

Pilot valve VOFX

FESTO



Characteristics

At a glance

Pilot valves VOFX are 3/2-way directly actuated valves designed for the requirements of process automation. They are ideally suited for the insert of the VZXF and VZXA angle seat valves with single-acting actuator.

- A mechanical spring (single solenoid valves) ensures safe switching to the initial position in the event of a power failure
- Detenting manual override
- Exhaust air that can be throttled
- Compact design
- Any mounting position possible
- Can be used wherever valve terminals are not economically or technically viable
- Easy to mount as the pilot valves can be screwed directly onto the actuators thanks to the G1/8 thread

EU certification

[EX2]	II 3GD	[EX4]	II 2GD
• ATEX category for gas II 3G • Type of ignition protection gas IIC T5/T4 X • ATEX category for dust II 3D • Type of ignition protection dust IIIC T95°C /105 °C X • Explosion-proof ambient temperature rating -20°C ≤ Ta ≤ +60°C		• ATEX category for gas II 2G • Type of ignition protection gas IIC T6 X • ATEX category for dust II 2D • Type of ignition protection dust IIIC T80 °C X • Explosion-proof ambient temperature range -20 °C ≤ Ta ≤ +50 °C	

Type code

001	Series	
VOFX	Pilot valve	
002	Directional control valve type	
L	In-line valve	
003	Design principle	
T	Poppet valve	
004	Valve function	
M32C	3/2-way valve, normally closed	
005	Reset method for monostable/single solenoid valves	
M	Mechanical spring	
006	Manual override	
Y	Detenting	
007	Pneumatic connection	
G18	G1/8	

008	Valve pilot control interface	
SG18	Interface with thread G1/8	
009	Nominal operating voltage	
1	24 V DC	
3A	230 V AC/50-60 Hz	
010	Electrical connection	
A1	Plug pattern type A, to EN 175301-803	
B2	Connection pattern type B, industry standard	
C3	Cable, 3 m	
011	EU certification	
	None	
EX2	II 3GD	
EX4	II 2GD	
012	Type of ignition protection	
	None	
M	Encapsulation	
N	Non-sparking	

Datasheet

General technical data

Electrical connection	Cable, 3 m	Plug pattern type A, to EN 175301-803	Connection pattern type B, industry standard
Construction width	22 mm		
Nominal size	1.3 mm		
Valve function	3/2-way, closed, monostable		
Type of actuation	Electric		
Design	Directly actuated poppet valve		
Exhaust-air function	With flow control option		
Type of reset	Mechanical spring		
Sealing principle	Soft		
Mounting position	optional		
Manual override	Detenting		
Type of piloting	Direct		
Pilot air supply	Internal		
Flow direction	Non-reversible		
Pneumatic connection, port 1	G1/8		
Pneumatic connection, port 2	G1/8		
Pneumatic connection, port 3	M5		
Switching time off	—		46 ms
Switching time on	—		31 ms
Duty cycle	100%		
Characteristic coil data	24 V DC: 2.6 W	230 V AC: 50 Hz, pick-up power 6.2 VA, holding power 3.7 VA, 230 V AC: 60 Hz, pick-up power 4.9 VA, holding power 2.9 VA, 24 V DC: 2.1 W	24 V DC: 3.0 W
Permissible voltage fluctuations	+/- 10%		
Product weight	418 g	160 g	

Operating and environmental conditions

Operating pressure	-0.9 ... 8 bar
Ambient temperature	-10 ... 50°C
Media temperature	-10 ... 50°C
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Degree of protection	IP65
Standard nominal flow rate (standardised to DIN 1343)	50 l/min
Corrosion resistance class CRC	2 - Moderate corrosion stress

ATEX

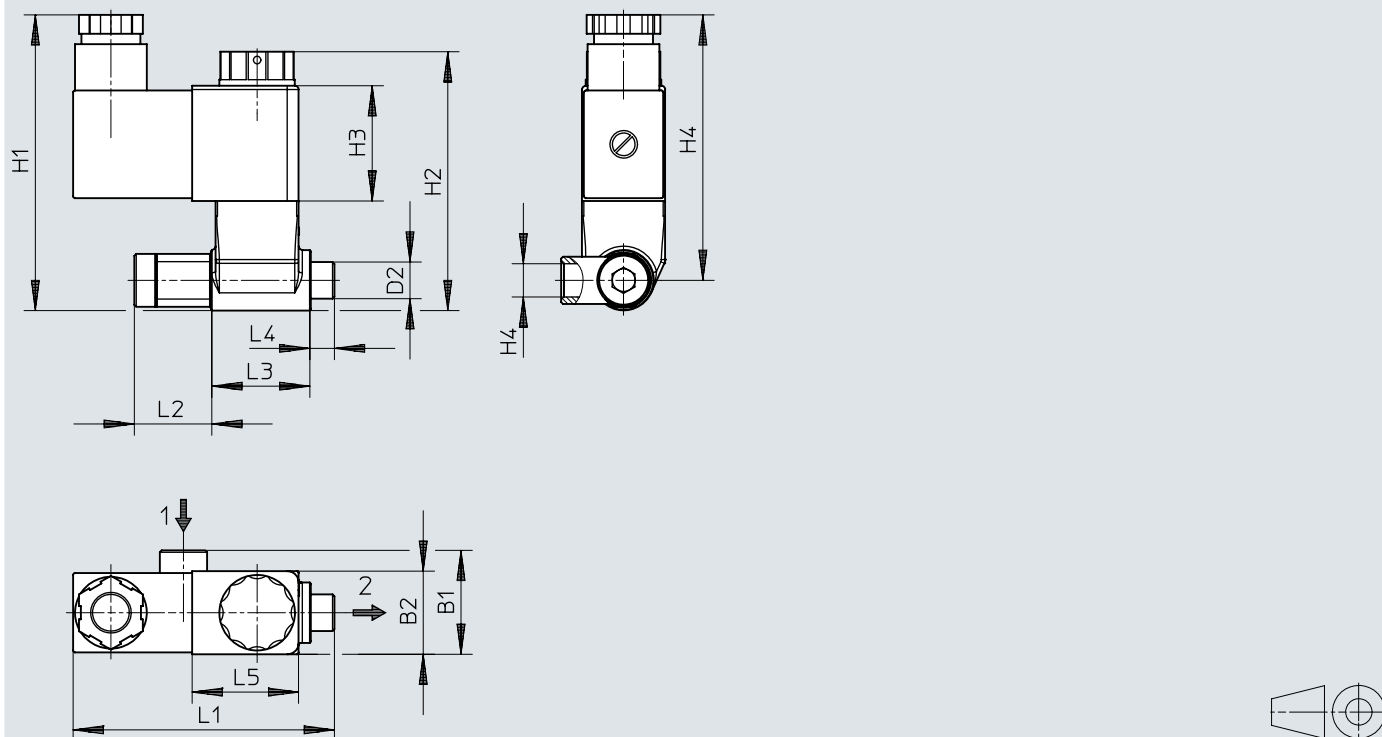
ATEX category gas	II 2G	II 3G
Explosion ignition protection type for gas	Ex mb IIC T6 Gb	Ex nA IIC T5/T4 X Gc
ATEX category dust	II 2D	II 3D
Explosion ignition protection type for dust	Ex mb tb IIIC T80°C Db	Ex tc IIIC T95°C/T105°C X Dc
Explosion ambient temperature	-20°C ≤ Ta ≤ +50°C	-20°C ≤ Ta ≤ +60°C

Materials

Material seals	NBR
Material housing	PA
LABS (PWIS) conformity	VDMA24364 zone III
Note on materials	RoHS-compliant

Dimensions

Dimensions – Angle seat valves

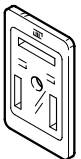
[Download CAD data](http://www.festo.com)


	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5
VOFX-...-1B2	27,5	22	G1/8	G1/8	~78,3	68,5	30,5	~70,3	69,2	20,5	26	6,5	28,2
VOFX-...-3AA1	27,5	30	G1/8	G1/8	~77,5	68,5	29,5	~69,5	86,5	20,5	26	6,5	35,5
VOFX-...-1A1-EX2-N	27,5	30	G1/8	G1/8	~77,5	68,5	29,5	~69,5	86,5	20,5	26	6,5	35,5
VOFX-...-1-EX4-M	27,5	29,7	G1/8	G1/8	~78,3	68,5	31,3	~70,3	67,8	20,5	26	6,5	35,6

Ordering data

Pilot valve				
	Operating voltage	Product weight	Part no.	Type
	230V AC	160 g	8178210	VOFX-LT-M32C-MY-G18-SG18-3AA1
	24V DC		8178211	VOFX-LT-M32C-MY-G18-SG18-1A1-EX2-N
			8119587	VOFX-LT-M32C-MY-G18-SG18-1B2
		418 g	8178212	VOFX-LT-M32C-MY-G18-SG18-1C3-EX4-M

Accessories

Illuminating seal MF						
	Description	Product weight	Max. tightening torque	Operational voltage range DC	Part no.	Type
	Illuminating seal for F solenoid coils, Degree of protection to EN 60529 IP65 (when mounted)	1.6 g	0.6 Nm	12 ... 24 V	19143	MF-LD-12-24DC