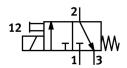
Air solenoid valve MHE3-MS1H-3/2G-QS-6 Part number: 525151

FESTO





General operating condition

Data sheet

Actuation type Electrical Width 14 mm Standard nominal flow rate 200 l/min Pneumatic working port Q5-6 Operating voltage 24V DC Operating pressure -0.99 MPa 0.8 MPa Operating pressure -0.99 bar 8 bar Structural design Pressure-relieved poppet valve Reset method Mechanical spring Degree of protection IP65 Certification RCM compliance mark Cul. us - Recognized (O1) CE marking (see declaration of conformity) As per EU EMC directive As per EU EMC directive As per EU EMC directive As per EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 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 0.9991308 Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible -0.90 MPa 0.1 MPa Operating pressure, reversible -0.90 mPa 0.1 MPa Operating pressure, reversible -0.90 mPa 0.1 MPa Operating pressure, reversible -1.30.50 psi 14.5 psi	Feature	Value
Width 14 mm Standard nominal flow rate 200 l/min Pneumatic working port QS-6 Operating voltage 24V DC Operating pressure -0.09 MPa 0.8 MPa Operating pressure 9.0.9 bar 8 bar Structural design Pressure 196 protection 1965 Certification RCM compliance mark of UL us - Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive As per EU RMC direction Minimum distance between the valves is 5 mm Exhaust air function With flow control option Sealing principle Soft Any Monthing position Any Manual override Non-detenting Direct Flow direction Reversible with restrictions Opp1308 Expect EURC directive Circuit Protection Bipolar Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible -0.09 MPa 1 MPa Operating pressure, reversible -0.09 MPa 1 MPa Operating pressure, reversible -0.09 MPa 1 L45 psi Max. switching frequency 280 Hz	Valve function	3/2, closed, monostable
Standard nominal flow rate Pneumatic working port Operating pressure Operating pressure, reversible	Actuation type	Electrical
Pneumatic working port Operating voltage 24V DC Operating pressure -0.09 MPa 0.8 MPa Operating pressure -0.9 bar 8 bar Structural design Pressure-relieved poppet valve Reset method Mechanical spring Degree of protection IP65 Certification RCM compliance mark cUL us - Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive As per EU RMC directive As per EU RMC Structural with the substitutions for EMC To UK RoHS instructions Nominal width 3 mm Note on grid dimension IP69 Soft Mounting principle Soft Mounting position Manual override Non-detenting Type of control Direct Flow direction Reversible with restrictions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating frequency 280 Hz	Width	14 mm
Operating voltage 24V DC Operating pressure -0.09 MPa 0.8 MPa Operating pressure -0.99 bar 8 bar Structural design Pressure-relieved poppet valve Reset method Mechanical spring Degree of protection IP65 Certification RCM compliance mark c UL us - Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 mm Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Reversible with restrictions Symbol 00991308 Lap Underlap Reverse polarity protection Additional functions Operating pressure, reversible -0.9 bar 1 bar Operating pressure, reversible -0.9 bar 1 bar Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency	Standard nominal flow rate	200 l/min
Operating pressure Operating pressure, reversible Operating pressure, operating pressure, operating	Pneumatic working port	QS-6
Operating pressure Operating pressure Operating pressure Pressure-relieved poppet valve Reset method Mechanical spring Degree of protection Certification Certification Certification CE marking (see declaration of conformity) As per EU EMC directive As per EU ENG directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Flow direction Reversible with restrictions Symbol Lap Reverse polarity protection Additional functions Operating pressure, reversible Max. switching frequency 280 Hz Pressure-relieved poppet valve Mechanical spring Mechanical spring Mechanical spring Pressure-relieved poppet valve Mechanical spring Pressure-relieved poppet valve Mechanical spring Pressure-relieved poppet valve Rev Auch compliance Mechanical spring Pressure-relieved poppet valve As per EU EMC directive As per EU EMC directive Non-detenting Direct Flow direction Reversible with restrictions Spring Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency	Operating voltage	24V DC
Structural design Reset method Mechanical spring Degree of protection Pf65 Certification Certification Reset declaration of conformity) Reset EU RMC directive As per EU EMC directive As per EU RMS directive As per EU RMS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RMS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Reversible with restrictions Symbol Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency Max. switching frequency Pressure-relieved poppet valve Mechanical spring Reverse polarity protection Amechanical spring Reverse polarity protection Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency Passure relieved poppet valve Rechanced spring Reverse polarity protection Amechanical spring Reverse polarity protection Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency Protective fireur 1-20 Protective frequency Passure reversible 1-3.05 psi 14.5 psi Max. switching frequency	Operating pressure	-0.09 MPa 0.8 MPa
Reset method Degree of protection Degree of protection RCM compliance mark cult 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 instructions for EMC TO UK ROHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Plowed inection Reversible with restrictions Symbol Lap Underlap Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency Max. switching frequency 280 Hz Max. switching frequency	Operating pressure	-0.9 bar 8 bar
Degree of protection IP65 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 instructions for EMC To UK ROHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 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 00991308 Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible 0-0.9 MPa 0.1 MPa Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency 280 Hz	Structural design	Pressure-relieved poppet valve
Certification RCM compliance mark c UL us - Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive As per EU EMC directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 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 00991308 Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible 0.9 Par 0.1 MPa Operating pressure, reversible 1.3.05 psi 14.5 psi Max. switching frequency 280 Hz	Reset method	Mechanical spring
c UL us - Řecognized (OL) CE marking (see declaration of conformity) As per EU ENC directive As per EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Minimum distance between the valves is 5 mm Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Reversible with restrictions Symbol Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible 1-3.05 psi 14.5 psi Max. switching frequency 280 Hz	Degree of protection	IP65
As per EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Exhaust air function Sealing principle Soft Mounting position Any Manual override Type of control Flow direction Symbol Lap Reversible with restrictions Symbol Lap Reverse polarity protection Additional functions Additional functions Additional functions Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating frequency Manual symbol As per EU RoHS directive To UK instructions for EMC To UK RoHS instructions Minimum distance between the valves is 5 mm Minimum distance betw	Certification	· · · · · · · · · · · · · · · · · · ·
To UK RoHS instructions Nominal width 3 mm Width dimension 19 mm Note on grid dimension Exhaust air function Sealing principle Soft Mounting position Mon-detenting Type of control Flow direction Symbol Dop91308 Lap Underlap Reverse polarity protection Additional functions Direct Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Ax. switching frequency DI W Manual override To UK RoHS instructions With flow control With flow control option Soft Minimum distance between the valves is 5 mm Minim	CE marking (see declaration of conformity)	'
Width dimension Note on grid dimension Exhaust air function Sealing principle Mounting position Mon-detenting Type of control Flow direction Symbol Lap Reverse polarity protection Additional functions Additional functions Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Man. switching frequency Minimum distance between the valves is 5 mm Manual override Non-detenting Non-det	UKCA marking (see declaration of conformity)	
Note on grid dimension Exhaust air function Sealing principle Mounting position Mounting position Mon-detenting Type of control Flow direction Symbol Lap Reverse polarity protection Additional functions Additional functions Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Max. switching frequency Minimum distance between the valves is 5 mm With flow control option Soft Any Non-detenting Reversible with restrictions Operating pressure, in exercition Bipolar Spark suppression Holding current reduction Protective circuit Operating pressure, reversible -0.09 MPa 0.1 MPa Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Nominal width	3 mm
Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Flow direction Symbol Lap Reversible with restrictions Symbol Lap Underlap Reverse polarity protection Additional functions Additional functions Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency With flow control option Soft Any Mith flow control option Soft Any Mon-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Seversible with restrictions Operations Symbol Operation pressure, reversible -0.0991308 With flow control option Any Non-detenting Non-dete	Width dimension	19 mm
Sealing principle Mounting position Any Manual override Non-detenting Type of control Flow direction Symbol Lap Reverse polarity protection Additional functions Additional functions Operating pressure, reversible Operating pressure, reversib	Note on grid dimension	Minimum distance between the valves is 5 mm
Mounting position Manual override Non-detenting Type of control Direct Flow direction Reversible with restrictions Symbol O0991308 Lap Underlap Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible 1.3.05 psi 14.5 psi Max. switching frequency Any Any Any Any Any Any Any	Exhaust air function	With flow control option
Manual override Type of control Direct Flow direction Reversible with restrictions Symbol Oop91308 Lap Underlap Reverse polarity protection Bipolar Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressu	Sealing principle	Soft
Type of control Flow direction Reversible with restrictions Symbol 00991308 Lap Reverse polarity protection Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible 10.9 bar 1 bar Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency Direct Reversible with restrictions Reversible with restrictions Operations Operations Operations Direct Reversible with restrictions Operations Operations Direct Reversible with restrictions Operations Operations Bipolar Operation reduction Protective circuit Operations O	Mounting position	Any
Flow direction Reversible with restrictions O0991308 Lap Underlap Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency Reversible with restrictions O0991308 Equation 10091308 Equation 10091	Manual override	Non-detenting
Symbol Lap Underlap Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency Operating prequency	Type of control	Direct
Lap Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible 13.05 psi 14.5 psi Max. switching frequency Underlap Bipolar Opark suppression Holding current reduction Protective circuit O.99 MPa 0.1 MPa O.99 bar 1 bar 280 Hz	Flow direction	Reversible with restrictions
Reverse polarity protection Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible -0.9 bar 1 bar Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Symbol	00991308
Additional functions Spark suppression Holding current reduction Protective circuit Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible Operating pressure, reversible -0.9 bar 1 bar Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Lap	Underlap
Holding current reduction Protective circuit Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Reverse polarity protection	Bipolar
Operating pressure, reversible -0.9 bar 1 bar Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Additional functions	Holding current reduction
Operating pressure, reversible -13.05 psi 14.5 psi Max. switching frequency 280 Hz	Operating pressure, reversible	-0.09 MPa 0.1 MPa
Max. switching frequency 280 Hz	Operating pressure, reversible	-0.9 bar 1 bar
	Operating pressure, reversible	-13.05 psi 14.5 psi
Switching time off 2.8 ms	Max. switching frequency	280 Hz
	Switching time off	2.8 ms

Feature	Value
On switching time	2.3 ms
Tolerance for switching time off	+10 %/-50 %
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 1.6 W, high-current phase 6.5 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 class	Class 6 according to ISO 14644-1
Temperature of medium	-5 ℃ 60 ℃
Ambient temperature	-5 ℃ 60 ℃
Product weight	120 g
Electrical connection	2-pin Plug
Type of mounting	With through-hole
Pneumatic connection 1	QS-6
Pneumatic connection 2	QS-6
Pneumatic connection 3	QS-6
Note on materials	RoHS-compliant
Seals material	HNBR NBR
Housing material	Die-cast metal, coated
Material of screws	Steel, galvanized