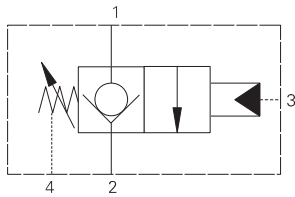
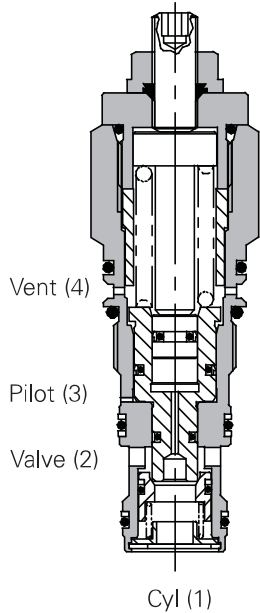


ICPBD90 - Overcenter valve

Zero differential with check
90 L/min (23 USgpm) • 350 bar (5000 psi)



Sectional view



Operation

The check section allows free flow into the actuator then holds and locks the load against movement. By the application of pilot pressure to the pilot port the poppet moves back against the main spring opening the cylinder port to the valve port. The metering characteristic of the

valve is controlled by the rate of the spring, the seat angle and the pilot pressure applied.

Due to the balanced poppet design load induced pressure will not open the valve and once open valve port pressure will not increase the pilot pressure required to keep the valve open.

Pilot ratios

The cartridge fits a simple cavity allowing quick, easy field service reducing down time. Hardened poppet and seat provide for long leak free performance.

Performance data

Ratings and Specifications

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

Rated flow	90 L/min (23 USgpm)
Maximum working pressure	350 bar (5000 psi)
Cartridge material	Working parts hardened and ground steel. External surfaces zinc plated.
Mounting position	Unrestricted
Cavity number	A12196 (See Section M)
Torque cartridge into cavity	60 Nm (44 ft. lbs.)
Weight	0.29 kg (0.63 lbs.)
Seal kit number	SK634 (Nitrile) SK634V (Viton®)
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)
Temperature	-30° C to +90° C (-22° to +194°F)
Internal leakage	0.3 milliliters/min nominal (5 dpm)
Nominal viscosity range	5 to 500 cSt

Viton is a registered trademark of E.I. DuPont.

Application

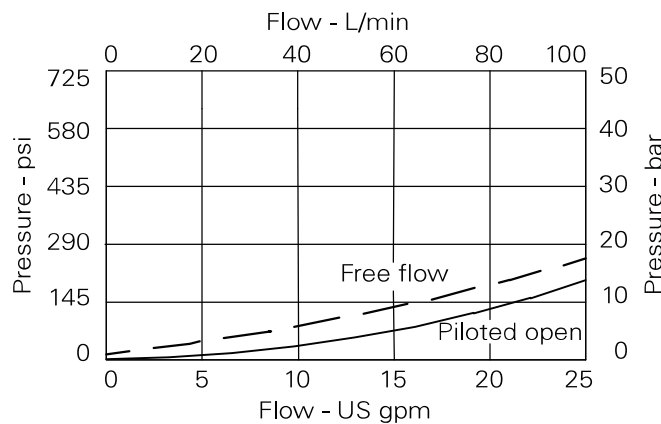
Zero differential overcenter valves give static and dynamic control of loads by supplying a restriction to flow related to the opening of the valve created by the pilot pressure.

The valve is used in conjunction with a remote pilot source to provide hose failure protection, load control and load holding functions.

If over-pressure or shock pressure protection is required then a separate relief valve should be used.

The drain line allows the valve to be used in corrosive atmospheres preventing the ingestion of atmosphere contamination.

Pressure drop



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

ICPBD90 - Overcenter valve

Zero differential with check
90 L/min (23 USgpm) • 350 bar (5000 psi)

Model code **1CPBD90 - F - 2 P**

1 2 3 4

<p>1 Function 1CPBD90 - Cartridge Only</p>	<p>2 Adjustment means F - Screw Adjustment</p>	<p>3 Pilot adjustment range @ 4.8 L/min Note: Code based on pressure in bar. 2 - 5 - 20 bar. Standard setting: 10 bar Standard setting made at 4.8 L/min</p>	<p>4 Seals S - Nitrile (for use with most industrial hydraulic coils). SV - Viton (for high temperature and most special fluid applications). P - Polyurethane/Nitrile (for arduous applications)</p>
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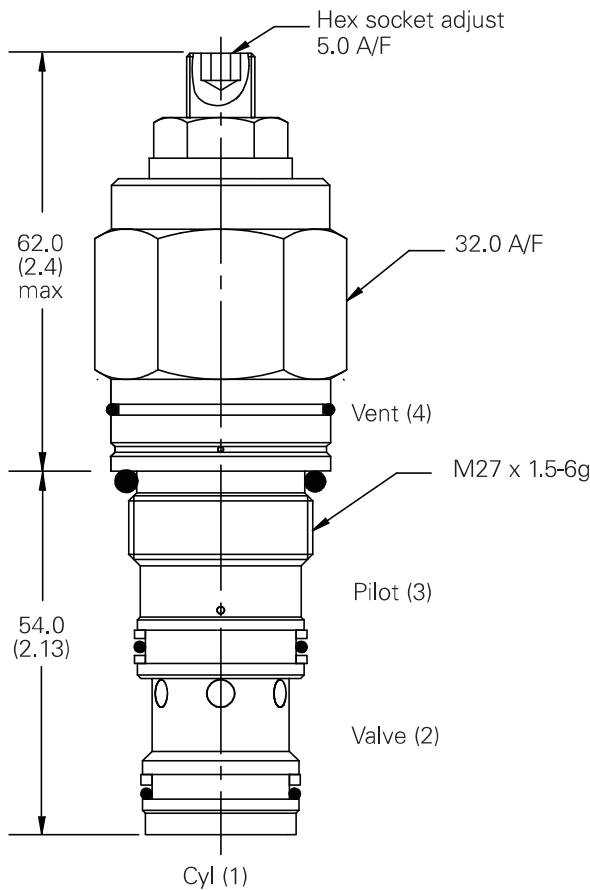
Line body available on request.

Dimensions

mm (inch)

Cartridge only

Basic Code
1CPBD90



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

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