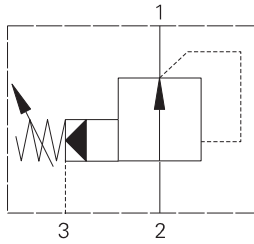


1PA200 - Pressure reducing valve

Spool, pilot operated
200 L/min (52 USgpm) • 350 bar (5000 psi)



Operation

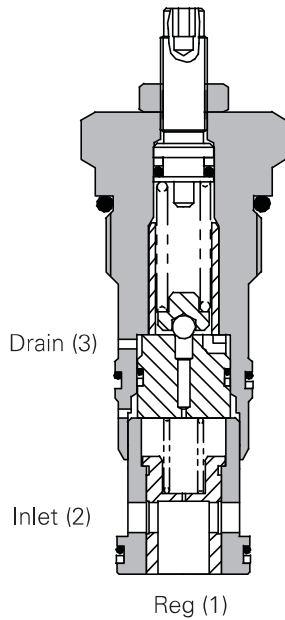
This valve is normally open, allowing oil from the inlet to pass through to the regulated port of the cartridge.

When the regulated pressure reaches the valve setting, the pilot section opens causing a pressure imbalance across the main spool which moves, throttling the inlet flow, preventing any further pressure rise in the regulated line.

Features

Internal parts hardened, match ground and honed to give long, trouble-free life. Pilot style design allows for high flows and accurate performance.

Sectional view



Performance data

Ratings and specifications

Figures based on: Oil Temp = 40° C Viscosity = 32 cSt (150 SUS)

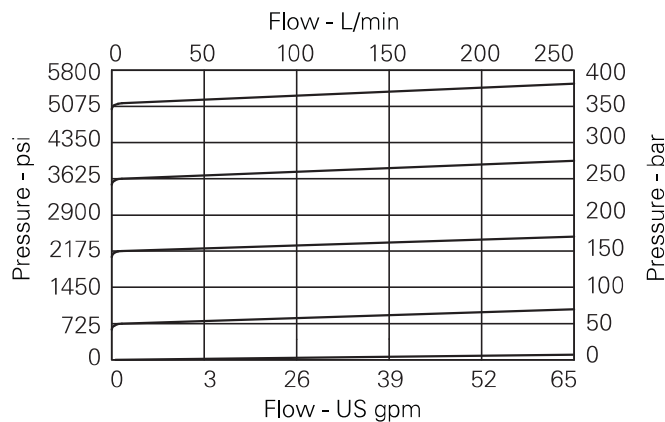
Rated flow	200 L/min (52 USgpm)	
Max setting	Inlet 350 bar (5000 psi) Reg 30–350 bar (435–5000 psi)	
Max Differential	210 bar (3000 psi) between 1 and 2	
Cartridge material	Working parts hardened and ground steel. External surfaces zinc plated.	
Body material	Standard aluminium (up to 210 bar*). Add suffix "377" for steel option.	
Mounting position	Unrestricted	
Cavity number	A16102 (See Section 17)	
Torque cartridge into cavity	100 Nm (76 lbs ft)	
Weight	1PA200	0.72 kg (1.59 lbs)
	1PA250	1.06 kg (2.34 lbs)
Seal kit number	SK173 (Nitrile) SK173V (Viton®)	
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)	
Operating temp	-30°C to +90°C (-22°C to 194°F)	
Pilot Flow	550 milliliters/min @ standard setting	
Nominal viscosity range	5 to 500 cSt	

Viton is a registered trademark of E.I. DuPont

Description

This is a pilot operated pressure reducing valve designed to maintain a constant downstream pressure lower than the inlet pressure. Ideal for use in two pressure systems or to protect low pressure actuators such as brake cylinders.

Pressure drop curve



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

1PA200 - Pressure reducing valve

Spool, pilot operated
200 L/min (52 USgpm) • 350 bar (5000 psi)

Model code

1PA*** - P 8W - 35 S

1 2 3 4 5

1 Basic code

1PA200 - Cartridge Only
1PA250 - Cartridge and Body

2 Adjustment means

P - Leakproof Screw Adjustment
R - Handknob Adjustment
G - Tamperproof Cap (See page E-7 for dimensions)

3 Port sizes - bodied valves only

Code	Port size	Housing number	
		Aluminum single	Steel single
8W	1" BSP 1/4" BSP Drain Port	B3496	B3497
12T	3/4" SAE 1/4" BSP Drain Port	B10786	
16T	1" SAE 1/4" SAE Drain Port	B6807	B11555

4 Pressure range @ zero flow

Note: Code based on pressure in bar.

20 - 10–210 bar
Std setting 100 bar

35 - 30–350 bar
Std setting 280 bar
Std setting made at zero flow (dead head)

5 Seals

S - Nitrile (For use with most industrial hydraulic oils)

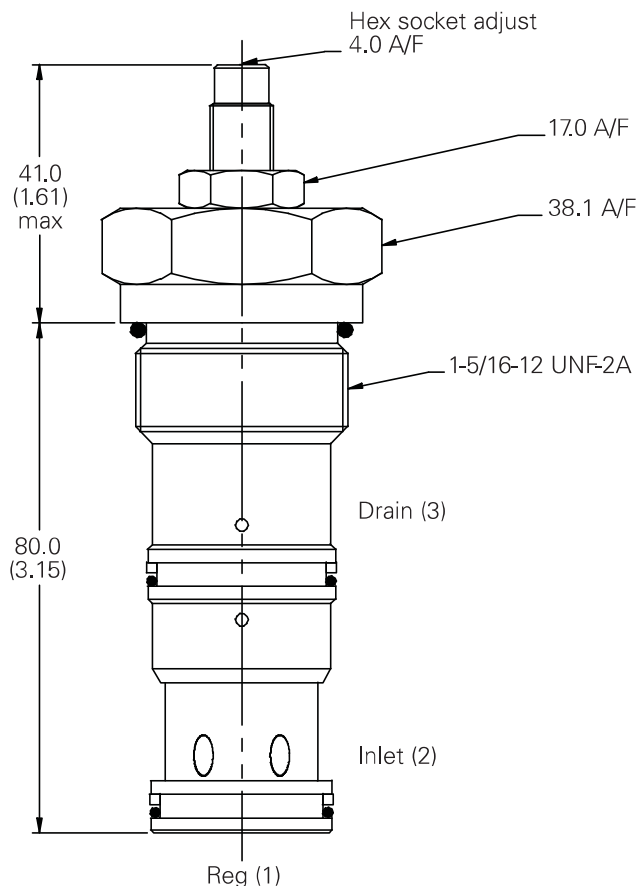
SV - Viton® (For high temperature and most special fluid applications)

Dimensions

mm (inch)

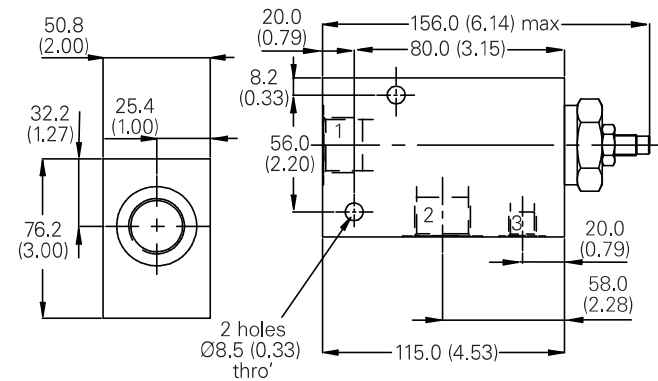
Cartridge only

Basic Code
1PA200



Complete valve

3/4", 1" Ports
Basic Code
1PA250



Note: Tightening torque of "F" adjuster locknut - 20 to 25 Nm

Note: For applications above 210 please consult our technical department or use the steel body option.

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.