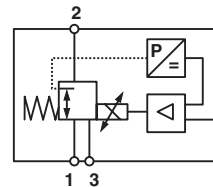


## 3 way proportional pressure control valve VP50S G 1/4, 1/4 NPT or manifold

- Closed-loop air piloted proportional pressure control valve**
- High flow**
- Excellent performance characteristics**
- Fast response time with pressure output display**
- Adjustable gain and pressure range**
- Low power consumption**
- Feedback signal**
- Manifold mountable**



### Technical features

#### Medium:

Compressed dry air, oil free filtered to 5µm.

#### Operation:

Air piloted spool valve with integrated electronic pressure control

#### Output (nominal) pressure:

0 ... 2 bar, (0 ... 30 psi);  
0 ... 6 bar, (0 ... 90 psi);  
0 ... 10 bar, (0 ... 150)

#### Supply pressure:

Minimum 2 bar above maximum output required, 12 bar max.

#### Air supply sensitivity:

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

#### Flow:

Up to 1400 N l/min (see characteristic curves)

#### 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/s<sup>2</sup>, 5 ... 150Hz,  
1 m/s<sup>2</sup>, 5 ... 150Hz

#### Weight:

0.45 kg

#### Materials

Body: Aluminium

Lid: Nylon,

Front cover and End cap: Nylon

#### Maintenance:

No maintenance 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

### Option selector

VP50★S★11H00

Output pressure	Substitute
0 ... 2 bar/30 psi	02
0 ... 6 bar/90 psi	06
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

Other pressure ranges are available to special order: For options not shown and any specific requirements please contact the Norgren technical department via; [www.norgren.com/ws](http://www.norgren.com/ws)

**Connecting plugs**

Elbow connector M12 x 1



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0250081

**Manifold mount assembly to ISO 2 sub base**

Single manifold



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ZZ5M00

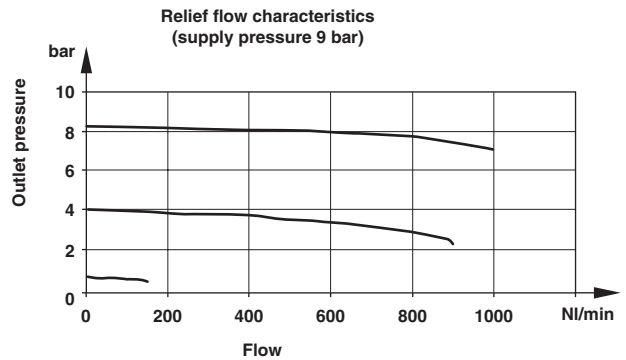
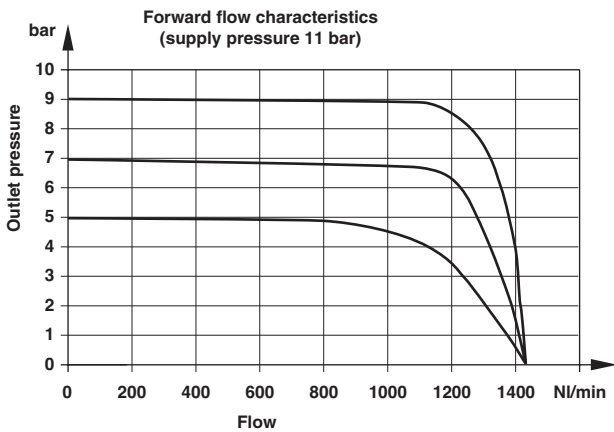
O-rings, flat seal and screws are included

**Electrical connector pin looking into the end of the instrument**

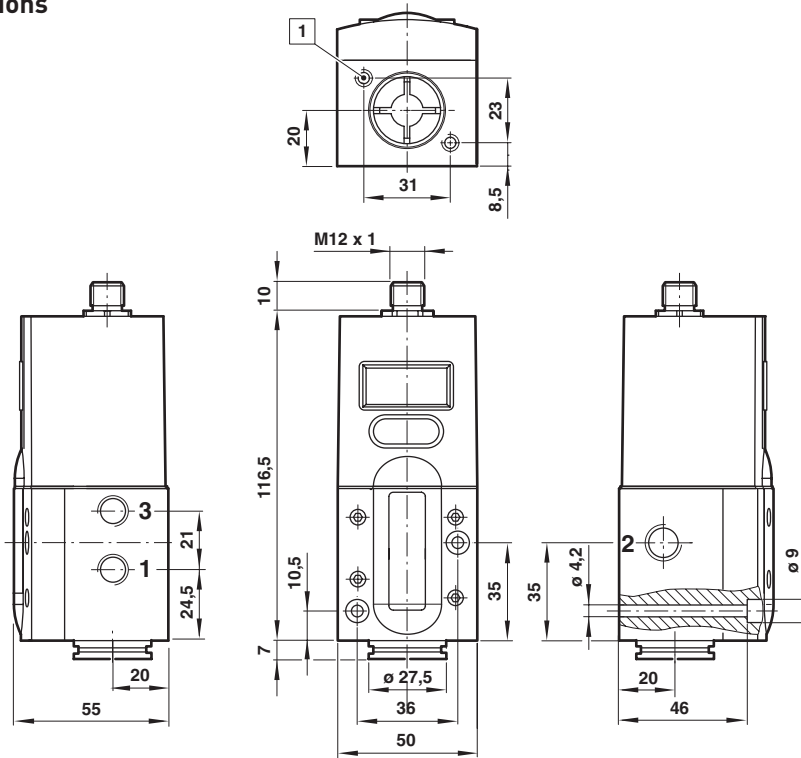
Pin-No.	Function
1	+24 V d.c. supply
2	0 ... 10 V feedback
3	Control signal (+VE)
4	Common (supply signal and feedback return)
5	Chassis



**Characteristic curves**

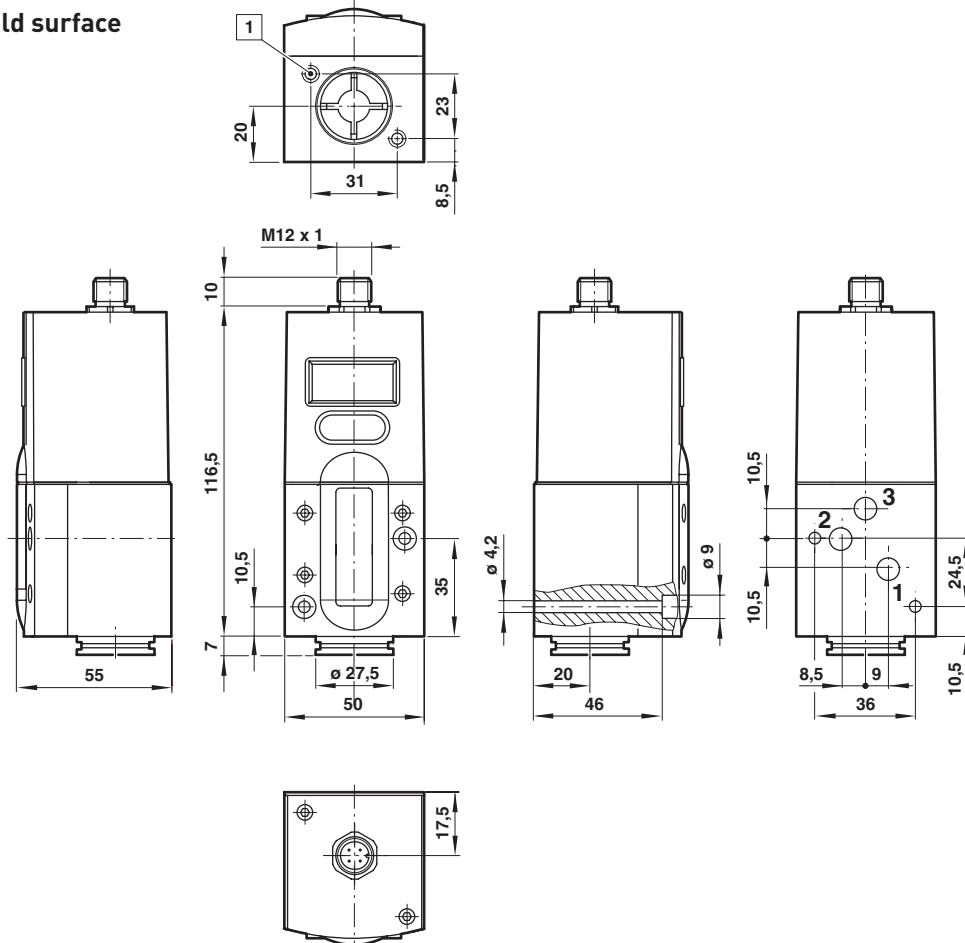


**Basic dimensions**

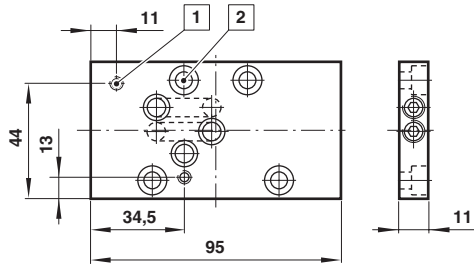


1 M5 x 8 mm deep

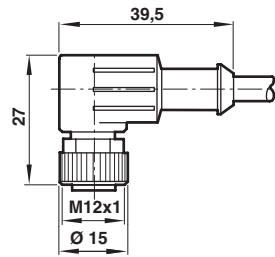
**VP50S with manifold surface**



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.