Solenoid valve VMPA1-M1H-KS-PI

Part number: 556838





General operating condition

Data sheet

Operating pressure Operating Op	Feature	Value
Valve size 10 mm Standard nominal flow rate 230 l/min Operating voltage 24V DC Operating pressure -0.09 MPa 0.8 MPa Operating pressure 9.09 bar 8 bar Design Piston gate valve Type of reset Mechanical spring Approval CLU. us - Recognized (OL) Degree of protection IP65 To IEC 60529 Sealing principle Soft Mounting position optional Manual override Detenting Type of piloting Pilot actuated Flow direction Reversible Symbol 00992874 Ialp Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Signal status display yes Standard nominal flow rate with QS-6 Switching time on 14 ms Max. positive test pulse with 1 signal 200 µs Permissible voltage fluctuations 1/25% Operating medium Complexed in Transport application test with severity level 2 to FN 942017-5 and EN 60068-2-27 Shock resistance Shock rest with severity level 2 to FN 942017-5 and EN 60068-2-27	Valve function	2x3/2-way, monostable, closed
Standard nominal flow rate 230 l/min Operating voltage 24V DC Operating pressure -0.9 bar 8 bar Design Piston gate valve Type of reset Mechanical spring Approval c UL us. *Recognized (OL) Degree of protection IP65 To IEC 60529 Soft Mounting position optional Manual override Detenting Type of piloting Pilot actuated Flow direction Reversible Symbol 00992874 lap Overlap Signal satus display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time off 16 ms Max. positive test pulse with 0 signal 400 μs Max. a pastive test pulse with 1 signal 200 μs Permissible voltage fluctuations 4/- 25% Operating medium Compressed air to 150 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 Shock test with severi	Type of actuation	Electric
Operating voltage 24V DC Operating pressure -0.9 MPa 0.8 MPa Operating pressure -0.9 bar 8 bar Design Piston gate valve Type of reset Mechanical spring Approval c UL us - Recognized (OL) Degree of protection IP65 To IEC 60529 Sealing principle Soft Optional Manual override Detenting Manual override Detenting Non detenting Pilot actuated Flow direction Reversible Symbol 00992874 Jap Overlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 0.3 MPa 0.8 MPa Slutability for vacuum yes Standard nominal flow rate with QS-6 230 I/min Switching time off 16 ms Switching time off 16 ms Max. positive test pulse with 0 signal 400 μs Max. negative test pulse with 1 signal 200 μs Permissible voltage fluctuations	Valve size	10 mm
Operating pressure Operating principle Operating principle Operating principle Operating principle Operating principle Operating Optional Op	Standard nominal flow rate	230 l/min
Operating pressure Design Piston gate valve Type of reset Mechanical spring College of protection Degree of protection Detenting principle Soft Detenting Non-detenting Type of piloting Pilot actuated Pilot actuated Pilot actuated Pilot protection Reversible Symbol Degree of protection Reversible Symbol Degree of protection Degree of protection Reversible Symbol Degree of protection Reversible Symbol Degree of protection Degree of protection Detenting Det	Operating voltage	24V DC
Design Piston gate valve Type of reset Mechanical spring Approval CUL us - Recognized (OL) Degree of protection IP65 To IEC 60529 Sealing principle Soft Mounting position optional Manual override Detenting Type of piloting Pilot actuated Flow direction Reversible Symbol Oo992874 Iap Overlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 Switching time of 16 ms Switching time of 14 ms Max. positive test pulse with 1 signal 200 µs Permissible voltage fluctuations +/- 25% Operating medium Comperating and pilot medium laways be required) Vibration resistance Shock rest with severity level 2 to FN 942017-5 and EN 60068-2-27	Operating pressure	-0.09 MPa 0.8 MPa
Type of reset Approval C UL us - Recognized (OL) Degree of protection P65 To IEC 60529 Sealing principle Soft Mounting position Manual override Detenting Non-detenting Non-detenting Non-detenting Pillot actuated Flow direction Reversible Symbol Oo992874 lap Overlap Signal status display yes Pilot pressure O.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 Switching time off Switching time on Max. negative test pulse with 1 signal Apoprating and pilot medium Vibration resistance Shock resistance Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Operating pressure	-0.9 bar 8 bar
Approval c UL us - Recognized (OL) Degree of protection IP65 To IEC 60529 Sealing principle Soft Mounting position optional Manual override Detenting Non-detenting Type of piloting Pilot actuated Flow direction Reversible Symbol 00992874 Iap Overlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 I/min Switching time off 16 ms Switching time of 14 ms Max. negative test pulse with 1 signal 200 µs Permissible voltage fluctuations 4/-25% Operating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation pessible (in which case lubricated operation will always be required) Vibration resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Design	Piston gate valve
Degree of protection P65	Type of reset	Mechanical spring
Sealing principle Soft Mounting position Optional Manual override Detenting Non-detenting Non-detenting Pilot actuated Flow direction Reversible Symbol Oo992874 Iap Overlap Signal status display Pilot pressure O,3 MPa 0.8 MPa Pilot pressure Joan Manual flow rate with QS-6 Suitability for vacuum Standard nominal flow rate with QS-6 Switching time off Max. positive test pulse with 1 signal Max. negative test pulse with 1 signal Ava. negative test pulse with 1 signal Derating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Ubiration resistance Shock resistance Shock resistance Shock sesistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Approval	c UL us - Recognized (OL)
Mounting position Manual override Detenting Non-detenting Pilot actuated Flow direction Reversible Symbol Ooy92874 lap Overlap Signal status display yes Pilot pressure O.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 I/min Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations 4/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Degree of protection	
Manual override Detenting Non-detenting Type of piloting Pilot actuated Flow direction Reversible Symbol 00992874 lap Overlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal 400 μs Max. negative test pulse with 1 signal 200 μs Permissible voltage fluctuations +/- 25% 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 Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Sealing principle	Soft
Non-detenting Type of piloting Pilot actuated Flow direction Reversible Symbol 00992874 lap 00verlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time off 14 ms Max. positive test pulse with 0 signal 400 µs Max. negative test pulse with 1 signal 200 µs Permissible voltage fluctuations +/- 25% 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 Shock resistance Free Standard North Sta	Mounting position	optional
Flow direction Reversible Symbol 00992874 lap Overlap Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Suitability for vacuum yes Standard nominal flow rate with QS-6 Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations Operating medium Note on operating and pilot medium Vibration resistance Reversible Overlap Overlap Overlap Osa MPa 0.8 MPa 3 bar 8 bar 230 l/min Sam Switching time off 16 ms Switching time off 14 ms 400 µs Ass. negative test pulse with 0 signal 400 µs 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 Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Manual override	9
Symbol00992874lapOverlapSignal status displayyesPilot pressure0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-6230 l/minSwitching time off16 msSwitching time on14 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse with 1 signal200 μsPermissible voltage fluctuations+/- 25%Operating mediumCompressed air to ISO 8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (in which case lubricated operation will always be required)Vibration resistanceTransport application test with severity level 2 to FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Type of piloting	Pilot actuated
lapOverlapSignal status displayyesPilot pressure0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-6230 l/minSwitching time off16 msSwitching time on14 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse with 1 signal200 μsPermissible voltage fluctuations+/- 25%Operating mediumCompressed air to ISO 8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (in which case lubricated operation will always be required)Vibration resistanceTransport application test with severity level 2 to FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Flow direction	Reversible
Signal status display yes Pilot pressure 0.3 MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal 400 μs Max. negative test pulse with 1 signal 200 μs Permissible voltage fluctuations +/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Symbol	00992874
Pilot pressure 0.3 MPa 0.8 MPa Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal 400 μs Max. negative test pulse with 1 signal 200 μs Permissible voltage fluctuations +/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	lap	Overlap
Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-6 230 l/min Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations 4/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Signal status display	yes
Suitability for vacuum Standard nominal flow rate with QS-6 Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations 1-/-25% 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 942017-5 and EN 60068-2-27	Pilot pressure	0.3 MPa 0.8 MPa
Standard nominal flow rate with QS-6 Switching time off 16 ms Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Pilot pressure	3 bar 8 bar
Switching time off Switching time on 14 ms Max. positive test pulse with 0 signal Max. negative test pulse with 1 signal Permissible voltage fluctuations 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Suitability for vacuum	yes
Switching time on 14 ms Max. positive test pulse with 0 signal 400 µs Max. negative test pulse with 1 signal 200 µs Permissible voltage fluctuations +/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Standard nominal flow rate with QS-6	230 l/min
Max. positive test pulse with 0 signal400 μsMax. negative test pulse with 1 signal200 μsPermissible voltage fluctuations+/- 25%Operating mediumCompressed air to ISO 8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (in which case lubricated operation will always be required)Vibration resistanceTransport application test with severity level 2 to FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Switching time off	16 ms
Max. negative test pulse with 1 signal Permissible voltage fluctuations +/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Switching time on	14 ms
Permissible voltage fluctuations +/- 25% 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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Max. positive test pulse with 0 signal	400 µs
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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Max. negative test pulse with 1 signal	200 μs
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 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Permissible voltage fluctuations	+/- 25%
always be required) Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27	Note on operating and pilot medium	
	Vibration resistance	
Corrosion resistance class CRC 1 - Low corrosion stress	Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
	Corrosion resistance class CRC	1 - Low corrosion stress

Feature	Value
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Storage temperature	-20 °C 40 °C
Media temperature	-5 °C 50 °C
Relative air humidity	Max. 90% at 40°C
Ambient temperature	-5 °C 50 °C
Max. tightening torque for valve mounting	0.25 Nm
Product weight	56 g
Type of mounting	With through-hole
Note on materials	RoHS-compliant
Material seals	NBR
Material housing	Die-cast aluminium