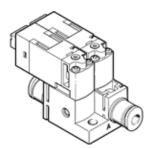
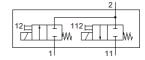
vacuum valve MHA1-2X2/2G-1,5-3-3-3 Part number: 562051

FESTO

to be mounted with a screw on any flat surface.





Data sheet

Valve function 2x2/2 closed, monostable Type of actuation electrical Width 20 mm Standard nominal flow rate 30 l/min Operating pressure 0 1.5 bar Type of reset mechanical spring Protection class IPA0 CE mark (see declaration of conformity) to EU directive for EMC Nominal size 1.5 mm Gild dimension 20 mm Exhaust-air function not throttleable Sealing principle soft Skasembly position Any Manual override Pushing Type of piloting direct Row direction non reversible Signal status display LED Operating pressure, reversible -0.95 o bar Suitability for vacuum Yes Standard flow rate pmax > 0 30 l/min Maximum switching frequency 10 Hz Switching time of 6 ms Duty cycle 100 % Characteristic coil data 24 V Dc. low-current phase 0.7 W, high-current phase 3 W	Feature	Value
Width 20 mm Standard nominal flow rate 30 l/min Operating pressure 0 1.5 bar Type of reset mechanical spring Protection class IP40 CE mark (see declaration of conformity) to EU directive for EMC Nominal size 1.5 mm Grid dimension 20 mm Exhaust-air function not throttleable Sealing principle soft Assembly position Any Manual override Pushing Type of piloting direct Flow direction non reversible Signal status display LED Operating pressure, reversible -0.95 0 bar Suitability for vacuum Yes Standard flow rate pmax > 0 30 l/min Maximum switching frequency 10 Hz Switching time off 6 ms Switching time of 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permisable voltage fluctuation 4/- 10 %	Valve function	2x2/2 closed, monostable
Standard nominal flow rate Operating pressure Operating pressure Operating pressure Operating pressure Operating pressure Operating pressure Protection class IP40 CE mark (see declaration of conformity) Io EU directive for EMC Nominal size 1.5 mm Grid dimension 20 mm Chanastr function Operating pressure, reversible Sealing principle Assembly position Any Operating pressure, reversible Signal status display Uperating frequency Switching time off Switching time off Characteristic coil data Permissible voltage flucutation Operating and pilot medium Operating and pilot medium Operating and pilot medium Visitation resistance Shock resistance Medium temperature Ambient temperature Ambient temperature Meau, and sure products Manual over time temperature Meau, and sure pressure, rever time temperature Operating the connection, port 1 Operating the connec	Type of actuation	electrical
Operating pressure Type of reset Type of reset Type of reset Type of policing Total disses Type of policing Total disses Teach disse declaration of conformity) To EU directive for EMC To mm Sealing principle Type of piloting Ty	Width	20 mm
Type of reset Protection class IP40 CE mark (See declaration of conformity) to EU directive for EMC Nominal size 1.5 mm Grid dimension 20 mm Exhaust-air function not throttleable Sealing principle soft Any Manual override Pushing Type of piloting direct Flow direction non reversible Signal status display LED Operating pressure, reversible 0.55 0 bar Standard flow rate pmax > 0 Maximum switching frequency 10 Hz Switching time on 6 ms Switching time on 6 ms Outry cycle 100% Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation port 1 m low for soft and EM Seed of Comperating and pilot medium poperating on perating and pilot medium poperating on perating and pilot medium poperation of Compressed air in accordance with FN 942017-5 and EN 942017-4 and EN 60068-2-6 Shock resistance Classification CRC 2 60 °C Medium temperature 5 50 °C Medium temperature 9 50 50 °C Med	Standard nominal flow rate	30 l/min
Protection class CE mark (see declaration of conformity) to EU directive for EMC Nominal size 1.5 mm Grid dimension Exhaust-air function Sealing principle Soft Assembly position Any Manual override Type of piloting Girect Flow direction Suitability for vacuum Pessure, reversible Operating pressure, reversible Switching time off Switching time off Characteristic coil data Permissible voltage fluctuation Operating medium Operating and pilot medium Operating and pilot medium Compressed air in accordance with FN 942017-5 and EN 60068-2-7 Corrosion resistance Storage temperature Proug KMH Max. line length Max. line length Max. line length Mount provention, ppt 1 Prevematic connection, ppt 1 Prevenuatic connection, ppt 1 Poperating vibre under the medium on the pilot with frough hole Product weight Max. line length Mount in provention, ppt 1 QS-3 Prevenuatic connection, ppt 1 QS-3	Operating pressure	0 1.5 bar
CE mark (see declaration of conformity) Nominal size 1.5 mm Sidd dimension 20 mm Exhaust air function not throttleable Sealing principle Any Manual override Type of piloting Signal status display Derating pressure, reversible Signal status display LED Operating pressure, reversible Sittability for vacuum Yes Standard flow rate pmax > 0 Maximum switching frequency 10 Hz Switching time on Duty cycle Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation Any Operating medium Compressed air in accordance with ISO8573-1;2010 [74:4] Note on operating and pilot medium Vibration resistance Shock resistance Shock resistance Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature Anisolina (Sa) Max. line length Max. line length Mounting type with through hole Pneumatic connection, port 1 Pleug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3	Type of reset	mechanical spring
Nominal size 1.5 mm	Protection class	IP40
Grid dimension 20 mm Exhaust-air function not throttleable Sealing principle soft Assembly position Any Manual override Pushing Type of piloting direct Row direction non reversible Signal status display LED Operating pressure, reversible 4.95 0 bar Suitability for vacuum Yes Standard flow rate pmax > 0 30 l/min Maximum switching frequency 10 Hz Switching time off 6 ms Switching time off 6 ms Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation 4/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Shock kest with severity level 2 in accordance with FN 942017-5 and EN 60068-2-6 Shock resistance Shock kest with severity le	CE mark (see declaration of conformity)	to EU directive for EMC
Exhaust-air function soft Sealing principle soft Assembly position Any Manual override Pushing Type of piloting direct How direction non reversible Signal status display LED Operating pressure, reversible	Nominal size	1.5 mm
Sealing principle soft Assembly position Any Amanual override Pushing Type of piloting direct Flow direction non reversible Signal status display LED Operating pressure, reversible -0.95 0 bar Suitability for vacuum Yes Standard flow rate pmax > 0 30 l/min Maximum switching frequency 10 Hz Switching time off 6 ms Switching time off 6 ms Switching time off 6 ms Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation 4/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-6	Grid dimension	20 mm
Assembly position Manual override Type of piloting Flow direct Flow direction Non reversible Signal status display LED Operating pressure, reversible Standard flow rate pmax → 0 Maximum switching frequency Switching time off Switching time on Duty cycle Characteristic coil data Permissible voltage fluctuation Veres Standard provestive or operating and pilot medium Veres Substability not accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC Ambient temperature Max. line length Mount on perumise type With temperature Max. line length Mount on perumi type Veres Vers Any Remy Pushing Vierct Vers LED 0.95 0 bar Suitching time 10 HZ 8 ms 10 HZ 8 ms 10 HZ 8 ms 10 HZ 10	Exhaust-air function	not throttleable
Manual override Pushing Type of piloting direct How direction non reversible Signal status display LED Operating pressure, reversible -0.95 0 bar Suitability for vacuum Yes Standard flow rate pmax → 0 30 l/min Maximum switching frequency 10 Hz Switching time off 6 ms Switching time off 6 ms Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation 4/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-6 Shock resistance classification CRC 2 - Moderate corrosion stress Storage temperature -5 50 °C Mediu	Sealing principle	soft
Type of piloting Flow direction Flow	Assembly position	Any
Flow direction non reversible Signal status display LED Operating pressure, reversible Operating pressure, reversible Standard flow rate pmax -> 0 Maximum switching frequency Switching time off Switching time on Operating be displayed in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Vibration resistance Shock resistance Shock resistance Shock resistance Storage temperature Medium temperature Ababaa Canada Can	Manual override	Pushing
Signal status display LED Operating pressure, reversible -0.95 0 bar Suitability for vacuum Yes Standard flow rate pmax → 0 30 l/min Maximum switching frequency 10 Hz Switching time off 6 ms Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V Dc: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation +/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 · Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH	Type of piloting	direct
Operating pressure, reversible Outstability for vacuum Yes Standard flow rate pmax > 0 Maximum switching frequency Outstability for wacuum Switching time off Outstability for wacuum Outstability fire on Outstability for wacuum Ou	Flow direction	non reversible
Suitability for vacuum Standard flow rate pmax → 0 Maximum switching frequency 10 Hz Switching time off 6 ms Switching time on 0 ty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock resistance classification CRC 2 - Moderate corrosion stress Storage temperature 20 60 °C Medium temperature -5 50 °C Medium temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Signal status display	LED
Standard flow rate pmax → 0 Maximum switching frequency Switching time off Switching time on Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation Operating medium Note on operating and pilot medium Ubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-5 and EN 60068-2-6 Shock resistance Shock resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type Pneumatic connection, port 1 QS-3 Pneumatic connection, port 1 QS-3 Pneumatic connection, 11	Operating pressure, reversible	-0.95 0 bar
Maximum switching frequency Switching time off 6 ms Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation 4/-10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature 40 - 60 °C Ambient temperature 5 50 °C Ambient temperature 5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type Pneumatic connection, port 1 QS-3 Pneumatic connection, 11	Suitability for vacuum	Yes
Switching time off Switching time on Switching time on Outy cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation +/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Uubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -5 50 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type With through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11	Standard flow rate pmax -> 0	30 l/min
Switching time on 6 ms Duty cycle 100 % Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation +/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Maximum switching frequency	10 Hz
Duty cycle Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation +/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 111	Switching time off	6 ms
Characteristic coil data 24 V DC: low-current phase 0.7 W, high-current phase 3 W Permissible voltage fluctuation +/- 10 % Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11	Switching time on	6 ms
Permissible voltage fluctuation +/- 10 % Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11	Duty cycle	100 %
Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 111	Characteristic coil data	24 V DC: low-current phase 0.7 W, high-current phase 3 W
Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Permissible voltage fluctuation	+/- 10 %
operation) Vibration resistance Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 Pneumatic connection, 11 QS-3 Pneumatic connection, 11	Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
942017-4 and EN 60068-2-6 Shock resistance Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27 Corrosion resistance classification CRC 2 - Moderate corrosion stress Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Note on operating and pilot medium	
Corrosion resistance classification CRC2 - Moderate corrosion stressStorage temperature-20 60 °CMedium temperature-5 50 °CAmbient temperature-5 50 °CProduct weight30.6 gMax. line length30 mElectrical connectionPlug KMHMounting typewith through holePneumatic connection, port 1QS-3Pneumatic connection, 11QS-3	Vibration resistance	
Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Shock resistance	
Storage temperature -20 60 °C Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	Corrosion resistance classification CRC	2 - Moderate corrosion stress
Medium temperature -5 50 °C Ambient temperature -5 50 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3		
Ambient temperature -550 °C Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	<u> </u>	-5 50 °C
Product weight 30.6 g Max. line length 30 m Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	, , , , , , , , , , , , , , , , , , ,	-5 50 °C
Max. line length30 mElectrical connectionPlug KMHMounting typewith through holePneumatic connection, port 1QS-3Pneumatic connection, 11QS-3	'	
Electrical connection Plug KMH Mounting type with through hole Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3	9	<u> </u>
Mounting typewith through holePneumatic connection, port 1QS-3Pneumatic connection, 11QS-3		
Pneumatic connection, port 1 QS-3 Pneumatic connection, 11 QS-3		
Pneumatic connection, 11 QS-3		
Pneumatic connection, port 2 QS-3	,	



Feature	Value
Materials note	Free of copper and PTFE
	Conforms to RoHS
Material seals	FPM
	HNBR
	NBR
Material housing	PA-reinforced
	PPS-reinforced
Material screws	Steel