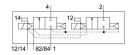
## Air solenoid valve VMPA2-M1H-D-S-G1/8-PI Part number: 537980







General operating condition

## **Data sheet**

Valve function Actuation type Electrical Actuation type Electrical 20 mm  Standard nominal flow rate Appearable working port Operating pressure Operating Oper	Feature	Value
Valve size         20 mm           Standard nominal flow rate         650 l/min           Pneumatic working port         61/8           Operating voltage         24V DC           Operating pressure         0.3 MPa 1 MPa           Operating pressure         3 bar 10 bar           Structural design         Pleston gate valve           Reset method         Pneumatic spring           Certification         c UL us - Recognized (OL)           CE marking (see declaration of conformity)         As per EU EMC directive           As per EU ROHS directive         As per EU ROHS directive           UKCA marking (see declaration of conformity)         To UK instructions for EMC To UK RoHS instructions           Degree of protection         In mounted state as per IEC 60529           Exhaust air function         With flow control option           Sealing principle         Soft           Mounting position         Any           Manual override         Detenting           Non-detenting         Plot-controlled           Plot air supply port         External           Flow direction         Non-reversible           Symbol         00991803           Lap         Overlap           Signal status display         yes	Valve function	2x2/2 closed, monostable
Standard nominal flow rate     650 l/min       Pneumatic working port     G1/8       Operating voltage     2aV 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 (OL)       CE marking (see declaration of conformity)     As per EU RMG directive       UKCA marking (see declaration of conformity)     To UK instructions for EMC To UK RoHS instructions       To UK RoHS instructions     In mounted state as per IEC 60529       Exhaust air function     With flow control option       Sealing principle     Soft       Mounting position     Any       Manual override     Detenting Non-detenting       Type of control     Pilot-controlled       Pilot air supply port     External       Flow direction     Non-reversible       Symbol     00991803       Lap     Overlap       Signal status display     yes       Pilot pressure     3 bar 8 bar       Pilot pressure     3 bar 8 bar       Suitability for vacuum     no       On switching time off     25 ms       On switching time off     25 ms       On switching time     7 ms	Actuation type	Electrical
Pneumatic working port     G1/8       Operating 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     ct Ut us - Recognized (0t)       CE marking (see declaration of conformity)     As per EU EMC directive As per EU RMC directive As per EU RMC directive As per EU RMS directive       As per EU RMS directive     As per EU RMS directive       With flow control option     Pie65       In mounted state as per IEC 60529     In mounted state as per IEC 60529       Exhaust air function     With flow control option       Sealing principle     Soft       Mounting position     Any       Manual override     Detenting Non-detenting       Type of control     Pilot-controlled       Pilot air supply port     External       Flow direction     Non-reversible       Symbol     00991803       Lap     Overlap       Signal status display     yes       Pilot pressure MPa     0.3 MPa 0.8 MPa       Pilot pressure     3 bar 8 bar       Suitability for vacuum     no       On switching time off     25 ms       On switching time off     25 ms       On switching	Valve size	20 mm
Operating 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 (OL)           CE marking (see declaration of conformity)         As per EU EMC directive As per EU RoHS directive           UKCA marking (see declaration of conformity)         To UK instructions for EMC TO UK RoHS instructions           Degree of protection         IP65 In mounted state as per IEC 60529           Exhaust air function         Soft           Mounting position         Any           Manual override         Detenting Non-detenting           Type of control         Pilot-controlled           Pilot air supply port         External           Flow direction         Non-reversible           Symbol         00991803           Lap         Overlap           Signal status display         yes           Pilot pressure MPa         0.3 MPa 0.8 MPa           Pilot pressure         3 bar 8 bar           Suitability for vacuum         no           Standard nominal flow rate with QS-8         650 I/min           Switching time off	Standard nominal flow rate	650 l/min
Operating pressure         0.3 MPa 1 MPa           Operating pressure         3 bar 10 bar           Structural design         Piston gate valve           Reset method         Pneumatic spring           Certification         CUL us - Recognized (OL)           CE marking (see declaration of conformity)         As per EU EMC directive           UKCA marking (see declaration of conformity)         To UK instructions for EMC To UK RoHS instructions           Degree of protection         IP65 In mounted state as per IEC 60529           Exhaust air function         With flow control option           Sealing principle         Soft           Mounting position         Any           Manual override         Detenting Non-detenting           Type of control         Pilot-controlled           Pilot air supply port         External           Flow direction         Non-reversible           Symbol         00991803           Lap         00verlap           Signal status display         yes           Pilot pressure MPa         0.3 MPa 0.8 MPa           Pilot pressure MPa         0.3 MPa 0.8 MPa           Pilot pressure MPa         0.3 MPa 0.8 MPa           Suitability for vacuum         650 I/min           Switching time off	Pneumatic working port	G1/8
Operating pressure       3 bar 10 bar         Structural design       Piston gate valve         Reset method       Pneumatic spring         Certification       c UL us - Recognized (OL)         CE marking (see declaration of conformity)       As per EU EMC directive         UKCA marking (see declaration of conformity)       To UK instructions for EMC TO UK ROHS instructions for EMC TO UK ROHS instructions         Degree of protection       IP65 In mounted state as per IEC 60529         Exhaust air function       With flow control option         Sealing principle       Soft         Mounting position       Any         Manual override       Detenting Non-detenting         Type of control       Pilot-controlled         Pilot air supply port       External         Flow direction       Non-reversible         Symbol       00991803         Lap       Overlap         Signal status display       yes         Pilot pressure       3 bar 8 bar         Suitability for vacuum       no         Standard nominal flow rate with QS-8       650 I/min         Switching time off       25 ms         On switching time off       25 ms         On switching time       7 ms	Operating voltage	24V DC
Structural design       Piston gate valve         Reset method       Pneumatic spring         Certification       c.U. u. s Recognized (OL)         CE marking (see declaration of conformity)       As per EU EMC directive As per EU RoHS directive         UKCA marking (see declaration of conformity)       To UK instructions for EMC To UK RoHS instructions         Degree of protection       IP65 In mounted state as per IEC 60529         Exhaust air function       Soft         Mounting position       Any         Manual override       Detenting Non-detenting         Type of control       Pilot-controlled         Flow direction       Non-reversible         Symbol       00991803         Lap       Overlap         Signal status display       yes         Pilot pressure MPa       0.3 MPa 0.8 MPa         Pilot pressure MPa       0.3 MPa 0.8 MPa         Pilot pressure domain all flow rate with QS-8       650 I/min         Switching time off       25 ms         On switching time       7 ms         Max. positive test pulse with 0 signal       400 μs	Operating pressure	0.3 MPa 1 MPa
Reset method Pneumatic spring Certification cUL us - Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive As per EU RMC directive UKCA marking (see declaration of conformity) To UK nest sine for EMC To UK RoHS instructions Degree of protection IP65 In mounted state as per IEC 60529 Exhaust air function Soft Mounting position Any Manual override Detenting Non-detenting Non-detenting Non-detenting Pilot air supply port External Flow direction Non-reversible Symbol Oo991803 Lap Overlap Signal status display yes Pilot pressure MPa Pilot pressure MPa Suitability for vacuum Suitability for vacuum Suitability for vacuum Suitability for vacuum Suitching time off 25 ms Gon switching time of 7 ms Man, positive test pulse with 0 signal	Operating pressure	3 bar 10 bar
Certification       c UL us - Recognized (OL)         CE marking (see declaration of conformity)       As per EU ROHS directive As per EU ROHS directive As per EU ROHS directive To UK and the per EU ROHS directive To UK ROHS instructions         UKCA marking (see declaration of conformity)       IV K instructions for EMC To UK ROHS instructions         Degree of protection       IP65 In mounted state as per IEC 60529         Exhaust air function       With flow control option         Sealing principle       Soft         Mounting position       Any         Manual override       Detenting Non-detenting         Non-detenting       Non-detenting         Type of control       Pilot-controlled         Pilot air supply port       External         Flow direction       Non-reversible         Symbol       00991803         Lap       Overlap         Signal status display       yes         Pilot pressure MPa       0.3 MPa 0.8 MPa         Pilot pressure       3 bar 8 bar         Suitability for vacuum       no         Standard nominal flow rate with QS-8       650 l/min         Switching time off       25 ms         On switching time       7 ms         Max. positive test pulse with 0 signal	Structural design	Piston gate valve
CE marking (see declaration of conformity)       As per EU EMC directive As per EU ROHS directive         UKCA marking (see declaration of conformity)       To UK instructions for EMC TO UK ROHS instructions         Degree of protection       IP65 In mounted state as per IEC 60529         Exhaust air function       With flow control option         Sealing principle       Soft         Mounting position       Any         Manual override       Detenting Non-detenting         Type of control       Pilot-controlled         Pilot controlled       Pilot-controlled         Flow direction       Non-reversible         Symbol       00991803         Lap       Overlap         Signal status display       yes         Pilot pressure MPa       0.3 MPa 0.8 MPa         Pilot pressure       3 bar 8 bar         Suitability for vacuum       no         Standard nominal flow rate with QS-8       650 I/min         Switching time off       25 ms         On switching time off       7 ms         Max. positive test pulse with 0 signal       400 μs	Reset method	Pneumatic spring
As per EU ROHS directive  UKCA marking (see declaration of conformity)  To UK instructions for EMC TO UK ROHS instructions  Degree of protection  P65 In mounted state as per IEC 60529  Exhaust air function  Sealing principle  Mounting position  Manual override  Detenting Non-detenting  Type of control  Pilot-controlled  Pilot air supply port  External  Flow direction  Non-reversible  Symbol  Doy91803  Lap  Overlap  Signal status display  Pilot pressure MPa  Pilot pressure MPa  Pilot pressure  Suitability for vacuum  no  Standard nominal flow rate with QS-8  650 I/min  Man. positive test pulse with 0 signal	Certification	c UL us - Recognized (OL)
Degree of protectionTo UK RoHS instructionsDegree of protectionIP65 In mounted state as per IEC 60529Exhaust air functionWith flow control optionSealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledPilot air supply portExternalFlow directionNon-reversibleSymbol00991803LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure MPa0.3 MPa 0.8 MPaSuitability for vacuumnoStandard nominal flow rate with QS-8650 I/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	CE marking (see declaration of conformity)	'
Exhaust air functionWith flow control optionSealing principleSoftMounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledPilot air supply portExternalFlow directionNon-reversibleSymbol00991803LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	UKCA marking (see declaration of conformity)	
Sealing principle  Mounting position  Any  Manual override  Detenting Non-detenting Non-detenting  Type of control  Pilot-controlled  Pilot air supply port  External  Flow direction  Non-reversible  Symbol  Lap  Overlap  Signal status display  yes  Pilot pressure MPa  O.3 MPa 0.8 MPa  Distributive for vacuum  Ton  Standard nominal flow rate with QS-8  Switching time off  O.5 witching time  Any  Detenting Non-  Detenting Non-  Detenting Non-  Detenting Non- Detent	Degree of protection	In mounted state
Mounting positionAnyManual overrideDetenting Non-detentingType of controlPilot-controlledPilot air supply portExternalFlow directionNon-reversibleSymbol00991803LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Exhaust air function	With flow control option
Manual overrideDetenting Non-detentingType of controlPilot-controlledPilot air supply portExternalFlow directionNon-reversibleSymbol00991803LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Sealing principle	Soft
Non-detenting Type of control Pilot air supply port External Flow direction Non-reversible Symbol Ooyerlap Signal status display Pilot pressure MPa Pilot pressure Suitability for vacuum Standard nominal flow rate with QS-8 Switching time off On switching time Max. positive test pulse with 0 signal	Mounting position	Any
Pilot air supply portExternalFlow directionNon-reversibleSymbol00991803LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Manual override	1 ~
Flow direction  Non-reversible  O0991803  Lap  Overlap  Signal status display  Pilot pressure MPa  Pilot pressure  3 bar 8 bar  Suitability for vacuum  Suitability for vacuum  Standard nominal flow rate with QS-8  Switching time off  On switching time  Max. positive test pulse with 0 signal  Non-reversible  Soplas  400 µs	Type of control	Pilot-controlled
Symbol 00991803  Lap 0verlap  Signal status display yes  Pilot pressure MPa 0.3 MPa 0.8 MPa  Pilot pressure Sure MPa 3 bar 8 bar  Suitability for vacuum no  Standard nominal flow rate with QS-8 650 l/min  Switching time off 25 ms  On switching time  Max. positive test pulse with 0 signal 400 μs	Pilot air supply port	External
LapOverlapSignal status displayyesPilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	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-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Symbol	00991803
Pilot pressure MPa0.3 MPa 0.8 MPaPilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Lap	Overlap
Pilot pressure3 bar 8 barSuitability for vacuumnoStandard nominal flow rate with QS-8650 l/minSwitching time off25 msOn switching time7 msMax. positive test pulse with 0 signal400 μs	Signal status display	yes
Suitability for vacuum no 650 l/min Standard nominal flow rate with QS-8 650 l/min Switching time off 25 ms On switching time 7 ms Max. positive test pulse with 0 signal 400 µs	Pilot pressure MPa	0.3 MPa 0.8 MPa
Standard nominal flow rate with QS-8 650 l/min Switching time off 25 ms On switching time 7 ms Max. positive test pulse with 0 signal 400 µs	Pilot pressure	3 bar 8 bar
Switching time off 25 ms On switching time 7 ms Max. positive test pulse with 0 signal 400 µs	Suitability for vacuum	no
On switching time 7 ms  Max. positive test pulse with 0 signal 400 µs	Standard nominal flow rate with QS-8	650 l/min
Max. positive test pulse with 0 signal 400 μs	Switching time off	25 ms
	On switching time	7 ms
Max. negative test pulse on 1 signal 900 μs	Max. positive test pulse with 0 signal	400 μs
	Max. negative test pulse on 1 signal	900 μs

Feature	Value
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
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 ℃
Ambient temperature	-5 °C 50 °C
Max. tightening torque for valve mounting	0.65 Nm
Product weight	325 g
Electrical connection	4-pin M8x1 Plug as per EN 60947-5-2
Type of mounting	With through-hole
Pilot air port 12/14	M5
Pilot exhaust air port 82/84	M5
Pneumatic connection 1	G1/8
Pneumatic connection 2	G1/8
Pneumatic connection 3	G1/8
Pneumatic connection 4	G1/8
Pneumatic connection 5	G1/8
Note on materials	RoHS-compliant
Seals material	NBR
Housing material	Die-cast aluminum