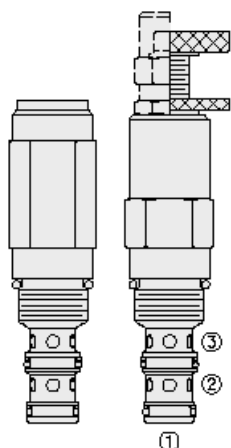




## Overview



### Description

The PR50-36XX is a spool type, pilot operated, hydraulic pressure reducing/relieving valve with internal pilot and internal spring chamber drain, designed to act as a pressure regulating device for secondary circuits. Port 2 may be protected by 60 mesh, 250 micron rated screen with option S.

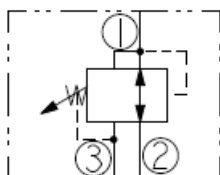
### Operation

In its steady state, the PR50-36XX allows flow to pass bidirectionally from port 2 to port 1, with the spring chamber constantly drained at port 3. Upon attainment of a predetermined pressure at port 1, the spool shifts to restrict inlet flow from port 2, thereby regulating pressure at port 1. In this mode the valve will also relieve port 1 to port 3.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 345 bar (5000 psi).
- Hardened spool and cage for long life.
- Industry-common size.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	344.7 bar (5000 psi)	- <b>Note:</b> Ports 1 and 2
	69 bar (1000 psi)	- <b>Note:</b> Port 3
Proof pressure	482.6 bar (7000 psi)	
Burst pressure	965.3 bar (14000 psi)	

### Flow Ratings

Flow rating	56.8 lpm (15 gpm)	
Maximum pilot flow	0.170 lpm (0.045 gpm) of 241 bar (3500 psi)	- <b>Note:</b> With maximum adjustment setting and with inlet pressure

### Temperature Ratings

Operating fluid temperature	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

### Other Ratings

Corrosion protection	GPR50-36X - 960 hr salt spray per ASTM B117
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## Operating Parameters

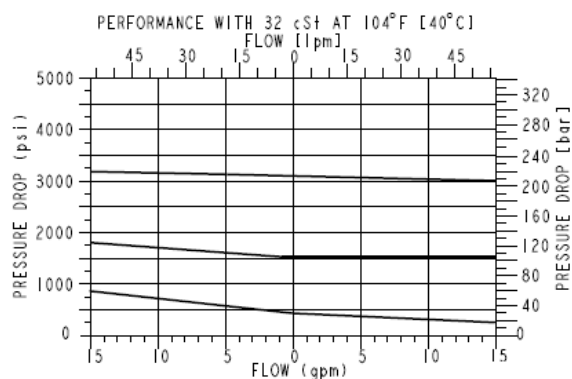
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406



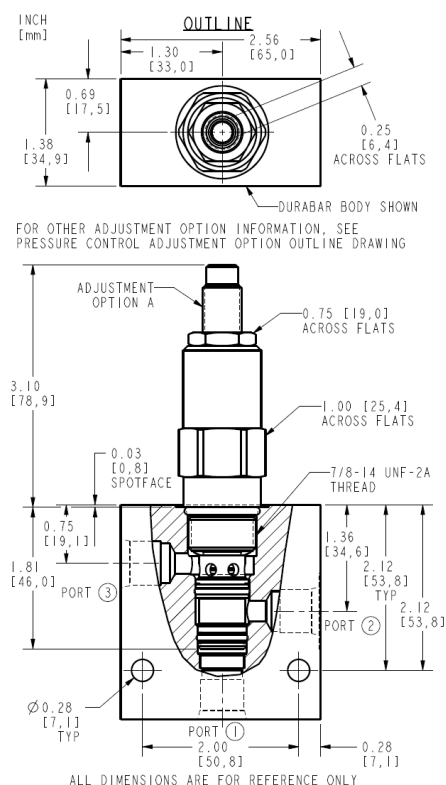
## Properties

Unit weight	0.26 kg (0.57 lb)	- <b>Note:</b> PR50-36A
	0.28 kg (0.62 lb)	- <b>Note:</b> PR50-36B
	0.30 kg (0.66 lb)	- <b>Note:</b> PR50-36C
	0.25 kg (0.55 lb)	- <b>Note:</b> PR50-36F
	0.25 kg (0.55 lb)	- <b>Note:</b> PR50-36H
	0.30 kg (0.66 lb)	- <b>Note:</b> PR50-36L
Internal wetted surface area	145 cm <sup>2</sup> (22.4 in <sup>2</sup> )	- <b>Note:</b> "A", "B", "C" and "L"
	162 cm <sup>2</sup> (25.1 in <sup>2</sup> )	- <b>Note:</b> "F" and "H"

## Performance



## Dimensions



## Installation Specifications

Cavity	VC10-3	
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb) 32.5 to 35.3 N-m (24 to 26 ft-lb)	- <b>Note:</b> H-style plug
Orientation restriction	None	



## Accessories

Seal kit	SK10-3P-BM	- <b>Note:</b> Polyurethane
	SK10-3U-OO	- <b>Note:</b> Urethane
Housings		

## Order Code

ORDERING INFORMATION:  
XPR50-36XX-X-X-XX/XXXX

PLATING:  
STANDARD PLATING - BLANK  
PLATING FOR 960 hr - G  
SALT PROTECTION

BASE MODEL NUMBER:

ADJUSTMENT OPTIONS:  
0.25" [6,4] HEX ALLEN HEAD - A  
Ø1.50" [38,1] ALUMINUM KNOB - B  
OPTION "A" WITH COVER CAP - C  
FACTORY PRESET, NONADJUSTABLE - F  
FACTORY PRESET, HIDDEN ADJUSTMENT - H  
OPTION C WITH LOCK WIRE HOLES - L

SCREEN OPTION:  
NONE - BLANK  
SCREEN - S

PORTING:  
CARTRIDGE ONLY - 0

SEAL OPTION:  
POLYURETHANE - P  
URETHANE - U

PRESSURE SETTING RANGE:  
400-1500 psi - 15  
[27,6-103,4 bar]  
1500-3000 psi - 30  
[103,4-206,8 bar]  
3000-5000 psi - 50  
[206,8-344,7 bar]

PRESSURE SETTING:  
FOR EXAMPLE:  
(IN psi)  
3500 psi - 35  
(IN bar)  
230 bar - M230

POSITION	CODE	DESCRIPTION
		PR50-36F-H-J-R/S
F		Adjustment Option
F	A	1/4" Hex Allen Head
F	B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
F	C	1/4" Hex Allen Head with Cover Cap
F	F	Factory Preset Non-Adjustable
F	H	Factory Preset Hidden Adjustment
F	L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	3B	Aluminum BSPP 3/8" (3)
H	3BD	Ductile Iron BSPP 3/8" (3)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane



POSITION	CODE	DESCRIPTION
R		Spring
R	15	27.6 to 103.4 bar (400 to 1500 psi) Spring Range
R	30	103.4 to 206.8 bar (1500 to 3000 psi) Spring Range
R	50	206.8 to 344.7 bar (3000 to 5000 psi) Spring Range
S		Setting
S	MXXX	Spring Setting in XXX bar
S	XX	Spring Setting in XX psi (x 100)