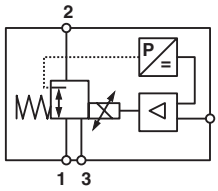
3 way proportional pressure control valve
VP50
G 1/4, 1/4 NPT or manifold

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 above maximum output required.
Standard units: 12 bar max.
Vacuum units: 6 bar max.

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
Fluid/Ambient temperature:
0 ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C.
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)
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
Body: Aluminium
Lid: Zinc die cast,
Front cover: Grivory
End cap: PA

Maintenance:
No maintenace required
Calibration:
Gain, Span, Zero

Electrical details

Electromagnetic compatibility	Conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
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

VP50★★★★★11H00

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

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

VP50★★★★★11HV1

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

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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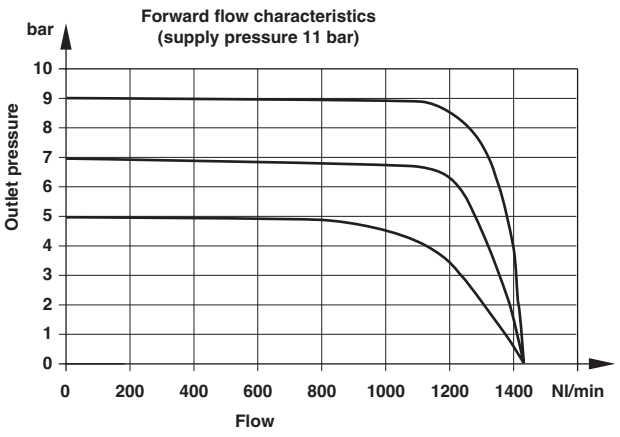
ZZ5M00

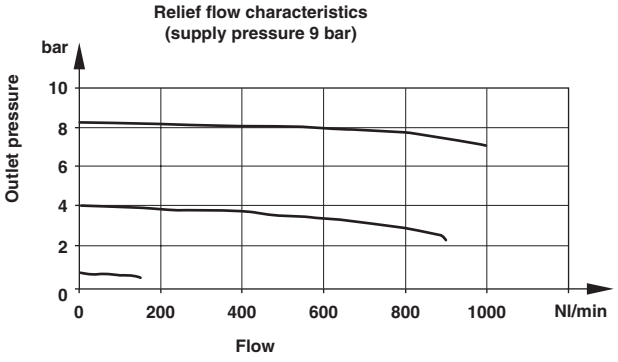
O-rings, flat seal and screws are included

Electrical connector pin looking into the end of the instrument

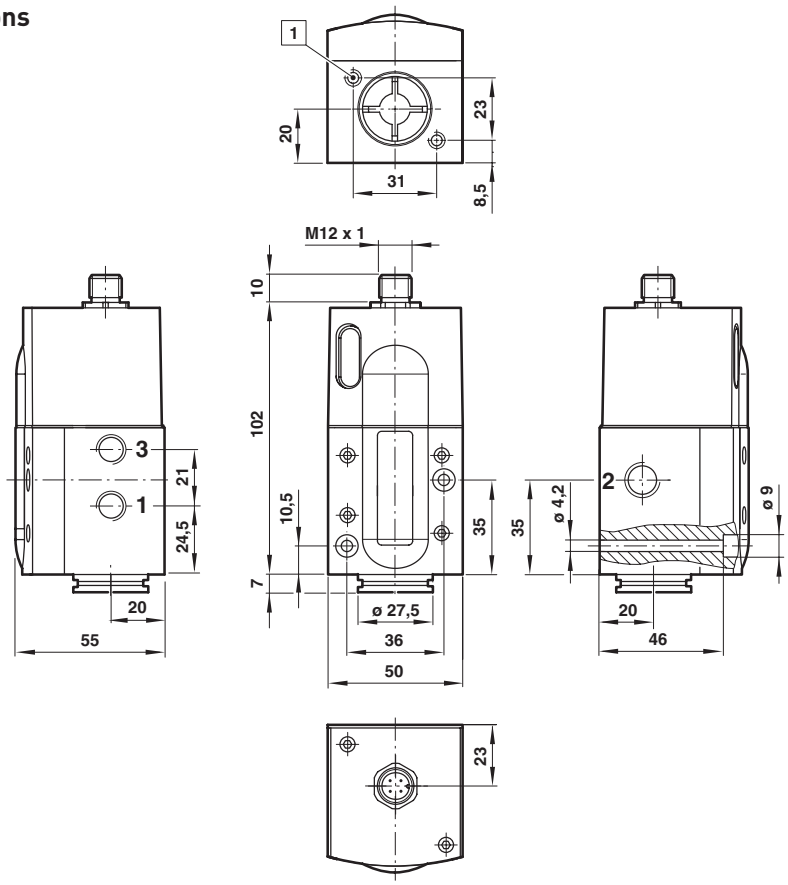
Pin-No.	Function
1	+24 V d.c. supply
2	0 ... 10 V feedback
3	Control signal (+VE)
4	Common (supply signal and feedback return)
5	Chassis

Characteristic curves (standard units)



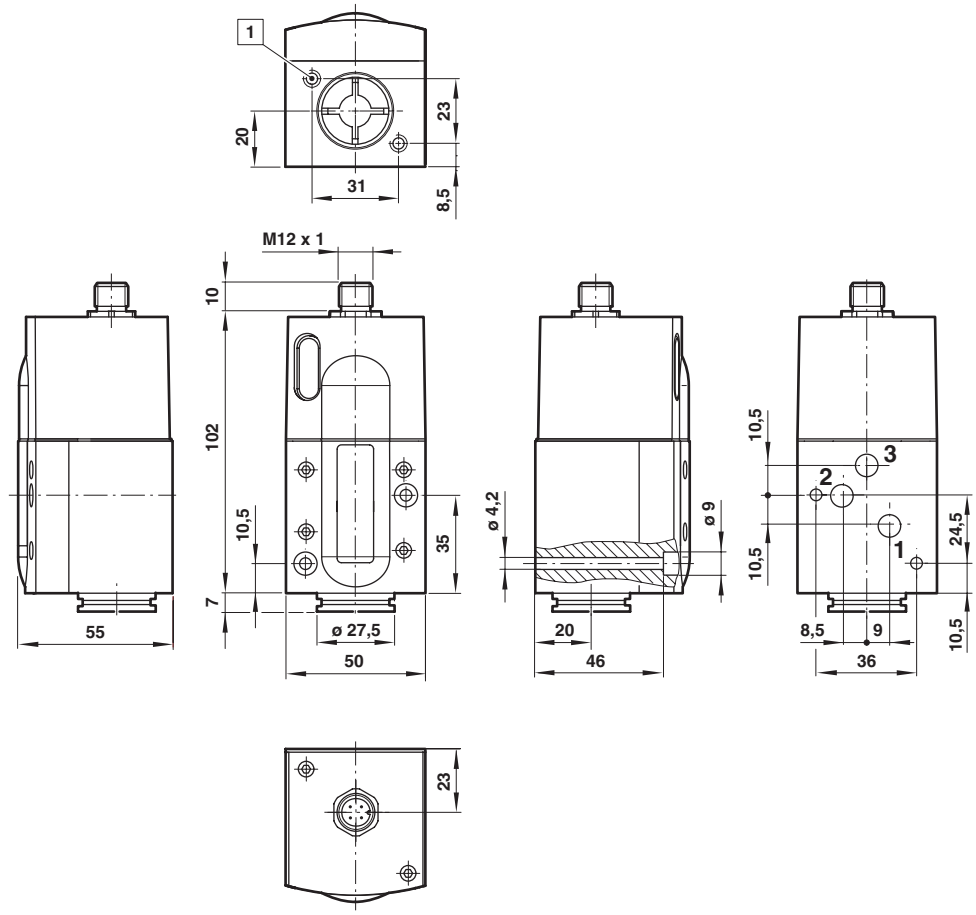


Basic dimensions



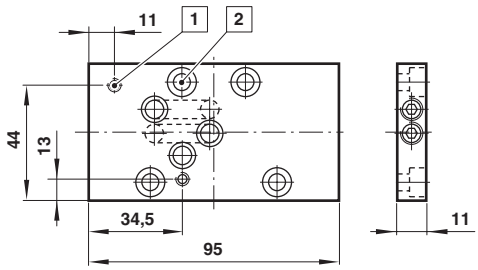
1 M5 x 8 mm deep

VP50 with manifold surface



1 M5 x 8 mm deep

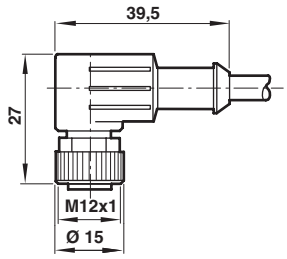
Manifold mount assembly to ISO 2 sub base included all seals and screws



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



Connector, 90°
M12 x 1, 5 pin, female,
5 m cable length, A coded
Model: 0250081

Warning

These products are intended for use in industrial compressed air and rail transport systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical features'.
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.