

Air solenoid valve MHA2-MS1H-3/20-2-K

Part number: 196141

FESTO



General operating condition

Data sheet

Feature	Value
Valve function	3/2, open, monostable
Actuation type	Electrical
Width	10 mm
Normal nominal flow rate (normalized to DIN 1343)	100 l/min
Pneumatic working port	Sub-base
Operating voltage	24V DC
Operating pressure	-0.09 MPa ... 0.8 MPa
Operating pressure	-0.9 bar ... 8 bar
Operating pressure	-13.05 psi ... 116 psi
Structural design	Pressure-relieved poppet valve
Reset method	Mechanical spring
Degree of protection	IP55
Certification	RCM compliance mark c UL us - Recognized (OL)
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Nominal width	2 mm
Width dimension	14 mm
Note on grid dimension	Minimum distance between the valves is 4 mm
Exhaust air function	With flow control option
Sealing principle	Soft
Mounting position	Any
Manual override	Non-detenting
Type of control	Direct
Flow direction	Reversible with restrictions
Symbol	00991322
Lap	Underlap
Reverse polarity protection	Bipolar
Additional functions	Protective circuit
Operating pressure, reversible	-0.09 MPa ... 0.1 MPa
Operating pressure, reversible	-0.9 bar ... 1 bar
Operating pressure, reversible	-13.05 psi ... 14.5 psi
Max. switching frequency	330 Hz
Switching time off	2 ms
On switching time	1.7 ms

Feature	Value
Tolerance for switching time off	+10 %/-30 %
Tolerance for ON switching time	+10%/-30%
Switching time variation at 1 Hz and above	0.2 ms
Duty cycle	100%
Coil characteristics	24 V DC: low-current phase 1.25 W, high-current phase 5.0 W
Permissible voltage fluctuations	+/- 10 %
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Restricted ambient and media temperature	Depending on the switching frequency (see diagram)
Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Cleanroom suitability, measured according to ISO 14644-14	Class 6 according to ISO 14644-1
Temperature of medium	-5 °C ... 40 °C
Ambient temperature	-5 °C ... 40 °C
Product weight	60 g
Electrical connection	Cable
Cable length	2.5 m
Type of mounting	On sub-base
Pneumatic connection 11	Sub-base
Pneumatic connection 2	Sub-base
Pneumatic connection 33	Sub-base
Note on materials	RoHS-compliant
Seals material	HNBR NBR
Housing material	Die-cast metal, coated
Material of cable sheath	PUR
Material of screws	Steel, galvanized