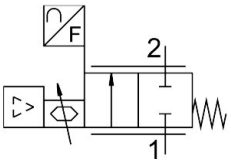
Mass Flow Controller (MFC)
VEMD-L-6-60-50-D9-G14-5YMPM1D-VA

Part number: 8163828





Data sheet

Feature	Value
Size	100
Degree of protection	IP40
Standard nominal flow rate (standardised to DIN 1343)	50 l/min
Flow rate control range	0.5 l/min...50 l/min
Flow direction	Non-reversible
Nominal operating pressure	0.3 MPa 43.5 psi
Operating pressure	0.1 MPa...0.6 MPa 1 bar...6 bar
Note on operating pressure	For input pressures above 4 bar and low flow rates: Do not use components that reflect pressure waves in the pneumatic laminar flow inlet. The reflection of pressure waves can cause vibrations in the system and deviations in the accuracy of the product.
Overload pressure	0.8 MPa 8 bar 116 psi
Burst pressure	1.8 MPa 18 bar 261 psi
Accuracy of flow rate	± (1.3% read + 0.7% FS)
Note on accuracy of flow rate	In the range 2 ... 100% FS, reference conditions: ambient temperature and temperature of medium 23 °C, medium: compressed air to ISO 8573-1:2010 [6:4:1], with push-in fitting QS-G1/4-8, input pressure p1: 0.16 ... 0.19 MPa, output pressure p2: 0.12 MPa
Repetition accuracy of flow rate	± (0.1% read + 0.1% FS)
Valve function	2-way proportional flow control valve Closed
Nominal size	6 mm
Type of actuation	Electrical
Pneumatic connection, port 1	Female thread G1/4
Pneumatic connection, port 2	Female thread G1/4
Typical precision flow rate value	±(1.1% read + 0.3% FS)
Environmental conditions	Not suitable for use in an environment enriched with oxygen to IEC 60601-1 Cleanest possible ambient air dry

Feature	Value
Nominal altitude of use	<= 2000 m ASL (> 79.5 kPa)
Max. installation height	2000 m
Operating medium	Argon Compressed air to ISO 8573-1:2010 [6:4:1] Carbon dioxide Oxygen Nitrogen
Note on operating and pilot medium	Lubricated operation not possible Maximum particle size 10 µm
Relative air humidity	0 - 90% Non-condensing
Pressure dew point	-20 °C
Duty cycle	100%
Media temperature	5 °C...40 °C
Ambient temperature	5 °C...40 °C
Storage temperature	-20 °C...70 °C
Nominal operating voltage DC	24 V
Operational voltage range DC	12 V...24 V
Max. electrical power consumption	8.5 W
Setpoint value	4 - 20 mA 0 - 10 V 1 - 5 V Modbus®
Diagnostic function	Display via LED
Display type	LED TFT colour
Signal range analogue input	0 - 10 V 4 - 20 mA 1 - 5 V
Signal range analogue output	0 - 10 V 1 - 5 V 4 - 20 mA
Reverse polarity protection	For operating voltage connections
Product weight	630 g
Material in contact with the medium	Anodised wrought aluminium alloy EPDM Epoxy Fluoro rubber Reinforced PA PFPE grease with anorganic thickeners Silicon Silicon nitride High-alloy stainless steel
Material housing	Anodised aluminium Reinforced PA
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, attached with screws On DIN rail via accessories Screw-clamped Via through-hole for M4 screw
Mounting position	Any
Approval	C-Tick RCM c UL us - Listed (Oil)
Conforms to standard	IEC 61010-1 ISO 15001
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC

Feature	Value
	To UK RoHS instructions
LABS (PWIS) conformity	VDMA24364 zone III
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