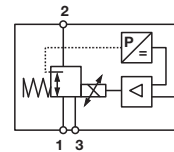


VP51

3 way proportional pressure control valve



- > Port size: 1/4" (ISO G or NPT) or manifold
- > Instant LED warning lights and pressure output display
- > Closed-loop air piloted digital proportional pressure control valve
- > Excellent performance characteristics
- > Fully programmable with on-board diagnostics
- > Fast response time and high flow
- > Multi option language display, with offline setup
- > Adjustable gain
- > 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:

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

Supply pressure:

Minimum 2 bar (29 psi) above maximum output required, 12 bar max. (174 psi)

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

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:

0.60 kg

Materials:

Body: Aluminium
Lid: Zinc die cast
Front cover: 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%
Connections	M12x1, 5-pin

Option selector

VP51★★★★★11H00

Output pressure	Substitute
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

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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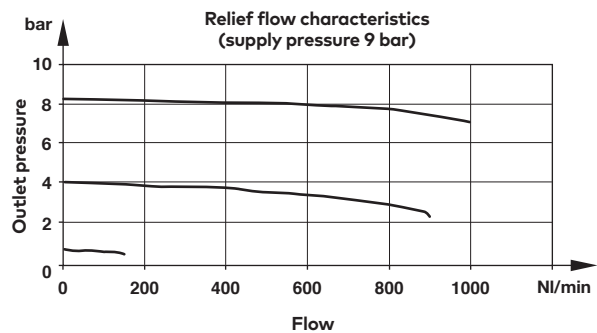
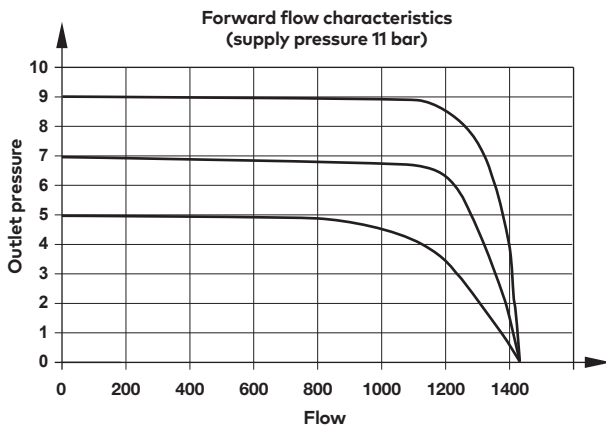
O-rings, flat seal and screws are included

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



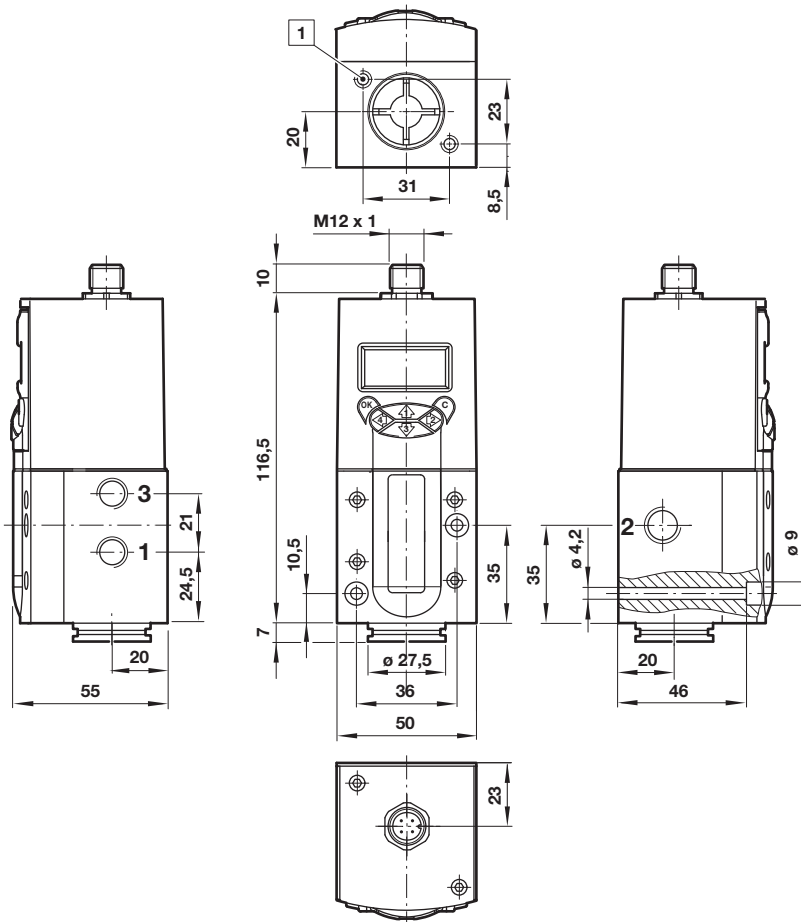
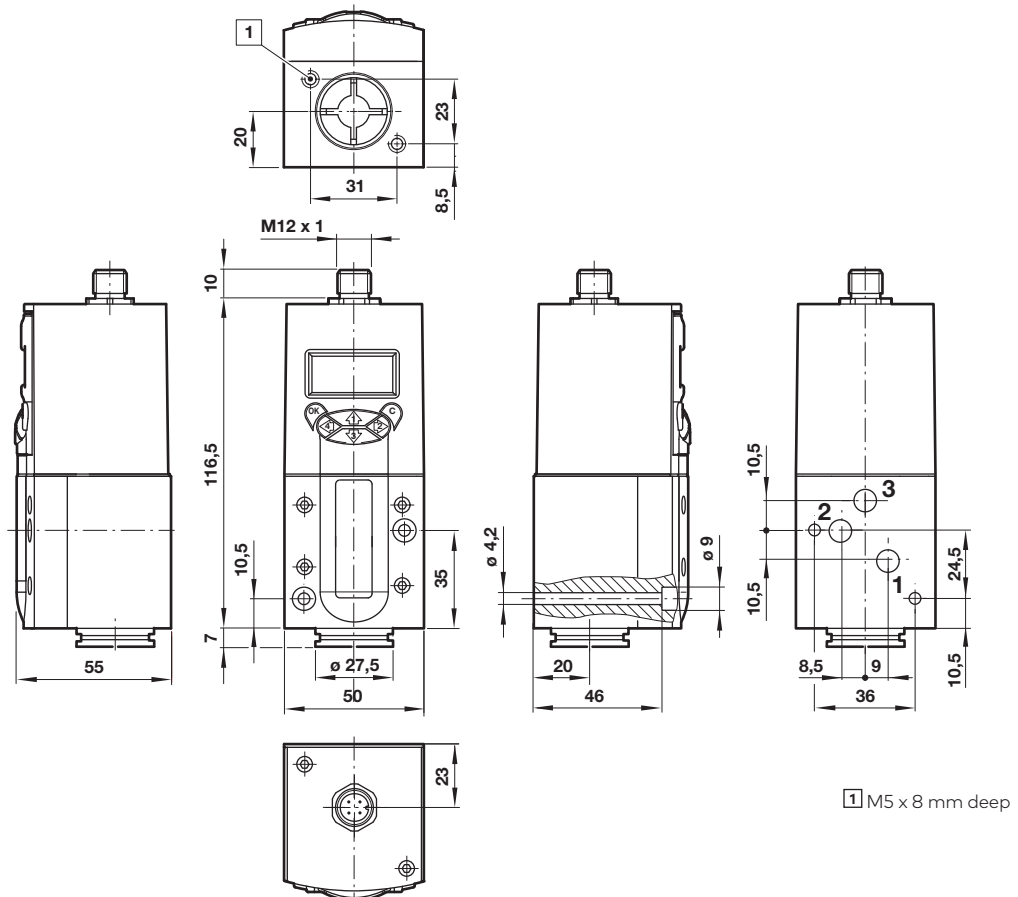
Characteristic curves (standard units)



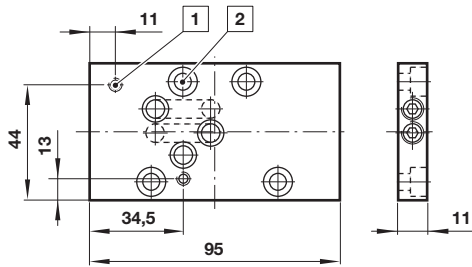
Valve built in user adjustable settings

Setting	Options
Language	English, Español, Français, Italiano, German
Pressure units	Bar, atm, kg/cm ² , kPa, psi
Password Protection	Protect against unauthorised adjustment of the valve
Off-line Set up	Min Set up Set pressure between 0...10 Bar and Min – Max Signal
	Max Set up Set pressure between 10...0 Bar and Min – Max Signal
	Speed Setting Change the time taken to ramp between two pressures. (Volume dependent)
	Dynamic Response Allows the Integrator settle time to be set
	Dither Amp Amplitude of the dither on the spool
On-line Set up	Min Set up Can be used for fine adjustment of output pressure at a given signal
	Max Set up Can be used for fine adjustment of output pressure at a given signal
Monitor Set up	Monitor Output Display feedback for user information.
	Green Indicator Shows power is present and can be set to flash when the output pressure is outside specified limits
	Red Indicator Normally off. Can be set to flash if the output pressure does not reach the required value within a specific time limit. Will also flash when the unit is set to local control.
Local Control	Manual Control Valve output can be set using the arrow keys
Factory Defaults	Option to resets the valve to the Factory default settings.

Basic dimensions

 Dimensions in mm
 Projection/First angle

VP51 with manifold surface


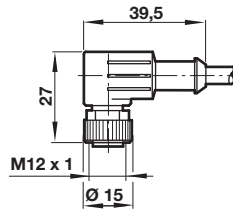
**Manifold mount assembly to ISO 2 sub base
included all seals and screws**



- 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

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 Ltd.

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.