Air solenoid valve MHP1-M5H-3/20-M3-HC Part number: 197028







General operating condition

Data sheet

Actuation type Electrical Width 10 mm Standard nominal flow rate 10 l/min Pheumatic working port M3 Operating pressure Operating medium	Feature	Value
Width 10 mm Standard nominal flow rate 10 l/min Pneumatic working port M3 Operating yotlage 12V DC Operating pressure 0 MPa 0.6 MPa Operating pressure 0 Dar 6 bar Operating pressure 0 Derating pressure 0 Dar 6 bar Operating pressure 0 Derating pressure 0 Dar 6 bar Operating pressure 0 Dar 6 bar Operating pressure 0 Dar 6 Dar Operating Dar 6 Dar 6 Dar Operating Dar 6 Dar	Valve function	3/2, open, monostable
Standard nominal flow rate 10 1/min Pneumatic working port M3 Operating yoltage 12V DC Operating pressure 0 MPa 0.6 MPa Operating pressure 0 Obar 6 bar Operating pressure 0 opsi 87 psi Structural design Poppet valve with return spring Poppet valve Poppet valve Poppet valve vith return spring Poppet valve valve Poppet valve Poppet valve Poppet valve Valve Valve Poppet valve Valve Valve Poppet Valve Valve Valve Valve Valve Poppet Valve Valve Valve Valve Valve Valve Poppet Valve	Actuation type	Electrical
Preumatic working port Operating voltage 12V DC Operating pressure Operating view with return spring Operating pressure Operating view with return spring Operating view with return spring Operating with return spring Operating view with return spring Operating view with return spring Operating view with return spring Operating pressure Operating view with return spring Operating medium Operatin	Width	10 mm
Operating voltage 12V DC Operating pressure 0 MPa 0.6 MPa Operating pressure 0 bar 6 bar Operating pressure 0 psi 87 psi Structural design Poppet valve with return spring Reset method Mechanical spring Degree of protection IP40 Certification C UL us - Recognized (OL) Certification UL MH19482 Nominal width 0.7 mm Width dimension 10 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol 00991322 Valve position ID Label Lap Underlap Max. switching frequency 20 Hz Switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations 4/-10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]<	Standard nominal flow rate	10 l/min
Operating pressure Operating medium Operating pressure Operating pressure Operating medium Operating pressure Operating medium	Pneumatic working port	M3
Operating pressure Operating Mechanical spring Operating Operating Operating Operating operating Operating operating Operating Mechanical spring Operating Operati	Operating voltage	12V DC
Operating pressure Operating of protection IP40 Certification Cut us - Recognized (OL) Certification UL MH19482 Operating authority UL MH19482 Operating authority UL MH19482 Operating authority With dimension Ion m Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol Operating besition ID Label Underlap Note on forced dynamization Switching frequency Underlap Switching frequency Operating time On switching time On switching time On switching time On switching time Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Operating pressure	0 MPa 0.6 MPa
Structural design Poppet valve with return spring Reset method Mechanical spring Degree of protection IP40 Certification c UL us - Recognized (OL) Certification UL MH19482 Nominal width O.7 mm Width dimension 10 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Flow direction Non-reversible Symbol O0991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time On switching time Duty cycle Electrical power consumption Power of the switch of th	Operating pressure	0 bar 6 bar
Reset method Mechanical spring Degree of protection IP40 Certification c UL us - Recognized (OL) Certificate issuing authority UL MH19482 Nominal width 0.7 mm Width dimension 10 mm Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol 00991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 0 ms witching time Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations 4 ms Compressed air as per ISO 8573-1:2010 [7:4:4]	Operating pressure	0 psi 87 psi
Degree of protection Certification Certificate issuing authority UL MH19482 Nominal width O.7 mm Width dimension Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Flow direction Non-reversible Symbol Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency Switching frequency Switching time off On switching time Duty cycle Electrical power consumption 1P40 Cull us - Recognized (OL) C	Structural design	Poppet valve with return spring
Certification cUL us - Recognized (OL) Certificate issuing authority UL MH19482 Nominal width 0.7 mm Width dimension 10 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol 00991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching friequency 20 Hz Switching time off 4 ms On switching time On switching time Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations 4 /- 10 % Operating medium Commends a process of the survey	Reset method	Mechanical spring
Certificate issuing authority Nominal width O.7 mm Width dimension Exhaust air function Sealing principle Mounting position Manual override Non-detenting Type of control Flow direction Symbol Valve position ID Lap Underlap Note on forced dynamization Max. switching frequency Switching time off On switching time On switching time Duty cycle Electrical power consumption Coil characteristics Permissible voltage fluctuations Hu MH19482 O.7 mm With flow control option Nor mm With flow control option Soft Mith flow control option Soft Many Non-detenting Non-detenting Non-detenting Non-detenting Non-reversible Non-r	Degree of protection	IP40
Nominal width 0.7 mm Width dimension 10 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol 00991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations (Compressed air as per ISO 8573-1:2010 [7:4:4])	Certification	c UL us - Recognized (OL)
Width dimension 10 mm Exhaust air function With flow control option Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol 00991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations (With flow control option With flow control option With flow control option With flow control option Soft Any Any Mon-detenting Direct Non-reversible Non-reversible Vonge1322 Valve position ID Label Label Label Underlap Valve position option Switching frequency at least once a week 4 ms On switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/-10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Certificate issuing authority	UL MH19482
Exhaust air function Sealing principle Soft Mounting position Any Manual override Non-detenting Type of control Flow direction Symbol Operating medium With flow control option Soft Any Manual override Non-reversible Non-reversible Symbol Operating medium With flow control option Soft Any With flow control option Soft Any Mith flow control option Soft Any Mith flow control option Soft Any May Hith flow control option Soft Any Any Non-detenting Direct Non-reversible Non-reversible Sopplia Underlap Underlap Underlap Switching frequency at least once a week 20 Hz Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations 4/-10% Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Nominal width	0.7 mm
Sealing principle Mounting position Any Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol Oo991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations Compressed air as per ISO 8573-1:2010 [7:4:4]	Width dimension	10 mm
Mounting position Manual override Non-detenting Type of control Direct Flow direction Non-reversible Symbol Oo991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations Any Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-detenting Non-reversible Non-reversible Oo991322 Underlap Underlap Switching frequency at least once a week 4 ms On switching time off 4 ms On switching time 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Exhaust air function	With flow control option
Manual override Type of control Direct Flow direction Non-reversible Symbol O0991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency Switching frequency Switching time off 4 ms On switching time 4 ms Duty cycle Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations Vnon-reversible Non-reversible Non-reversible Non-reversible Non-reversible Switching flue Underlap Underlap Valte Switching frequency at least once a week 4 ms 00 Hz Switching time off 4 ms 00 W Switching time 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Compressed air as per ISO 8573-1:2010 [7:4:4]	Sealing principle	Soft
Type of control Flow direction Non-reversible Symbol O0991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Direct Non-reversible Non-re	Mounting position	Any
Flow direction Non-reversible Symbol O0991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Non-reversible Non-reversible Non-reversible Abnon-reversible Switching 4 ms Label Underlap Switching frequency at least once a week 4 ms 10 Hz 4 ms 10 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations	Manual override	Non-detenting
Symbol 00991322 Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time On switching time 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Type of control	Direct
Valve position ID Label Lap Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Flow direction	Non-reversible
Underlap Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Underlap Underlap Underlap Underlap Underlap Underlap Underlap Underlap Switching frequency at least once a week 4 ms 10 W 4 ms 10 W Compressed air as per ISO 8573-1:2010 [7:4:4]	Symbol	00991322
Note on forced dynamization Switching frequency at least once a week Max. switching frequency 20 Hz Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Switching frequency at least once a week 4 ms Compressed air as per ISO 8573-1:2010 [7:4:4]	Valve position ID	Label
Max. switching frequency Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Lap	Underlap
Switching time off 4 ms On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Note on forced dynamization	Switching frequency at least once a week
On switching time 4 ms Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Max. switching frequency	20 Hz
Duty cycle 100% Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Switching time off	4 ms
Electrical power consumption 1 W Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	On switching time	4 ms
Coil characteristics 12 V DC: 1.0 W Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Duty cycle	100%
Permissible voltage fluctuations +/- 10 % Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Electrical power consumption	1 W
Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4]	Coil characteristics	12 V DC: 1.0 W
	Permissible voltage fluctuations	+/- 10 %
Information on operating and pilot media Operation with oil lubrication possible (required for further use)	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)

Feature	Value
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
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-B2-L
Storage temperature	-20 °C 60 °C
Temperature of medium	-5 ℃ 40 ℃
Ambient temperature	-5 ℃ 40 ℃
Product weight	10 g
Electrical connection	Plug
Type of mounting	On sub-base With through-hole
Pneumatic connection 11	Sub-base
Pneumatic connection 2	M3
Pneumatic connection 33	Sub-base
Note on materials	RoHS-compliant
Seals material	FPM HNBR NBR
Housing material	PA-reinforced PPS-reinforced