

**3 Way Proportional pressure control valve
G 1/4 or 1/4 NPT and manifold
Nominal orifice 4**

Closed-loop air piloted proportional pressure control valve

High flow

Excellent performance characteristics

Fast response time

Adjustable gain

Adjustable pressure range

Low power consumption

Feedback signal

Manifold mountable

Technical data

Medium:

Compressed air filtered to 5 µm, dry and non-lubricated

Operation:

Air piloted spool valve with integrated electronic pressure control

Output (nominal) pressure:

0 to 2 bar, 0 to 6 bar, 0 to 10 bar (or PSI equivalent)

Supply pressure:

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

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

Ambient temperature:

0°C to +50°C

Contact our technical service for use below +2°C

Temperature effect:

Typically better than 0,03% of span/°C for span and zero
over operating range

Response time:

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

Degree of protection:

IP65 in normal operation

Linearity:

< 1%

Hysteresis:

< 1%

Vibration immunity:

< 3% output shift for ± 3 g 10-150 Hz

Weight:

0,63 kg

Materials:

Body: aluminium

Lid and end cover: zinc diecast,
nylon



Electrical parameters

see page 2

Ordering information

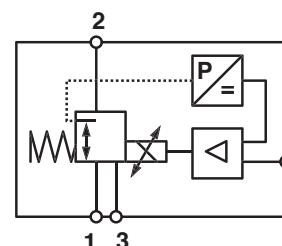
See page 2

Alternative models

ISO 2 manifold version, with adaptor plate

Vacuum version

Low temperature version



Electrical parameters

| | |
|---------------------------------|--|
| Electromagnetic compatibility | CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995) |
| Electrical input signal | 4 to 20 mA or 0 to 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 |
| Connections | M12x1, 5-pin |

Options selector

VP50★★★★★11H00

| Control signal | 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 |



| Ports size | Substitute |
|------------|------------|
| G 1/4 | J |
| NPT 1/4 | K |
| Manifold | X |

Other versions on request

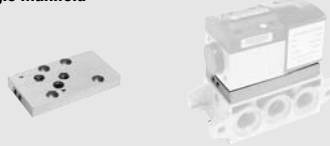
Ordering example

Proportional pressure control valve, output 0-2 bar, port size G1/4, input signal 4 ... 20 mA
 Please note: An wireable straight connector (M12x1, 5-pin) is included
Quote: VP5002BJ411H00

Connecting plugs

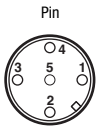
| Straight connector M 12 x 1 | Elbow connector M 12 x 1 |
|---|---|
|  |  |
| page 7 | page 7 |
| 0523822 (5-pin, 5 m cable, 5 x 0,34 mm ²) | 0250081 (5-pin, 5 m cable, 5 x 0,34 mm ²) |
| - | 0250472 (5-pin, 10 m cable, 5 x 0,34 mm ²) |
| - | 0252543 (5-pin, wireable) |

Manifold mount assembly to ISO 2 sub base

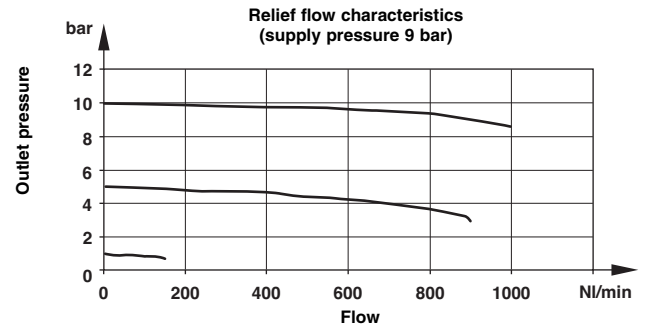
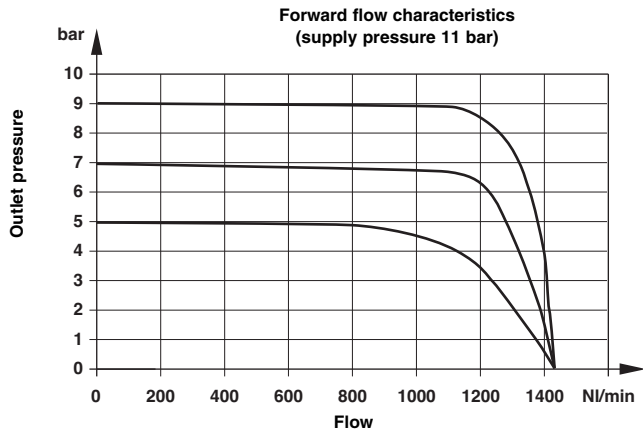
| Single manifold |
|--|
|  |
| page 4 |
| ZZ5M00 |
| O-rings, flat seal and screws are included |

Electrical connector pin looking into the end of the instrument

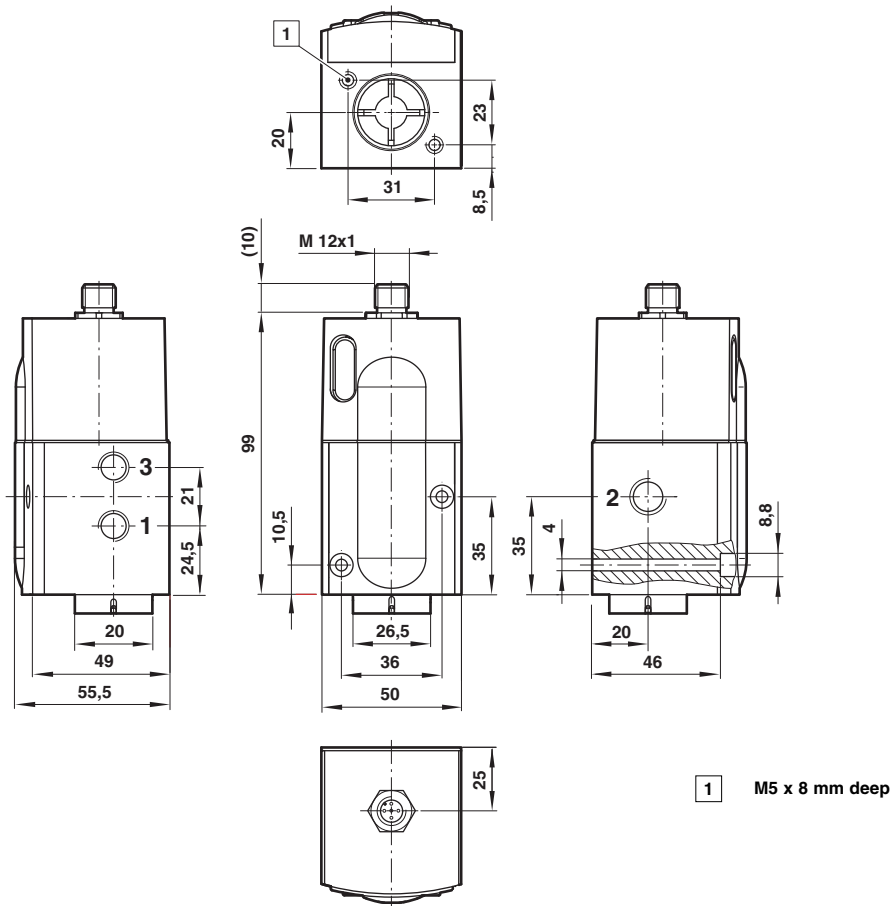
| Pin No. | Function |
|---------|--|
| 1 | +24 V d.c. supply |
| 2 | 0 ... 10 V feedback |
| 3 | Control signal (+VE) |
| 4 | Common (supply signal and feedback return) |
| 5 | Chassis |



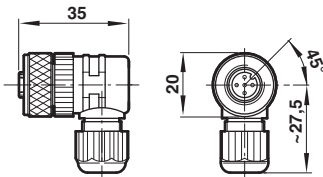
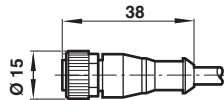
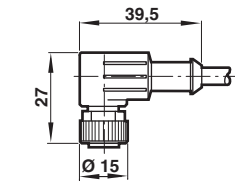
Characteristic curves



Basic dimensions



Connector



Connector, 90°

M12 x 1, 5-pin, female, A coded and 5 m cable length

Model: 0250081

M12 x 1, 5 pin, female, A coded and 10 m cable length

Model: 0250472

Connector, straight

M12 x 1, 5 pin, female, A coded and 5 m cable length

Model: 0523822

Connector, 90°

M12 x 1, 5 pin, female, A coded

Model: 0252543

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 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.