VP51 Series
Programmable proportional pressure control valve
G¼, ¼ NPT

Fully programmable with on-board diagnostics

Multi-option language display

Password protection option at first level functionality

Instant LED warning functions

Application specific set-up

Pressure output display; no gauge necessary

High speed response

Technical data

Medium:

Compressed air filtered to 50 µm, non-lubricated

Supply pressure: 14 bar max.

Supply sensitivity:

<= 50 mbar between 11 bar and 6 bar supply

Flow capacity: Up to 1300 l/min

Response time:

< 100 ms (from 10 to 90% of output pressure into a 0,1 litre load)

Air consumption: <5 l/min

Total error:

Maximum error ±100 mbar of total span (independent error includes the combined effect of non-linearity, hysteresis, deadzone and repeatability)

Ambient temperature:

-20°C to +50°C

Temperature effect:

Typically 3 mbar/°C for full scale and zero over operating range

Degree of protection:

IP 65 in normal operation

Vibration immunity:

<3% output shift for 3 g ~ 10 to 150 Hz

Weight: 0,8 kg

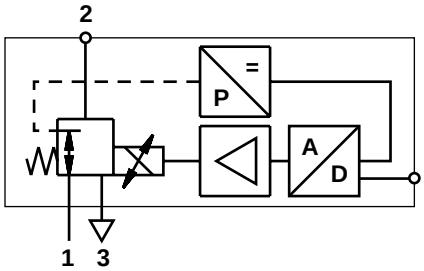
Materials

Body: aluminium

Lid and end cover: zinc diecast

Ordering information

To order please quote model number from the table overleaf



Electromagnetic compatibility

The valve conforms to the EC requirements EN50081–2 (emission) and EN50082–2 (disturbance noise). For this specification shielded cables have to be used

General information

Control signal	Output pressure (bar)	Model
0 ... 10 V	0 ... 10	VP5110BJ111H00
4 ... 20 mA	0 ... 10	VP5110BJ411H00

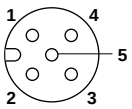
User functionality options

Password protection	
Display set-up	Display language
	Pressure units
	Offline set-up
	Online set-up
Speed set-up	0 fastest to 7 slowest
Monitor set-up	Analogue 0 ... 10 V
Monitor output	Hi = P2 > XX.X bar
	Hi = P2 OK
Local control	Manual control
	Max./min. ramp
	Max./min. stairs
Device database	Read only data: unit specific
	Tag number
	Help display
Factory defaults	Restore factory defaults

Electrical information

Electromagnetic compatibility	CE marked: 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. User configurable
Connections	Plug connector, 5 pin, H12, female receptacle, Wartson Smith Part No. PL500 01

Instrument pin configuration

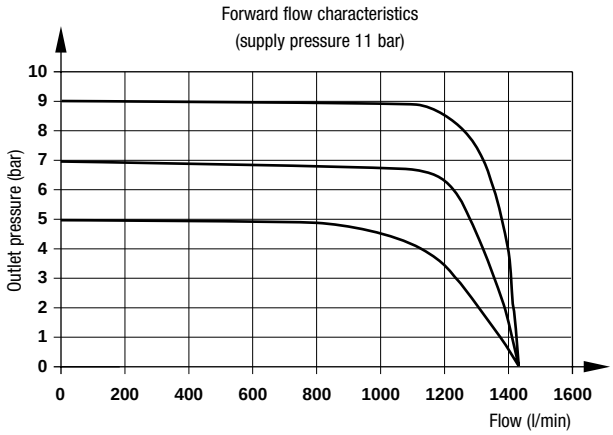


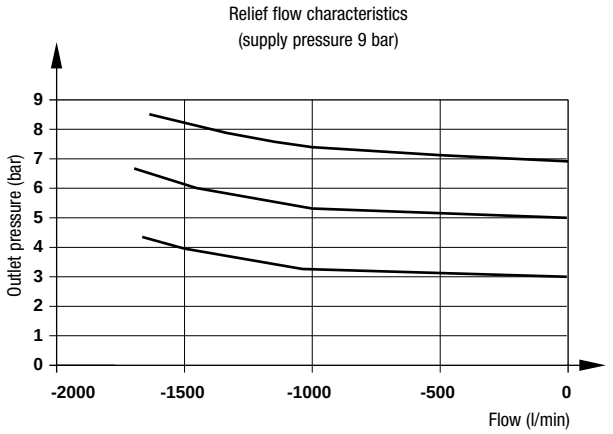
Pin	Designation	Colour*
1	+24V d.c. supply	brown/red
2	1 v/bar monitor output	white
3	Control signal (+ve)	blue
4	Common (d.c. supply, signal and feedback return)	black
5	Chassis (earth)	grey/green/yellow

Accessories

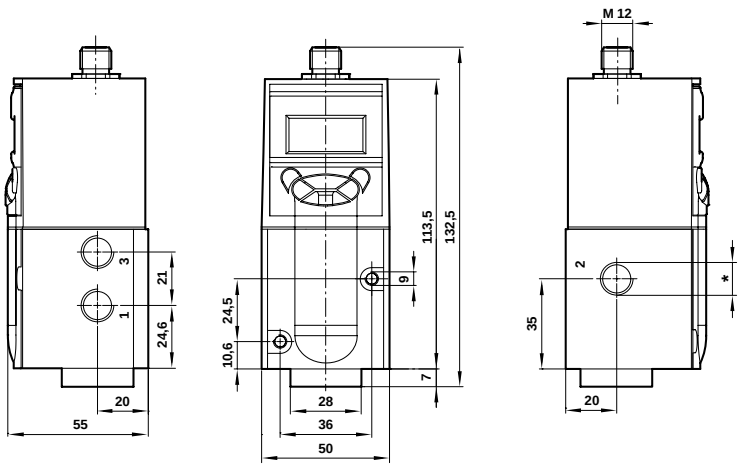
Designation	Specification	Type
Connectors with cable	M12 x 1,5 pin; 2 m 5 x 0,34 mm2	0799845
	M12 x 1,5 pin; 5 m 5 x 0,34 mm2	0250081
	M12 x 1,5 pin; 10 m 5 x 0,34 mm2	0250472

Characteristic curves





General dimensions



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.