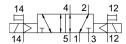
## Air solenoid valve VMPA2-M1H-J-Pl

**FESTO** 

Part number: 537953





## **Data sheet**

Relative air humidity  Lap Overlap Catuation type Electrical Valve size 20 mm Standard nominal flow rate Operating voltage Operating pressure Operating pressure Operating pressure Design Piston gate valve Degree of protection IP85 as per IEC 60529 Certification Cult us - Recognized (OL) Type code VMPA2 Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Non-detenting Non-detenting Non-detenting Symbol Oggal status display Pilot pressure 3 bar 8 bar Suitability for vacuum Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 Standard nominal flow rate with QS-10 On switching time On switching time 22 ms Max. positive test pulse with 0 signal Max. positive test pulse with 0 signal Max. pogrative test pulse and pilot media Vibration resistance Transport application test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Feature	Value
Actuation type Electrical Actuation type Electrical Valve size 20 mm Standard nominal flow rate 886 Urnin Operating voltage 24V DC Operating pressure -0.9 bar 10 bar Design Piston gate valve Degree of protection Pie65 as per IEC 60529 Certification c UL us - Recognized (OL) Type code VMPA2 Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Type of control Pilot-controlled Reversible Symbol 00991067 Signal status display yes Suitability for vacuum Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 On switching time 9 ms Changeover time 22 ms Max. positive test pulse on 1 signal Permissible voltage fluctuations	Valve function	5/2, bistable
Actuation type	Relative air humidity	Max. 90 % at 40 °C
Valve size         20 mm           Standard nominal flow rate         860 l/min           Operating voltage         24V DC           Operating pressure         -0.9 bar 10 bar           Design         Piston gate valve           Degree of protection         IP65 as per IEC 60529           Certification         c UL us - Recognized (OL)           Type code         VMPA2           Sealing principle         Soft           Mounting position         Any           Manual override         Detenting           Non-detenting         Non-detenting           Type of control         Pilot-controlled           Flow direction         Reversible           Symbol         00991067           Signal status display         yes           Pilot pressure         3 bar 8 bar           Suitability for vacuum         yes           Standard nominal flow rate with QS-8         670 l/min           Standard nominal flow rate with QS-8         670 l/min           On switching time         9 ms           Changeover time         22 ms           Max. positive test pulse with 0 signal         400 µs           Max. positive test pulse on 1 signal         900 µs           Permissible voltage fl	Lap	Overlap
Standard nominal flow rate Operating voltage Operating pressure Operating principle Operating principle Operating principle Soft Operating principle Soft Operating principle Operating pressure Operating level 2 as per FN 942017-5 and EN 60068-2-27 Operating pressure or Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27 Operating prediction operating level 2 as per FN 942017-5 and EN 60068-2-27	Actuation type	Electrical
Operating voltage         24V DC           Operating pressure         -0.9 bar 10 bar           Design         Piston gate valve           Degree of protection         IP65           as per IEC 60529         Certification           Certification         c UL us - Recognized (OL)           Type code         VMPA2           Sealing principle         Soft           Mounting position         Any           Manual override         Detenting           Non-detenting         Non-detenting           Type of control         Pilot-controlled           Flow direction         Reversible           Symbol         00991067           Signal status display         yes           Pilot pressure         3 bar 8 bar           Suitability for vacuum         yes           Standard nominal flow rate with QS-8         670 l/min           Standard nominal flow rate with QS-10         860 l/min           On switching time         9 ms           Changeover time         9 ms           Changeover time         9 ms           Max. positive test pulse with 0 signal         400 µs           Max. regative test pulse on 1 signal         900 µs           Permissible voltage fluctuations	Valve size	20 mm
Design   Piston gate valve   Design   Piston gate valve	Standard nominal flow rate	860 l/min
Design Piston gate valve  Degree of protection IP65 as per IEC 60529  Certification c UL us - Recognized (OL)  Type code VMPA2  Sealing principle Soft  Mounting position Any  Manual override Detenting Non-detenting  Type of control Pilot-controlled  Flow direction Reversible  Symbol 00991067  Signal status display yes  Suitability for vacuum yes  Standard nominal flow rate with QS-8 670 I/min  Standard nominal flow rate with QS-10 860 I/min  On switching time 9 ms  Changeover time 22 ms  Max. negative test pulse with 0 signal 900 µs  Permissible voltage fluctuations +/- 25 %  Operating medium Compressed Shock resistance  Transport application test with severity level 2 as per FN 942017-5 and EN 60068-2-27  Shock resistance  Shock resistance  Shock resistance  Transport application severity level 2 as per FN 942017-5 and EN 60068-2-27	Operating voltage	24V DC
Degree of protection  IP65 as per IEC 60529  Certification  c UL us - Recognized (OL)  Type code  VMPA2  Sealing principle  Mounting position  Any  Manual override  Detenting Non-detenting Piot-controlled  Flow direction  Reversible  Symbol  Signal status display  Piot pressure  3 bar 8 bar  Suitability for vacuum  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  Changeover time  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock resistance  Shock resistance  Shock resistance  Insurance Any  VMPA2  Soft Any  Lus - Recognized (OL)  VMPA2  Sap IEC 60529  CUL us - Recognized (OL)  VMPA2  Soft  Any  Lus - Recognized (OL)  VMPA2  Soft  Any  Max - Recognized (OL)  VMPA2  Soft  Any  Detenting  Non-detenting  Non-d	Operating pressure	-0.9 bar 10 bar
as per IEC 60529  Certification  c UL us - Recognized (OL)  Type code  VMPA2  Sealing principle  Soft  Mounting position  Any  Manual override  Detenting Non-detenting  Type of control  Pilot-controlled  Flow direction  Reversible  Symbol  Signal status display  yes  Pilot pressure  3 bar 8 bar  Suitability for vacuum  yes  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  9 ms  Changeover time  Max. positive test pulse with 0 signal  Max. negative test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  4-/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock resistance  Shock resistance  Shock resistance  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-67	Design	Piston gate valve
Sealing principle Soft Mounting position Manual override Detenting Non-detenting Type of control Pilot-controlled Flow direction Reversible Symbol O0991067 Signal status display Pilot pressure 3 bar 8 bar Suitability for vacuum Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 On switching time On switching time Date on the signal Max. positive test pulse with 0 signal Max. negative test pulse on 1 signal Permissible voltage fluctuations Operating medium Comperating and pilot media Vibration resistance Shock resistance Shock resistance Shock resistance  VMPA2 Soft Soft Soft Soft Any Detenting Non-detenting Non	Degree of protection	
Sealing principle  Mounting position  Any  Manual override  Detenting Non-detenting  Type of control  Pilot-controlled  Reversible  Symbol  Signal status display  Piot pressure  3 bar 8 bar  Suitability for vacuum  yes  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  Changeover time  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Certification	c UL us - Recognized (OL)
Mounting position  Manual override  Detenting Non-detenting Pilot-controlled Reversible Symbol  Signal status display Pilot pressure 3 bar 8 bar Suitability for vacuum  Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10  On switching time 9 ms  Changeover time  Max. positive test pulse with 0 signal Max. negative test pulse on 1 signal Permissible voltage fluctuations  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Information on operating and pilot media  Vibration resistance  Shock resistance  Shock resistance  Description  Detenting Non-detenting Non	Type code	VMPA2
Manual override  Detenting Non-detenting Type of control Pilot-controlled Flow direction Reversible Symbol 00991067 Signal status display yes Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 On switching time 9 ms Changeover time Max. positive test pulse with 0 signal Max. negative test pulse on 1 signal Permissible voltage fluctuations Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4] Information on operating and pilot media Vibration resistance Shock resistance Shock resistance Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Sealing principle	Soft
Non-detenting Type of control Pilot-controlled Flow direction Reversible Symbol 00991067 Signal status display yes Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 860 I/min On switching time 9 ms Changeover time 22 ms Max. positive test pulse with 0 signal Max. negative test pulse on 1 signal Permissible voltage fluctuations Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4] Information on operating and pilot media Vibration resistance Shock resistance Shock resistance Shock resistance Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Mounting position	Any
Flow direction  Reversible  Symbol  00991067  Signal status display  Pilot pressure  3 bar 8 bar  Suitability for vacuum  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  9 ms  Changeover time  22 ms  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  4/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Manual override	
Symbol 00991067  Signal status display yes  Pilot pressure 3 bar 8 bar  Suitability for vacuum yes  Standard nominal flow rate with QS-8 670 l/min  Standard nominal flow rate with QS-10 860 l/min  On switching time 9 ms  Changeover time 22 ms  Max. positive test pulse with 0 signal 400 µs  Max. negative test pulse on 1 signal 900 µs  Permissible voltage fluctuations +/- 25 %  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 Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Type of control	Pilot-controlled
Signal status display  Pilot pressure  3 bar 8 bar  Suitability for vacuum  yes  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  9 ms  Changeover time  22 ms  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  +/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Flow direction	Reversible
Pilot pressure  Suitability for vacuum  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  On switching time  9 ms  Changeover time  22 ms  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  4/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  Vibration resistance  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Symbol	00991067
Suitability for vacuum  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  Standard nominal flow rate with QS-8  Standard nominal flow rate with QS-10  Standard nom	Signal status display	yes
Standard nominal flow rate with QS-8 Standard nominal flow rate with QS-10 Standard nominal flow passed on 1 Standard nominal flow p	Pilot pressure	3 bar 8 bar
Standard nominal flow rate with QS-10  On switching time  9 ms  Changeover time  22 ms  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  4/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  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	Suitability for vacuum	yes
On switching time  Changeover time  22 ms  Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  4/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  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	Standard nominal flow rate with QS-8	670 l/min
Changeover time  22 ms  Max. positive test pulse with 0 signal  400 µs  Max. negative test pulse on 1 signal  900 µs  Permissible voltage fluctuations  4/- 25 %  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  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Standard nominal flow rate with QS-10	860 I/min
Max. positive test pulse with 0 signal  Max. negative test pulse on 1 signal  Permissible voltage fluctuations  +/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  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	On switching time	9 ms
Max. negative test pulse on 1 signal  Permissible voltage fluctuations  +/- 25 %  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Information on operating and pilot media  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	Changeover time	22 ms
Permissible voltage fluctuations  +/- 25 %  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  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Max. positive test pulse with 0 signal	400 µs
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  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Max. negative test pulse on 1 signal	900 µs
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  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Permissible voltage fluctuations	+/- 25 %
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	Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
and EN 60068-2-6  Shock resistance  Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
60068-2-27	Vibration resistance	
Corrosion resistance class (CRC) 1 - Low corrosion stress	Shock resistance	· · · · · · · · · · · · · · · · · · ·
	Corrosion resistance class (CRC)	1 - Low corrosion stress

Feature	Value
Storage temperature	-20 °C 40 °C
Temperature of medium	-5 °C 50 °C
Ambient temperature	-5 °C 50 °C
Max. tightening torque for valve mounting	0.65 Nm
Product weight	100 g
Type of mounting	With through-hole
Note on materials	RoHS-compliant
Seals material	NBR
Housing material	Die-cast aluminum