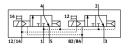
## Air solenoid valve VMPA1-M1H-K-PI

Part number: 533347





General operating condition

## Data sheet

Actuation type   Electrical     Valve size   10 mm     Standard nominal flow rate   230 l/min     Operating pressure   0.3 MPa 1 MPa     Operating pressure   0.3 MPa 10 bar     Structural design   Piston gate valve     Reset method   Pneumics spring     Certification   C UL us - Recognized (OL)     Degree of protection   IP65     Sealing principle   Soft     Mounting position   Any     Manual override   Detenting     Non-detenting   Non-detenting     Symbol   Ooverlap     Signal Status display   yes     Pilot pressure   3 bar 8 bar     Suitability for vacuum   no     Standard nominal flow rate with QS-6   230 l/min     Suitability for vacuum   no     Standard nominal flow rate with QS-6   230 l/min     Suitability for vacuum   no     Nax. negative test pulse with 0 signal   400 µs     Max. negative test pulse with 0 signal   400 µs     Max. negative test pulse with 0 signal   200 µs	Feature	Value
Valve size 10 mm   Standard nominal flow rate 230 l/min   Standard nominal flow rate 230 l/min   Operating pressure 0.3 MPa 1 MPa   Opperating pressure 3 bar 10 bar   Structural design Piston gate valve   Reset method Pneumatic spring   Certification c UL us - Recognized (OL)   Degree of protection P65   as per IEC 60529 Sealing principle   Soft Mounting position   Manual override Detenting Non-detenting   Type of control Pilot-controlled   Flow direction Ves   Symbol 00991809   Control Non-reversible   Status display yes   Pilot pressure 3 bar 8 bar   Sutability for vacuum no   Standard nominal flow rate with QS-6 230 l/min   Switching time off 20 ms   On switching time 10 ms   Max. negative test pulse with 0 signal 400 µs   Max. positive test pulse with 0 signal 200 µs   Permissible voltage fluctutations 1/2 5%   O	Valve function	2x3/2, closed, monostable
Standard nominal flow rate230 l/minDperating voltage24V DCOperating pressure0.3 MPa 10 MPaOperating pressure3 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationCUL us - Recognized (OL)Degree of protectionIP65Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingNon-detentingNon-detentingSymbol00991809LapVerlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumnoSwitching time off20 msDarwitching time off20 msDarwitching time off20 msDressive splate200 yisPermissible voltage fluctuations+/-25 %Suitability for vacuumnoSwitching time off20 msDarwitching time off20 msDarwitching filme10 msMax. negative test pulse on 1 signal200 ysPermissible 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)Vibraton resistanceTransport application test with severity level 2 as per FN 942017-5 and EN 60068-2-6	Actuation type	Electrical
Depresting voltage   24V DC     Operating pressure   0.3 MPa 1 MPa     Operating pressure   3 bar 10 bar     Structural design   Piston gate valve     Reset method   Pneumatic spring     Certification   c UL us - Recognized (0L)     Degree of protection   1P65 as per IEC 60529     Sealing principle   Soft     Mounting position   Any     Manual override   Detenting Non-detenting     Vibro of control   Pilot-controlled     Flow direction   0991809     Signal Status display   yes     Pilot pressure   3 bar 8 bar     Suitability for vacuum   no     Switching time off   20 ms     On suitching time off   20 ms     On suitching time off   20 ms     On spilve test pulse with 0 signal   400 µs     Max. negative test pulse with 0 signal   200 µs     Permissible Outspectructure   72 ms     Solitability for vacuum   10 ms     Max. negative test pulse with 0 signal   400 µs     Perminsible Outspect fucturations   +	Valve size	10 mm
Deracting pressure0.3 MPa 1 MPaOperating pressure3 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationC UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detenting Non-detentingFlow directionOperating PressureSignal status displayyesPilot pressure3 bar 0.8 MPaSignal status displayyesStatus displayyesStatushing time0 om sStatushing time10 msMax, positive test pulse on 1 signal400 µsMax, negative test pulse on 1 signal200 µsPermissible totage function10 msSwitching time10 msStandard nominal flow rate with QS-6230 U/minSwitching time00 µsMax, negative test pulse on 1 signal200 µsPermissible totage fluctuations4/- 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 resistanceShock test with severity level 2 as per FN 942017-4 and EN 60068-2-27	Standard nominal flow rate	230 l/min
Operating pressure3 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationc UL us - Recognized (OL)Degree of protectionas per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809UagataOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaPilot pressure3 bar 0.8 MPaSutability for vacuumnoStandard nominal flow rate with QS-6230 I/minSwitching time10 msMax, negative test pulse with 0 signal200 µsPermissible voltage fluctuations+/- 25 %Operating mediumOperation test with severity level 2 as per FN 942017-4 and EN 6068-2-27Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 6068-2-27	Operating voltage	24V DC
DuringPiston gate valveReset methodPneumatic springCertificationc UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow direction0991809Signal status displayyesVibor approximationNonSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal200 µsPermissible voltage fluctuations+/- 25 %Opperating mediumCompressed air as 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 60068-2:27Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2:27	Operating pressure	0.3 MPa 1 MPa
Reset methodPneumatic springCertificationc UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow direction00991809Signal status displayyesPilot pressure3 bar 8 MPaSindard nominal flow rate with QS-6230 l/minStandard nominal flow rate with QS-6230 l/minDo switching time10 msMax, negative test pulse on 1 signal200 µsPermissible voltage fluctuations+/-25 %Operation mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Operation resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 6068-2-27	Operating pressure	3 bar 10 bar
Certificationc UL us - Recognized (0L)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyWanual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumnoStandard nominal flow rate with QS-6230 //minSwitching time10 msMax. negative test pulse with 0 signal200 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 resistanceShock test with severity level 2 as per FN 942017-5 and EN 6068-2-27	Structural design	Piston gate valve
Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaStandard nominal flow rate with QS-6230 1/minSwitching time off20 msOn switching time10 msMax. negative test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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]Mort per StanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6Shock resistanceShock test with	Reset method	Pneumatic spring
as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumnoStandard nominal flow rate with QS-6230 1/minSwitching time off20 msOn solitivity test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 µsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]nor mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Operating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Operation with oil lubrication possible (required for further use)Vibration resistanceFinox 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 directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. negative test pulse on 1 signal200 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 60068-2-6Shock test sites with severity level 2 as per FN 942017-5 and EN 60068-2-27	Degree of protection	
Manual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumnoStandard nominal flow rate with QS-6230 I/minSwitching time off20 msOn switching time10 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 60068-2-27	Sealing principle	Soft
Non-detentingType of controlPilot-controlledFlow directionNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. negative test pulse on 1 signal200 μsPermissible voltage fluctuations+/- 25 %Operating mediumCompressed air as per ISO 8573-1:2010[7:4:4]noformation 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 60068-2-27	Mounting position	Any
FormNon-reversibleSymbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. negative test pulse with 0 signal400 μsMax. negative test pulse on 1 signal200 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 942017-5 and EN 60068-2-27	Manual override	
Symbol00991809LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Type of control	Pilot-controlled
JapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse on 1 signal200 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 942017-5 and EN 60068-2-27Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Flow direction	Non-reversible
Signal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minStandard nominal flow rate with QS-620 msOn switching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 942017-5 and EN 60068-2-27	Symbol	00991809
Pilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse on 1 signal200 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 60068-2-27	Lap	Overlap
Pilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-6230 l/minStandard nominal flow rate with QS-620 msSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 942017-5 and EN 60068-2-27	Signal status display	yes
Suitability for vacuumnoStandard nominal flow rate with QS-6230 l/minStandard nominal flow rate with QS-620 msSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Pilot pressure MPa	0.3 MPa 0.8 MPa
Standard nominal flow rate with QS-6230 l/minSwitching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Pilot pressure	3 bar 8 bar
Switching time off20 msOn switching time10 msMax. positive test pulse with 0 signal400 µsMax. negative test pulse on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Suitability for vacuum	no
On switching time10 msMax. positive test pulse with 0 signal400 μsMax. negative test pulse on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per 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 on 1 signal200 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 60068-2-6Shock resistanceShock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	Switching time off	20 ms
Max. negative test pulse on 1 signal 200 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   Shock resistance Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27	On switching time	10 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	200 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 60068-2-6Shock resistanceShock 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]
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)
	Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Corrosion resistance class (CRC) 1 - Low corrosion stress	Shock resistance	Shock test with severity level 2 as per 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
Temperature of medium	-5 °C 50 °C
Relative air humidity	Max. 90 % at 40 °C
Ambient temperature	-5 ℃ 50 ℃
Max. tightening torque for valve mounting	0.25 Nm
Product weight	56 g
Type of mounting	With through-hole
Note on materials	RoHS-compliant
Seals material	NBR
Housing material	Die-cast aluminum