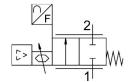
Proportional flow control valve VEMD-L-6-60-200-D9-G14-5YMPM1D-VA

FESTO

Part number: 8163830





Data sheet

Degree of protection IP40 Standard nominal flow rate 200 l/min Flow rate control range 4 l/min200 l/min Non-reversible Nominal operating pressure 0.3 MPa 43.5 psi Degrating pressure 0.1 MPa0.6 MPa 1 bar6 bar 0.8 MPa 8 bar 116 psi Burst pressure 1.8 MPa 18 bar 261 psi Accuracy of flow rate 1 to 2.9 way proportional flow control valve 1 to 2.9 way proportional flow control valve 1 to 2.9 way proportional flow control valve 1 to 2.9 members of a rate of 1.4 Peneumatic connection 1 Internal thread G1/4 Medium Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen nformation on medium 0 Operation with oil lubrication not possible Ambient conditions Iso possible ambient air Dry Nominal altitude of use above sea level < = 2000 m ASL (> 79.5 kPa) Valve on ASD (> 79.5 kPa)	Feature	Value
Standard nominal flow rate Flow rate control range 4 I/min200 I/min Non-reversible Outretion Non-reversible Outraid operating pressure 0.3 MPa 43.5 psi Outroad 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 2 (2% o.m.v. + 1% FS) Active function 2 -way proportional flow control valve Active function type Electrical Internal thread G1/4 Peneumatic 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 Non suitable for use in environments enriched with oxygen according to IEC 60601-1 Cleanest possible ambient air Dry Noninal altitude of use above sea level critical properation in environments enriched with oxygen according to IEC 60601-1 Cleanest possible ambient air Dry Noninal altitude of use above sea level critical-not possible Not suitable for use in environments enriched with oxygen according to IEC 60601-1 Cleanest possible ambient air Dry Noninal altitude of use above sea level	Size	100
Flow rate control range 4 1/min200 1/min Non-reversible Nominal operating pressure 0.3 MPa 4.3.5 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 126 bar Accuracy of flow rate 261 psi Accuracy of flow rate value 262 psi psi pressure 263 psi Accuracy of flow rate value 264 psi Accuracy of flow rate value 265 psi Accuracy of flow rate value 260.25 % o.m.v. + 0.25 %FS) Accuracy of flow rate value 275 psi	Degree of protection	IP40
Non-reversible 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 # (2% o.m.v. + 1% FS) Repetition accuracy of flow rate value # (0.25 % o.m.v. + 1.0.25 %FS) Actuation type Repetition 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 Nitrogen Nor 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	Standard nominal flow rate	200 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 ± (2% o.m.v. + 1% FS) Repetition accuracy of flow rate value ± (0.25 % o.m.v. + 0.25 %FS) Alve function Overload pressure 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	Flow rate control range	4 l/min200 l/min
A3.5 psi Departing pressure 0.1 MPa0.6 MPa 1 bar6 bar Deverload pressure 0.8 MPa 8 bar 116 psi Barst 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 Peneumatic 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)	Flow direction	Non-reversible
1 bar6 bar Overload pressure 0.8 MPa 8 bar 116 psi 3urst pressure 1.8 MPa 18 bar 261 psi Accuracy of flow rate ± (2% o.m.v. + 1% FS) Repetition accuracy of flow rate value ½ (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	
8 bar 116 psi 3urst pressure 1.8 MPa 18 bar 261 psi 4ccuracy 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 4ctuation 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 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)	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 	Accuracy of flow rate	± (2% o.m.v. + 1% FS)
Nominal width Actuation type Electrical 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 Internation 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 Security Francisco Internal thread G1/4 Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen 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 Security Francisco Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Oxygen Nitrogen Operation with oil lubrication not possible Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Oxygen Nitrogen Oxygen Nitrogen Oxygen Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Oxygen Nitrogen Oxygen Nitrogen Oxygen Oxygen Nitrogen Oxygen	Repetition accuracy of flow rate value	± (0.25 % o.m.v. + 0.25 %FS)
Actuation type Electrical 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 = 2000 m ASL (> 79.5 kPa)	Valve function	2-way proportional flow control valve
Preumatic connection 1 Internal thread G1/4 Preumatic connection 2 Internal thread G1/4 Medium Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Internal thread G1/4 Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Operation with oil lubrication not possible Ambient conditions IN 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 width	6 mm
Pneumatic connection 2 Internal thread G1/4 Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen Ambient conditions 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	Actuation type	Electrical
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 Oxygen according to IEC 60601-1 Cleanest possible ambient air Dry Nominal altitude of use above sea level Argon Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen 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	Pneumatic connection 1	Internal thread G1/4
Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen Nitrogen 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)	Pneumatic connection 2	Internal thread G1/4
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 Nominal elititude of use above sea level Nominal elititude of use above sea level	Medium	Compressed air as per ISO 8573-1:2010 [5:3:1] Carbon dioxide Oxygen
IEC 60601-1 Cleanest possible ambient air Dry Nominal altitude of use above sea level <pre><= 2000 m ASL (> 79.5 kPa)</pre>	Information on medium	Operation with oil lubrication not possible
	Ambient conditions	Cleanest possible ambient air
Max. installation height 2000 m	Nominal altitude of use above sea level	<= 2000 m ASL (> 79.5 kPa)
	Max. installation height	2000 m

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 Color TFT
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
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