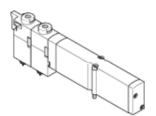
solenoid valve VMPA1-M1H-G-PI Part number: 533345

FESTO

For valve terminal MPA-S.



Data sheet

60068-2-27	Feature	Value
Valve size 10 mm Standard nominal flow rate 320 l/min Operating pressure MPa -0.09 1 MPa Operating pressure Pa -0.9 10 bar Design structure Piston slide Type of reset mechanical spring Authorisation c UL us - Recognized (OL) Protection class IP65 to IEC 60529 Sealing principle soft Assembly position Any Manual override detenting Pushing Type of piloting Piloted Flow direction reversible Overlap Positive overlap Signal status display Yes Signal status display Yes Pilot pressure MPa 0.3 0.8 MPa Pilot pressure MPa 3 8 bar Suitability for vacuum Yes Suitability for vacuum Yes Switching time off 35 ms Switching time off 35 ms Switching time reversal 15 ms Max. positive test pulse with logic 1 200 µs Permissible voltage fluctuation Compressed air in accordance with ISO8573-1:2010 [7:4:4] Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Valve function	5/3 closed
Valve size 10 mm Standard nominal flow rate 320 l/min Operating pressure MPa 0.09 1 MPa Operating pressure MPa 0.9 1 MPa Operating pressure Piston slide Piston slide Ruthorisation c UL us - Recognized (OL) Protection class IP65 To IEC 60529 Sealing principle soft Assembly position Any Manual override detenting Pushing Type of piloting Piloted Flow direction reversible Overlap Positive overlap Signal status display Yes Operating WPa Pilot pressure MPa 0.3 0.8 MPa Pilot pressure MPa 0.3 0.8 MPa Pilot pressure MPa 3 8 bar Suitability for vacuum Yes Suitability for vacuum Yes Switching time off 35 ms Switching time off 35 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 200 µs Permissible voltage fluctuation Compressed air in accordance with FN 942017-5 and 60068-2-27	Type of actuation	electrical
Operating pressure MPa Operating pressure Operating pressure Design structure Design structure Piston slide Type of reset Authorisation C UL us - Recognized (OL) Protection class IP65 To IEC 60529 Sealing principle Assembly position Any Manual override detenting Pushing Type of piloting Piloted Flow direction reversible Overlap Positive overlap Signal status display Yes Pilot pressure MPa O, 3 0.8 MPa Pilot pressure MPa Did pressure Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time of Switching time of Switching time reversal Max. positive test pulse with logic 0 Apx. negative test pulse with logic 1 Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Upitation resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	•••	10 mm
Design structure Design structure Piston slide Type of reset Authorisation Cultus - Recognized (OL) Protection class IP65 To IEC 60529 Sealing principle Assembly position Any Manual override Assembly position Any Manual override Pushing Type of piloting Pioted Flow direction Prositive overlap Signal status display Pes Pilot pressure MPa Pilot pressure 38 bar Suttability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off Switching time eversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Permissible voltage fluctuation Querating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Queration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Standard nominal flow rate	320 l/min
Design structure Piston slide Type of reset Authorisation CUL us - Recognized (OL) Protection class IP65 Sealing principle Assembly position Any Manual override Guernian Guer	Operating pressure MPa	-0.09 1 MPa
Design structure Type of reset mechanical spring Authorisation Protection class IP65 to IEC 60529 Sealing principle Assembly position Any Manual override Design structure Type of piloting Ploted from the first oversible Overlap Positive overlap Pilot pressure Pilot pressure Pilot pressure Suitability for vacuum Standard nominal flow rate with QS-6 Switching time off Switching time off Switching time off Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27 Shock resistance Pilot us - Recognized (OL) Cull us - Recognized (OL) IP65 to IUL us - Recognized (OL) IP6 To IUL us - Recognized (OL		-0.9 10 bar
Type of reset Authorisation C UL us - Recognized (OL) Protection class IP65 Ic IEC 60529 Sealing principle Assembly position Any Manual override Pushing Type of piloting Type of piloting Piloted Flow direction Overlap Signal status display Yes Pilot pressure MPa O.3 0.8 MPa Suitability for vacuum Standard nominal flow rate with QS-6 Switching time off Switching time on Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Augustance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27 Shock resistance Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		Piston slide
Protection class IP65 to IEC 60529 Sealing principle Soft Any Manual override detenting Pushing Type of piloting Piloted Flow direction reversible Overlap Positive overlap Signal status display Yes Pilot pressure MPa 0.3 0.8 MPa Pilot pressure MPa 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 320 I/min Switching time off 33 ms Switching time off 35 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 200 µs Permissible voltage fluctuation 4-7-25 % Operating medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		mechanical spring
Sealing principle Assembly position Any Manual override detenting Pushing Type of piloting Flow direction Overlap Signal status display Pilot pressure MPa Pilot pressure MPa Pilot pressure where Standard nominal flow rate with QS-6 Switching time off Switching time off Switching time off Switching time off Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Note on operating and pilot medium Vier Chock resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Authorisation	c UL us - Recognized (OL)
Sealing principle Assembly position Any Manual override detenting Pushing Type of piloting Flow direction reversible Overlap Signal status display Pilot pressure MPa Pilot pressure MPa Pilot pressure 3 8 MPa Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off Switching time off Switching time reversal 15 ms Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Ubiration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Protection class	IP65
Assembly position Manual override detenting Pushing Type of piloting Flow direction Overlap Positive overlap Signal status display Pilot pressure MPa Pilot pressure MPa Pilot pressure 3 8 Bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on 10 ms Switching time reversal Max. positive test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Vibration resistance Flook resistance Shock resistance Shock resistance Shock sessiving services and the support of the prevent		to IEC 60529
Assembly position Manual override detenting Pushing Type of piloting Flow direction Overlap Positive overlap Signal status display Pilot pressure MPa Pilot pressure MPa Pilot pressure 3 8 Bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on 10 ms Switching time reversal Max. positive test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Vibration resistance Flook resistance Shock resistance Shock resistance Shock sessiving services and the support of the prevent	Sealing principle	soft
Type of piloting Type of piloting Piloted Flow direction Preversible Overlap Positive overlap Signal status display Pilot pressure MPa Pilot pressure MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time off 35 ms Switching time off 310 ms Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		Any
Type of piloting Flow direction reversible Overlap Positive overlap Signal status display Yes Pilot pressure MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time off 35 ms Switching time reversal 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Manual override	detenting
Flow direction reversible Overlap Positive overlap Signal status display Yes Pilot pressure MPa 0.3 0.8 MPa Pilot pressure MPa 0.3 0.8 MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 320 l/min Switching time off 35 ms Switching time on 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 μs Max. negative test pulse with logic 1 200 μs Permissible voltage fluctuation +/- 25 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		Pushing
Overlap Signal status display Pilot pressure MPa O.3 0.8 MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Type of piloting	Piloted
Signal status display Pilot pressure MPa 0.3 0.8 MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Note on operating and pilot medium Uibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		reversible
Pilot pressure MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 200 µs Permissible voltage fluctuation	Overlap	Positive overlap
Pilot pressure MPa Pilot pressure 3 8 bar Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off 35 ms Switching time on 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 200 µs Permissible voltage fluctuation	Signal status display	·
Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off Switching time on Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		0.3 0.8 MPa
Suitability for vacuum Yes Standard nominal flow rate with QS-6 Switching time off Switching time on Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	Pilot pressure	3 8 bar
Standard nominal flow rate with QS-6320 l/minSwitching time off35 msSwitching time on10 msSwitching time reversal15 msMax. positive test pulse with logic 0400 μsMax. negative test pulse with logic 1200 μsPermissible voltage fluctuation+/- 25 %Operating mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (subsequently required for further operation)Vibration resistanceTransport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		Yes
Switching time off Switching time on Switching time reversal 15 ms Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27	•	320 l/min
Switching time on 10 ms Switching time reversal 15 ms Max. positive test pulse with logic 0 400 µs Max. negative test pulse with logic 1 200 µs Permissible voltage fluctuation +/- 25 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		
Switching time reversal Max. positive test pulse with logic 0 Max. negative test pulse with logic 1 Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and 60068-2-27		
Max. positive test pulse with logic 0400 μsMax. negative test pulse with logic 1200 μsPermissible voltage fluctuation+/- 25 %Operating mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (subsequently required for further operation)Vibration resistanceTransport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		15 ms
Max. negative test pulse with logic 1200 μsPermissible voltage fluctuation+/- 25 %Operating mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (subsequently required for further operation)Vibration resistanceTransport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		
Permissible voltage fluctuation +/- 25 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		•
Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		·
Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		·
942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and 60068-2-27		Lubricated operation possible (subsequently required for further
60068-2-27	Vibration resistance	
	Shock resistance	Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27
Corrosion resistance classification CRC 1 - Low corrosion stress	Corrosion resistance classification CRC	1 - Low corrosion stress
PWIS conformity VDMA24364-B1/B2-L		
Storage temperature -20 40 °C	,	
Medium temperature -5 50 °C	<u> </u>	
Relative air humidity Max. 90% at 40°C		
Ambient temperature -5 50 °C		
Max. tightening torque, valve mounting 0.25 Nm	·	
Product weight 56 g		
Mounting type with through hole		
Materials note Conforms to RoHS		
Material seals NBR		
Material housing Aluminium die cast		