Mass Flow Controller (MFC)
VEFC-L-6-100-D31-MFS14-MFS14-MRM1

Part number: 8204590



Data sheet

Feature	Value
Degree of protection	IP20
Flow rate control range	5 l/min...100 l/min
Note on the flow rate control range	N2 equivalent, the specified dynamic and accuracy values apply to setpoint values >10%FS
Flow direction	Non-reversible
Operating pressure	0.6 MPa 6 bar
Overload pressure	0.8 MPa 8 bar 116 psi
Burst pressure	2.1 MPa 21 bar 305 psi
Inlet pressure 1	0.1 MPa...0.7 MPa 1 bar...7 bar 14.5 psi...101.5 psi
Output pressure 2	-0.1 MPa...0.35 MPa -1 bar...3.5 bar -14.5 psi...50.8 psi
Suitability for vacuum	Yes
Valve function	2-way proportional flow control valve
Type of actuation	Electrical
Pneumatic connection, port 1	Front metal seal 1/4"
Pneumatic connection, port 2	Front metal seal 1/4"
Total leakage	0.6 l/h
Note on total leakage	Standardised according to SEMI E16 tested with CDA
Relative air humidity	5 - 85% Non-condensing
Climatic category	3K22 in accordance with EN 60721
Nominal altitude of use	<= 2000 m NHN
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gas
Media temperature	5 °C...50 °C
Ambient temperature	5 °C...50 °C
Storage temperature	-20 °C...60 °C

Feature	Value
Nominal operating voltage DC	24 V
Operational voltage range DC	24 V
Max. current consumption	65 mA
Max. electrical power consumption	1.6 W
Information on power consumption	Typical <1 W
Overvoltage category	II
Residual ripple	± 10%
Electrical connection 1, function	Analogue output Analogue input Communication Power supply
Electrical connection 1, connection type	Plug
Electrical connection 1, connector system	Sub-D
Electrical connection 1, number of connections/cores	9
Setpoint value input	0 - 5 V 0 - 10 V 1 - 5 V 4 - 20 mA Modbus® RTU
Protection against direct and indirect contact	PELV
Display type	LED
Reverse polarity protection	For operating voltage
Total accuracy	1.5 %FS
Reproducibility	0.2 %FS
Linearity	1.5 %FS
Hysteresis	0.15 %FS
Overshoot	2 %FS
Settling time	500 ms
Step response time	500 ms
Note on the measured variable	Dynamic characteristic values according to SEMI E17 with preset "fast". The dead time, the step response and the settling time may increase when the setpoint is changed from a closed valve state or when the back pressure is above atmospheric pressure.
Product weight	250 g
Note on materials	RoHS compliant
Dimensions (W x L x H)	24 mm x 152.8 mm x 97 mm
Instructions on use	The product is suitable for industrial purposes only. Measures to eliminate radio interference may be required in residential areas. For indoor use only
Fire test material	UL94 HB
Pollution degree	2
Approval	RCM
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 To UK RoHS instructions
KC mark	KC-EMV
KC Approval No. EMC/Radio	FTO-KC-2024-1003
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	Class 3 according to ISO 14644-1 (with CDA filter) Class 4 according to ISO 14644-1