Fluid Regulator
Precision Pressure Control

Precise and Consistent Paint Regulation
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 “dead-ends” 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 DATA, PRESSURE CONTROL VALVE, PCV-01

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Type</td>
<td>Modular PCV</td>
</tr>
<tr>
<td>Max. fluid flow</td>
<td>1120 cm³/min (Note 1&amp;2)</td>
</tr>
<tr>
<td>Min. fluid flow</td>
<td>100 cm³/min (Note 2)</td>
</tr>
<tr>
<td>Internal volume</td>
<td>3.0 cm³</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2%</td>
</tr>
<tr>
<td>Max. fluid pressure</td>
<td>20 bar</td>
</tr>
<tr>
<td>Rec. operating fluid pressure</td>
<td>1-9 bar</td>
</tr>
<tr>
<td>Rec. air reg. pressure</td>
<td>Ca. 1 bar more than rec. operating fluid pressure</td>
</tr>
<tr>
<td>Max. allowable fluid temp.</td>
<td>60 °C</td>
</tr>
<tr>
<td>Fluid connections</td>
<td>4 x 6 mm to 9 x 12 mm</td>
</tr>
<tr>
<td>Steel material</td>
<td>For water borne- and solvent based paint (Stainless Steel)</td>
</tr>
</tbody>
</table>

Please note

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**

![Flow Rate Graph](chart.png)

**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 2 screws, or directly with an adapter to a color changer.

Data and dimensions may be changed without notice.

www.abb.com/robots