Media separated solenoid valve
VYKA-F7-M22U-12-PE-5YQ7

Part number: 8170091



Data sheet

Feature	Value
Structural design	Rocker valve with diaphragm seal
Sealing principle	Soft
Materials in contact with the media	EPDM PEEK
For use in the food industry	See supplementary material information
Valve function	2/2, open, monostable
Nominal width	1.2 mm
Flow direction	Reversible with restrictions
Actuation type	Electrical
Type of control	Direct
Reset method	Mechanical spring
Manual override	None
Mounting position	Any
Type of mounting	With through-hole for M2 screw
Electrical connection 1, connection type	Socket
Electrical connection 1, connection technology	Connection diagram Q7
Electrical connection 1, number of pins/wires	2
Electrical connection for input 1, connection pattern	00997312
Size	7
Width dimension	7.5 mm
Fluid connector	Flange
Medium	Liquid media Gaseous media
Information on medium	Observe resistance of materials that come into contact with media Maximum particle size 5 µm
Internal volume	18 µl fluid chamber valve 24 µl valve with fluid connections
Temperature of liquid media	0 °C ... 50 °C
Medium temperature gaseous media	0 °C ... 50 °C
Ambient temperature	0 °C ... 50 °C
Storage temperature	-20 °C ... 70 °C
Medium pressure	-0.05 MPa ... 0.2 MPa
Medium pressure	-0.5 bar ... 2 bar
Medium pressure	-7.25 psi ... 29 psi
Note on the medium pressure	IN: -0.25 – 2 bar / -0.025 – 0.2 MPa / -3.625 – 29 psi OUT: -0.5 – 1 bar / -0.05 – 0.1 MPa / -7.25 – 14.5 psi
Pressure difference	0.2 MPa

Feature	Value
Differential pressure	2 bar
Pressure difference	29 psi
Burst pressure	2.3 MPa
Burst pressure	23 bar
Burst pressure	333.5 psi
DC operating voltage range	12 V ... 26 V
Note on operating voltage range DC	With electrical sub-base VAVE-K1-...
Permissible voltage fluctuations	+/- 10 %
Electrical power consumption	3.5 W
Note on power consumption	Low-current phase 0.3 W, high-current phase 3.5 W for 60 ms, in combination with VAVE-K1-...
Coil characteristics	12 - 26 V DC: low-current phase 0.06 W, high-current phase 2.2 W
Insulation class	B
Duty cycle	100% in combination with holding current reduction Follow the instructions on operating the air solenoid valves.
Max. switching frequency	6 Hz
Note on switching frequency	Dependent on the ambient temperature and installation state At 100% duty cycle depending on ambient temperature and installation condition. Higher switching frequencies possible with duty cycle ‹ 100%.
Response time "off" for liquid media	5 ms
Switching time off gaseous media	5 ms
Standard nominal flow rate	10 l/min
Note on standard nominal flow rate	At a pressure drop of 1 -› 0 bar (gaseous media)
Flow rate Kv	0.018 m³/h
Flow rate Kv	0.3 l/min
Note on flow rate Kv	For the medium water Pressure difference 1 bar
Water flow rate at max. operating pressure	0.024 m³/h 0.40 l/min
Symbol	00995700
Housing material	PA-reinforced PEEK PPA-reinforced
Diaphragm material	EPDM
Seals material	EPDM
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III
Product weight	10.9 g
Degree of protection	IP40
Note on degree of protection	In mounted state
Application note	For indoor use only
Corrosion resistance class (CRC)	0 - No corrosion stress