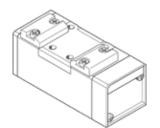
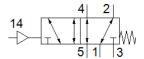
pneumatic valve VL-5/2-D-3-FR-C-EX Part number: 536012

FESTO

5/2-way function, pneumatically actuated, with spring return





Data sheet

Valve function Type of actuation Pype of actuation Pype of actuation Pype of preset Cemark, See declaration of conformity) ATEX category Gas ATEX category Oas ATEX category o	Feature	Value
Width 65 mm Standard nominal flow rate 4,500 l/min Design structure Piston slide Type of reset mechanical spring CE mark (see declaration of conformity) to EU directive explosion protection (ATEX) ATEX category Gas II 20 ATEX category Dust II 20 Explosion ignition protection type Gas Ex h IIIC T30°C Db Explosion proof ambient temperature 10°C c= Ta c= +60°C Nominal size 14.5 mm Grid dimension 71 mm Exhaust-air function throttleable Sealing principle soft Assembly position Any Conforms to standard ISO 559-1 Manual override None ISO code 304 Type of piloting direct Flow direction reversible Overlap Positive overlap Pliot pressure 3 16 bar Switching time on 13 ms Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium Lubri	Valve function	5/2 monostable
Standard nominal flow rate Operating pressure Operating pressure Piston slide Type of reset Cardinal spring Sealing protection (ATEX) ATEX category Gas II 26 ATEX category Oas II 26 ATEX category Dust Explosion ignition protection type Gas Explosion ignition protection type Gas Explosion ignition protection type Dust Explosion-proof ambient temperature In 20° C — Ta (~ - 60°C Nominal size Grid dimension T mm Exhaust-air function Sealing principle Sealing principle Sealing principle Sealing principle Soft Assembly position Any Conforms to standard Si 50 5599-1 Manual override None ISO code Type of piloting direct Flow direction Positive overlap Pilot pressure Switching time off A3 ms Operating medium Compressore Switching time on 13 ms Operating medium Compressore Shock resistance Flow direction Compressore Shock resistance Flow direction Compressed air in accordance with ISO8573-1:2010 [7:4:4] Chamber of Positive overlap P	Type of actuation	pneumatic
Operating pressure 0.9 16 bar Design structure Piston side Type of reset mechanical spring CE mark (see declaration of conformity) to EU directive explosion protection (ATEX) ATEX category Gas II 2G ATEX category Dust II 2D Explosion ignition protection type Gas Ex h IIIC T3 Gb Explosion ignition protection type Dust Ex h IIIC T3 Gb Explosion proof ambient temperature 10°C c= Ta c= 46°C Nominal size 14.5 mm Grid dimension 71 mm Exhaust-air function throttleable Sealing principle soft Assembly position Any Conforms to standard ISO 5599-1 Manual override None ISO code 304 Type of piloting direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time off 43 ms Switching time of 13 ms	Width	65 mm
Design structure Type of reset Injection standard Type of reset Injection standard Injec	Standard nominal flow rate	4,500 l/min
Type of reset CE mark (see declaration of conformity) ATEX category Gas II 26 ATEX category Dust II 20 Explosion ignition protection type Gas Ex h III CT 130°C Db Explosion ignition protection type Dust Explosion-proof ambient temperature 10°C ⊂ Ta ← +60°C Nominal size Grid dimension 71 mm Exhaust-air function Exhaust-air function Exhaust-air function Exhaust-air function Sealing principle soft Assembly position Any Conforms to standard ISO 5599-1 Annual override None ISO code 304 Type of piloting Grid dimet Iso ocde 100 code 100 direct Iso ocde 100 direc	Operating pressure	-0.9 16 bar
CE mark (see declaration of conformity) to EU directive explosion protection (ATEX) ATEX category Gas II 2G ATEX category Dust II 2D Explosion ignition protection type Gas Ex h IIC T4 Gb Explosion-gonition protection type Dust Ex h IIC T4 Gb Explosion-gonition protection type Dust Ex h IIC T4 Gb Explosion-proof ambient temperature -10°C c= Ta c= +60°C Nominal size 14.5 mm Grid dimension 71 mm Exhaust-air function thorttleable Sealing principle soft Assembly position Any Conforms to standard ISO 5599-1 Manual override None ISO code 304 Type of piloing direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time off 43 ms Switching time on 13 ms 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 resistance Shock resistance Transport application test at severity level 1 in accordance with FN 942017-5 and EN 60068-2-27	Design structure	Piston slide
ATEX category Gas ATEX category Dust BI 12D Explosion ignition protection type Gas Explosion ignition protection type Dust Explosion ignition protection type Gas Exhaust-air function Sealing principle Sealing principle Sealing principle Soft Exhaust-air function Sealing principle Soft Exhaust-air function Sealing principle Soft Exhaust-air function Soft Exhaust-air function Any Conforms to standard Any Confo	Type of reset	mechanical spring
ATEX category Dust Explosion ignition protection type Gas Explosion ignition protection type Dust Explosion-proof ambient temperature 10°C ← Ta ← +60°C Nominal size 14.5 mm frid dimension 71 mm Exhaust-air function Exhaust-air function Exhaust-air function Sealing principle soft Any Conforms to standard ISO 5599-1 Manual override None 1SO code 304 Type of piloting direct Flow direction Positive overlap Pilot pressure 316 bar Switching time off 43 ms Switching time off Operating medium Compersating and pilot medium Poperating and pilot medium Updication resistance Transport application test at severity level 1 in accordance with FN 942017-5 and EN 60068-2-27 Medium temperature 1.060°C Medium temperature 1.060°C Medium temperature 1.060°C Product weight Mounting type With taip on plate size 3 as per ISO 5599-1 Plot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	CE mark (see declaration of conformity)	to EU directive explosion protection (ATEX)
Explosion ignition protection type Gas Explosion ignition protection type Dust Explosion-groof ambient temperature 1.0°C c Fa c + 60°C Nominal size 14.5 mm Ara c + 60°C 14.5 mm Ara c + 60°C Nominal size 14.5 mm Ara c + 60°C 15.0 mm Ara c + 60°C 16.1 mm Ara c + 60°C 16.2 mm Ara c + 60°C 17.1 mm Ara c + 60°C 18.5 mm Ara c + 60°C 19.5 mm Ara c	ATEX category Gas	II 2G
Explosion ignition protection type Dust Explosion-proof ambient temperature 1.0°C ← Ta ← +60°C Nominal size 1.4.5 mm 1.4.5 mm 1.5 mm 1	ATEX category Dust	II 2D
Explosion ignition protection type Dust Explosion-proof ambient temperature 1.0°C ← Ta ← +60°C Nominal size 1.4.5 mm 1.4.5 mm 1.5 mm 1	Explosion ignition protection type Gas	Ex h IIC T4 Gb
Nominal size Grid dimension Fixal throtteable Sealing principle Soft Any Conforms to standard ISO 5599-1 Manual override None SO code 304 Type of piloting So code 304 Type of piloting So direction Inversible Overlap Positive overlap Positive overlap Positive overlap Pilot pressure Switching time off 43 ms Switching time on 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 1 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 60068-2-7 Sound pressure level Sound press		Ex h IIIC T130°C Db
Grid dimension 71 mm Exhaust-air function throttleable Sealing principle soft Assembly position Any Conforms to standard ISO 5599-1 Manual override None ISO code 304 Type of piloting direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms 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 test with severity level 1 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 60068-2-6 Medium temperature 10 60°C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature 10 60°C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connec		-10°C <= Ta <= +60°C
Exhaust-air function throttleable Sealing principle Assembly position Any Conforms to standard ISO 5599-1 Manual override None ISO code 304 Type of piloting Flow direction Overlap Pilot pressure Switching time on 13 ms Operating medium Note on operating and pilot medium Vibration resistance Shock resistance Shock resistance Shock resistance Shock resistance Shock pressure level Medium temperature Anbient temperature Product weight Mounting type Mounting type Mounting type Pilot air port 14 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1 Poneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1 Vonnection plate size 3 as per ISO 5599-1 Connection plate size 3 as per ISO 5599-1 Connection plate size 3 as per ISO 5599-1	Nominal size	14.5 mm
Sealing principle Assembly position Any Conforms to standard Any Conforms to standard None ISO code 304 Type of piloting IFOw direction Poverlap Pilot pressure Switching time of Operating medium Note on operating and pilot medium Vibration resistance Shock resistance Shock resistance Flow direction Shock resistance An in temperature Sound pressure An in temperature Sound pressure An in temperature Sound pressure An in temperature An in the medium An in	Grid dimension	71 mm
Assembly position Conforms to standard ISO 5599-1 Manual override ISO code 304 Type of piloting If wirect	Exhaust-air function	throttleable
Assembly position Conforms to standard ISO 5599-1 Manual override ISO code 304 Type of piloting If wirect	Sealing principle	soft
Conforms to standard ISO 5599-1 Manual override None ISO code 304 Type of piloting direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms 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 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw With through-hole and screw With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic		Any
ISO code 304 Type of piloting direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms Operating medium Overlap 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 1 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 Medium temperature 10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature 10 60 °C Froduct weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1		ISO 5599-1
Type of piloting direct Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 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 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection, port 1 Connection plate size 3 as per ISO 5599-1	Manual override	None
Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms Operating medium Comperating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Shock resistance -10 60 °C Product weight 810 g Mounting type With through-hole and screw With through-hole and screw Pilot air port 14 Pneumatic connection, port 1 Comperation Plate size 3 as per ISO 5599-1	ISO code	304
Flow direction reversible Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms Operating medium Comperating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Shock resistance -10 60 °C Product weight 810 g Mounting type With through-hole and screw With through-hole and screw Pilot air port 14 Pneumatic connection, port 1 Comperation Plate size 3 as per ISO 5599-1	Type of piloting	direct
Overlap Positive overlap Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Note on operating and pilot medium ubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 1 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 Medium temperature 10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature 10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1		reversible
Pilot pressure 3 16 bar Switching time off 43 ms Switching time on 13 ms 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 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressure level -10 60 °C Product weight S10 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	Overlap	Positive overlap
Switching time off Switching time on 13 ms 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 1 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 Medium temperature -10 60 °C Sound pressure level St dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight S10 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1	'	
Switching time on13 msOperating mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (subsequently required for further operation)Vibration resistanceTransport application test at severity level 1 in accordance with FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27Medium temperature-10 60 °CSound pressure level85 dB (3)Pilot mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Ambient temperature-10 60 °CProduct weight810 gMounting typeOn sub-base With through-hole and screwPilot air port 14Connection plate size 3 as per ISO 5599-1Pneumatic connection, port 1Connection plate size 3 as per ISO 5599-1	•	
Operating mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Note on operating and pilot mediumLubricated operation possible (subsequently required for further operation)Vibration resistanceTransport application test at severity level 1 in accordance with FN 942017-4 and EN 60068-2-6Shock resistanceShock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27Medium temperature-10 60 °CSound pressure level85 dB(A)Pilot mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Ambient temperature-10 60 °CProduct weight810 gMounting typeOn sub-base With through-hole and screwPilot air port 14Connection plate size 3 as per ISO 5599-1Pneumatic connection, port 1Connection plate size 3 as per ISO 5599-1		
Note on operating and pilot medium Lubricated operation possible (subsequently required for further operation) Vibration resistance Transport application test at severity level 1 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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1		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 Medium temperature -10 60 °C Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	Note on operating and pilot medium	
Medium temperature-10 60 °CSound pressure level85 dB(A)Pilot mediumCompressed air in accordance with ISO8573-1:2010 [7:4:4]Ambient temperature-10 60 °CProduct weight810 gMounting typeOn sub-base With through-hole and screwPilot air port 14Connection plate size 3 as per ISO 5599-1Pneumatic connection, port 1Connection plate size 3 as per ISO 5599-1	Vibration resistance	
Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection, port 1 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	Shock resistance	· · · · · · · · · · · · · · · · · · ·
Sound pressure level 85 dB(A) Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection, port 1 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	Medium temperature	-10 60 °C
Pilot medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	,	
Ambient temperature -10 60 °C Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	'	
Product weight 810 g Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1		· · · · · · · · · · · · · · · · · · ·
Mounting type On sub-base With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	'	
With through-hole and screw Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1		
Pilot air port 14 Connection plate size 3 as per ISO 5599-1 Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1		
Pneumatic connection, port 1 Connection plate size 3 as per ISO 5599-1	Pilot air port 14	
	·	, ,
	Pneumatic connection, port 2	Connection plate size 3 as per ISO 5599-1



Feature	Value
Pneumatic connection, port 3	Connection plate size 3 as per ISO 5599-1
Pneumatic connection, port 4	Connection plate size 3 as per ISO 5599-1
Pneumatic connection, port 5	Connection plate size 3 as per ISO 5599-1
Materials note	Conforms to RoHS
Material seals	HNBR
	NBR
Material housing	Aluminium die cast