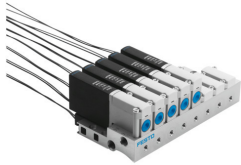


# Solenoid valve MHA2-MS1H-3/20-2-K

Part number: 196141

FESTO



[PDF](#) 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	IP55
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 instructions for EMC 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	Spark arresting Holding current reduction 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

Feature	Value
Switching time off	2 ms
Switching time on	1.7 ms
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 class	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	Cable
Cable length	2.5 m
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 cable sheath	PUR
Material screws	Galvanised steel