Air solenoid valve VMPA2-M1H-X-PI

Part number: 537961



42 (14) 2 42 (14) 4 42 (14) 4 84 4

General operating condition

Data sheet

Actuation type Electrical Valve size 20 mm Standard nominal flow rate 470 l/min Operating yotage 24V DC Operating pressure -0.09 MPa 1 MPa Operating pressure -0.9 Jar 10 bar Structural design Piston gate valve Reset method Pneumatic spring Certification c UL us - Recognized (0L) Degree of protection P65 Reset method Soft Mounting position Ary Manual override Detenting Non detenting Yope of torotol Pilot controlled Flow direction Reversible Symbol Oo99175 Lap Overtap Pilot pressure MPa 0.3 MPa 0.8 MPa Pilot pressure MPa 0.3 MPa 0.8 MPa Standard nominal flow rate with QS-10 480 l/min Standard nominal flow rate with QS-10	Feature	Value
Valve size 20 mm Standard nominal flow rate 470 l/min Operating pressure 0.09 MPa 1 MPa Operating pressure 0.09 MPa 10 bar Structural design Piston gate valve Reset method Pneumatic spring Certification c UL us - Recognized (OL) Degree of protection IP65 as per IEC 60529 seat Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Type of control Pilot-controlled Flow direction Reversible Symbol 00991175 Lag Qa MPa 0.8 MPa Pilot pressure 3 bar 8 bar Suitability for vacuum yes Standard nominal flow rate with QS-8 470 l/min Standard nominal flow rate with QS-10 480 l/min Switching time off 22	Valve function	3/2, closed, monostable
Standard nominal flow rate470 l/minOperating voltage24V DCOperating pressure-0.09 MPa 1 MPaOperating pressure-0.9 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationcUL us - Recognized (0L)Degree of protectionas per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow direction0991175LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-8470 l/minMax. positive test pulse on 1 signal900 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/ 25 %Operating mediumCompressed air as per IS0 8573-1:2010[7:4:4]Operating mediumCompressed air as per IS0 8573-1:2010[7:4:4]Operation mediumCompressed a	Actuation type	Electrical
Operating voltage24V DCOperating pressure0.09 MPa 1 MPaOperating pressure-0.9 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationc UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure3 bar 8 barSuitability for vacumyesStandard nominal flow rate with QS-10480 /minStandard nominal flow rate with QS-10480 /minSwitching time13 msMax. peative test pulse en 1 signal400 µsMax. regative test pulse glucutations4/-25 %Operating mediumCompressed air as per IS0 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperating the severity level 2 as per N942017-4 and EN 6068-2-6	Valve size	20 mm
Operating pressure-0.09 MPa 1 MPaOperating pressure-0.9 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationcl Lu ss - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesStaddard nominal flow rate with Q5-8470 l/minStandard nominal flow rate with Q5-10480 l/minSwitching time off22 msOn switching time13 msMax, negative test pulse with 0 signal400 µsPermissible voltage fluctuations+/-25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Standard nominal flow rate	470 l/min
Operating pressure -0.9 bar 10 bar Structural design Piston gate valve Reset method Pneumatic spring Certification c UL us · Recognized (OL) Degree of protection IP65 as per IEC 60529 Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Vipe of control Pilot-controlled Flow direction Reversible Symbol 00991175 Lap Overlap Sitability for vacuum yes Standard nominal flow rate with QS-8 470 1/min Standard nominal flow rate with QS-8 470 1/min Max, negative test pulse on 1 signal 900 µs Permissible voltage fluctuations 4/-25 % Operating medium Compressed air as per IS0 8573-1:2010 [7:4:4] Information on operating and pilot media Operating medium Vibration resistance Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Operating voltage	24V DC
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Reset methodPneumatic springCertificationc UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-10480 l/minSwitching time13 msMax, positive test pulse with 0 signal400 µsMax, negative test pulse with 0 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil bubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 6068-2-6	Operating pressure	-0.9 bar 10 bar
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Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax, positive test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Reset method	Pneumatic spring
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Mounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 μsMax. positive test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Degree of protection	
Manual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per IS0 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Sealing principle	Soft
Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. negative test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per IS0 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Mounting position	Any
AReversibleFlow directionReversibleSymbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. negative test pulse with 0 signal400 μsMax. negative test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Manual override	
Symbol00991175LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. negative test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Type of control	Pilot-controlled
LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Flow direction	Reversible
Signal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Symbol	00991175
Pilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Lap	Overlap
Pilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Signal status display	yes
Suitability for vacuumyesStandard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Pilot pressure MPa	0.3 MPa 0.8 MPa
Standard nominal flow rate with QS-8470 l/minStandard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Pilot pressure	3 bar 8 bar
Standard nominal flow rate with QS-10480 l/minSwitching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Suitability for vacuum	yes
Switching time off22 msOn switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Standard nominal flow rate with QS-8	470 l/min
On switching time13 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Standard nominal flow rate with QS-10	480 l/min
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 Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Switching time off	22 ms
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 Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	On switching time	13 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	Max. positive test pulse with 0 signal	400 μs
Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Max. negative test pulse on 1 signal	900 µs
Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Permissible voltage fluctuations	+/- 25 %
Vibration resistance Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6	Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
EN 60068-2-6	Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Shock resistance Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Vibration resistance	
	Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27

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Feature	Value
Corrosion resistance class (CRC)	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Storage temperature	-20 °C 40 °C
Temperature of medium	-5 °C 50 °C
Relative air humidity	Max. 90 % at 40 °C
Ambient temperature	-5 °C 50 °C
Max. tightening torque for valve mounting	0.65 Nm
Product weight	100 g
Type of mounting	With through-hole
Note on materials	RoHS-compliant
Seals material	NBR
Housing material	Die-cast aluminum