



Maintain System Pressure

Alfa Laval CPM-I-D60 Constant Pressure Modulating Valve

Concept

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 self relieving precision air regulator with gauge for the compressed air and a pressure gauge in the product line (see figure 4). 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 a stainless steel disc which is divided into sectors and flexible diaphragms which are placed on each side of the sectors. The cover and the valve bodies are clamped together.



TECHNICAL DATA

Max. product pressure 145 PSI
Min. product pressure 0 PSI
Temperature range: 14° F to 203° F
Temperature range with upper diaphragm
in PTFE/EPDM 14° F to 286° F
(Higher on request)
Air pressure: 0 to 87 PSI
Flow Kv 60, fully open (Dp = 14.5 psi): Approx 264 gpm.

PHYSICAL DATA

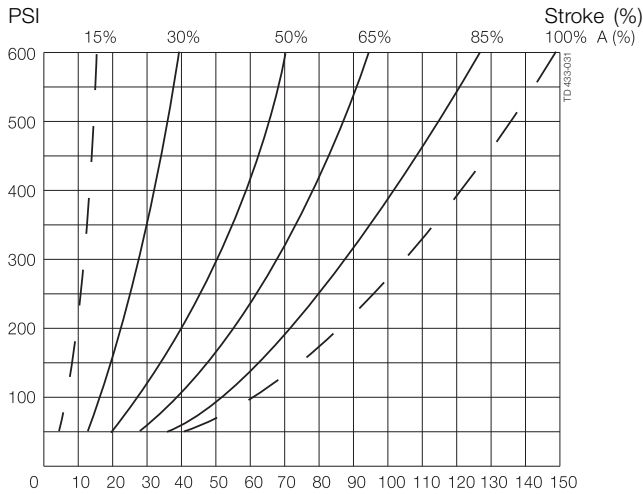
Materials

Product wetted steel parts: Acid-resistant steel AISI 316 L
Other steel parts: Stainless steel AISI 304
Lower diaphragm: PTFE covered EPDM rubber
Upper diaphragm NBR
O-ring: Nitrile (NBR)
Seal rings: EPDM (standard)
Finish ≤ 32 RA

Air Connections

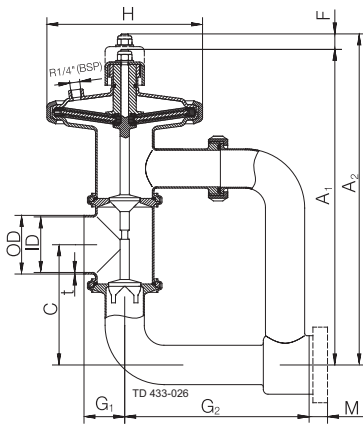
R 1/4" (BSP), internal thread.

Pressure Drop/Capacity Diagram



Note!
 For the diagram the following applies: Medium: Water (68° F)
 Measurement: In accordance with VDI 2173

Dimensions (inches)



Size	3-inch
A1	16.27
A2	16.93
C	6.10
OD	3.00
ID	2.83
t	0.079
F	0.66
G1	2.09
G2	9.45
H	0.83
Weight (lbs.)	22.00

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 kit, if required
- Other options

Example of using the diagram:

1. Pressure drop $\Delta p = 36$ PSI
2. Flow = 220 GPM

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.

Options

Equipment

- Male parts or clamp liners in accordance with required standard
- Pressure gauge 0-87 PSI, 1.5-inch
- Pressure gauge 0-145 PSI, 1.5-inch
- Pressure gauge 0-145 PSI, 2-inch
- Air pressure regulating valve kit, 0-116 PSI
- Booster for product pressure exceeding the available air pressure. (Product pressure = 1.8 x air pressure)
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Material Grades

- Upper diaphragm of PTFE covered EPDM rubber (for temperatures 194° F - 284° F)
- Valve body seal rings of Nitrile (NBR) or Fluorinated rubber (FPM)
- Guide O-ring of Fluorinated rubber (FPM), (for temperatures above 203° F)

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How to contact Alfa Laval

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