Application
CPM-I-D60 is a sanitary constant-pressure valve for use in stainless steel pipe systems.

CPM-I-D60 (Constant-Pressure Modulating Inlet) maintains a constant pressure in the process line at the inlet side of the valve. Typical applications are after separators, heat exchangers etc. and as an overflow valve.

Working principle
CPM-I-D60 is remote-controlled by means of compressed air. The valve operates without a transmitter in the product line and requires only a pressure regulating valve for the compressed air and a pressure gauge in the product line.

A diaphragm/valve plug system reacts immediately to any alteration of the product pressure and changes position so that the preset pressure is maintained.

CPM-I-D60 opens at increasing product pressure and vice versa.

Standard design
The valve consists of upper and lower valve bodies, an inlet tube, a cover, a valve plug with diaphragm unit and clamps.

The diaphragm unit consists of two flexible diaphragms supported by 12 stainless steel sectors in between them.

The cover and the valve bodies are clamped together.
**Technical data**

Max. product pressure: 1000 kPa (10 bar).
Min. product pressure: 0 kPa (0 bar).
Temperature range: -10°C to +95°C.
Temperature range with upper diaphragm in PTFE/EPDM: -10°C to +140°C.
Air pressure: 0 to 600 kPa (0 to 6 bar).
Flow range Kv60, fully open (Δp = 1 bar): Approx. 60 m³/h.

**Materials**

Product wetted steel parts: Acid-resistant steel AISI 316 L.
Other steel parts: Stainless steel AISI 304.
Upper diaphragm: Nitrile (NBR), (standard).
Lower diaphragm: PTFE covered EPDM rubber, (standard).
O-ring: Nitrile (NBR), (standard).
Seal rings: EPDM (standard).
Finish: Semi bright.

**Dimensions (mm)**

<table>
<thead>
<tr>
<th>Size</th>
<th>76 mm</th>
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<tbody>
<tr>
<td>A₁</td>
<td>413.2</td>
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<tr>
<td>A₂</td>
<td>430</td>
</tr>
<tr>
<td>C</td>
<td>155</td>
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<td>76</td>
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<tr>
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<td>G₂</td>
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<td>H</td>
<td>200</td>
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<td>M/ISO clamp</td>
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</tr>
<tr>
<td>M/ISO male</td>
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<tr>
<td>M/DIN male</td>
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<tr>
<td>M/SMS male</td>
<td>24</td>
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<tr>
<td>M/BS male</td>
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</tr>
<tr>
<td>Weight (kg.)</td>
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</tr>
</tbody>
</table>

**Connections**

*Compressed air:*
R 1/4" (BSP), internal thread.

![Fig. 2. Dimensions.](image-url)
Example of using the diagram:
1. Pressure drop $\Delta p = 300$ kPa.
2. Flow = 50 m³/h.
The intersection is on the 50% curve.

NOTE! Always try to get as near as possible to the 50% open curve. If the CPM-I-D60 is too big select from the CPMI-2 curves.

NOTE! For the diagram the following applies:
Medium: Water (20°C).
Measurement: In accordance with VDI 2173.
Options

Equipment
A) Male parts or clamp liners in accordance with required standard.
B) Pressure gauge 0-6 bar, 38 mm. SMS: 990018-07.
C) Pressure gauge 0-10 bar, 38 mm. SMS: 990018-13.
D) Pressure gauge 0-10 bar, 51 mm. SMS: 990018-14.
E) Air pressure regulating valve, 0-8 bar.
F) Booster for product pressure exceeding the available air pressure. (Product pressure = 1,8 x air pressure).

Material grades
G) Upper diaphragm of PTFE covered EPDM rubber.
H) Valve body seal rings of Nitrile (NBR) or Fluorinated rubber (FPM).
I) Guide O-ring of Fluorinated rubber (FPM), (for temperatures above 95°C).

Ordering
Please state the following when ordering:
- Valve type CPM-I-D60.
- Diaphragm type if not standard.
- Connections if not welding ends.
- Pressure gauge size if required.
- Air pressure regulating valve if required.
- Other options.

Note! For further details, see also PD 65036, PD 65394 and instruction IM 70779.