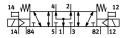
Air solenoid valve VMPA2-M1BH-B-PI

Part number: 8022036





General operating condition

Data sheet

Valve size20 mmStandard nominal flow rate400 l/minOperating yottage24V DCOperating pressure-0.09 MPa 1 MPaOperating pressure-0.9 bar 1 DarStructural designPiston gate valveReset methodMechanical springCertificationc UL us - Recognized (OL)Degree of protectionIP65as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetentingType of controlPilot-controlledFlow directionexersibleSymbol00991031LapOverlapSignal status displayyesPilot pressure3 bar 8 barSutching flow rate with QS-10400 l/minSwitching time off46 msOn switching time off46 msOn switching time off400 u/minSwitching time off400 u/minPilot pressure32 msMax. negative test pulse on 1 signal900 u/sPermissible voltage fluctuations4/-25 %.Operating users are used air as per ISO 8573-1:2010 [7:4:4]	Feature	Value
Valve size20 mmStandard nominal flow rate400 I/minOperating voltage24V DCOperating pressure-0.9 MPa 1 MPaOperating pressure-0.9 Jobr 10 barStructural designPiston gate valveReset methodMcchanical springCertificationc UL us - Recognized (OL)Degree of protectionIP65Begree of protectionSoftMounting positionAnyManual overrideDetenting Non-detenting Non-detentingType of controlIPilot-controlledFlow directionQey1031CapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaPoint possive3 bar 0.8 MPaStandard nominal flow rate with QS-10400 I/minSwitching time11 msChangeover time23 msMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/ 25 %.Operating mediumCompressed air as per 150 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperaton with oil ubrication possible (required for further use)Vibration resistanceTransport application test with severily level 2 as per FN 942017-4 and ENGORE2-6	Valve function	5/3, pressurized
AnswerADD UminOperating voltage24V DCOperating pressure-0.9 MPa 1 MPaOperating pressure-0.9 MPa 10 barStructural designPiston gate valveReset methodMcchanical springCertificationc UL us - Recognized (OL)Degree of protectionas per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetentingYope of controlPilot-controlledFlow direction0991031LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaPilot pressure3 bar 0.8 MPaSutching time11 msCharge with Osignal400 UminSwitching time off46 msOn switching time11 msCharge medium00 psPressure file23 msMax. negative test pulse with O signal400 µsMax. negative test pulse with 0 signal400 µsMax. negative test pulse mol 1 signal000 µsPersiselie voltage fluctuations+/ 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on sperating and pilot mediaOperating medium test with severily level 2 as per FN 942017-4 and Endoces 2-6Vibration resistanceTransport application test with severily level 2 as per FN 942017-4 and Endoces 2-6	Actuation type	Electrical
Operating voltage 24V DC Operating pressure -0.09 MPa 10 MPa Operating pressure -0.9 bar 10 bar Structural design Piston gate valve Reset method Mechanical 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 Type of control Pilot-controlled Flow direction Reversible Symbol 00991031 Lap Overlap Sital status display yes Pilot pressure 3 bar 8 bar Sutability for vacuum yes Standard nominal flow rate with QS-10 400 l/min Max. pestive test pulse on 1 signal 400 µs Max. pestive test pulse on 1 signal 400 µs Max. pestive test pulse on 1 signal 400 µs Max. pestive test pulse on 1 signal 400 µs Permissible voltage fluctuations 4/-25 % Operating medium O	Valve size	20 mm
Operating pressure0.09 MPa 1 MPaOperating pressure-0.9 bar 10 barStructural designPiston gate valveReset methodMechanical springCertificationCUL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detenting Non-detentingType of controlFilot-controlledFlow directioneversibleSymbol00991031LapOverlapSignal status displayyesPilot presure MPa0.3 MPa 0.8 MPaPilot presure MPa0.3 MPa 0.8 MPaStutching time11 msChangeover time23 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 test with severity level 2 as per FN 942017-4 and EN 6068-2-6	Standard nominal flow rate	400 l/min
Operating pressure 0.9 bar 10 bar Structural design Piston gate valve Reset method Mechanical spring Certification c UL us - Recognized (OL) Degree of protection IP65 as per IEC 60529 Sealing principle Mounting position Any Manual override Detenting Non-detenting Non-detenting Yope of control Pilot-controlled Flow direction Reversible Symbol 00991031 Lap Overlap Sitability for vacuum yes Standard nominal flow rate with QS-10 400 l/min Switching time 11 ms Charge or yes 23 ms Max. positive test pulse on 1 signal 900 µs Permissible voltage fluctuations 4/- 25 % Operating medium Compressed ar as per ISO 8573-1:2010 [7:4:4] Information on operating and pilot media Operation with severity level 2 as per FN 942017-4 and EN 6008-2-6	Operating voltage	24V DC
Structural design Piston gate valve Reset method Mechanical spring Certification c UL us - Recognized (QL) Degree of protection IP65 as per IEC 60529 Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Type of control Pilot-controlled Flow direction Reversible Symbol 00991031 Lap Overlap Pilot pressure MPa 0.3 MPa 0.8 MPa Pilot pressure MPa 0.3 MPa 0.8 MPa Sutability for vacuum yes Sutability time 11 ms Changeover time 23 ms Max, negative test pulse with 0 signal 400 µs Max, negative test pulse on 1 signal 900 µs Permissible voltage fluctuations +/- 25 %- Operating medium Operating medium Operating medium Operating medium on operating and pilot media	Operating pressure	-0.09 MPa 1 MPa
Reset methodMechanical springCertificationc UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax, negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/-25 %Operation mediantOperation method in a per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with severity level 2 as per FN 942017-4 and EN 6068-2-6	Operating pressure	-0.9 bar 10 bar
Certificationc UL us - Recognized (0L)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbolOo991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-10400 I/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. 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 FN 96068-2-6	Structural design	Piston gate valve
Degree of protectionIP65 as per IEC 60529Sealing principleSoftMouning positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. 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	Reset method	Mechanical spring
as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa0.8 MPaPilot pressure MPa3 bar8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal900 µsPermissible voltage fluctuations+/- 25 %Operating mediumOperation 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	Certification	c UL us - Recognized (OL)
Mounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumyesSuitability for vacuumyesSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChargeover time23 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	Degree of protection	
Manual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. negative test pulse with 0 signal900 µsPermissible voltage fluctuations+/- 25 %Operation 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	Sealing principle	Soft
Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSitability for vacuumyesSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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	Mounting position	Any
Flow directionReversibleSymbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. 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 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	
Symbol00991031LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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	Type of control	Pilot-controlled
LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 msMax. negative test pulse with 0 signal400 μsMax. negative test pulse on 1 signal900 μsPermissible voltage fluctuations+/- 25 %Operating mediumOperation 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-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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	00991031
Pilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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-10400 l/minSwitching time off46 msOn switching time11 msChangeover time23 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
Switching time off46 msOn switching time11 msChangeover time23 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
On switching time11 msChangeover time23 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	400 l/min
Changeover time23 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	Switching time off	46 ms
Max. 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	On switching time	11 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	Changeover time	23 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

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