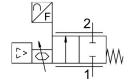
## Proportional flow control valve VEMD-L-6-60-100-D9-G14-5YMPM1-VA

**FESTO** 

Part number: 8163824





## **Data sheet**

Degree of protection IP40  Standard nominal flow rate 100 l/min  Flow rate control range 2 l/min100 l/min  Nom-reversible  Nominal operating pressure 0.3 MPa 43.5 psi  Operating pressure 0.1 MPa0.6 MPa 1 bar6 bar 1 ba	Feature	Value
Standard nominal flow rate Flow rate control range 2 l/min100 l/min Flow direction Non-reversible Nominal operating pressure 0.3 MPa 43.5 psi Operating pressure 0.1 MPa0.6 MPa 1 bar6 bar Overload pressure 0.8 MPa 8 bar 116 psi Burst pressure 1.8 MPa 18 bar 261 psi Accuracy of flow rate Repetition accuracy of flow rate value value function 2-way proportional flow control valve Nominal width 6 mm Actuation type Electrical Pneumatic connection 1 Internal thread G1/4 Medium Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Information on medium Operation with oil lubrication not possible Acmain altitude of use above sea level  <= 2000 m ASL (> 79.5 kPa)  Valve on the inevironments enriched with oxygen according to IEC 60601-1 Cleanest possible ambient air Dry  Nominal altitude of use above sea level  <= 2000 m ASL (> 79.5 kPa)	Size	100
Flow rate control range Flow direction Nominal operating pressure Operating pressure Operating pressure Operating pressure Operating pressure Operating pressure Onerload pressure Operating pressure Opera	Degree of protection	IP40
Non-reversible Nominal operating pressure  Operating pressure  O.3 MPa 43.5 psi  Operating pressure  O.1 MPa0.6 MPa 1 bar6 bar  Overload pressure  O.8 MPa 8 bar 116 psi  Burst pressure  1.8 MPa 18 bar 261 psi  Accuracy of flow rate  \$\frac{1}{2} (20 \times 0.00 \t	Standard nominal flow rate	100 l/min
Nominal operating pressure  O.3 MPa 43.5 psi Operating pressure  O.1 MPa0.6 MPa 1 bar6 bar  Overload pressure  O.8 MPa 8 bar 116 psi Burst pressure  1.8 MPa 18 bar 261 psi Accuracy of flow rate  \$\frac{1}{2}\text{\$\circ}\$ \text{\$\circ}\$ \te	Flow rate control range	2 l/min100 l/min
A3.5 psi  Operating pressure  Overload pressure  Overload pressure  Os MPa 1 bar6 bar  Overload pressure  Os MPa 8 bar 116 psi  Burst pressure  1.8 MPa 18 bar 261 psi  Accuracy of flow rate  \$\frac{1}{2}(2\% \cdots m.v. + 1\% FS)\$  Repetition accuracy of flow rate value  \$\frac{1}{2}(0.25 \% \cdots m.v. + 0.25 \% FS)\$  Valve function  Os mm  Actual in type  Electrical  Preumatic connection 1  Internal thread G1/4  Medium  Argon  Compressed air as per ISO 8573-1:2010 [5:3:1]  Carbon dioxide  Oxygen  Nitrogen  Information on medium  Operation with oil lubrication not possible  Not suitable for use in environments enriched with oxygen according to IEC 60601-1  Cleanest possible ambient air  Dry  Nominal altitude of use above sea level	Flow direction	Non-reversible
1 bar6 bar  Overload pressure  0.8 MPa 8 bar 116 psi  Burst pressure  1.8 MPa 18 bar 261 psi  Accuracy of flow rate  ± (2% o.m.v. + 1% FS)  Repetition accuracy of flow rate value  ± (0.25 % o.m.v. + 0.25 %FS)  Valve function  2 -way proportional flow control valve  Nominal width  6 mm  Actuation type  Electrical  Preumatic connection 1  Internal thread G1/4  Preumatic connection 2  Medium  Argon  Compressed air as per ISO 8573-1:2010 [5:3:1]  Carbon dioxide  Oxygen  Nitrogen  Information on medium  Operation with oil lubrication not possible  Ambient conditions  Not suitable for use in environments enriched with oxygen according to IEC 60601-1  Cleanest possible ambient air  Dry  Nominal altitude of use above sea level  = 2000 m ASL (> 79.5 kPa)	Nominal operating pressure	
Burst pressure  1.8 MPa 18 bar 261 psi  Accuracy of flow rate  ± (2% o.m.v. + 1% FS)  ± (0.25 % o.m.v. + 0.25 %FS)  Valve function  2-way proportional flow control valve  Nominal width  4 mm  Actuation type  Electrical  Pneumatic connection 1  Internal thread G1/4  Medium  Argon  Compressed air as per ISO 8573-1:2010 [5:3:1]  Carbon dioxide  Oxygen  Nitrogen  Information on medium  Operation with oil lubrication not possible  Ambient conditions  Not suitable for use in environments enriched with oxygen according to IEC 60601-1  Cleanest possible ambient air  Dry  Nominal altitude of use above sea level  = 2000 m ASL (> 79.5 kPa)	Operating pressure	
18 bar 261 psi  Accuracy of flow rate	Overload pressure	8 bar
Repetition accuracy of flow rate value  ± (0.25 % o.m.v. + 0.25 %FS)  2-way proportional flow control valve  6 mm  Actuation type  Electrical  Pneumatic connection 1  Internal thread G1/4  Pneumatic connection 2  Medium  Argon  Compressed air as per ISO 8573-1:2010 [5:3:1]  Carbon dioxide  Oxygen  Nitrogen  Information on medium  Operation with oil lubrication not possible  Ambient conditions  Not suitable for use in environments enriched with oxygen according to IEC 60601-1  Cleanest possible ambient air  Dry  Nominal altitude of use above sea level  *= 2000 m ASL (> 79.5 kPa)	Burst pressure	18 bar
Valve function  2-way proportional flow control valve  6 mm  Actuation type  Electrical  Pneumatic connection 1  Internal thread G1/4  Pneumatic connection 2  Internal thread G1/4  Medium  Argon  Compressed air as per ISO 8573-1:2010 [5:3:1]  Carbon dioxide  Oxygen  Nitrogen  Information on medium  Operation with oil lubrication not possible  Ambient conditions  Not suitable for use in environments enriched with oxygen according to IEC 60601-1  Cleanest possible ambient air  Dry  Nominal altitude of use above sea level		

Feature	Value
Operating medium	Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen
Information on operating and pilot media	Operation with oil lubrication not possible Maximum particle size 10 µm
Relative air humidity	0 - 90 % Non-condensing
Pressure dew point	-20 °C
Duty cycle	100%
Temperature of medium	5 °C40 °C
Ambient temperature	5 °C40 °C
Storage temperature	-20 °C70 °C
Nominal operating voltage DC	24 V
DC operating voltage range	12 V24 V
Max. electrical power consumption	8.5 W
Reference value	4 - 20 mA 0 - 10 V 1 - 5 V Modbus®
Diagnostic function	Indication via LED
Display type	LED
Analog input signal range	0 - 5 V 0 - 10 V 0 - 20 mA
Analog output signal range	0 - 10 V 1 - 5 V 4 - 20 mA
Reverse polarity protection	for operating voltage connections
Product weight	630 g
Materials in contact with the media	Wrought aluminum alloy, anodized EPDM Epoxy FPM PA-reinforced Silicon Silicon nitride High-alloy stainless steel
Housing material	Aluminum, anodized PA-reinforced PC
Note on materials	RoHS-compliant
Dimensions W x L x H	116 mm x 38 mm x 124 mm
Type of mounting	Direct mounting via through-hole Mounting plate, screwed on On H-rail with accessories Screwed tightly With through-hole for M4 screw
Mounting position	Any
Certification	C-Tick RCM compliance mark c UL us - Listed (OL)
Conforms to standard	IEC 61010-1
KC characters	KC EMC
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
LABS (PWIS) conformity	VDMA24364 zone III

Feature	Value
Oxygen suitability according to standard	ASTM G 63
	ASTM G 93 ASTM G 94
	CGA G 4.1
	EIGA IGC 33/06/E
	ISO 15001