

# Solenoid valve MHA2-MS1H-3/20-2

Part number: 196139

FESTO



General operating condition

## Data sheet

Feature	Value
Valve function	3/2 open, monostable
Type of actuation	Electric
Construction width	10 mm
Standard nominal flow rate (standardised 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
Design	Pressure-relieved poppet valve
Type of reset	Mechanical spring
Degree of protection	IP65
Approval	RCM trademark c UL us - Recognized (OL)
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Nominal size	2 mm
Grid 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	optional
Manual override	Non-detenting
Type of piloting	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
Switching time on	1.7 ms

Feature	Value
Tolerance switching time off	+10%/-30%
Tolerance switching time on	+10%/-30%
Switching time dispersion from 1 Hz	0.2 ms
Duty cycle	100%
Characteristic coil data	24 V DC: low-current phase 1.25 W, high-current phase 5.0 W
Permissible voltage fluctuations	+/- 10 %
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Restrictions for environmental and media temperature	As a function of switching frequency (see graph)
Shock resistance	Shock test with severity level 2 to 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
Media temperature	-5 °C ... 40 °C
Ambient temperature	-5 °C ... 40 °C
Product weight	60 g
Electrical connection	Plugs
Type of mounting	On sub-base
Pneumatic connection, port 11	Sub-base
Pneumatic connection, port 2	Sub-base
Pneumatic port 33	Sub-base
Note on materials	RoHS-compliant
Material seals	HNBR NBR
Material housing	Die-cast zinc, coated
Material screws	Galvanised steel