Proportional pressure regulator VPPL



Regulation at a high level

Highlights

- Strong and always safe: inlet pressure up to 50 bar – for a guaranteed output pressure of 40 bar
- Easy regulation with 3 pre-programmed control characteristics
- Easy to install thanks to standardised M12 connections
- A simple connecting cable M12 is sufficient for connecting to a CPX analogue module

The proportional valve VPPL has been specifically designed for higher pressures of 10 ... 40 bar. As an individual device with threaded connections, the valve are being used in a variety of applications, for example in stretch blow moulding of PET bottles in the food and beverage industry or on tyre or brake test benches in the automotive industry.

Flexible actuation
The valve can be actuated with either current or voltage via a standardised M12 plug connector (In). The regulated pressure can also be read out as a current or voltage signal via a second standardised M12 connector (Out).

Higher flow rate
The flange mounted version of the proportional pressure regulator VPPL, with and without external pilot air supply, is coupled directly to the flow booster PREL. This facilitates higher flow rates. With this combination in nominal sizes of 25 and 45, the flow can be increased from about 300 l/min (18 m³/h) to a maximum of 6000 m³/h.

More accurate regulation
For a higher-order control circuit, the proportional valve VPPL in the series PREL also has a second pressure sensor, with which the output pressure and pilot pressure of the PREL is monitored and controlled. This -further improves the control precision of the entire pressure regulator.

Easy regulation
Makes control easy: you can use the operating panel to set three pre-programmed control characteristics (fast, normal, quiet).

Proportional pressure regulator VPPL



Functions

- Pressure range, input pressure: 0 ... 50 bar. The safety margin above 45 ... 50 bar is sufficient to ensure 40 bar output pressure even when there are fluctuations.
- Pressure ranges, output pressure: 0.2 ... 20 bar and 0.4 ... 40 bar
- Three control characteristics (fast, normal, quiet) can be set via the operating panel
- 2-channel pressure shut-off in conjunction with 2-channel exhaust module PAHL

Applications

- Regulating pressures in test benches up to 40 bar
- In conjunction with PREL series for pressure control of large flow rates
- In conjunction with service units MS9-LR ... -PO for pressure control of large flow rates up to 16 bar
- Pilot valve for dome pressure regulator: 1) as flow amplifier, 2) as pressure amplifier

Technical data

Valve function	3-way proportional pressure regulator	
Flow rate (from 1 → 2)	~300 l/min at 8 bar (nominal size 2.5)	
Pressure range (at 2)	0.2 ... 20 bar	0.4 ... 40 bar
Pneumatic ports	G1/4"	
Design	Directly controlled regulating valve	
Type of actuation	Electrical via proportional solenoid	
	"Voltage type": 0 ... 10 V	"Current type": 4 ... 20 mA
Operating medium	Filtered compressed air, unlubricated, neutral gases, grade of filtration 40 µm	
Electrical connection	2 x M12 plugs, each 5-pin, A-cod	
Interface to other systems	With 1:1 extension cable on analogue module CPX	
Connecting cables	Pre-assembled sizes: 2.5 m, 5 m, 10 m (straight plug socket) 2.5 m, 5 m (angled plug socket) Individual up to a cable length of 30 m	
Degree of protection	IP65	
Weight	1100 g	

VPPL in use

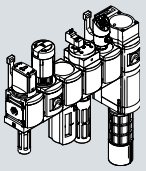


Food and beverage industry, e.g. in stretch blow moulding of PET bottles

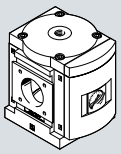


Automotive industry, e.g. on tyre or brake test benches

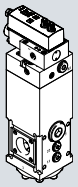
Supplementary products for VPPL



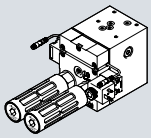
MS series service units for compressed air preparation



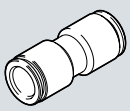
Flow amplifier
MS9-LR-NG-PO-VS
up to 16 bar



VPPL in the proportional pressure regulator PREL up to 40 bar



Safety-oriented application: 2-channel pressure shut-off with channel monitoring PAHL (ISO 13849)



Metal push-in fitting NPQH

www.festo.com

PSI 258.1 en 2016/10 – Errors and omissions excepted