0.40 GPM)
207 Bar (3000 PSI)	1.87 LPM (0.50 GPM)

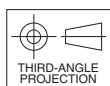
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

SVH102

10 Size
P.O. Sequence
Valve
(External Pilot)

Adjustment
Style

Pressure
Range

Seals

Optional
Pressure
Setting

Body
Material

Port
Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (718083)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
ValvesLM
Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
ElementsDC
Directional
Controls

MV

Manual
Valves

SV

Solenoid
ValvesPV
Proportional
ValvesCE
Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

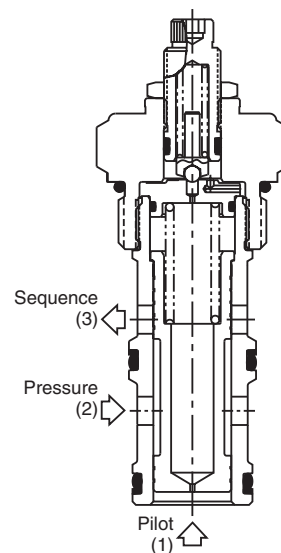
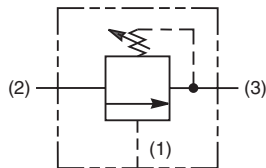
Pilot Operated Sequence Valve (Externally Piloted, Internally Vented). For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- High accuracy, pilot operation design
- Ball-type pilot for added stability
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.

Specifications

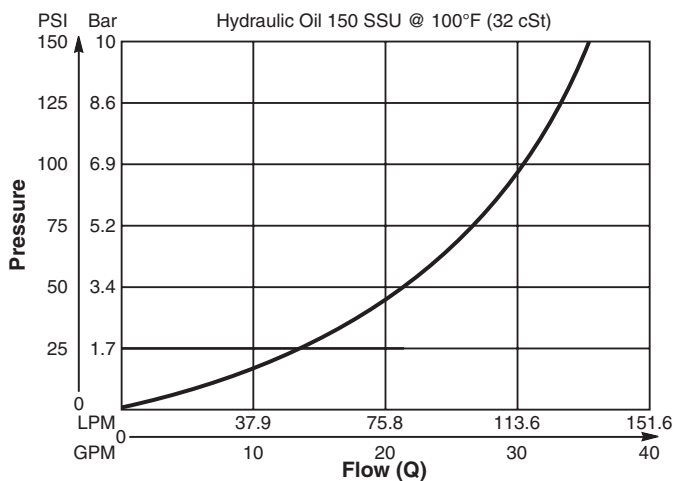
Rated Flow	151.6 LPM (40 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	See maximum drain flow chart (Lower right)
Reseat Pressure	80% of Crack Pressure
Leakage at 150 SSU (32 cSt)	82 cc/min. (5 cu. in./min.) @ 75% of Crack Pressure
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.45 kg (1.0 lbs.)
Cavity	C16-3 (See BC Section for more details)
Form Tool	Rougher NFT16-3R Finisher NFT16-3F



Performance Curve

Flow vs. Inlet Pressure

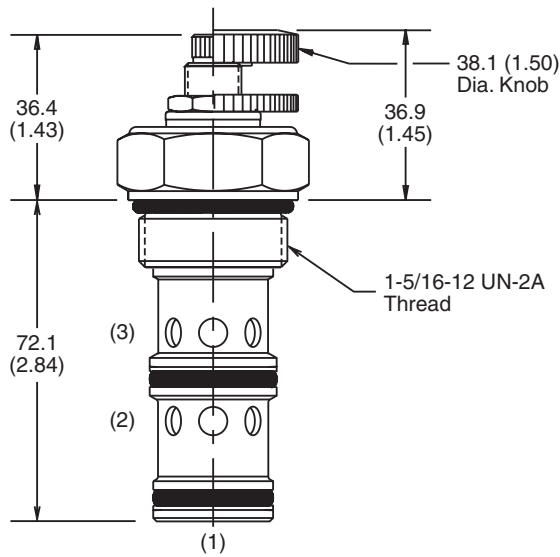
(Pressure rise through cartridge only)



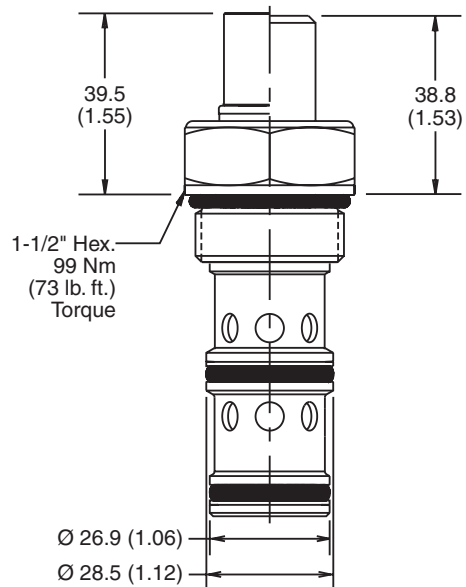
Maximum Drain Flow

$P_{PILOT} - P_{SETTING}$	Drain Flow
6.9 Bar (100 PSI)	0.69 LPM (0.18 GPM)
35 Bar (500 PSI)	1.55 LPM (0.41 GPM)
69 Bar (1000 PSI)	2.19 LPM (0.58 GPM)
138 Bar (2000 PSI)	3.10 LPM (0.82 GPM)
207 Bar (3000 PSI)	3.79 LPM (1.00 GPM)

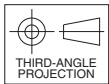
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

SVH162

16 Size
P.O. Sequence
Valve
(External Pilot)



Adjustment
Style



Pressure
Range



Seals



Optional
Pressure
Setting



Body
Material



Port
Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-3)
V	Fluorocarbon / (SK16-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B16-3-*12T)
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

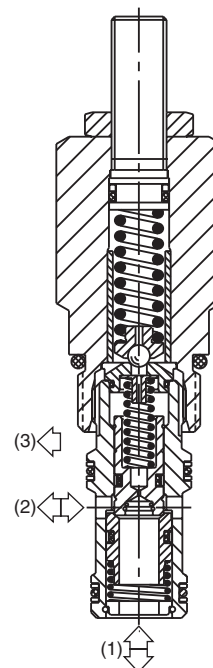
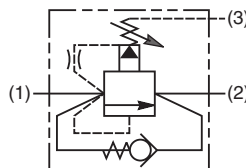
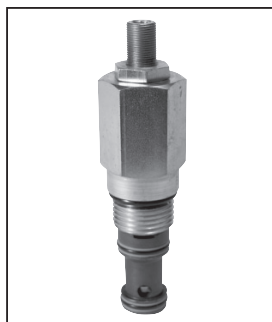
Pilot Operated Sequence Valve with Reverse Flow Check. For additional information see Technical Tips on pages PC1-PC6.

Features

- High flow capacity
- For use on clamp and drill circuits where pressure is to be maintained regardless of drop in system pressure
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

Specifications

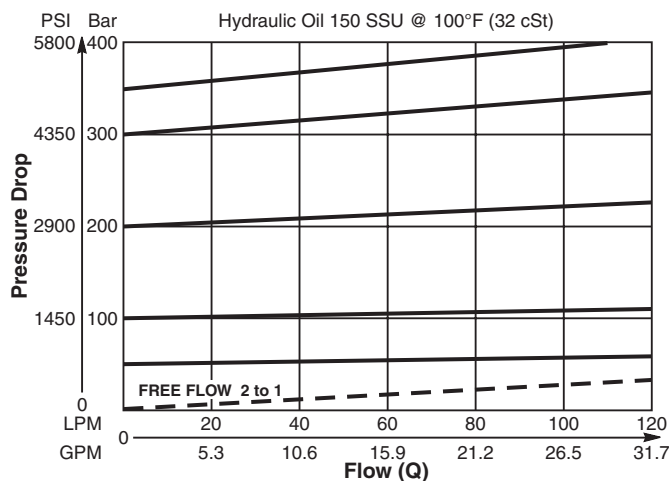
Rated Flow	70 LPM (18.5 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.25 kg (0.55 lbs.)
Cavity	C10-3S (See BC Section for more details)
Form Tool	Rougher NFT10S-3R Finisher NFT10S-3F



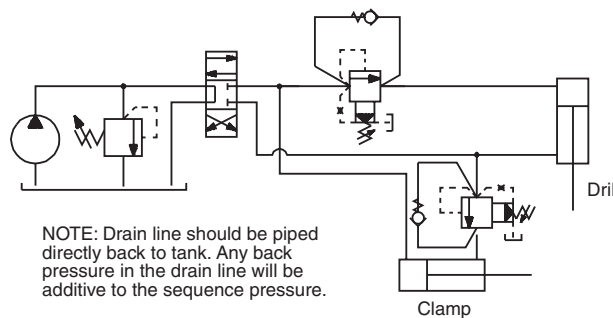
Performance Curve

(Pressure rise through cartridge only)

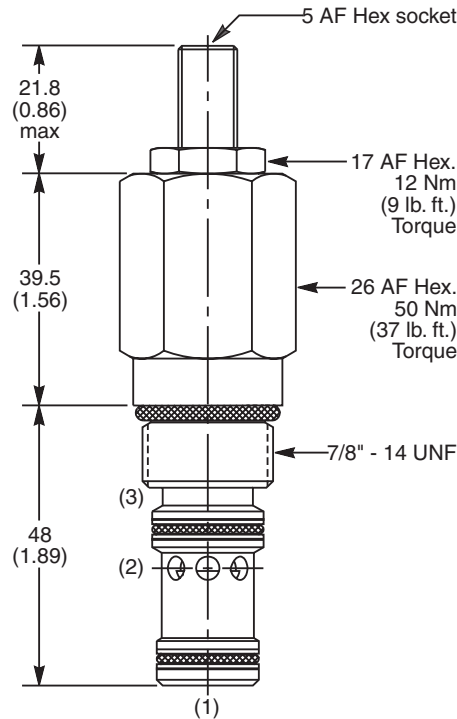
Flow vs. Inlet Pressure 1 to 2



Application



Dimensions Millimeters (Inches)



Ordering Information

B04D3				
10 Size Pilot Operated Sequence Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting
Specify setting if required (Bar)
B04D3H Standard Setting: 100 Bar (1450 PSI) @ 15 LPM (4.0 GPM)
B04D3P Standard Setting: 200 Bar (2900 PSI) @ 15 LPM (4.0 GPM)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30504N-1)
V	Fluorocarbon / (SK30504V-1)

Order Bodies Separately

LB10		
Line Body	Porting	Body Material

Code	Porting
710	5/8" SAE (main) 3/8" SAE (aux)
711	3/4" BSP (main) 1/4" BSP (aux)

Code	Body Material
A	Aluminum
S	Steel

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

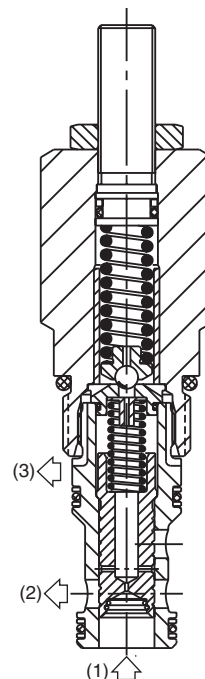
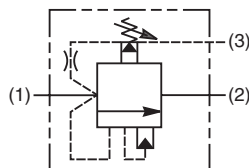
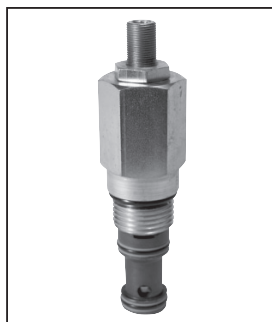
Kick-Down, Spool Type, Pilot Operated Sequence Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- High flow capacity
- Integral 250 micron pilot flow filter
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

Specifications

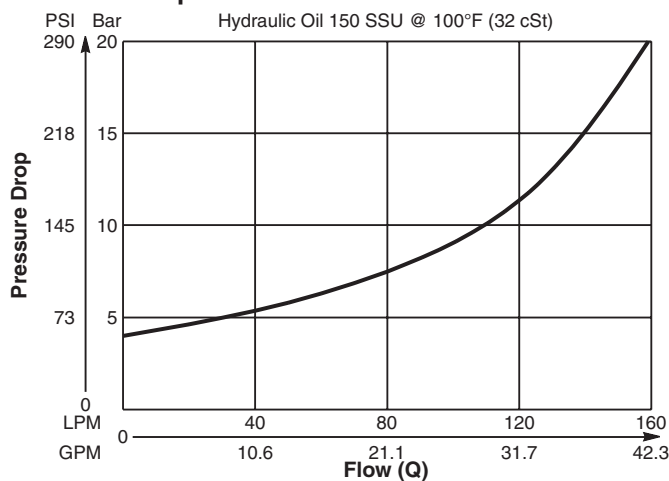
Rated Flow	160 LPM (42 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	H - 10-210 Bar (145-3000 PSI) P - 10-420 Bar (145-6000 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Sensitivity: Pressure/Turn	H - 30 Bar (435 PSI) P - 55 Bar (800 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.27 kg (0.55 lbs.)
Cavity	C10-3S (See BC Section for more details)
Form Tool	Rougher NFT10S-3R Finisher NFT10S-3F



Performance Curve

(Pressure rise through cartridge only)

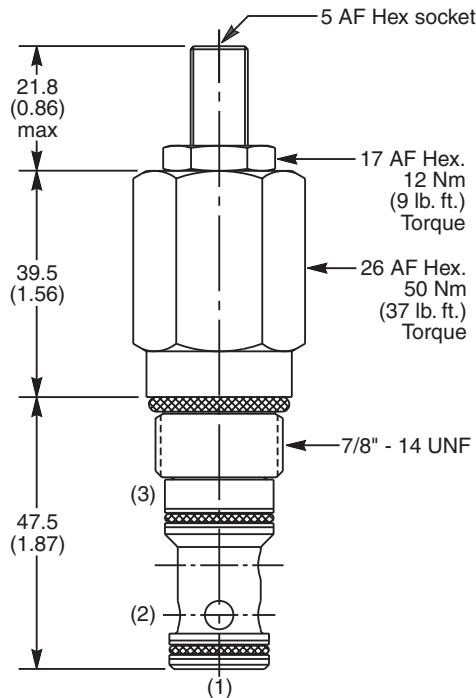
Pressure Drop vs. Flow 1 to 2



Application Note

Valve unloads completely when setting is reached and resets when fluid supply is removed.

Dimensions Millimeters (Inches)



Ordering Information

B04C3

10 Size Kick-Down Pilot Operated Sequence Valve

Pressure Adjustment Range

Adjustment Style

Optional Pressure Setting

Seals

Code	Pressure Adjustment Range
H	10 - 210 Bar (145 - 3000 PSI)
P	10 - 420 Bar (145 - 6000 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting	
Specify setting if required (Bar)	
B04C3H Standard Setting: 100 Bar (1450 PSI)	
B04C3P Standard Setting: 200 Bar (2900 PSI)	

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30504N-1)
V	Fluorocarbon / (SK30504V-1)

Order Bodies Separately

LB10

Line Body

Porting

Body Material

Code	Porting
710	5/8" SAE (main) 3/8" SAE (aux)
711	3/4" BSP (main) 1/4" BSP (aux)

Code	Body Material
A	Aluminum
S	Steel

CV
Check Valves
SH
Shuttle Valves
LM
Load/Motor Controls
FC
Flow Controls
PC
Pressure Controls
LE
Logic Elements
DC
Directional Controls
MV
Manual Valves
SV
Solenoid Valves
PV
Proportional Valves
CE
Coils & Electronics
BC
Bodies & Cavities
TD
Technical Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

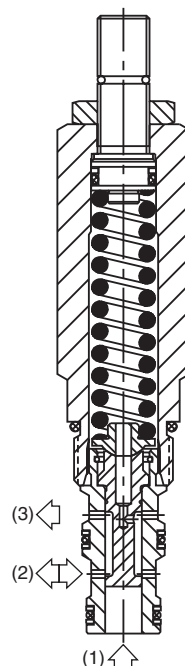
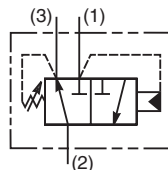
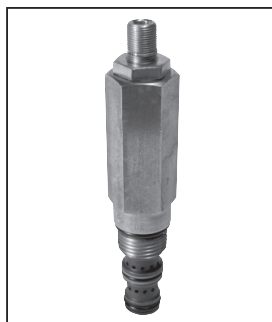
Technical
Data

General Description

Direct Acting Sequence Valve with Internal Pilot and Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



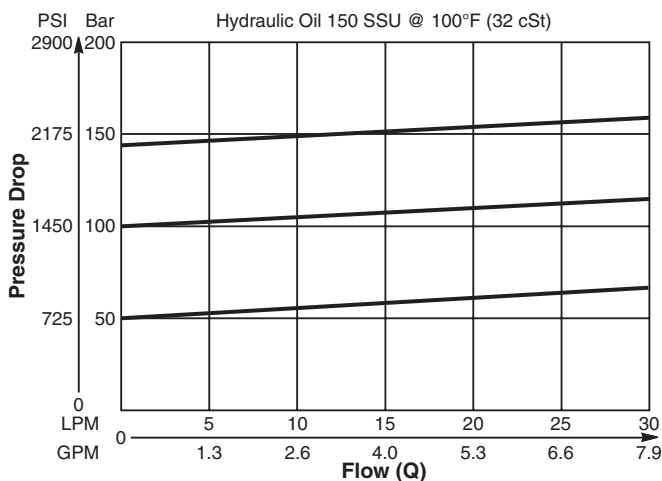
Specifications

Rated Flow	30 LPM (8 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	2-148 Bar (30-2150 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 35 Bar (580 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.21 kg (0.46 lbs.)
Cavity	C08-3 (See BC Section for more details)
Form Tool	Rougher NFT08-3R Finisher NFT08-3F

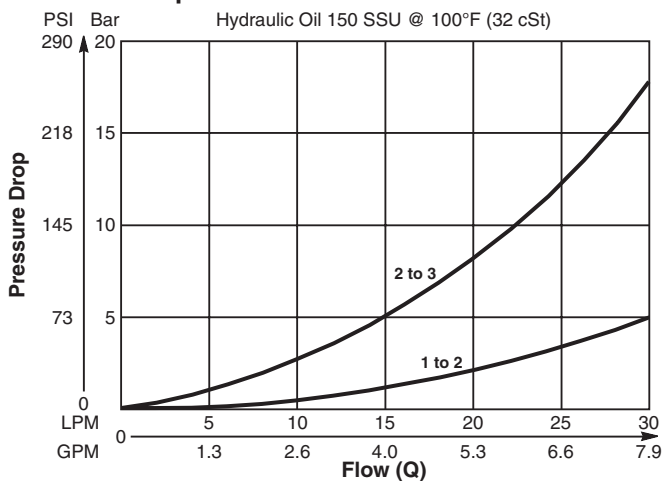
Performance Curves

(Pressure rise through cartridge only)

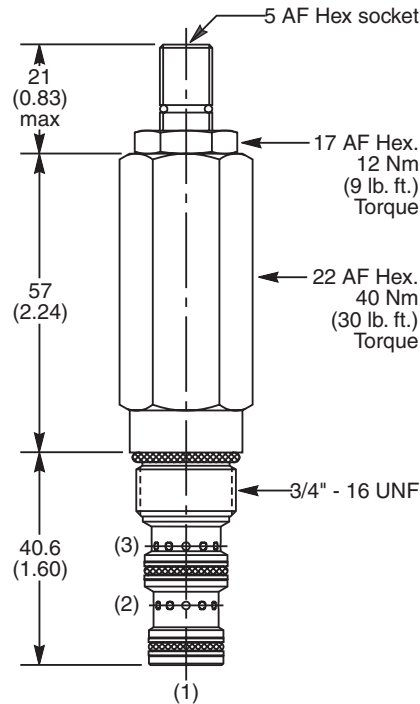
Flow vs. Inlet Pressure 1 to 2



Pressure Drop vs. Flow



Dimensions Millimeters (Inches)



Ordering Information

B02E3 **F** — — — — —

08 Size **Pressure** **Adjustment** **Optional** **Seals** **Body** **Port**
D.A. Sequence Valve **Adjustment** **Style** **Pressure** **Material** **Size**
(Int. Pilot & Drain) **Range** **Setting**

Code	Pressure Adjustment Range
F	2 - 148 Bar (30 - 2150 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting
Specify setting if required (Bar)
B02E3F Standard Setting: 75 Bar (1100 PSI) @ 5 LPM (1.3 GPM)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30501N-1)
V	Fluorocarbon / (SK30501V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-3-*4P)
4T	SAE-4	(B08-3-*4T)
6T	SAE-6	(B08-3-*6T)
6B	3/8" BSPG	(B08-3-*6B)

* Add "A" for aluminum, omit for steel.

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

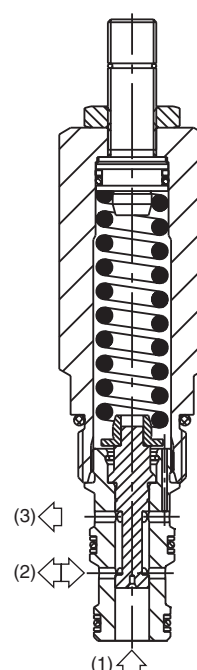
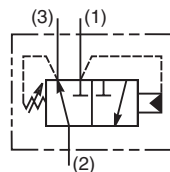
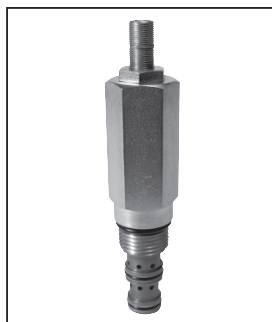
Technical
Data

General Description

Direct Acting Sequence Valve with Internal Pilot and Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



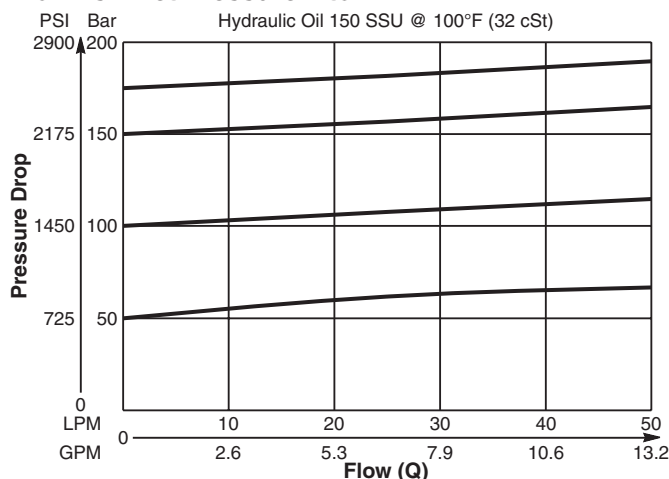
Specifications

Rated Flow	50 LPM (13 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 60 Bar (870 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.27 kg (0.60 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NFT10-3R Finisher NFT10-3F

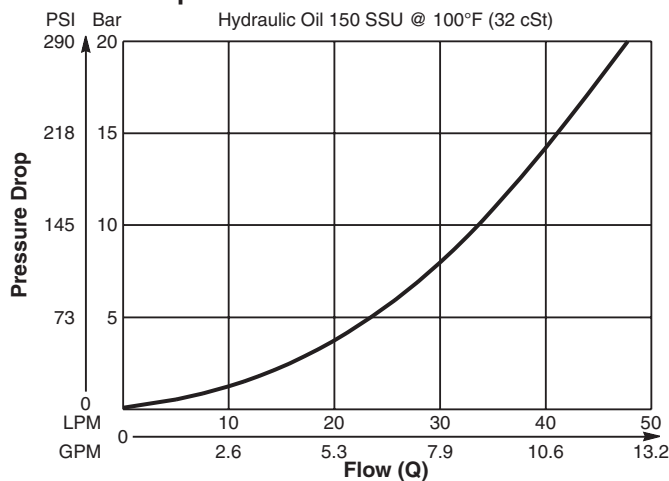
Performance Curves

(Pressure rise through cartridge only)

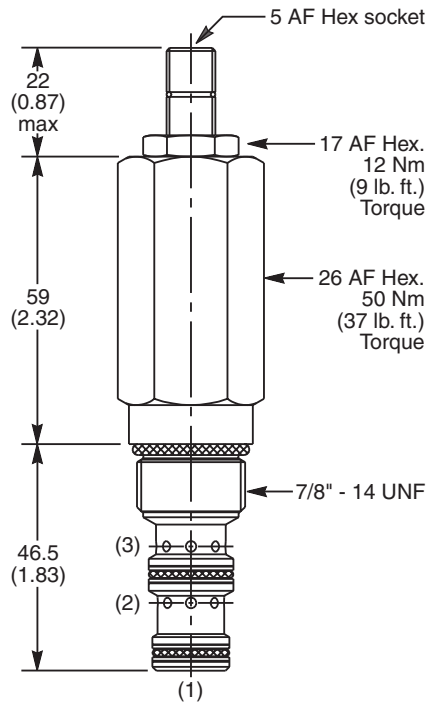
Flow vs. Inlet Pressure 1 to 2



Pressure Drop vs. Flow 1 to 2 and 2 to 3



Dimensions Millimeters (Inches)



Ordering Information

B04E3						
10 Size D.A. Sequence Valve (Int. Pilot & Drain)	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30505N-1)
V	Fluorocarbon / (SK30505V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Optional Pressure Setting
Specify setting if required (Bar)
B04E3E Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
B04E3G Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8P)

* Add "A" for aluminum, omit for steel.
† Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

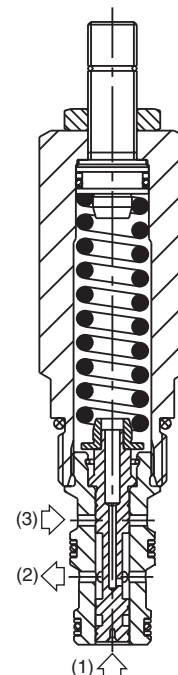
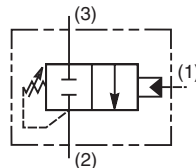
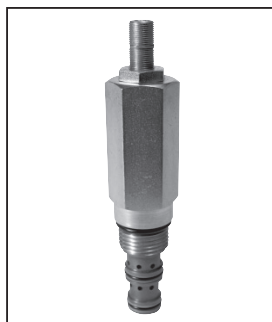
Technical
Data

General Description

Direct Acting, Normally Closed Sequence Valve with External Pilot and Internal Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Sealed pilot option available
- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



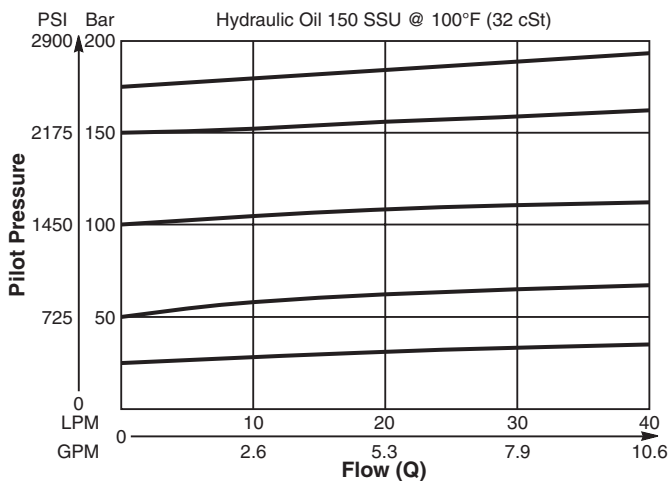
Specifications

Rated Flow	34 LPM (9 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.30 kg (0.66 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NFT10-3R Finisher NFT10-3F

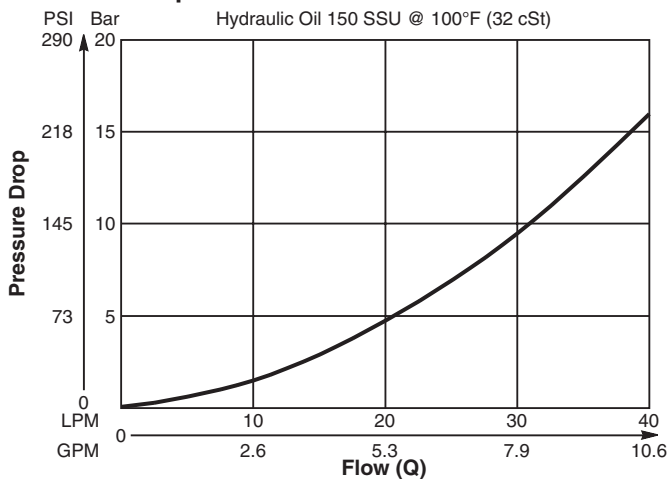
Performance Curves

(Pressure rise through cartridge only)

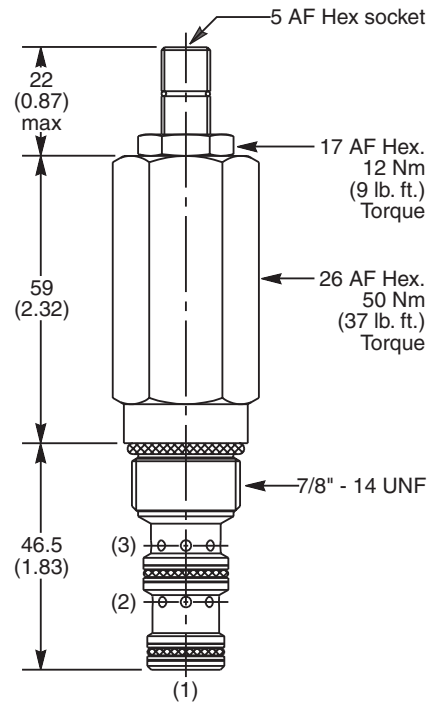
Flow vs. Inlet Pressure 3 to 2



Pressure Drop vs. Flow 3 to 2



Dimensions Millimeters (Inches)



Ordering Information

B04F3							
10 Size D.A. Sequence Valve (External Pilot & Internal Drain)	Pilot Pressure Adjustment Range	Adjustment Style	Pilot Switching Pressure	Seals	Sealed Pilot	Body Material	Port Size

Code	Pilot Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30505N-1)
V	Fluorocarbon / (SK30505V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Sealed Pilot
Omit	Omit if not required
S	Sealed Pilot

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8P)

* Add "A" for aluminum, omit for steel.
† Steel body only.

Code	Pilot Switching Pressure
Omit	Omit for no setting (Std.)
B04F3E	Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
B04F3G	Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)
	Specify setting if required

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

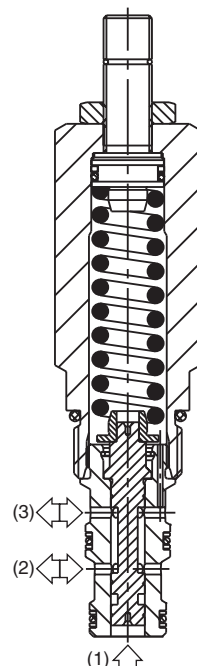
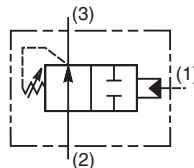
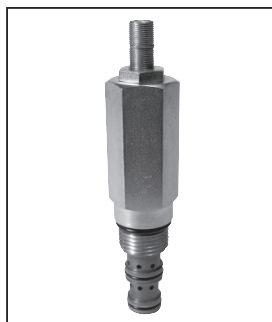
Technical
Data

General Description

Direct Acting, Normally Open Sequence Valve with External Pilot and Internal Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Sealed pilot option available
- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



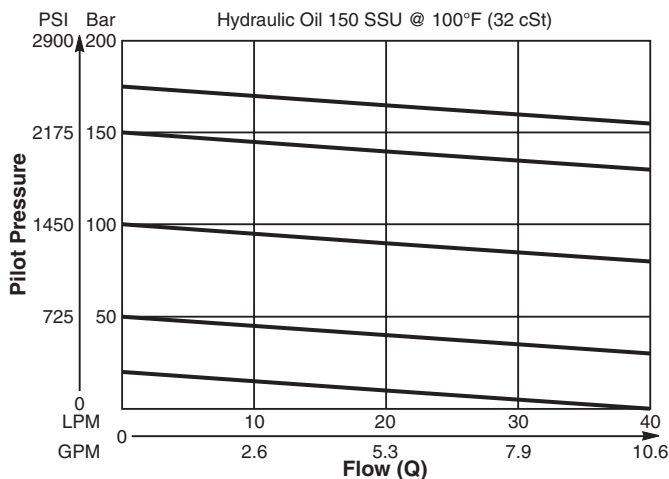
Specifications

Rated Flow	40 LPM (10.6 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.30 kg (0.66 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NFT10-3R Finisher NFT10-3F

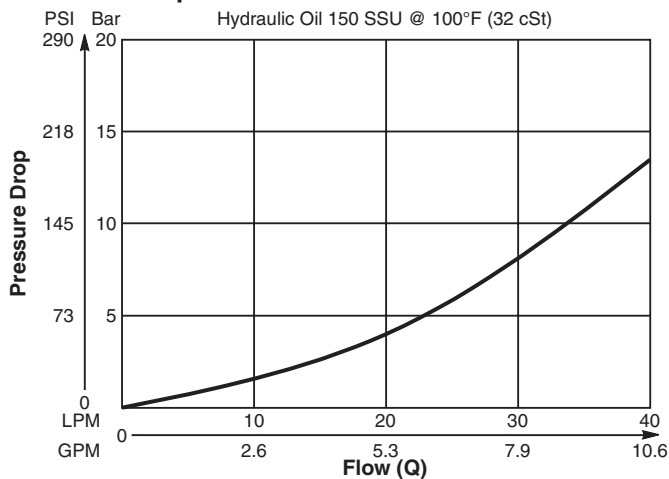
Performance Curves

(Pressure rise through cartridge only)

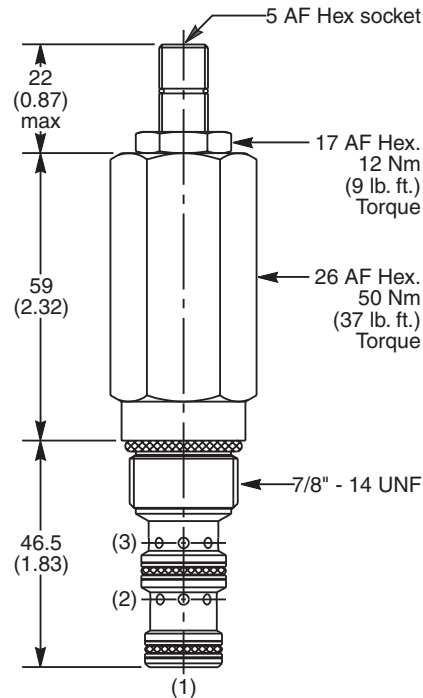
Flow vs. Inlet Pressure 2 to 3



Pressure Drop vs. Flow 2 to 3



Dimensions Millimeters (Inches)



Ordering Information

B04G3							
10 Size D.A. Sequence Valve (External Pilot & Internal Drain)	Pilot Pressure Adjustment Range	Adjustment Style	Pilot Switching Pressure	Seals	Sealed Pilot	Body Material	Port Size

Code	Pilot Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30505N-1)
V	Fluorocarbon / (SK30505V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Sealed Pilot
Omit	Omit if not required
S	Sealed Pilot

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8P)

* Add "A" for aluminum, omit for steel.
† Steel body only.

Code	Pilot Switching Pressure
Omit	Omit for no setting (Std.)
	B04G3E Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
	B04G3G Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)
	Specify setting if required

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

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Logic
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Electronics

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Bodies &
Cavities

TD

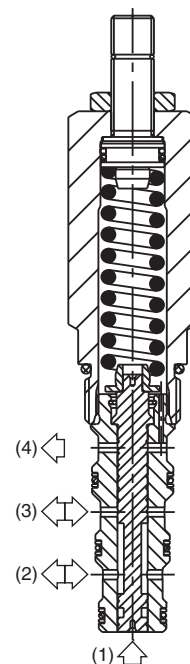
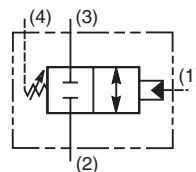
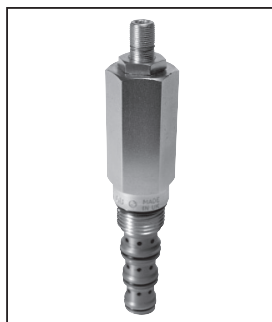
Technical
Data

General Description

Direct Acting, Normally Closed Sequence Valve with External Pilot and Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Sealed pilot option available
- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



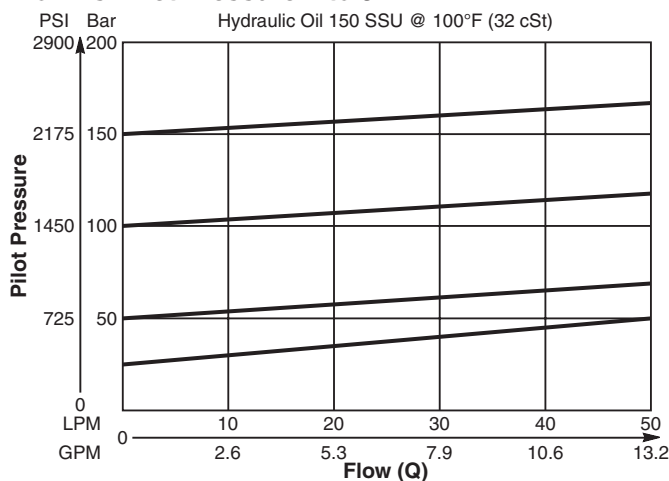
Specifications

Rated Flow	47 LPM (12 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.33 kg (0.73 lbs.)
Cavity	C10-4 (See BC Section for more details)
Form Tool	Rougher NFT10-4R Finisher NFT10-4F

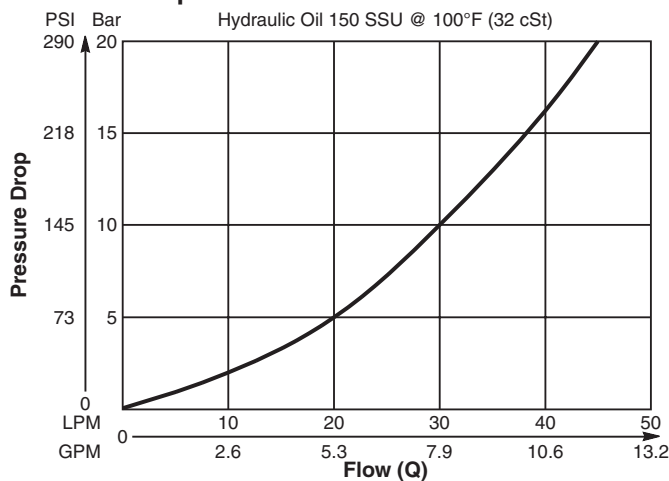
Performance Curves

(Pressure rise through cartridge only)

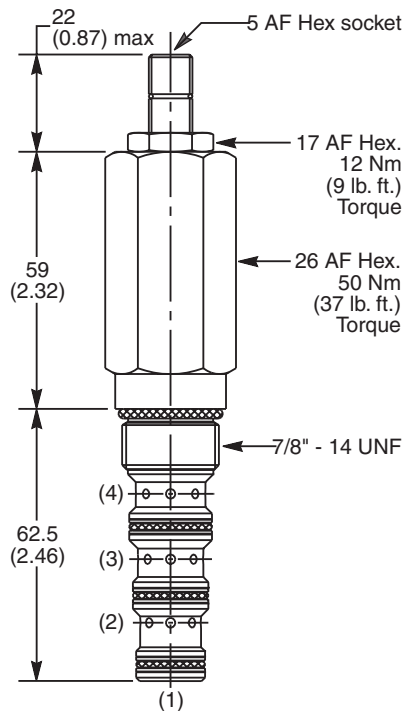
Flow vs. Inlet Pressure 2 to 3



Pressure Drop vs. Flow 3 to 2



Dimensions Millimeters (Inches)



Ordering Information

B04H4							
10 Size D.A. Sequence Valve (External Pilot and Drain)	Pilot Pressure Adjustment Range	Adjustment Style	Pilot Switching Pressure	Seals	Sealed Pilot	Body Material	Port Size

Code	Pilot Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Pilot Switching Pressure
Omit	Omit for Standard Setting
	B04H4E Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
	B04H4G Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)
	Specify setting if required

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30506N-1)
V	Fluorocarbon / (SK30506V-1)

Code	Sealed Pilot
Omit	Omit if not required
S	Sealed Pilot

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

* Add "A" for aluminum, omit for steel.
† Steel bodies only

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

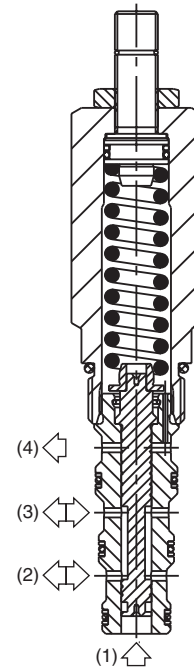
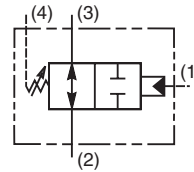
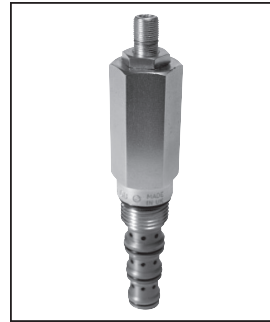
Technical
Data

General Description

Direct Acting, Normally Open Sequence Valve with External Pilot and Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Sealed pilot option available
- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available



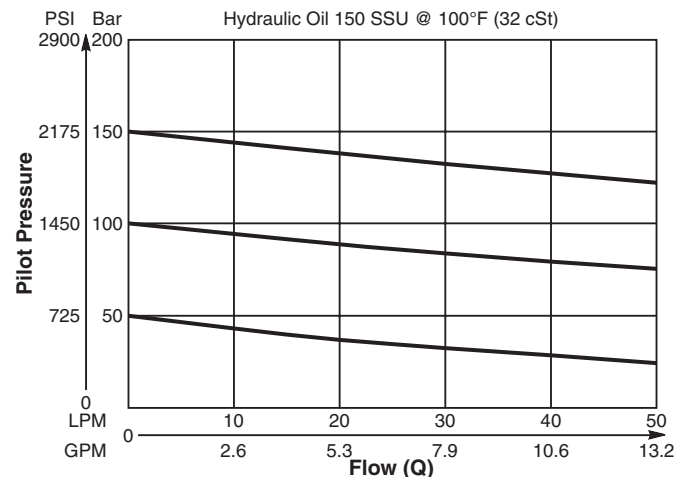
Specifications

Rated Flow	47 LPM (12 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	25 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.33 kg (0.73 lbs.)
Cavity	C10-4 (See BC Section for more details)
Form Tool	Rougher NFT10-4R Finisher NFT10-4F

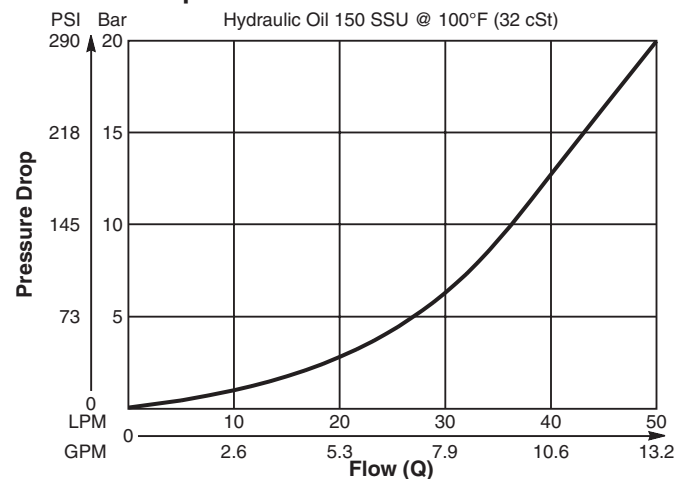
Performance Curves

(Pressure rise through cartridge only)

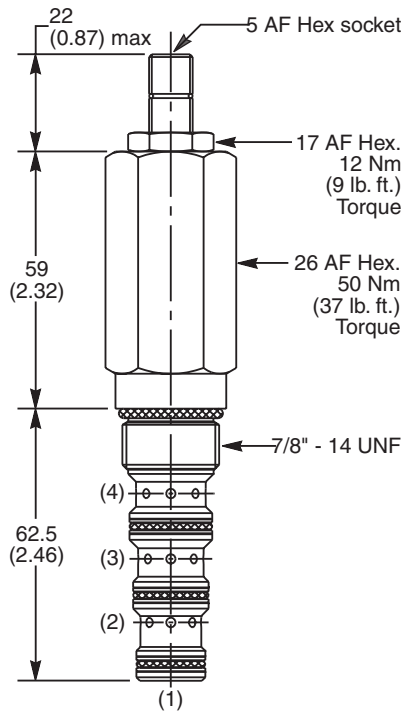
Flow vs. Inlet Pressure 2 to 3 & 3 to 2



Pressure Drop vs. Flow 2 to 3 & 3 to 2



Dimensions Millimeters (Inches)



Ordering Information

B04J4							
10 Size D.A. Sequence Valve (External Pilot and Drain)	Pilot Pressure Adjustment Range	Adjustment Style	Pilot Switching Pressure	Seals	Sealed Pilot	Body Material	Port Size

Code	Pilot Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30506N-1)
V	Fluorocarbon / (SK30506V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Sealed Pilot
Omit	Omit if not required
S	Sealed Pilot

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

* Add "A" for aluminum, omit for steel.
† Steel bodies only

Code	Pilot Switching Pressure
Omit	Omit for no setting (Std.)
	B04J4E Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
	B04J4G Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)
	Specify setting if required

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

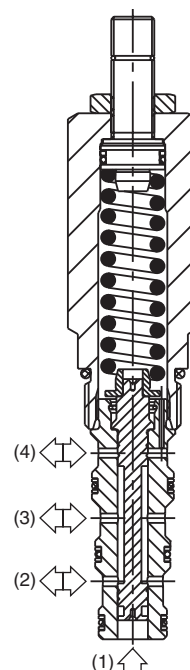
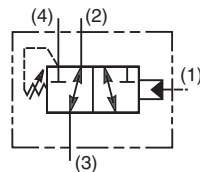
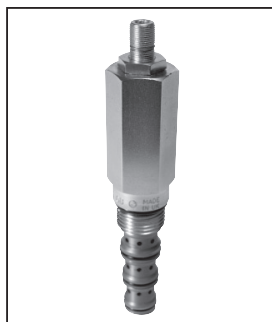
Direct Acting, Normally Open, 3 Way Sequence Valve with Internal Pilot and External Drain. For additional information see Technical Tips on pages PC1-PC6.

Features

- Sealed pilot option available
- Hardened working parts for maximum durability
- All external parts zinc plated
- Adjustable and tamperproof versions available

Specifications

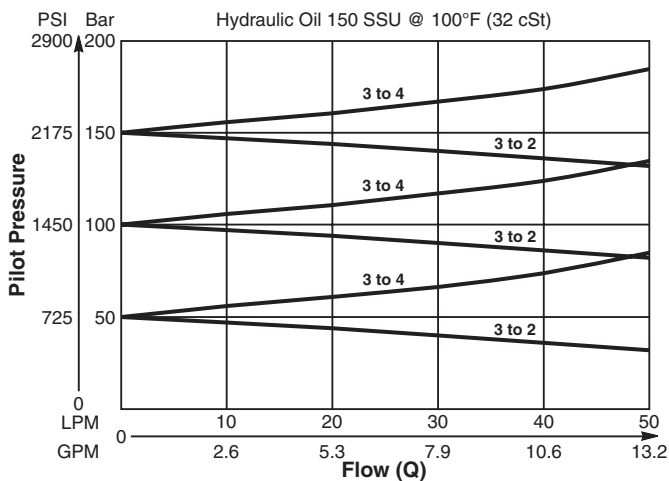
Rated Flow	42 LPM (11 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	E - 2-80 Bar (30-1160 PSI) G - 2-166 Bar (30-2400 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Leakage at 150 SSU (32 cSt)	40 ml/min. @ 100 Bar (1450 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.33 kg (0.73 lbs.)
Cavity	C10-4 (See BC Section for more details)
Form Tool	Rougher NFT10-4R Finisher NFT10-4F



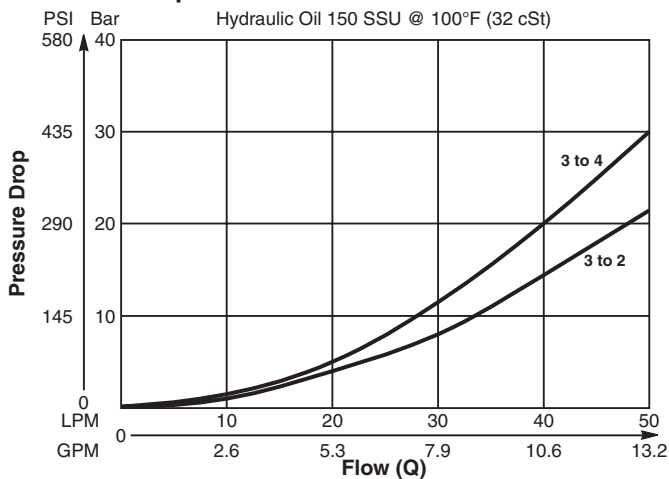
Performance Curves

(Pressure rise through cartridge only)

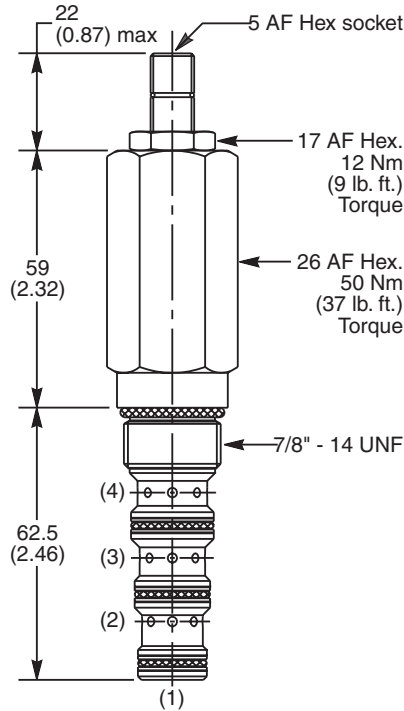
Flow vs. Inlet Pressure



Pressure Drop vs. Flow



Dimensions Millimeters (Inches)



Ordering Information

B04K4							
10 Size D.A. Sequence Valve (Internal Pilot & External Drain)	Pilot Pressure Adjustment Range	Adjustment Style	Pilot Switching Pressure	Seals	Sealed Pilot	Body Material	Port Size

Code	Pilot Pressure Adjustment Range
E	2 - 80 Bar (30 - 1160 PSI)
G	2 - 166 Bar (30 - 2400 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30506N-1)
V	Fluorocarbon / (SK30506V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Sealed Pilot
Omit	Omit if not required
S	Sealed Pilot

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

* Add "A" for aluminum, omit for steel.
† Steel bodies only

Code	Pilot Switching Pressure
Omit	Omit for Standard Setting
	B04K4E Standard Setting: 40 Bar (580 PSI) @ 5 LPM (1.3 GPM)
	B04K4G Standard Setting: 80 Bar (1160 PSI) @ 5 LPM (1.3 GPM)
	Specify setting if required

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

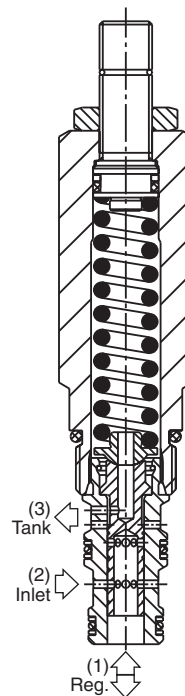
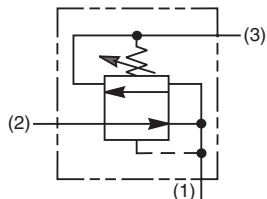
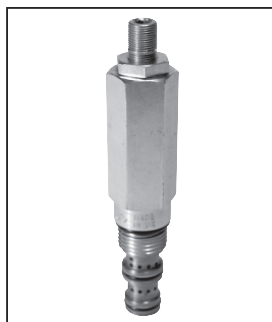
Direct Acting Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Maximum pressure setting up to 150 Bar, 2175 PSI
- Three pressure ranges available for more accurate pressure control
- Partial reverse flow capability
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

Specifications

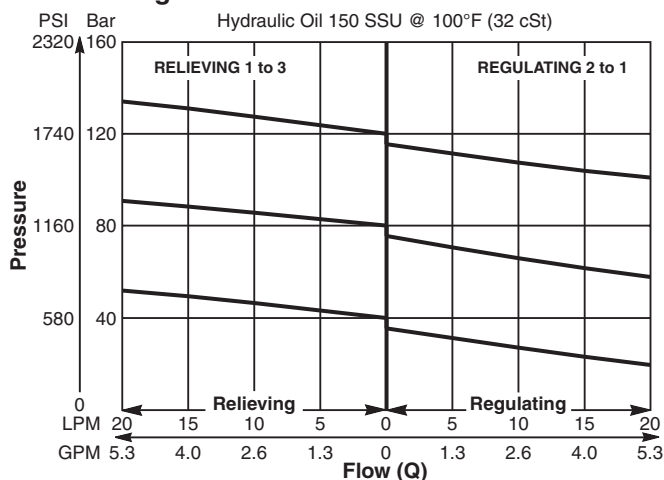
Rated Flow	20 LPM (5 GPM)
Maximum Inlet Pressure	420 Bar (6000 PSI)
Maximum Pressure Setting	C - 5-40 Bar (73-580 PSI) E - 25-75 Bar (363-1088 PSI) G - 50-150 Bar (725-2175 PSI)
Maximum Tank Pressure	420 Bar (6000 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/ Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.20 kg (0.44 lbs.)
Cavity	C08-3 (See BC Section for more details)
Form Tool	Rougher NFT08-3R Finisher NFT08-3F



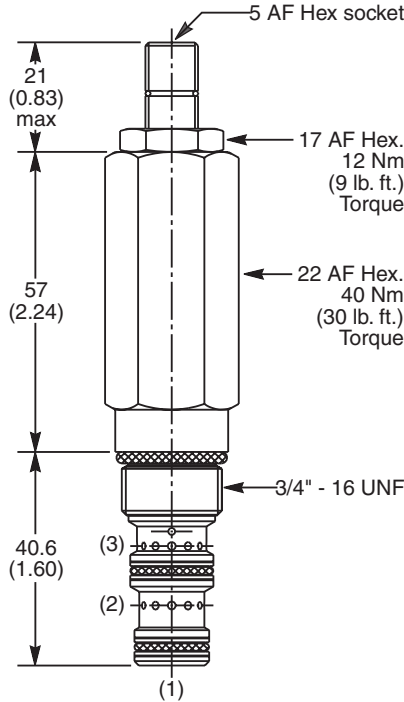
Performance Curve

(Pressure rise through cartridge only)

Flow vs. Regulated Pressure



Dimensions Millimeters (Inches)



Ordering Information

C02A3						
08 Size D.A. Pressure Reducing/Relieving Valve	Pressure Adjustment Range	Adjustment Style	Optional Pressure Setting	Seals	Body Material	Port Size

Code	Pressure Adjustment Range
C	5 - 40 Bar (73 - 580 PSI)
E	25 - 75 Bar (363 - 1088 PSI)
G	50 - 150 Bar (725 - 2175 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N (Std.) / (SK30501N-1)
V	Fluorocarbon / (SK30501V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Adjustment Style / Kit No.
Z	Screw Adjust (Std.)
W	Knob Adjust
T	Tamper Resistant Cap (TC1130)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-3-*4P)
4T	SAE-4	(B08-3-*4T)
6T	SAE-6	(B08-3-*6T)
6B	3/8" BSPG	(B08-3-*6B)

* Add "A" for aluminum, omit for steel.

Optional Pressure Setting
Specify setting if required (Bar)
C02A3C Standard Setting: 20 Bar (290 PSI)
C02A3E Standard Setting: 38 Bar (551 PSI)
C02A3G Standard Setting: 75 Bar (1088 PSI)

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

Technical
Data

General Description

Direct Acting Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

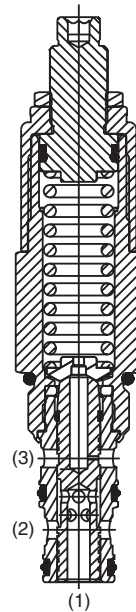
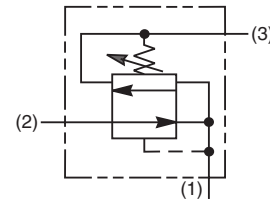
Note: The differential between system pressure and pressure setting of the valve can greatly affect the stability of this valve. For best performance, the inlet pressure setting should not exceed 69 Bar (1000 PSI) above the reducing valve setting.

Features

- Hardened, precision ground parts for durability
- Internal mechanical stop limits spool travel eliminating spring solidification
- "D"-Ring eliminates backup rings
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.

Specifications

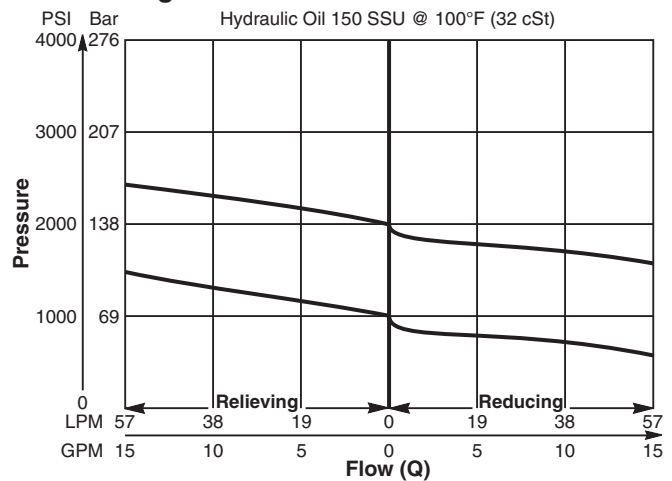
Rated Flow	56 LPM (15 GPM)
Maximum Inlet Pressure	210 Bar (3000 PSI) 69 Bar (1000 PSI) maximum differential above valve setting for best stability
Maximum Pressure Setting	124 Bar (1800 PSI)
Maximum Tank Pressure	124 Bar (1800 PSI)
Maximum Drain Flow	120 mL/min. (0.03 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NTF10-3R Finisher NFT10-3F



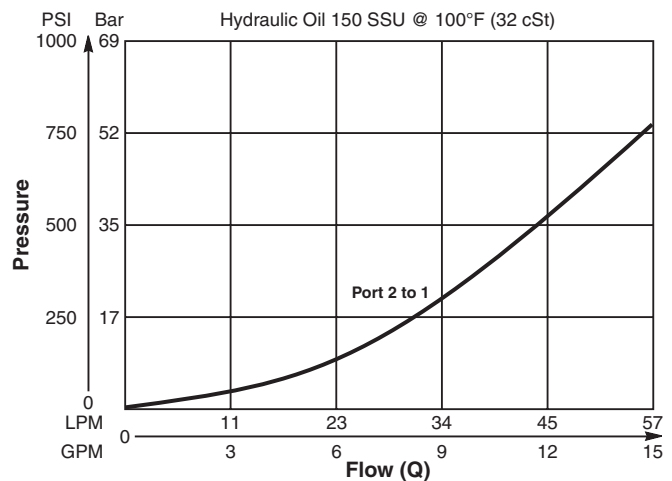
Performance Curves

(Pressure rise through cartridge only)

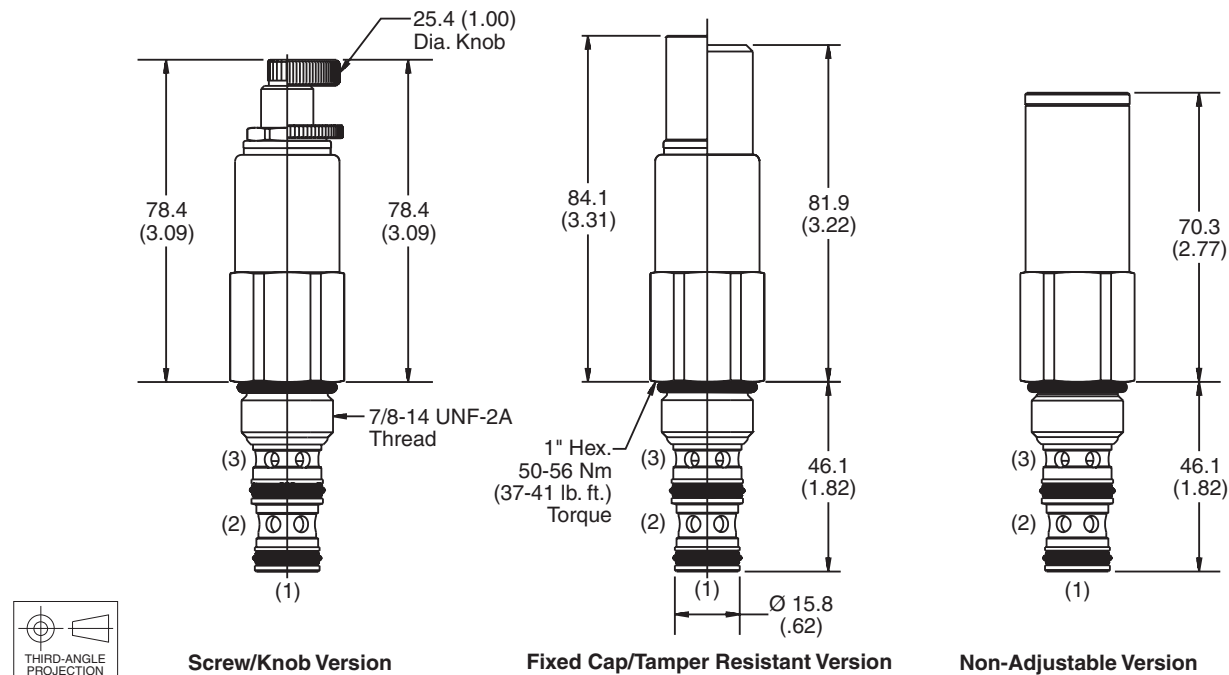
Flow vs. Regulated Pressure



Pressure vs. Flow



Millimeters (Inches)



CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

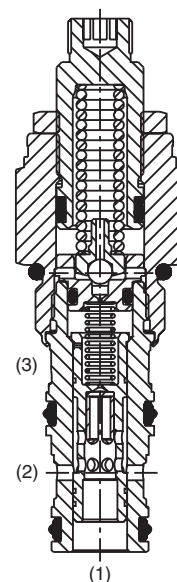
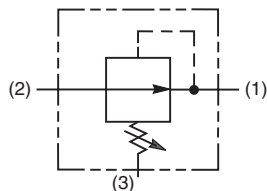
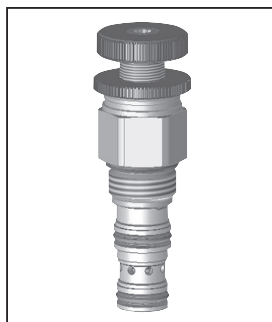
Technical
Data

General Description

Pilot Operated Pressure Reducing Valve.
For additional information see Technical Tips
on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided pilot for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

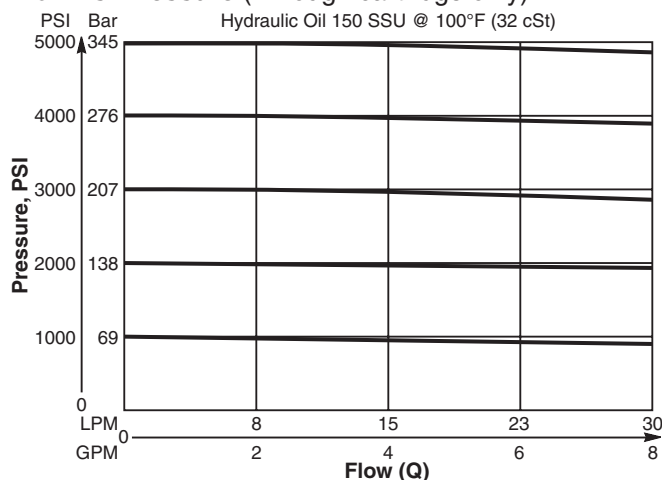


Specifications

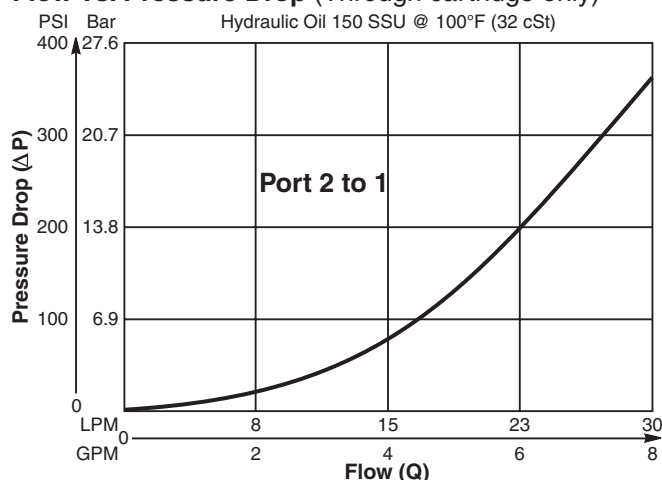
Rated Flow	30 LPM (8 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.56 LPM (0.15 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.11 kg (.25 lbs.)
Cavity	C08-3 (See BC Section for more details)
Form Tool	Rougher NTF08-3R Finisher NFT08-3F

Performance Curves

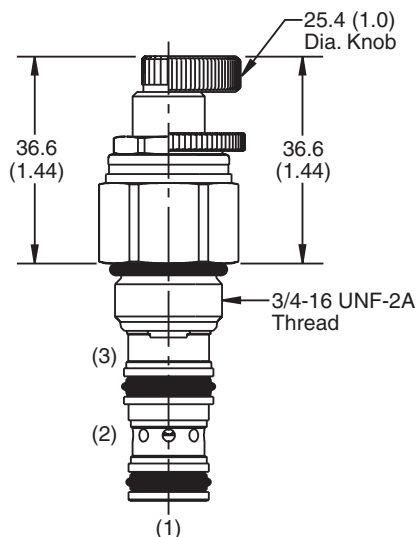
Flow vs. Pressure (Through cartridge only)



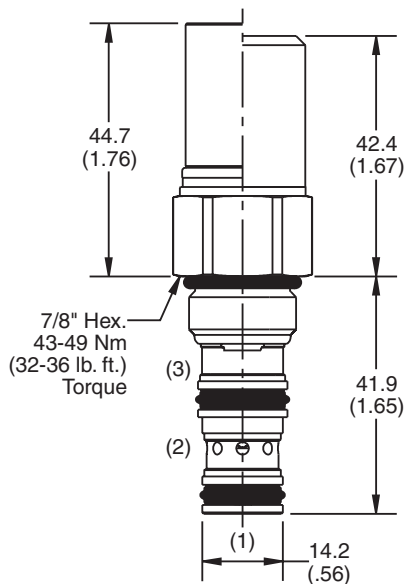
Flow vs. Pressure Drop (Through cartridge only)



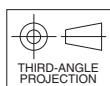
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

PRH082						
08 Size P.O. Pressure Reducing Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK08-3)
N	Nitrile / (SK08-3N)
V	Fluorocarbon / (SK08-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-3-*4P)
4T	SAE-4	(B08-3-*4T)
6T	SAE-6	(B08-3-*6T)
6B	3/8" BSPG	(B08-3-*6B)

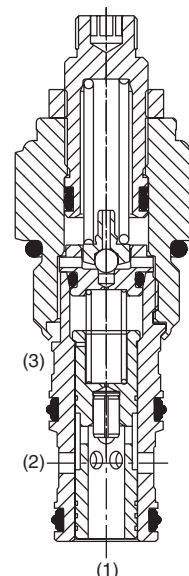
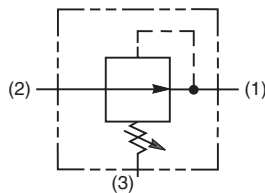
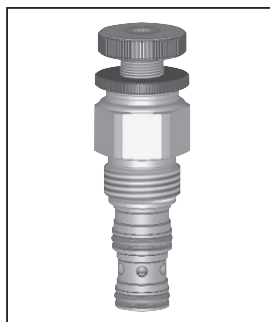
* Add "A" for aluminum, omit for steel.

General Description

Pilot Operated Pressure Reducing Valve.
For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

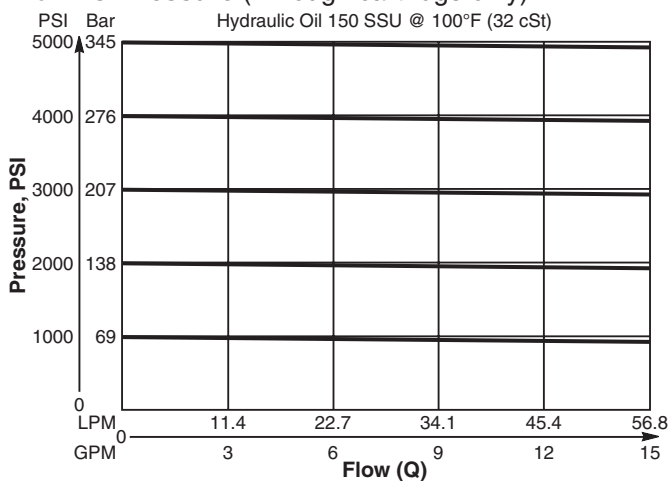


Specifications

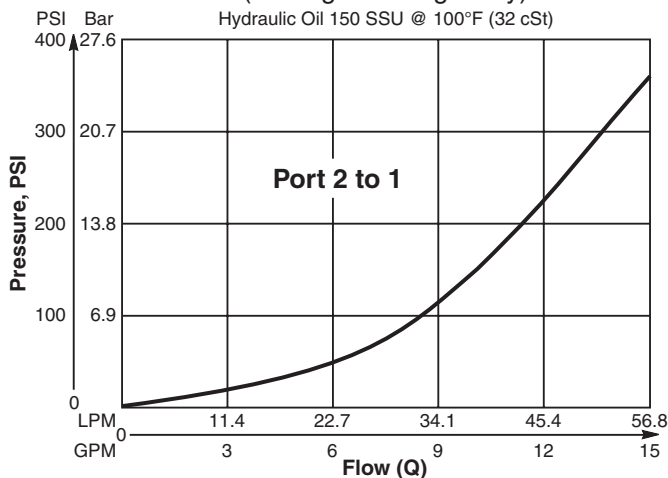
Rated Flow	56.3 LPM (15 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.94 LPM (0.25 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NTF10-3R Finisher NFT10-3F

Performance Curves

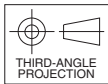
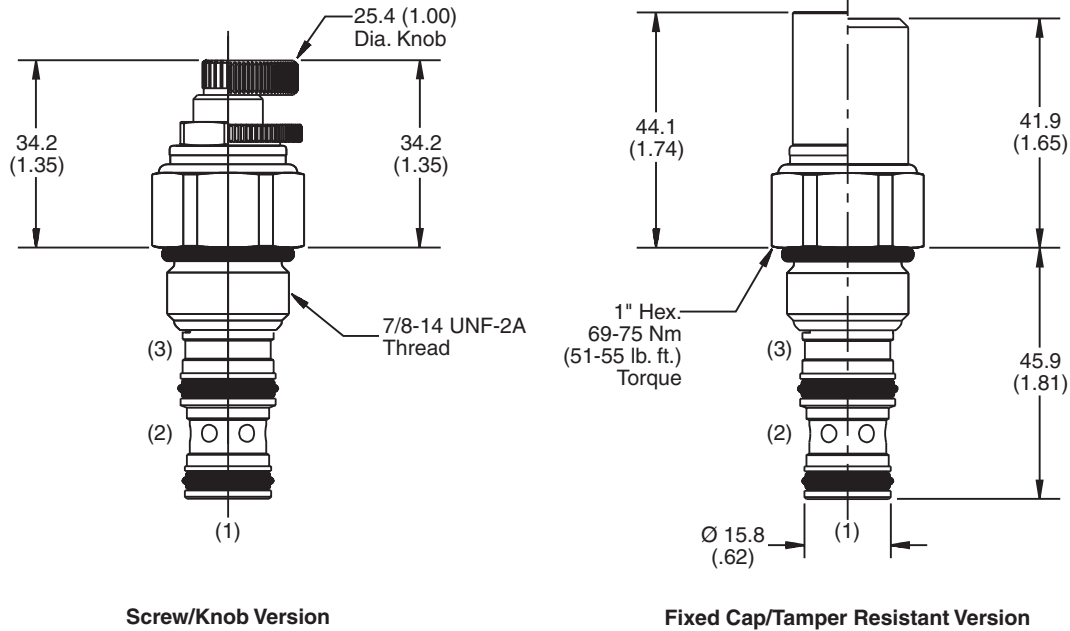
Flow vs. Pressure (Through cartridge only)



Pressure vs. Flow (Through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version

Fixed Cap/Tamper Resistant Version

Ordering Information

PRH102						
10 Size P.O. Pressure Reducing Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (718083)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
03	4.8 - 20.7 Bar (70 - 300 PSI) Standard Setting: 10.4 Bar (150 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel.
 † Steel Body only.

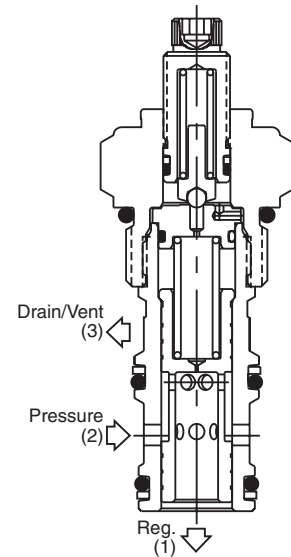
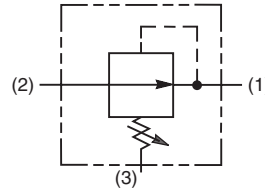
CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
FC Flow Controls
PC Pressure Controls
LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
PV Proportional Valves
CE Coils & Electronics
BC Bodies & Cavities
TD Technical Data

General Description

Pilot Operated Pressure Reducing Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- High accuracy, pilot operation design
- Ball-type pilot for added stability
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



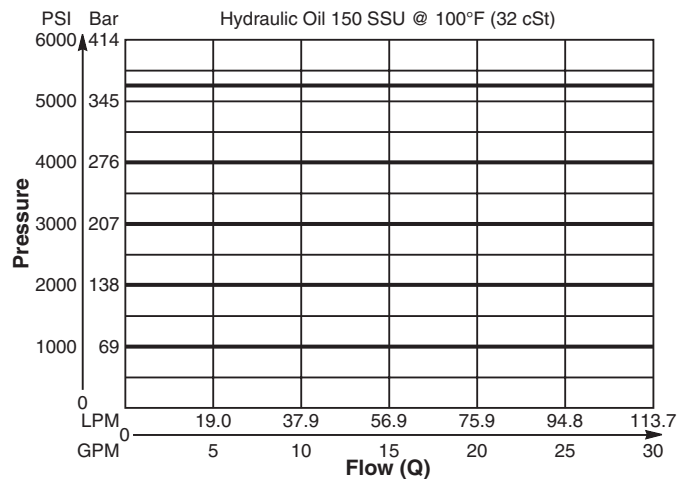
Specifications

Rated Flow	113.7 LPM (30 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	1.9 LPM (0.50 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/ Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.27 kg (0.6 lbs.)
Cavity	C12-3 (See BC Section for more details)
Form Tool	Rougher NFT12-3R Finisher NFT12-3F

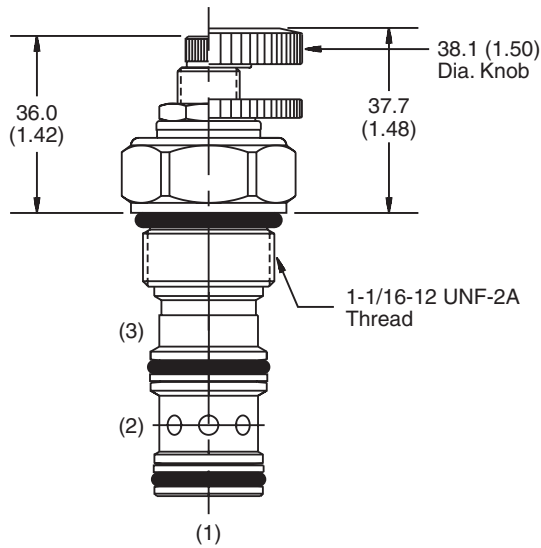
Performance Curve

Flow vs. Pressure

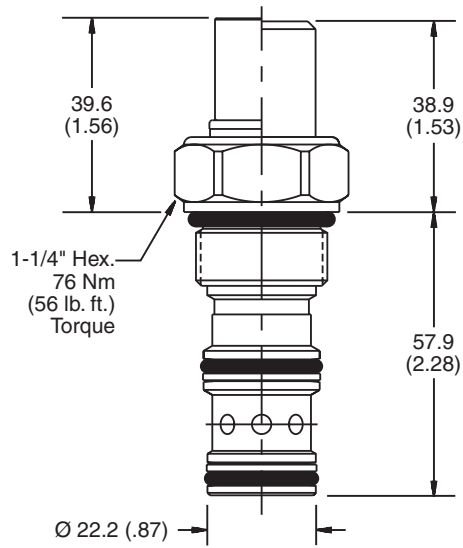
(Pressure rise through cartridge only)



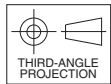
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

PRH122						
12 Size P.O. Pressure Reducing Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK12-3)
V	Fluorocarbon / (SK12-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit is standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
8T	SAE-8	(B12-3-*8T)
12T	SAE-12	(B12-3-*12T)
8B	1/2" BSPG	(B12-3-8B)†

* Add "A" for aluminum, omit for steel.
† Steel Body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

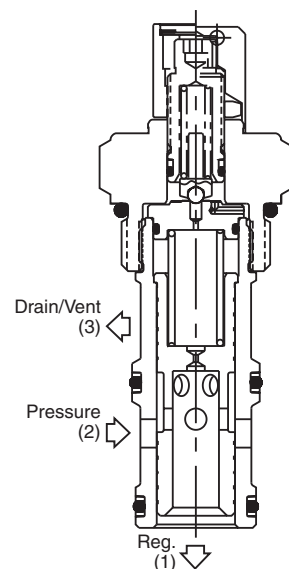
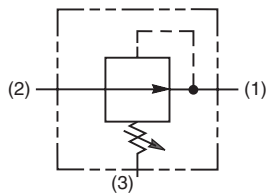
Technical
Data

General Description

Pilot Operated Pressure Reducing Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- High accuracy, pilot operation design
- Ball-type pilot for added stability
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



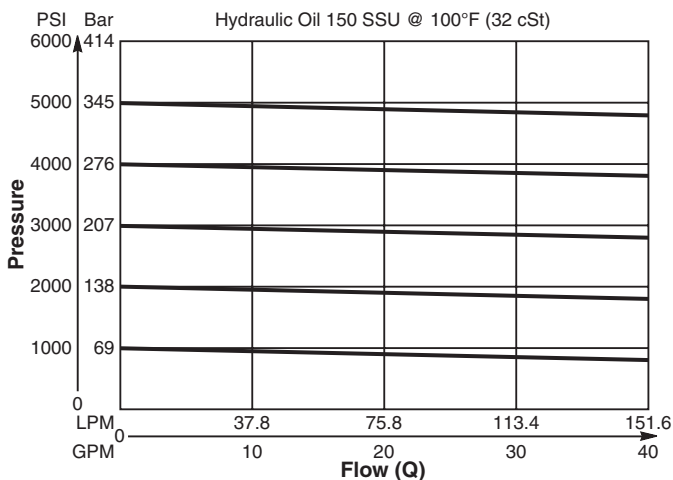
Specifications

Rated Flow	150 LPM (40 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.94 LPM (0.25 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.9 kg (2.0 lbs.)
Cavity	C16-3 (See BC Section for more details)
Form Tool	Rougher NTF16-3R Finisher NFT16-3F

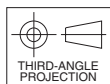
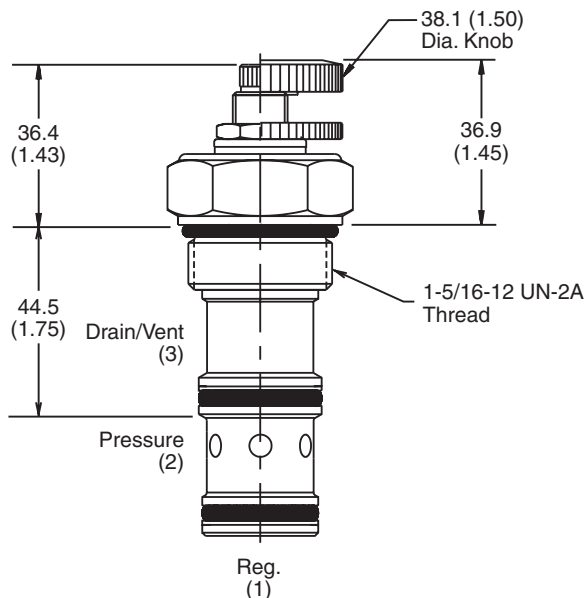
Performance Curve

Flow vs. Pressure

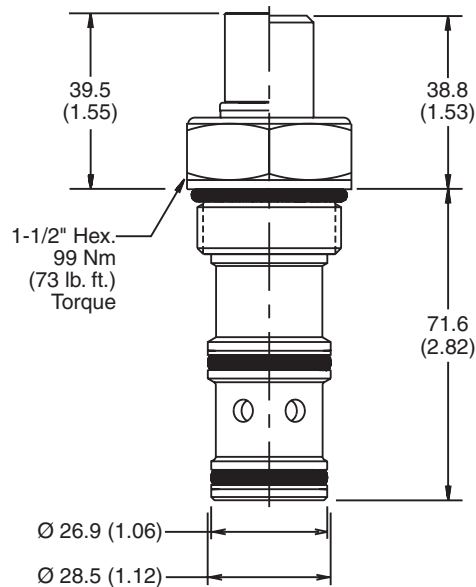
(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version

Ordering Information

PRH162						
16 Size P.O. Pressure Reducing Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-3)
V	Fluorocarbon / (SK16-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B16-3-*12T)
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel.

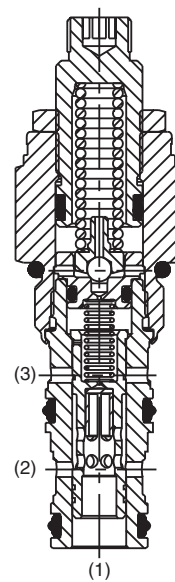
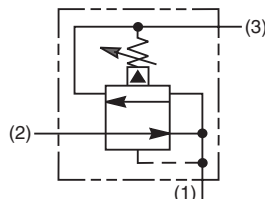
CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
FC Flow Controls
PC Pressure Controls
LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
PV Proportional Valves
CE Coils & Electronics
BC Bodies & Cavities
TD Technical Data

General Description

Pilot Operated Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided pilot for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

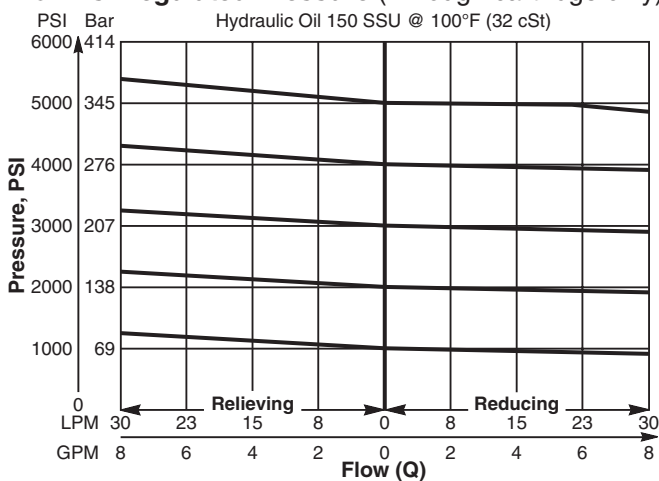


Specifications

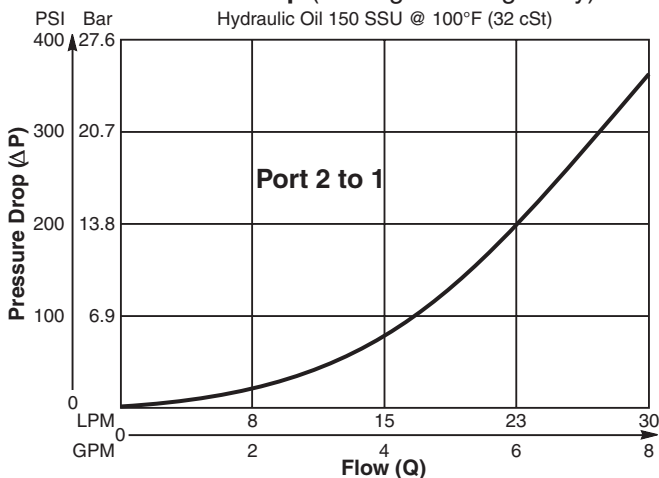
Rated Flow	30 LPM (8 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.56 LPM (0.15 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.11 kg (.25 lbs.)
Cavity	C08-3 (See BC Section for more details)
Form Tool	Rougher NTF08-3R Finisher NFT08-3F

Performance Curves

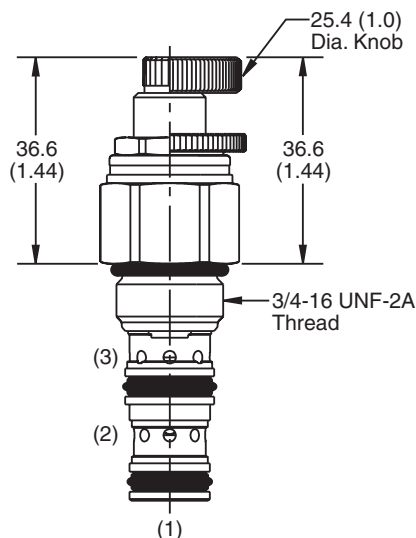
Flow vs. Regulated Pressure (Through cartridge only)



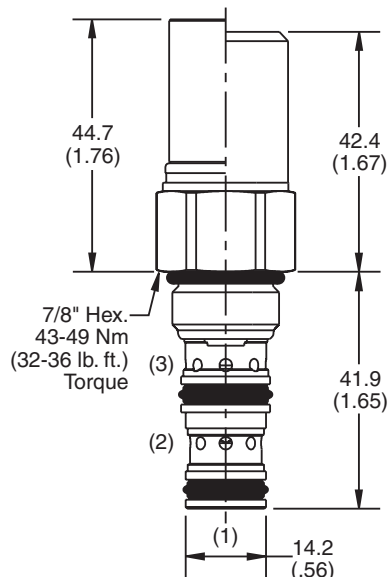
Flow vs. Pressure Drop (Through cartridge only)



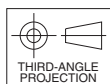
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

PRH081						
08 Size P.O. Pressure Reducing/Relieving Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (717943)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK08-3)
N	Nitrile / (SK08-3N)
V	Fluorocarbon / (SK08-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-3-*4P)
4T	SAE-4	(B08-3-*4T)
6T	SAE-6	(B08-3-*6T)
6B	3/8" BSPG	(B08-3-*6B)

* Add "A" for aluminum, omit for steel.

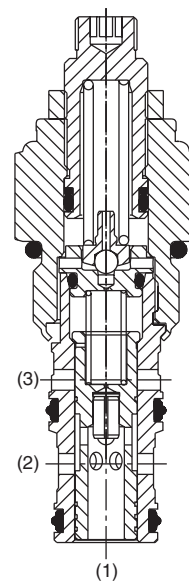
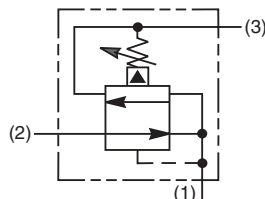
CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
FC Flow Controls
PC Pressure Controls
LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
PV Proportional Valves
CE Coils & Electronics
BC Bodies & Cavities
TD Technical Data

General Description

Pilot Operated Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseal
- Steel adapters are coated with yellow zinc dichromate for protection from salt spray
- Polyurethane "D"-Ring eliminates backup rings and prevents hydrolysis
- Internal screening protects pilot spring from debris

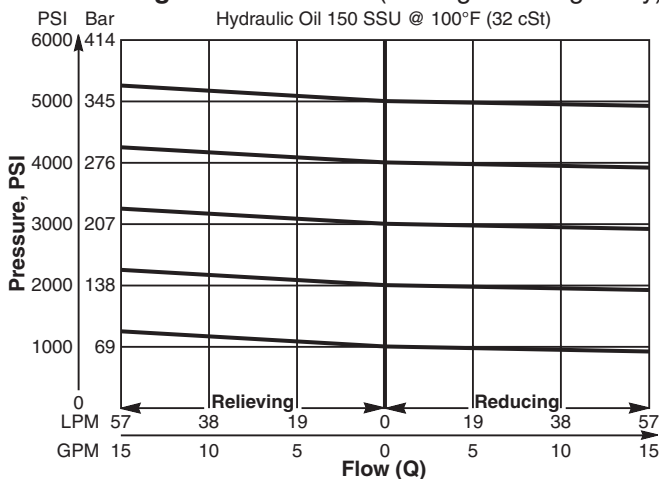


Specifications

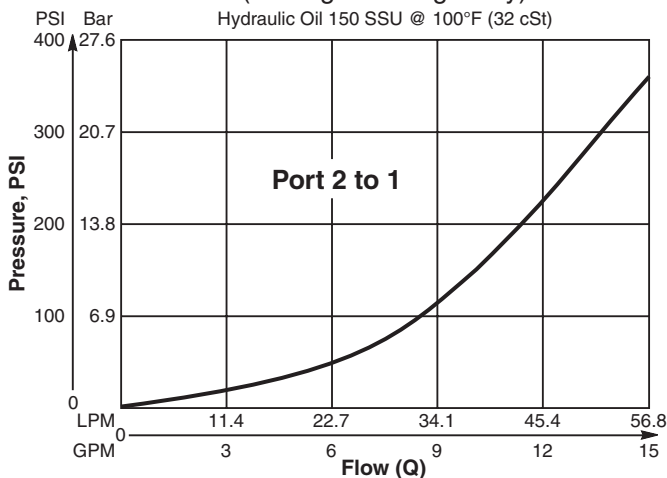
Rated Flow	56.3 LPM (15 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.94 LPM (0.25 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.23 kg (0.5 lbs.)
Cavity	C10-3 (See BC Section for more details)
Form Tool	Rougher NTF10-3R Finisher NFT10-3F

Performance Curves

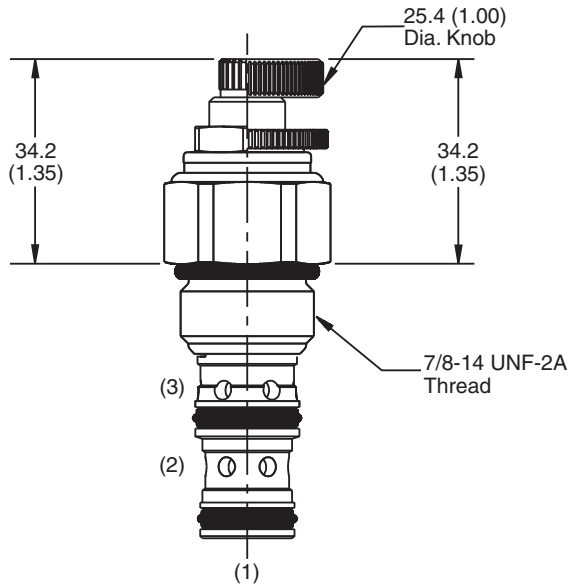
Flow vs. Regulated Pressure (Through cartridge only)



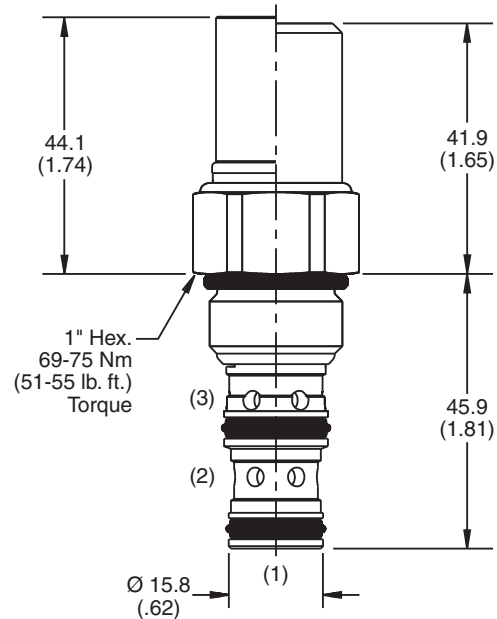
Pressure vs. Flow (Through cartridge only)



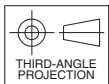
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

PRH101						
10 Size P.O. Pressure Reducing/Relieving Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10)
S	Screw Adjust
T	Tamper Resistant Cap (718083)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
20	6.9 - 138 Bar (100 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
30	13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)
50	13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately .95 LPM (.25 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at crack pressure, approximately .95 LPM (.25 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8P)

* Add "A" for aluminum, omit for steel.
 † Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

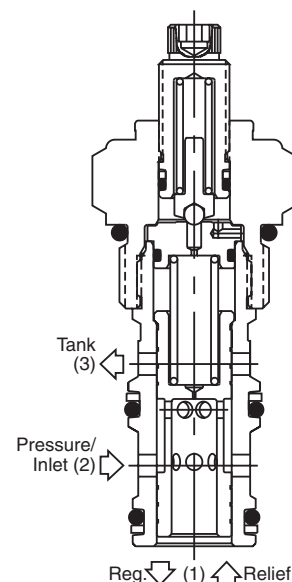
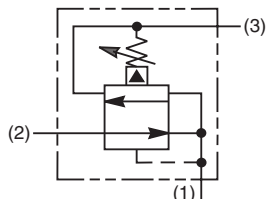
Technical
Data

General Description

Pilot Operated Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Ball-type pilot for added stability
- Full capacity reducing/relieving
- Performs job of two separate valves in one
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



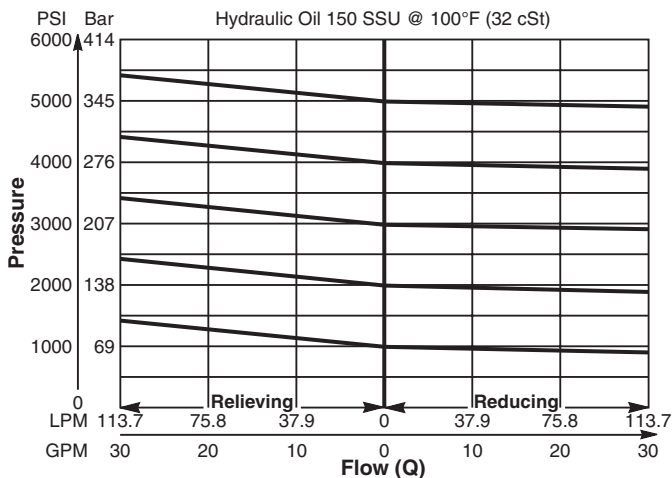
Specifications

Rated Flow	113.7 LPM (30 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	0.94 LPM (0.25 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	.27 kg (0.6 lbs.)
Cavity	C12-3 (See BC Section for more details)
Form Tool	Rougher NTF12-3R Finisher NFT12-3F

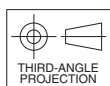
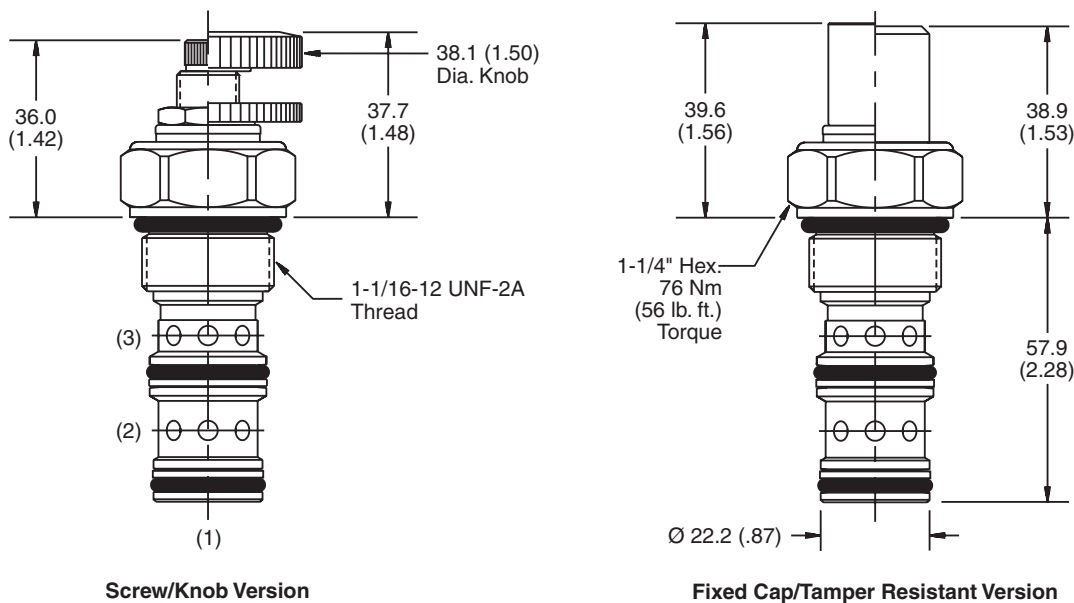
Performance Curve

Flow vs. Regulated Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

PRH121	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Size P.O. Pressure Reducing/Relieving Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK12-3)
V	Fluorocarbon / (SK12-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure \pm 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
8T	SAE-8	(B12-3-*8T)
12T	SAE-12	(B12-3-*12T)
8B	1/2" BSPG	(B12-3-8B)†

* Add "A" for aluminum, omit for steel.
 † Steel body only.

CV

Check
Valves

SH

Shuttle
Valves

LM

Load/Motor
Controls

FC

Flow
Controls

PC

Pressure
Controls

LE

Logic
Elements

DC

Directional
Controls

MV

Manual
Valves

SV

Solenoid
Valves

PV

Proportional
Valves

CE

Coils &
Electronics

BC

Bodies &
Cavities

TD

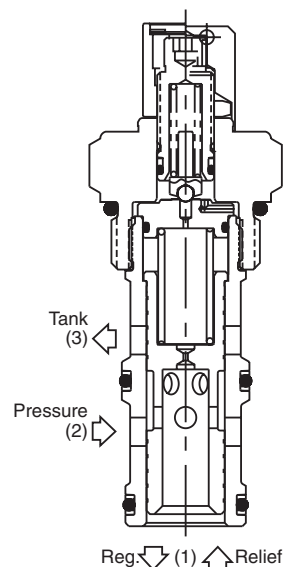
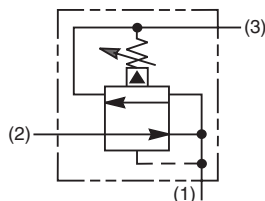
Technical
Data

General Description

Pilot Operated Pressure Reducing/Relieving Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Ball-type pilot for added stability
- Full capacity reducing/relieving
- Performs job of two separate valves in one
- All external parts have yellow zinc dichromate. This coating is ideal for salt spray applications.



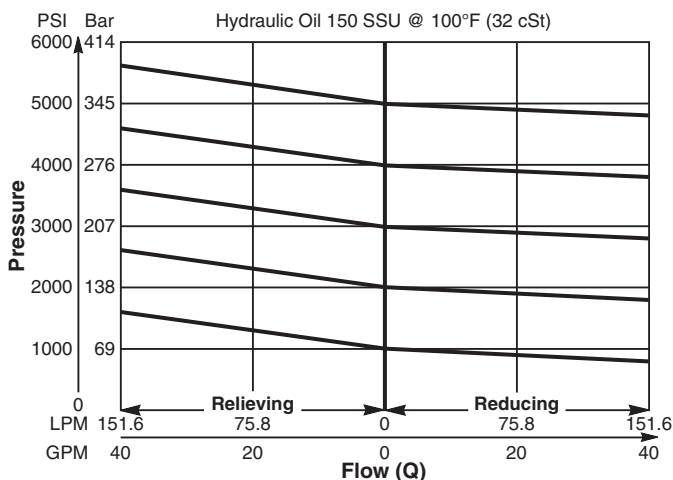
Specifications

Rated Flow	150 LPM (40 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Maximum Drain Flow	1.9 LPM (0.5 GPM)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO Code 16/13, SAE Class 4 or better
Approx. Weight	0.9 kg (2.0 lbs.)
Cavity	C16-3 (See BC Section for more details)
Form Tool	Rougher NTF16-3R Finisher NFT16-3F

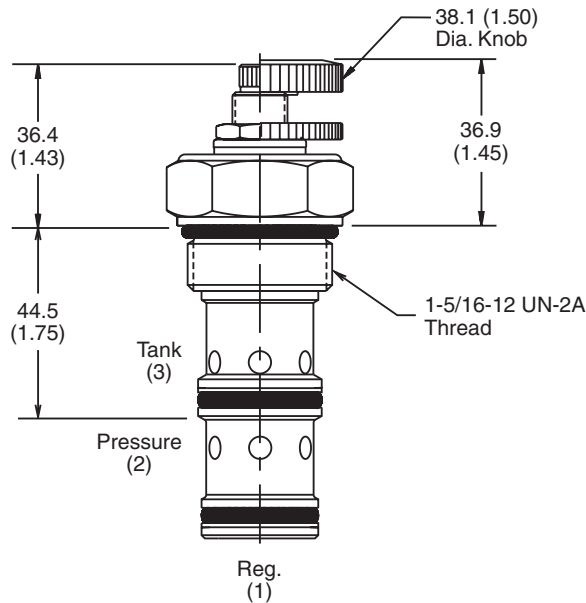
Performance Curve

Flow vs. Regulated Pressure

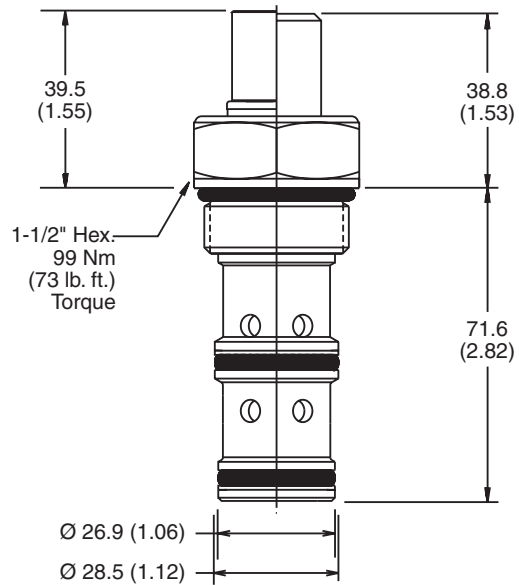
(Pressure rise through cartridge only)



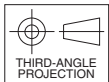
Dimensions Millimeters (Inches)



Screw/Knob Version



Fixed Cap/Tamper Resistant Version



Ordering Information

PRH161						
16 Size P.O. Pressure Reducing/Relieving Valve	Adjustment Style	Pressure Range	Seals	Optional Pressure Setting	Body Material	Port Size

Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-15)
S	Screw Adjust
T	Tamper Resistant Cap (717785)

Code	Seals / Kit No.
Omit	Nitrile / (SK16-3)
V	Fluorocarbon / (SK16-3V)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ 11.3 LPM (3 GPM)
20	13.8 - 138 Bar (200 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ 11.3 LPM (3 GPM)
30	20.7 - 207 Bar (300 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ 11.3 LPM (3 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM)

Optional Pressure Setting
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at 11.3 LPM (3 GPM)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
12T	SAE-12	(B16-3-*12T)
16T	SAE-16	(B16-3-*16T)

* Add "A" for aluminum, omit for steel.

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