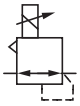
VP12
Miniature propotional pressure control valve

- Port size: 1/8" (ISO G, NPT)
- Compact and flexible design
- Proven low power technology
- Reliable, rugged, open-loop device
- Excellent performance characteristics
- Manifold mountable
- Available in 2 and 3-pin versions



Technical features

Medium:
Compressed air filtered to 5 µm, oil free and dry air

Output (nominal) pressure:
0 ... 1 bar (0 ... 14,5 psi)
0 ... 2 bar (0 ... 30 psi)
0 ... 4 bar (0 ... 58 psi)
0 ... 6 bar (0 ... 90 psi)
0 ... 8 bar (0 ... 116 psi)

Supply pressure:
At least 1,5 bar (21 psi) above maximum required output pressure

Supply sensitivity:
Less than 0,2 bar/3 psi for 1 bar/15 psi supply pressure change

Flow capacity:
Up to 200 N l/min
(see characteristic curves)

Air consumption:
≤ 6 bar/90 psi ≤ 3 Nl/min (Typical)
8 bar/120 psi ≤ 10 Nl/min (Typical)

Response time:
<500 ms (from 0 ... 100 % or
<150 ms (from 100 ... 0 % of output pressure into a 10cc load)

Degree of protection:
IP20

Linearity:
<1,5 % of span

Hysteresis and deadband:
< 1 % of span

Vibration & shock immunity:
<3 % output shift for ± 2 g
15-150 Hz

Ambient/Media temperature:
0 ... +60 °C (+32 ... 140 °F)
Air supply must be dry enough to avoid ice formation at temperatures below +2 °C (+35 °F)

Temperature effect:
14 mbar max/ °C change in temperature

Weight:
0,20 kg

Materials:
Body: zinc casting & nylon
Diaphragms: NBR

Electrical details

Electrical input signal	2-pin versions 4 to 20 mA or 1 to 10 VDC, no power supply required. 3-pin versions 4 to 20 mA or 1 to 10 VDC, power supply of 24 VDC required.
Electrical power input	24 VDC ± 10% power supply is only required for the output pressures of 4, 6, and 8 bar. Select 3-pin version.
Failure mode	Output pressure falls to bleed pressure when electrical supply fails
Loop resistance	2-pin versions; 250 Ω max

Option selector

VP12★★★★★0★Q00

Output pressure	Substitute
0 ... 1 bar/14,5 psi	01
0 ... 2 bar/30 psi	02
0 ... 4 bar/60 psi*	04
0 ... 6 bar/90 psi*	06
0 ... 8 bar/120 psi*	08

Unit for pressure	Substitute
bar	B
psi	P

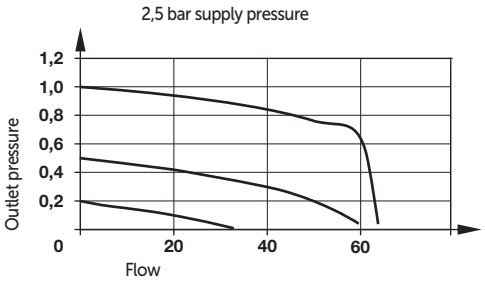
Pin options	Substitute
2-pin	0
3-pin	1

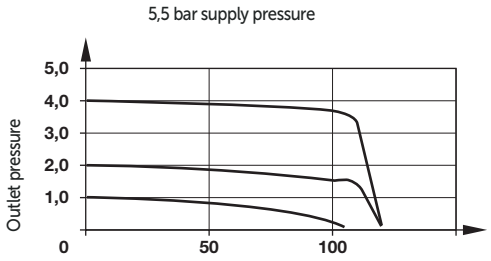
Input signal	Substitute
0 ... 10 V	1
4 ... 20 mA	4

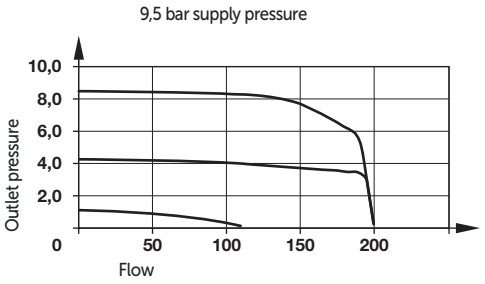
Port size	Substitute
G 1/8	G
NPT 1/8	H
Manifold	X

*The units with the output pressures of 4, 6, and 8 bar are only available as 3-pin versions.
Options to special order:
For options not shown and any specific requirements please contact the Norgren technical department via https://www.norgren.com/en/about/contact

Characteristic curves

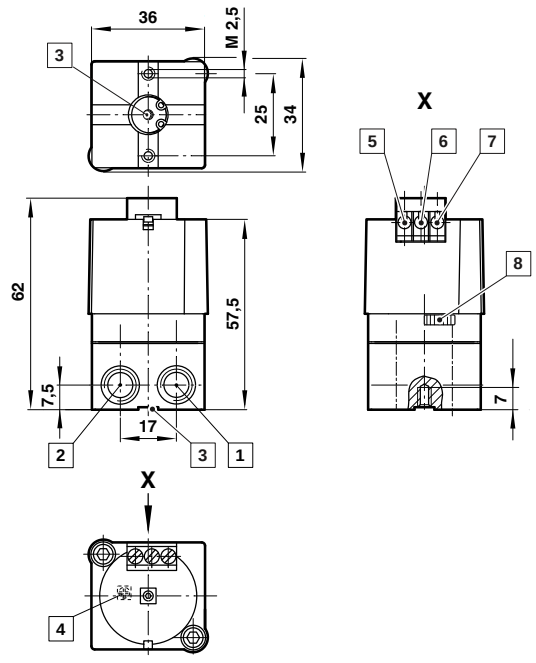






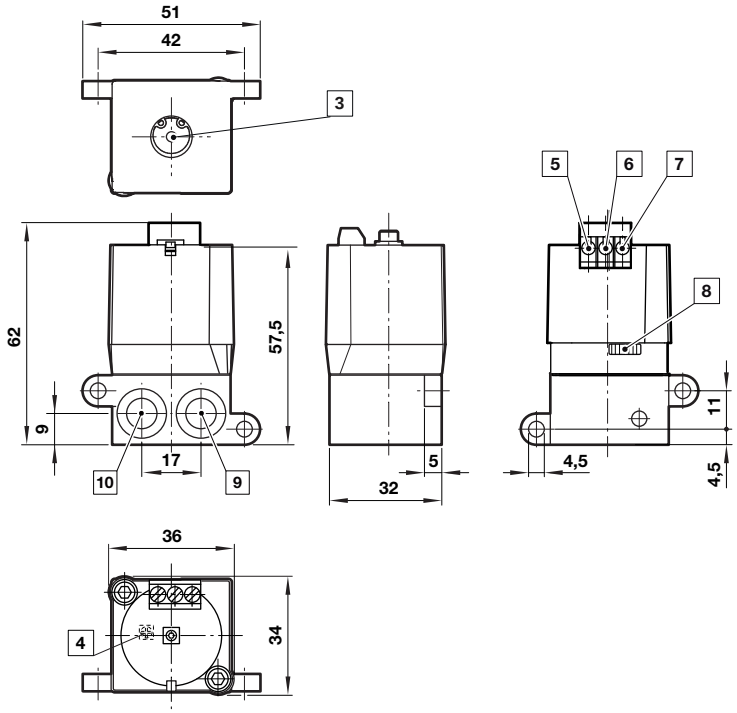
Dimensions in mm
Projection/First angle

Basic dimensions
Standard version



1 Inlet port (G1/8 or 1/8 NPT)
2 Outlet port (G1/8 or 1/8 NPT)
3 Exhaust, do not obstruct.
4 Span adjust pot (under lid)
5 Power supply (3-pin versions only)
6 Signal (2 and 3-pin versions)

Manifold version



7 Common (2 and 3-pin versions)
8 Adjust zero
9 Inlet port (11,1 ID x 1,6 CS O-ring supplied)
10 Outlet port (11,1 ID x 1,6 CS O-ring supplied)

Please utilise own manifold for installation.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.