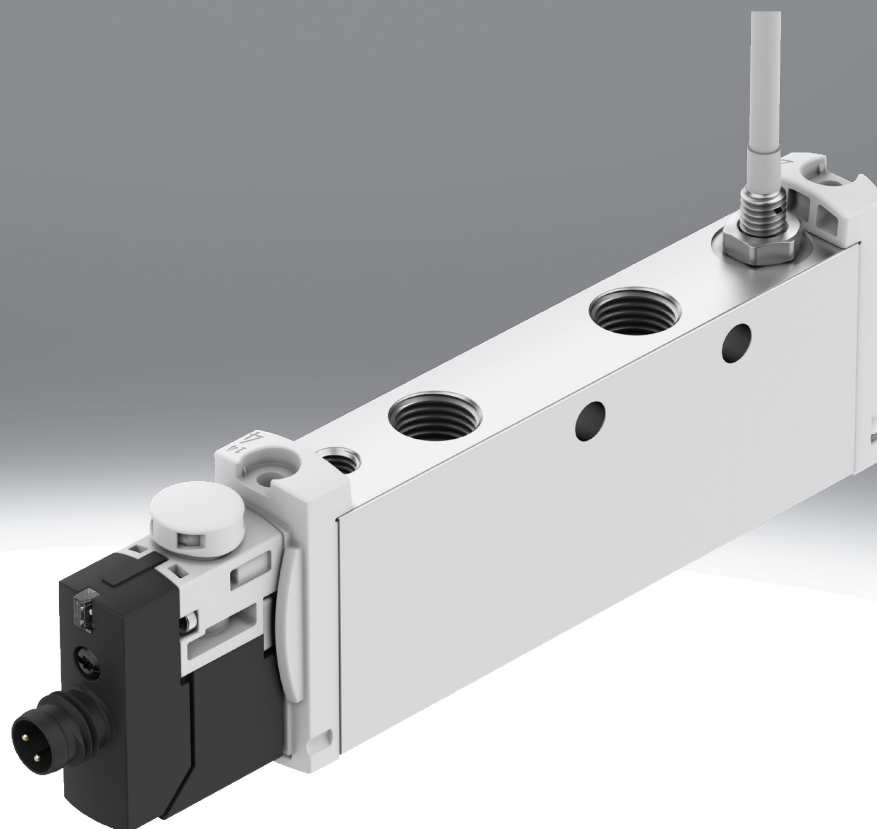


Control block VOFT

FESTO



Characteristics

At a glance

The VOFT valve is an electric, monostable 6/2- way control valve for inline installation. The valve has a diagnostic function as it senses the switching position and is closed in the normal position. The piston is reset by a mechanical compression spring. The valve is available in 4 variants. Single or dual-channel, each with concealed or push-button manual override.

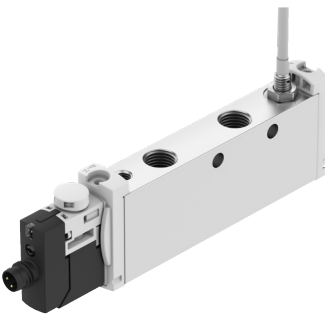
Additional function

The valve is suitable for implementing the safety functions due to its function, its robust design and its reliable switching position monitoring:

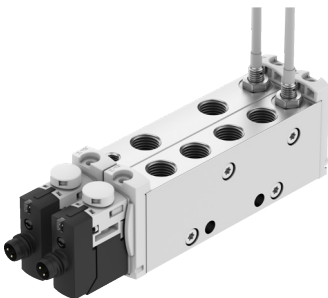
- STO (Safe torque-off)
- PUS (Protection against unexpected start-up)

Valve function

[M62] 6/2-way valve, monostable

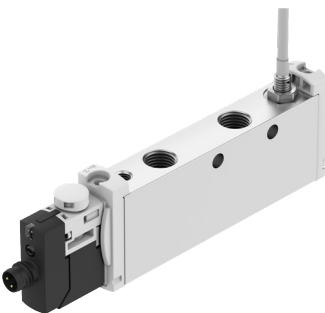


[T62] 6/2-way valve, monostable, two-channel

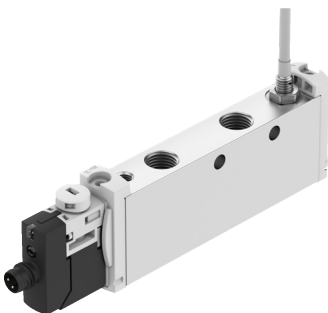


Manual override

[S] Covered



[T2] Push-button and latching, with accessories push-button only



By pressing the manual override, the VOFT valve is moved from the basic position to the switching position.

Type code

001	Series	
VOFT	Control block	
002	Directional control valve type	
L	Inline valve	
003	Design principle	
	Piston slide	
004	Sealing principle	
	Soft-sealing	
005	Size	
14	Size 14	
006	Valve function	
M62	6/2-way valve, monostable	
T62	6/2-way valve, monostable, two-channel	
007	Reset method for monostable pneumatic valves	
M	Mechanical spring	
008	Pilot air	
Z	External	
009	Manual override	
S	Covered	
T2	Push-button and latching, with accessories push-button only	
010	Pneumatic connection	
G18	G1/8	
011	Nominal operating voltage	
1	24 V DC	
012	Electrical connection	
M8	Plug M8, A-coded	
013	Circuitry	
R	Holding current reduction with integrated protective circuit	
014	Display	
L	LED	
015	Position sensing	
2APC	2 Proximity switch, PNP with open cable end	
APC	Proximity sensor, PNP with open cable end	

Datasheet

Safety characteristics

Reverse polarity protection	for all electrical connections
Sensor reverse polarity protection	For all electrical connections
Well-ried component determination method	Path c2) according to EN ISO 13894-1:2023, chapter 6.1.11; must be manufactured, verified and validated according to principles that demonstrate its suitability and reliability for safety-related applications in accordance with the relevant product and application standards. Method: Compliance with safety principles and tests, for details see CA-0759
Protection against direct and indirect contact	PELV
Degree of protection	IP65

General technical data

Manual override	Non-detenting		Covered	
Valve function	6/2-way valve, monostable, two-channel	6/2-way valve, monostable	6/2-way valve, monostable, two-channel	6/2-way valve, monostable
Width	29 mm	14.5 mm	29 mm	14.5 mm
Actuation type	Electrical			
Structural design	Piston gate valve			
Reset method	Mechanical spring			
Exhaust air function	Cannot be throttled			
Sealing principle	Soft			
Mounting position	Any			
Conforms to standard	EN 60947-5-2			
Type of control	Piloted			
Pilot air supply port	External			
Flow direction	Non-reversible			
Measuring principle	Inductive			
Lap	Negative overlap			
Note on forced dynamization	Current information on this issue can be found in Technical Report V			
Switching position indication	LED			
Sensor switching status indication	LED			
Signal status display	Yellow LED, valve actuation			
Switching position sensing	Normal position with sensor			
Duty cycle	100%			
Type of mounting	With through-hole for M4 screw			
Switching element function	NC contact			
Nominal flow rate standardized according to ISO 8778	400 l/min	830 l/min	400 l/min	830 l/min
Normal nominal flow rate (normalized to DIN 1343)	360 l/min	770 l/min	360 l/min	770 l/min
Product weight	280 g	140 g	280 g	140 g
b-value	0.45	0.42	0.45	0.42
C value	1.5 l/sbar	3 l/sbar	1.5 l/sbar	3 l/sbar

Datasheet

Operating and environmental conditions

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
Pneumatic connection 6	G1/8
Pilot air port 14	M5
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Pilot medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication not possible
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
CE marking (see declaration of conformity) ¹⁾	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity) ²⁾	To UK instructions for EMC To UK RoHS instructions
Corrosion resistance class (CRC) ³⁾	2 - Moderate corrosion stress
Nominal altitude of use above sea level	1,000 m according to VDE 0580
Cleanroom suitability, measured according to ISO 14644-14	Class 5 according to ISO 14644-1
Noise level	64 dB(A)
Storage temperature	-10 ... 60°C
Ambient temperature	-5 ... 50°C
Temperature of medium	-5 ... 50°C

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/... -> Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or industrial environments as well as in small businesses, additional measures for reducing the emitted interference may be necessary.

2) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/... -> Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or industrial environments as well as in small businesses, additional measures for reducing the emitted interference may be necessary.

3) For more information, visit www.festo.com/x/topic/kbk

Electrical data

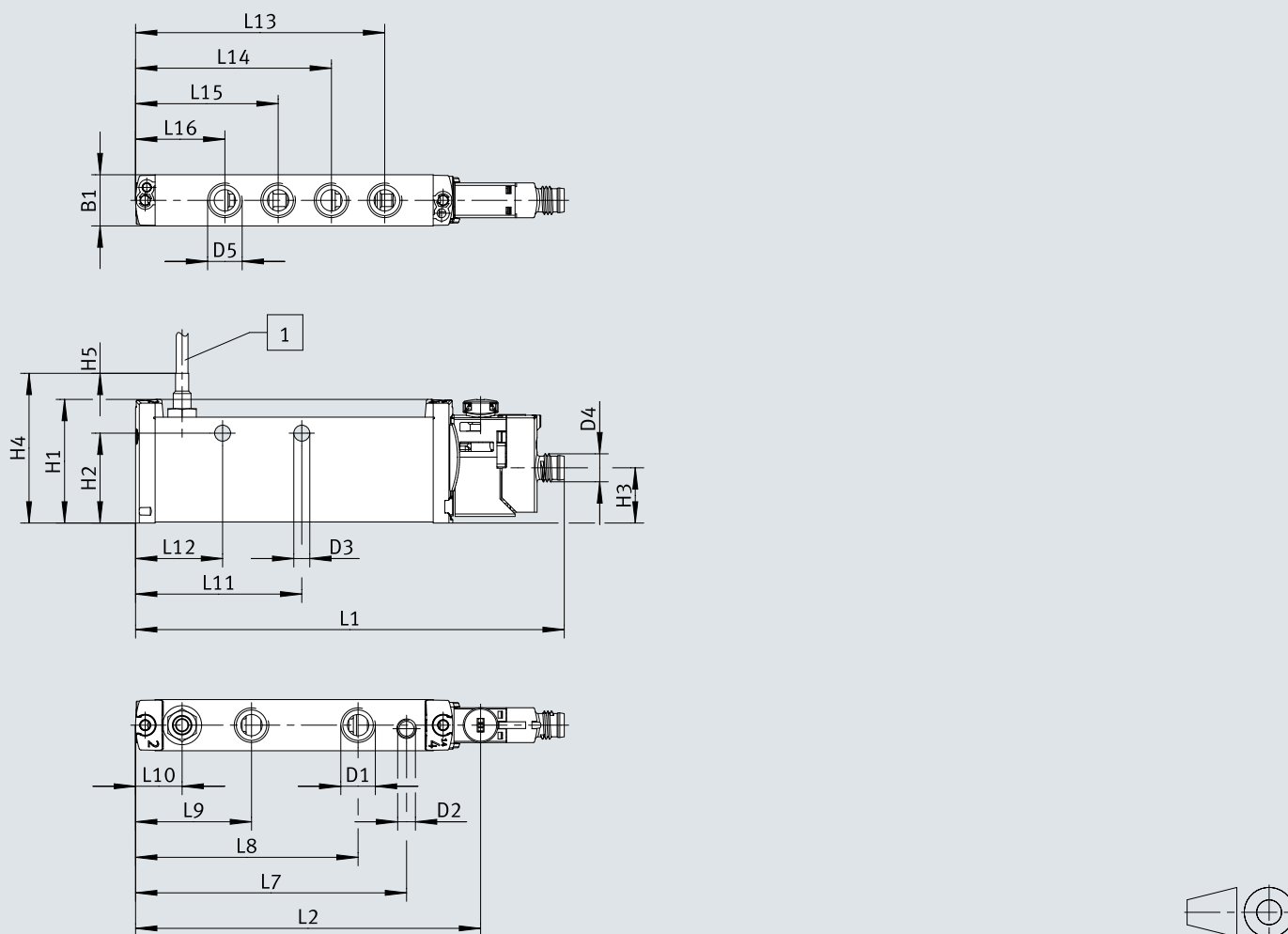
DC operating voltage range	24 V
Nominal operating voltage DC	24 V
DC sensor operating voltage range	10 ... 30 V
Max. positive test pulse with 0 signal	800 µs
Max. negative test pulse on 1 signal	400 µs
Permissible voltage fluctuations	-10%
Coil characteristics	24 V DC: Low-current phase 0.4 W, high-current phase 1.0 W
Sensor short circuit protection	Yes
Sensor idle current	10 mA
Max. output current, sensor	200 mA
Sensor max. switching frequency	5,000 Hz
Sensor residual ripple	±10%
Sensor voltage drop	2 V
Sensor connection	Cable, 3-pin, 2.5 m
Pneumatic valve - sensor switching time off	70 ms
Pneumatic valve - sensor ON switching time	11 ms
Electrical connection	2x plug, 3-pin, M8x1 A-coded as per EN 61076-2-104, Plug
On switching time	14 ms
Switching time off	65 ms

Datasheet

Materials	
Seals material	FPM, HNBR, NBR
Housing material	Wrought aluminum alloy
Material of cable sheath	PVC
Material of screws	Steel, chemically nickel-plated
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364 Zone III

Dimensions

Dimensions – Control block, 1-channel

[Download CAD data](#) www.festo.com


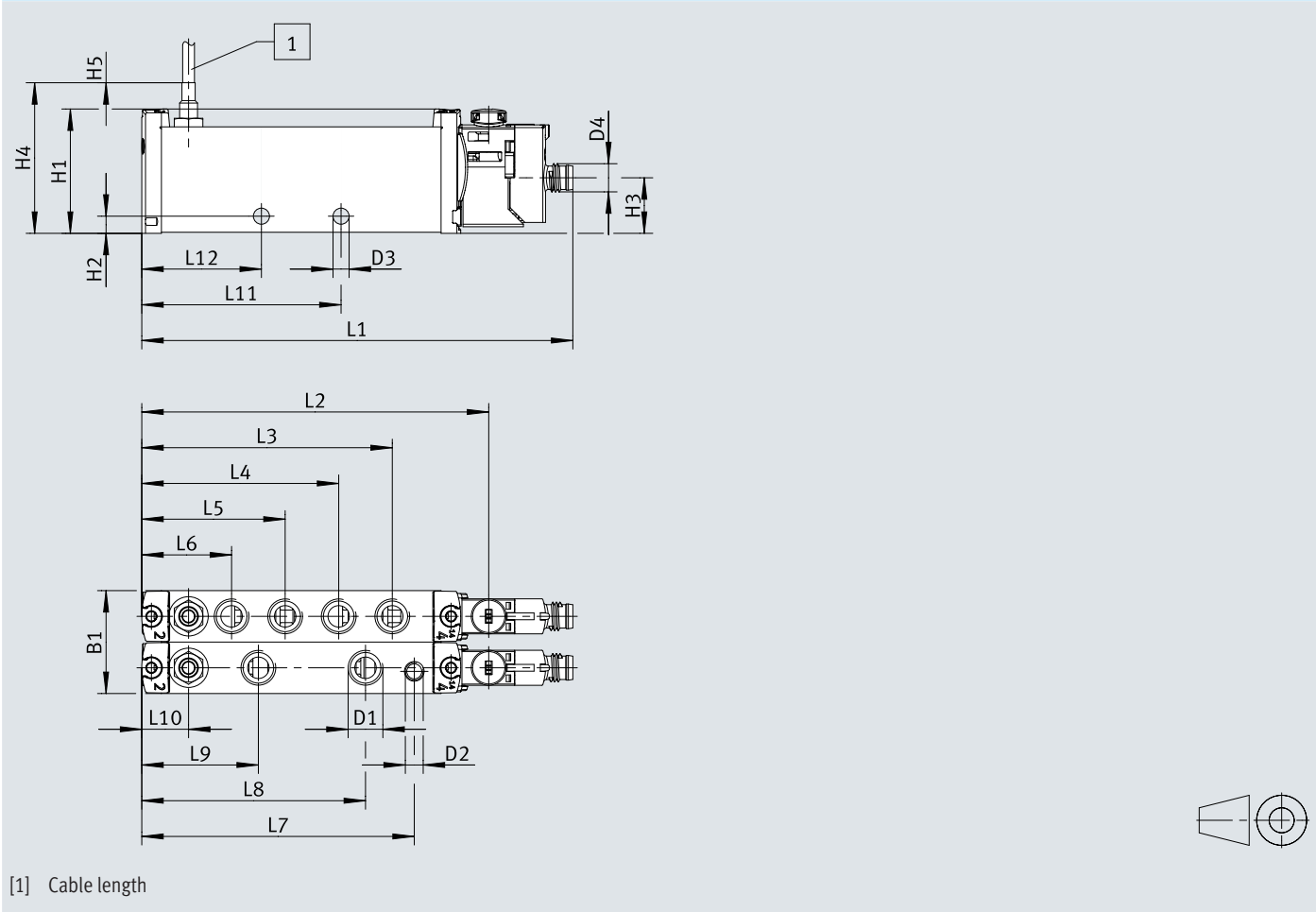
[1] Cable length

	B1	D1	D2	D3 Ø	D4	D5	H1	H2	H3	H4	H5
VOFT-L14-M62-MZT2-G18-1M8RL-APC	14,4	G1/8	M5	4,5	M8	G1/8	34,8	25,3	15,6	15,6	2500
VOFT-L14-M62-MZS-G18-1M8RL-APC											

	L1	L2	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16
VOFT-L14-M62-MZT2-G18-1M8RL-APC	120,7	97,2	76,3	62,6	32,6	13,1	46,8	24,5	70,1	55,1	40,1	25,1
VOFT-L14-M62-MZS-G18-1M8RL-APC												

Dimensions

Dimensions – Control block, 2-channel Download CAD data www.festo.com

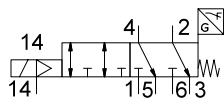


	B1	D1	D2	D3 Ø	D4	H1	H2	H3	H4	H5
VOFT-L14-T62-MZT2-G18-1M8RL-2APC	28,8	G1/8	M5	4,5	M8	34,8	4,8	15,6	15,6	2500
VOFT-L14-T62-MZS -G18-1M8RL-2APC										

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
VOFT-L14-T62-MZT2-G18-1M8RL-2APC	120,7	97,2	70,1	55,1	40,1	25,1	76,3	62,6	32,6	13,1	55,8	33,5
VOFT-L14-T62-MZS -G18-1M8RL-2APC												

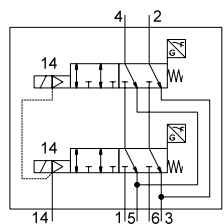
Ordering data

Control block, 1-channel



Valve function	Manual override	Part no.	Type
6/2-way valve, monostable	Non-detenting	8219319	VOFT-L14-M62-MZT2-G18-1M8RL-APC
	Covered	8219320	VOFT-L14-M62-MZS-G18-1M8RL-APC

Control block, 2-channel



Valve function	Manual override	Part no.	Type
6/2-way valve, monostable, two-channel	Non-detenting	8219317	VOFT-L14-T62-MZT2-G18-1M8RL-2APC
	Covered	8219318	VOFT-L14-T62-MZS-G18-1M8RL-2APC

Accessories

Mufflers for safety-related applications



Pneumatic connection	Cushioning insert material	Operating pressure ¹⁾	Ambient temperature	Part no.	Type
G1/8	Protective grounding	0 ... 8 bar	-10 ... 60 °C	197583	UO-1/8

1) For safety-related applications, depending on the desired safety category and the performance level, the use of open mufflers is mandatory.
The maximum permissible working pressure of the mufflers used must not be exceeded.

Mufflers for standard applications



Pneumatic connection	Cushioning insert material	Noise level	Part no.	Type
G1/8	Protective grounding	59 dB(A)	161419	UC-1/8