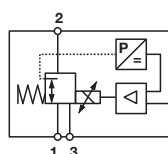


VP50 3 way proportional pressure control valve

- Port size: 1/4" (ISO G or NPT) or manifold
- Closed-loop air piloted proportional pressure control valve
- High flow
- Excellent performance characteristics
- Fast response time
- Adjustable gain and pressure range
- Low power consumption
- Feedback signal
- Manifold mountable



Technical features

Medium:

Compressed dry air, oil free filtered to 5 µm.

Operation:

Air piloted spool valve with integrated electronic pressure control

Output (nominal) pressure:

Standard units:
 0 ... 2 bar, (0 ... 30 psi);
 0 ... 4 bar, (0 ... 60 psi);
 0 ... 6 bar, (0 ... 90 psi);
 0 ... 8 bar, (0 ... 120 psi);
 0 ... 10 bar, (0 ... 150 psi)
 Vacuum units:
 -1 ... 1 bar (-15 ... 15 psi)

Supply pressure:

Minimum 2 bar (29 psi) above maximum output required.
 Standard units: 12 bar max. (174 psi)
 Vacuum units: 6 bar max. (90 psi)

Air Supply sensitivity:

Better than 0,75% span output change per bar supply pressure change

Flow:

Standard units up to 1400 N l/min (see characteristic curves)
 Vacuum units up to 300 N l/min

Air consumption:

< 5 N l/min

Ambient/Media temperature:

0 ... +50°C (+32 ... 122°F)
 Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F)

Temperature Sensitivity:

Typically better than 0,03% span/°C

Degree of protection:

IP65 in normal operation [exhaust and baffle protected from water ingress at temperatures <+5°C (+41°F)]

Linearity:

< 1%

Hysteresis and deadband:

< 1%

Response Time:

< 80 ms (from 10 ... 90% of output pressure into a 0,1 litre load).

Vibration & shock immunity:

< 3% span
 0,75 m/s², 5 ... 150Hz,
 1 m/s², 5 ... 150Hz

Weight:

0,55 kg

Materials:

Compliant to RoHS2 Directive 2011/65/EU
 Body: Aluminium
 Lid: Zinc die cast,
 Front cover: Grivory
 End cap: PA

Maintenance:

No maintenance required
 Calibration:
 Gain, Span, Zero

Electrical details

Electromagnetic compatibility	Conforms to EMC 2014/30/EU EN 50121-3-2:2016 EN 61000-6-2:2005 EN 61000-6-4:2007+A1:2011
Electrical input signal	4 ... 20 mA or 0 ... 10 V factory set
Electrical power input	24 V d.c. ±25%, (power consumption < 1 W)
Output pressure feedback signal	0 ... 10 V full range, <±1% Accuracy
Connections	M12x1, 5-pin

Standard proportional valves Option selector

Output pressure	Substitute
0 ... 2 bar/30 psi	02
0 ... 4 bar/60 psi	04
0 ... 6 bar/90 psi	06
0 ... 8 bar/120 psi	08
0 ... 10 bar/150 psi	10
Unit for pressure	Substitute
bar	B
psi	P

VP50*****11H00

Input signal	Substitute
0 ... 10 V	1
4 ... 20 mA	4
Port size	Substitute
G 1/4	J
NPT 1/4	K
Manifold	X

For options not shown and any specific requirements please contact the Norgren technical department via; www.norgren.com/ws

Vacuum proportional valves - 1 ... 1 bar (-15 ... 15 psi)

Option selector

Absolute pressure range	Substitute
0 ... 2 bar/30 psi	02
Unit for pressure	Substitute
bar	B
psi	P

VP50*****11HV1

Input signal	Substitute
0 ... 10 V	1
4 ... 20 mA	4
Port size	Substitute
G 1/4	J
NPT 1/4	K
Manifold	X

Connecting plugs

Elbow connector M12 x 1



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Manifold mount assembly to ISO 2 sub base


Single manifold



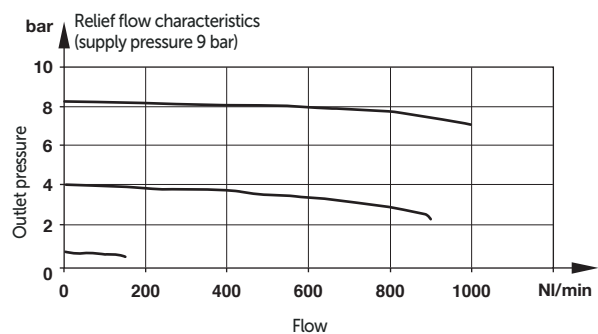
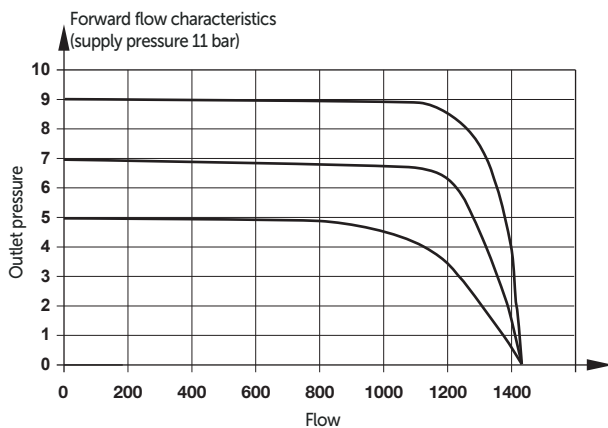
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O-rings, flat seal and screws are included

Electrical connector pin looking into the end of the instrument

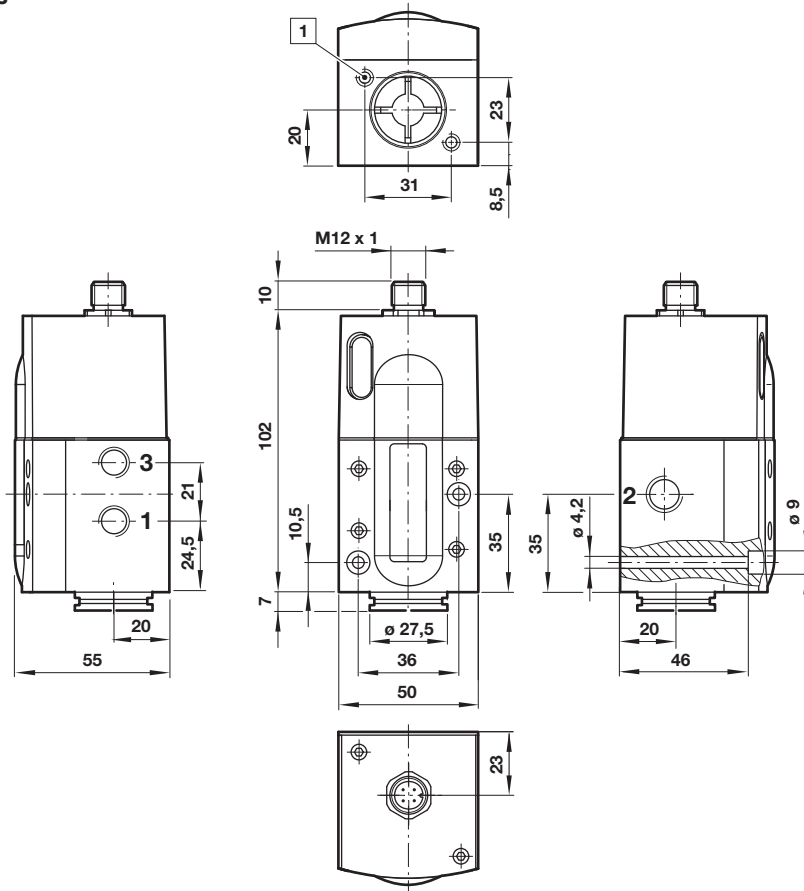
	Pin-No.	Function
	1	+24 V d.c. supply
	2	0 ... 10 V feedback
	3	Control signal (+VE)
	4	Common (supply signal and feedback return)
	5	Chassis

Characteristic curves (standard units)



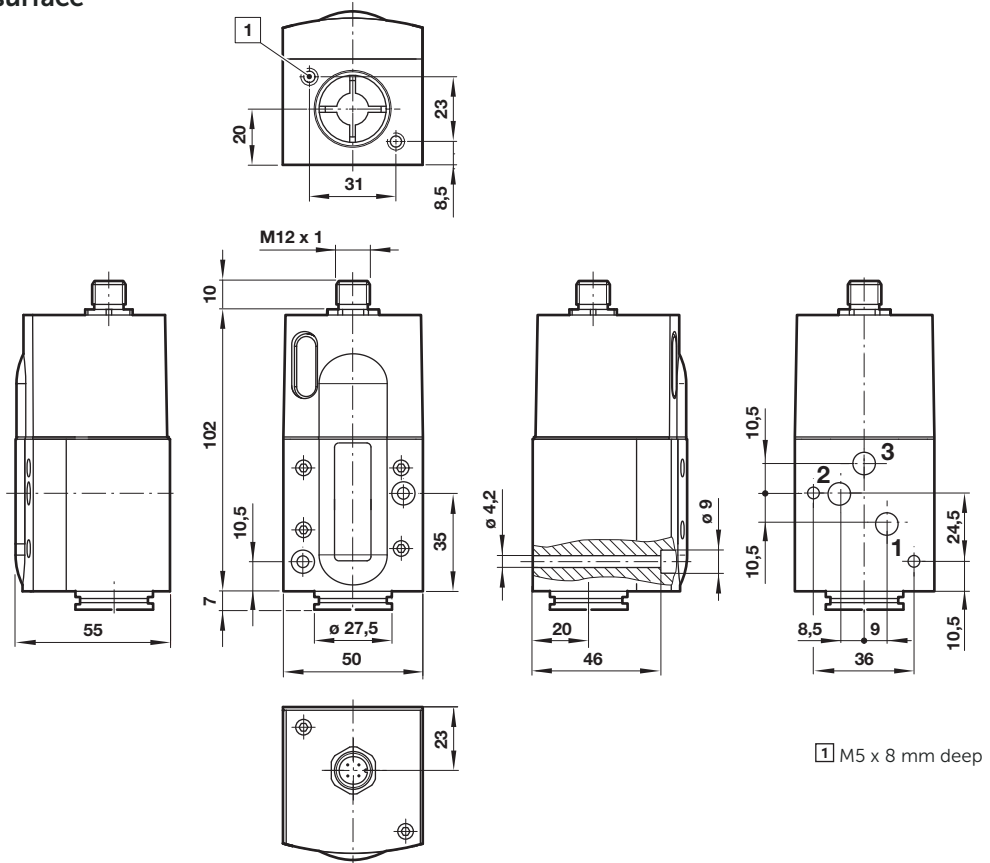
Basic dimensions

Dimensions in mm
Projection/First angle



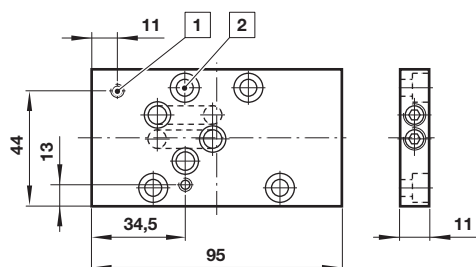
1 M5 x 8 mm deep

VP50 with manifold surface



1 M5 x 8 mm deep

**Manifold mount assembly to ISO 2 sub base
included all seals and screws**

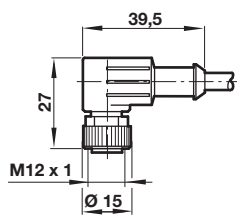


- 1 Two screws M4 x 50 mm deep to mount the VP50 onto the manifold
- 2 Four screws M6x16 mm deep to mount the manifold onto the iso subbase

Connector

Model: 0250081

Dimensions in mm
Projection/First angle



Connector, 90°
M12 x 1, 5 pin, female,
5 m cable length, A coded