Air solenoid valve VMPA2-M1H-M-PI

Part number: 537952



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General operating condition

Data sheet

| valve size 20 mm Standard nominal flow rate 670 l/min Operating yottage 24V DC Operating pressure -0.9 MPa 1 MPa Operating pressure -0.9 Jar 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 Manual override Detenting Non-detenting Type of control Pilot-controlled Flow direction ges Symbol 00991050 Lap Qas MPa 0.8 MPa Pilot pressure MPa 0.3 MPa 0.8 MPa Pilot pressure MPa 0.3 MPa 0.8 MPa Standard nominal flow rate with QS-8 670 l/min Standard nominal flow rate with QS-10 870 l/min Switching time 15 ms Max. negative test pulse on 1 signal 900 ups Perasity test pulse with 0 signal 400 ups Max. negative test pulse on 1 signal | Feature | Value |
|---|--|---|
| Valve size 20 mm Standard nominal flow rate 670 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 (0L) Degree of protection P65 as per IEC 60529 seat Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Type of control Pilot-controlled Flow direction ges 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-10 800 yu Switching time off 28 ms On switching time 15 ms Max. negative test pulse on 1 signal 900 yu Perating pressure 20 moressed air as per ISO 8573-1:2010 [7:4:4] Operating medium Compressed air | Valve function | 5/2, monostable |
| Standard nominal flow rate670 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 protection1P65as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetentingNon-detentingNon-detentingType of controlPilot-controlledFlow direction0991050LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time off28 msOn switching time off28 msOn switching time off2900 µsPermissible voltage fluctuations+/ 25 %Operating mediumCompressed air as per IS0 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation test with severity level 2 as per FN 942017-4 and EN 60088-2 6 | Actuation type | Electrical |
| Operating voltage 24V DC Operating pressure -0.09 MPa 10 MPa Operating pressure -0.9 Jar 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 Type of control Pilot controlled Flow direction Reversible Symbol 00991050 Lap Overlap Sitalatus display yes Pilot pressure 3 bar 8 bar Sutability for vacuum yes Standard nominal flow rate with QS-10 870 l/min Switching time off 28 ms On switching time 15 ms Max, negative test pulse with 0 signal 400 µs Max, negative test pulse with 0 signal 400 µs Max, negative test pulse on 1 signal 900 µs Permissible voltage fluctuations 4/.25 % </td <td>Valve size</td> <td>20 mm</td> | Valve size | 20 mm |
| Operating pressure-0.09 MPa 1 MPaOperating pressure-0.9 bar 10 barStructural designPiston gate valveReset methodPneumatic springCertificationcl UL us - Recognized (OL)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesStaddard nominal flow rate with Q5-8670 l/minStandard nominal flow rate with Q5-10870 l/minSwitching time off28 msOn switching time15 msMax, negative test pulse with 0 signal400 µsMax, negative 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 | Standard nominal flow rate | 670 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 Symbol Detenting Symbol 00991050 Lap Overlap Sitability for vacuum yes Staddard nominal flow rate with QS-8 670 l/min Standard nominal flow rate with QS-10 870 l/min Switching time off 28 ms On switching time 15 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 pressible voltage fluctuations | Operating voltage | 24V DC |
| Description Piston gate valve Reset method Pneumatic spring Certification cUL us - Recognized (OL) Degree of protection IP65 as per IEC 60529 Sealing principle Soft Mounting position Any Manual override Detenting Non-detenting Ype of control Pilot-controlled Flow direction Reversible Symbol 00991050 Lap Overlap Signal status display yes Pilot pressure MPa 0.3 MPa 0.8 MPa Pilot pressure MPa 0.3 MPa 0.8 MPa Standard nominal flow rate with QS-8 670 l/min Standard nominal flow rate with QS-10 870 l/min Switching time off 28 ms On switching time 15 ms Max, negative test pulse on 1 signal 900 μs Permissible witte of signal 400 μs Max, negative test pulse on 1 signal 900 μs Permissible witte of pult media Operation with oil lubrication possible (required for further use) Transport appolication test with severity level 2 as pr FN 942017-4 and EN | Operating pressure | -0.09 MPa 1 MPa |
| Reset methodPneumatic springCertificationc UL us - Recognized (0L)Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-10870 l/minStandard nominal flow rate with QS-10870 l/minStandard nominal flow rate with QS-10870 l/minSoutching time15 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 ubrication possible (required for further use)Vibration resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6 | 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 directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure3 bar 0.8 MPaStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minStandard nominal flow rate with QS-1028 msOn switching time15 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 mediaOpperation with severity level 2 as per FN 942017-4 and EN 6068-2-6 | Structural design | Piston gate valve |
| Degree of protectionIP65 as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 |
| as per IEC 60529Sealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa0.8 MPaPilot pressure MPa0.3 MPa0.8 MPaSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 msMax. negative test pulse with 0 signal400 µsMax. negative test pulse with 0 signal900 µsPermissible voltage fluctuations4/- 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 directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 | Sealing principle | Soft |
| Non-detentingType of controlPilot-controlledFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time15 msMax. positive test pulse on 1 signal900 μsPermissible voltage 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 resistanceTransport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6 | Mounting position | Any |
| AnReversibleFlow directionReversibleSymbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 | |
| Symbol00991050LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 1/minStandard nominal flow rate with QS-10870 1/minSwitching time off28 msOn switching time15 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-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 | Flow direction | Reversible |
| Signal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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 | 00991050 |
| Pilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumyesStandard nominal flow rate with QS-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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-8670 l/minStandard nominal flow rate with QS-10870 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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-8670 l/minStandard nominal flow rate with QS-10870 l/minSwitching time off28 msOn switching time15 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-10870 l/minSwitching time off28 msOn switching time15 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 off28 msOn switching time15 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 | 670 l/min |
| On switching time15 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 | 870 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 | 28 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 | 15 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 |