

Fluid Regulator

Precision Pressure Control



ABB's Pressure Control Valve (PCV) is specifically designed for precise and consistent fluid regulation and fast color change.

Flexible Use

The PCV can, for example, be used for closed loop fluid control together with a gear flow meter, and as a pre-pressure regulator in a gear pump system. The PCV reduces the pressure in the fluid line to the requested and pneumatically controlled outlet pressure.

Fast Color Change

The PCV is specifically designed for fast color change. The internal bores in the PCV are without "deadends" and membranes are made of Teflon™, reducing the cleaning cycle to a minimum.

Easy Installation

The PCV is equipped with suitable mounting equipment according to your needs, designed to give optimum access for maintenance.

Easy Maintenance

Exchange the complete unit when maintenance is required. MTTR < 10 minutes.

Double Safety

ABB's PCV consist of two diaphragms. Between these diaphragms there is a port used for leakage control. If the 'fluid-diaphragm' is defect, the leakage will be observed in the hose connected to this port, before the 'air-diaphragm' may break - causing fluid to contaminate the air system.

Quality

The PCV is all stainless steel construction, with Teflon™ membranes, suitable for all water borne and solvent based materials on the market.

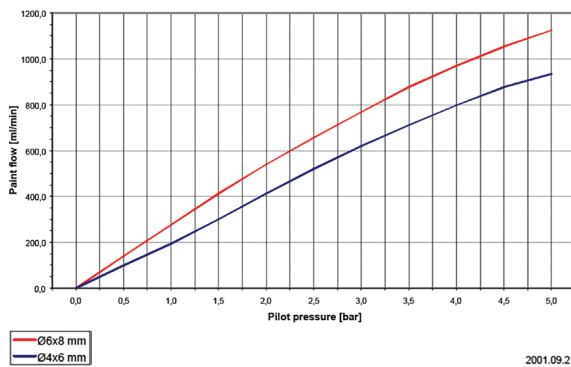
Technical specifications Pressure control valve, PCV-01

Modular PCV

Max. fluid flow	1120 cm ³ /min ^{1,2}
Min. fluid flow	100 cm ³ /min ²
Internal volume	3,0 cm ³
Accuracy	± 2%
Max. fluid pressure	20 bar
Rec. operating fluid pressure	1-9 bar
Rec. air reg. pressure	Ca. 1 bar more than rec. operating fluid pressure
Max. allowable fluid temp.	60 °C
Fluid connections	4 x 6 mm to 9 x 12 mm

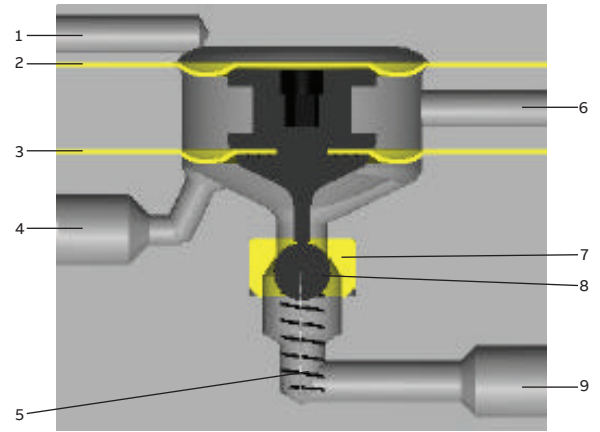
Steel material For water borne- and solvent based paint (Stainless Steel)

¹ @ 5 bar and 30 DinCup4 with 1m hose (Ø6xØ8) and Gear Flow Meter between PCV and Gun with 1.4 mm Nozzle.
² Min/Max fluid flow dependent of e.g. fluid viscosity, system pressure and needed accuracy on coated object. Actual min/max. flow should be verified with actual fluid material.

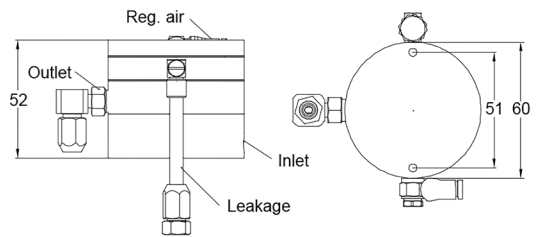


Flow rate w. Waterborne paint

Paint supply pressure: 5 bar, Visc: 30 s/Din4
 With 1m. hose between PCV and Gun (1.4 mm Nozzle)
 + Gear Flow Meter in front of PCV.



- 1 Port for regulated air
- 2 Diaphragm (air)
- 3 Diaphragm (fluid)
- 4 Fluid outlet port
- 5 Spring
- 6 Leakage control port
- 7 "Ball seat"
- 8 Ball
- 9 Fluid inlet port



System installation

The PCV is equipped with suitable mounting equipment designed to give optimum access for maintenance. Remove inlet and outlet connector to remove the unit. The PCV can either be installed with a bracket and two screws, or directly with an adapter to a color changer.