

Valve series VOFC

FESTO



Characteristics

General

- The valves of series VOFC are special 3/2-way and 5/2-way valves for process automation and applications in chemical and petrochemical installations, where they are frequently used as pilot valves for butterfly valves and actuators. Their sturdy design and high resistance to corrosion make these valves suitable for outdoor use under harsh ambient conditions.
- With the flange pattern to NAMUR, the solenoid valves are particularly suitable for quarter turn actuators.
- The integrated spring chamber re-breather function protects quarter-turn actuators with spring return (single-acting cylinders and actuators) against contaminated ambient air and weather conditions such as rain.
- With German Technical Control Board (TÜV) report up to SIL3

Function, design

- 3/2-way or 5/2-way, single or double solenoid, depending on the type
- Pilot-actuated piston spool and poppet valves

Sturdy

- The surface of the valve housing is Ematal-coated. This treatment involves converting the aluminium surface into a very hard aluminium oxide layer with titanium oxide deposits, which makes the valves extremely resistant to wear and abrasion and gives them first-class sliding qualities. This provides optimum protection against atmospheric and chemical influences. You can find information on the media resistance of the product at
→ www.festo.com.

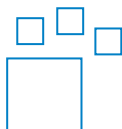
Flexible functionality

- Changeover between internal and external pilot air via automatic OR valve
- Suitable for vacuum

Economical

- Connection pattern to NAMUR for direct mounting on the actuator and G and NPT threaded connections in a valve housing

Ordering data – Product options



Configurable product

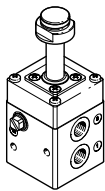
This product and all its product options can be ordered using the configurator.

The configurator can be found under Products on the DVD or at
→ www.festo.com/catalogue/...

Part no.	Type
3344863	VOFC-L
2868687	VOFC-LT

Characteristics

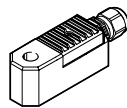
VOFC – Basic valves



- 3/2, 5/2-way valves
- Connections G1/4, 1/4 NPT, G1/2, 1/2 NPT, flanged connections
- Connection pattern to NAMUR, optionally with P duct

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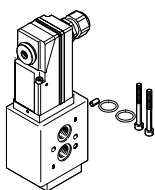
VACC – S13 coils



- AC and DC voltage 24 V, 60 V 110 V, 230 V
- CE marking (see declaration of conformity) to EU Explosion Protection Directive (ATEX)

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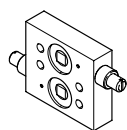
VOFC – Solenoid valves



- Combination of basic valve VOFC and P3 nozzle/baffle plate pilot control
- 3/2, 5/2-way valves
- Types of ignition protection EX ia

→ Page 20, 33

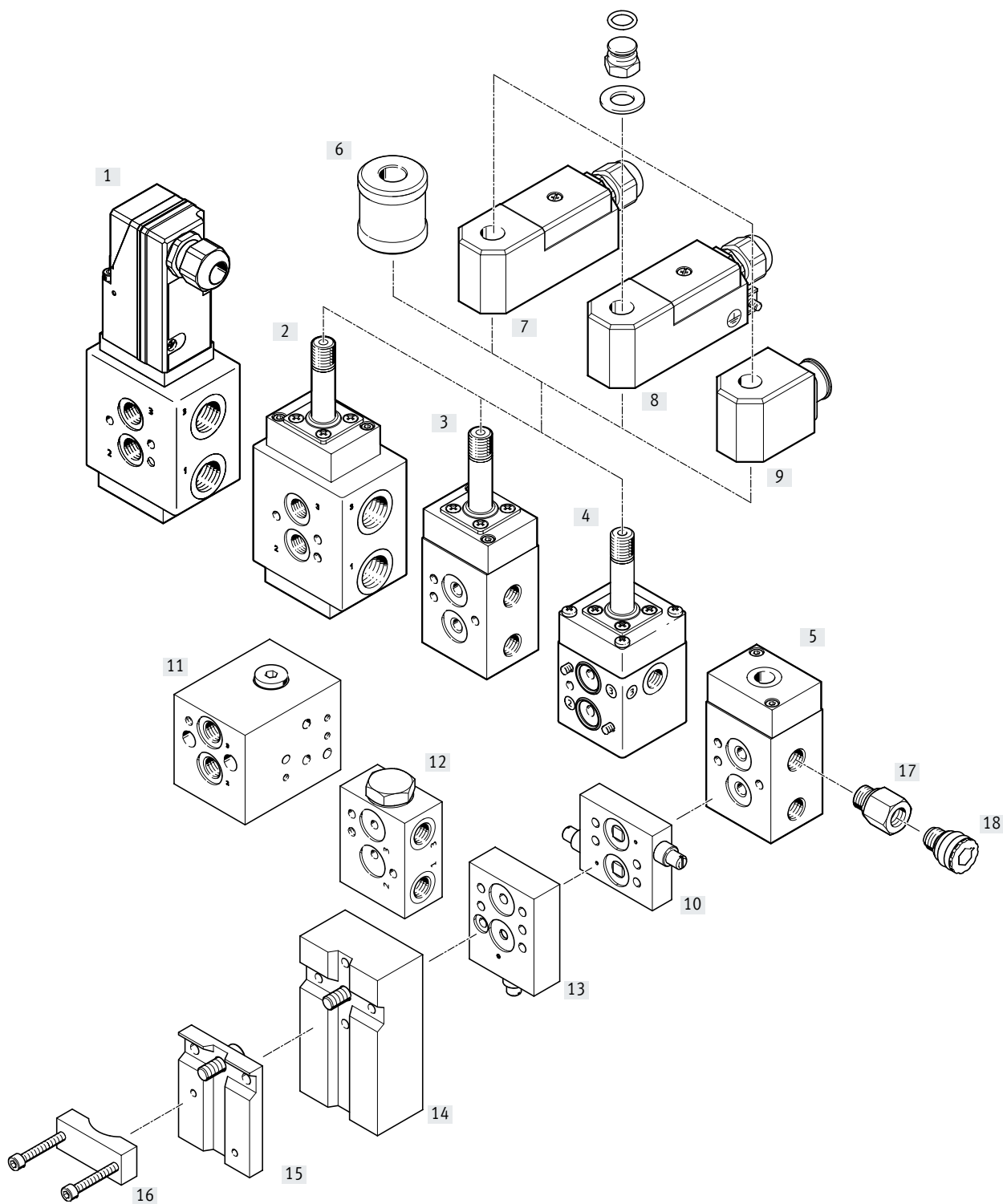
VOFC – Accessories



- Throttle plate
- Sub-base
- Mounting plate
- Connection set
- Adapter with filter
- Mounting bracket
- Manual override

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Peripherals overview



Peripherals overview

Mounting components and accessories		Brief description	→ Page/Internet
[1]	Solenoid valve VOFC-LT-...-FG12-...-P3-...	Solenoid valve with valve pilot control, interface for pilot nozzle/baffle plate → modular product system – can be configured using the online configurator	2
[2]	Basic valve VOFC-LT-...-FG12-...-F19...	3/2-way valve, connection G1/2, poppet valve → modular product system – can be configured using the online configurator	2
[3]	Basic valve VOFC-L-...-FG14-...-F19...	3/2-way valve, connection G1/4, piston spool → modular product system – can be configured using the online configurator	2
[4]	Basic valve VOFC-LT-...-FG14-...-F19...	3/2-way valve, connection G1/4, poppet valve → modular product system – can be configured using the online configurator	2
[5]	Directional control valve VOFC-L-...-SG14/SN14-...	3/2-way valve, 5/2-way valve, connection G1/4, piston spool → modular product system – can be configured using the online configurator	2
[6]	Manual override VAOH-MB-S7-S13	Manual override (MO)	58
[7]	Solenoid coil VACC-S13-...3A	Type of ignition protection iA = intrinsically safe, for use in zone 1	52
[8]	Solenoid coil VACC-S13-...ME	Type of ignition protection ME = encapsulated, for use in zone 1	52
[9]	Solenoid coil VACC-S13-...A1	IP65, electrical plug pattern type A to DIN EN 175-803	52
[10]	Throttle plate VABF-S7-F1B1P2-F	Exhaust air throttle plate for NAMUR interface for installation between the solenoid valve and double-acting actuators	56
[11]	Sub-base VABS-S7-RB-B-...14-V14-A	For mounting two solenoid valves for redundant circuitry, with flange 1/4, connection pattern to NAMUR	53
[12]	Sub-base VABS-S7-BE-B-...14-V14-A	Pressurisation and exhaust block, with flange 1/4, connection pattern to NAMUR	53
[13]	Throttle plate VABF-S7-F1B5P1-F	Exhaust air throttle plate for NAMUR interface for installation between the solenoid valve and single-acting actuators	56
[14]	Connection set VABF-S7-S-G14	Mounting plate for attaching the valve to the NAMUR rib	56
[15]	Mounting plate VAME-S7-P	Mounting plate for attaching the valve to the NAMUR rib	55
[16]	Mounting bracket VAME-S7-Y	Alternative (instead of screw) for mounting the valve on a NAMUR rib using a mounting bracket	57
[17]	Adapter NPFV-AF-...-MF	Adapter with filter	57
[18]	Exhaust protection VABD-D3-SN-...	Exhaust protection to IP65. The spring chamber of the solenoid valve is protected against the ingress of aggressive ambient air and water by the one-way flow control system	57

Type codes for VOFC

001	Series	
VOFC	Solenoid valve	
002	Directional control valve type	
L	In-line valve	
003	Design principle	
	Piston spool	
T	Poppet valve	
004	Valve function	
B52	5/2-way valve, double solenoid/bistable	
M52	5/2-way valve, single solenoid/monostable	
M32C	3/2-way valve, normally closed	
005	Reset method for monostable/single solenoid valves	
	None	
M	Mechanical spring	
006	Pilot air	
	Internal	
C	Internal/external	
Z	External	
007	Manual override	
	None	
H	Non-detenting	
Y	Detenting	
008	Pneumatic connection	
G12	G1/2	
G14	G1/4	
N12	1/2 NPT	
N14	1/4 NPT	
FG12	Flange G1/4, connections G1/2	
FG13	Flange G1/2, connections G1/2	
FG14	Flange G1/4, connections G1/4	
FN12	Flange 1/4 NPT, connections 1/2 NPT	
FN13	Flange 1/2 NPT, connections 1/2 NPT	
FN14	Flange 1/4 NPT, connections 1/4 NPT	
FGP14	Flange G1/4, connections G1/4 and other pneumatic connection	
FNP14	Flange 1/4 NPT, connections 1/4 NPT and another pneumatic connection	
009	Supply connection version	
	Standard	
PF	With particle filter	
NPF	With particle filter and connecting thread NPT	

010	Exhaust	
	No fitting	
U6	With exhaust protection	
011	Corrosion protection	
	Standard	
R1	Stainless steel	
012	Valve pilot control interface	
P3	Interface for pilot nozzle/baffle plate	
F19	Electric with armature tube for solenoid coil, 13 mm	
F19A	Electric with armature tube for solenoid coil 13 mm, intrinsically safe	
SG14	Interface with thread G1/4	
SN14	Interface with thread 1/4 NPT	
013	Power consumption	
	None	
11	1.1 W	
18	1.8 W	
0.09	9 mW	
0.4	40 mW	
014	Nominal operating voltage	
	None	
1U	24 V DC and AC	
2U	110 V DC and AC	
3U	230 V DC and AC	
1	24 V DC	
27	60 V DC	
015	Electrical connection	
	None	
A1	Connection pattern type A, to EN 175 301	
K4	Cable connector metric	
016	Circuitry	
	None	
F	Fuse	
017	EU certification	
	None	
EX4	II 2GD	
018	Type of ignition protection	
	None	
A	Intrinsically safe	
ME	Encapsulation, enhanced security	

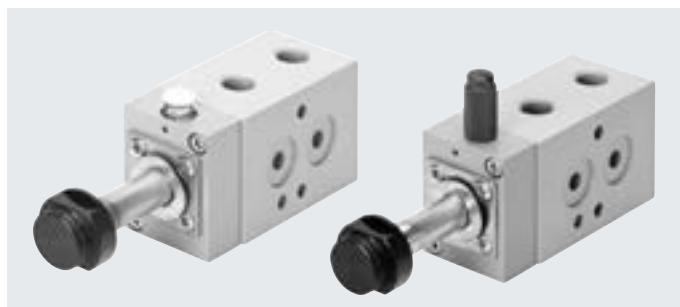
Data sheet – Modular system, piston spool valves

Function

- 3/2-way solenoid valve
- 5/2-way single solenoid valve
- 5/2-way double solenoid valve

–  – Temperature range
–25 ... 60°C

–  – Flow rate
913 ... 1030 l/min



General technical data		
Type VOFC-L...		
Valve functions		3/2-way closed, single solenoid, 5/2-way single solenoid, 5/2-way double solenoid
Design		Piston spool
Sealing principle		Soft
Width [mm]		40
Mounting position		Any
Manual override		None
		Non-detenting
		Detenting
Reset method		Without
		Mechanical spring
Actuation type		Electric
Type of control		Piloted
Pilot air supply		Internal
		External
Flow rate Kv for pressurisation [m³/h]		0.66 ... 1.08
Flow rate Kv for exhausting [m³/h]		0.66 ... 1.08
Switching time off [ms]		22 (VOFC-L-B52-..., VOFC-L-M52-...)
Switching time on [ms]		26 (VOFC-L-B52-..., VOFC-L-M52-...)
Flow direction		Non-reversible
Nominal width [mm]		6
Standard nominal flow rate 1→2 [l/min]		913 ... 1030
Standard nominal flow rate 2→3 [l/min]		978 ... 983

Technical data, 5/2-way valve, single or double solenoid		
VOFC-L-B52-G14-	1	G1/4
VOFC-L-M52-...-G14-	2	G1/4
	3	G1/4
	4	G1/4
	5	G1/4
VOFC-L-B52-N14-	1	1/4 NPT
VOFC-L-M52-...-N14-	2	1/4 NPT
	3	1/4 NPT
	4	1/4 NPT
	5	1/4 NPT
VOFC-L-B52-FG14-	1	G1/4
VOFC-L-M52-...-FG14-	2	Connection pattern to NAMUR, flange 1/4
	3	G1/4
	4	Connection pattern to NAMUR, flange 1/4
	5	G1/4
VOFC-L-B52-FN14-	1	1/4 NPT
	2	Connection pattern to NAMUR, flange 1/4
	3	1/4 NPT
	4	Connection pattern to NAMUR, flange 1/4
	5	1/4 NPT

Data sheet – Modular system, piston spool valves

Technical data, 3/2-way valve, single or double solenoid		
VOFC-L-M32C-...-FG14-	1	G1/4
	2	Connection pattern to NAMUR, flange 1/4
	3	G1/4

Technical data, weights		
Type	Weight of basic valve	Weight of pilot control -P3-
VOFC-L-B52-G14-...	790	170
VOFC-L-B52-N14-...	790	170
VOFC-L-B52-FG14-...	680	170
VOFC-L-M52-MH-G14-...	520	85
VOFC-L-M52-MY-G14-...	520	85
VOFC-L-M52-MH-FG14-...	520	85
VOFC-L-M52-MY-FG14-...	520	85
VOFC-L-M52-M-N14-...	520	85
VOFC-L-M32C-MH-FG14-...	520	85
VOFC-L-M32C-MY-FG14-...	520	85
VOFC-L-M52-MZ-...	430	–
VOFC-L-M32C-MZ-...	430	–

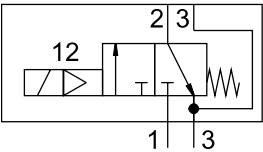
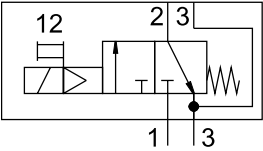
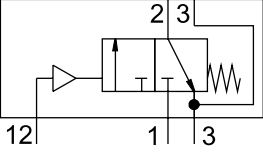
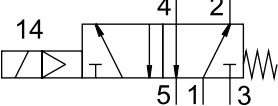
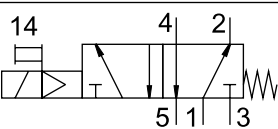
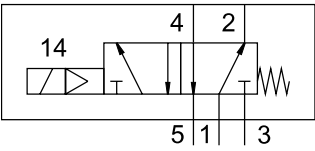
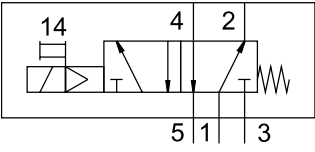
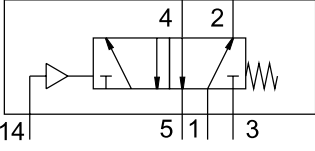
Operating and environmental conditions		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Degree of protection	IP50, IP65	
Operating pressure range	[bar]	2.5 ... 8
	[psi]	36 ... 116
Temperature of medium	[°C]	–25 ... 60
Ambient temperature	[°C]	–25 ... 60
Safety integrity level	[SIL]	Up to SIL2 low demand mode
		Up to SIL2 high demand mode
Corrosion resistance class CRC ¹⁾	4	
Note on materials	Contains paint-wetting impairment substances	
	RoHS-compliant	

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests
(→ also FN 940082), using appropriate media.

Materials		
	VOFC-L-...	VOFC-L-...-P3
Housing	Ematal-coated aluminium	Ematal-coated aluminium, reinforced PBT
Seals	NBR	NBR, EPDM, VMQ

Data sheet – Modular system, piston spool valves

Valve functions		
Circuit symbol	Type code	Description
	VOFC-L-M32C-M-FG14-...	3/2-way valve, single solenoid, closed - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - With NAMUR connection - Without manual override (MO)
	VOFC-L-M32C-MH-FG14-... (MO non-detenting) VOFC-L-M32C-MY-FG14-... (MO detenting)	3/2-way valve, single solenoid, closed - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - With NAMUR connection - With manual override (MO)
	VOFC-L-M32C-MZ-...	3/2-way valve, monostable, closed - Pneumatically piloted - Non-reversible - With spring return - External pilot air supply - With NAMUR connection - Without manual override (MO)
	VOFC-L-M52-M-G14-... VOFC-L-M52-M-N14-...	5/2-way single solenoid valve - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - Without manual override (MO)
	VOFC-L-M52-MH-G14-... (MO non-detenting) VOFC-L-M52-MY-G14-... (MO detenting) VOFC-L-M52-MH-N14-... (MO non-detenting) VOFC-L-M52-MY-N14-... (MO detenting)	5/2-way single solenoid valve - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - With manual override (MO)
	VOFC-L-M52-M-FG14-... VOFC-L-M52-M-FN14-...	5/2-way single solenoid valve - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - With NAMUR connection - Without manual override (MO)
	VOFC-L-M52-MH-FG14-... (MO non-detenting) VOFC-L-M52-MY-FG14-... (MO detenting) VOFC-L-M52-MH-FN14-... (MO non-detenting) VOFC-L-M52-MY-FN14-... (MO detenting)	5/2-way single solenoid valve - Electrically piloted - Non-reversible - With spring return - Internal pilot air supply - With NAMUR connection - With manual override (MO)
	VOFC-L-M52-MZ-...	5/2-way monostable valve - Pneumatically piloted - Non-reversible - With spring return - External pilot air supply - With NAMUR connection - Without manual override (MO)

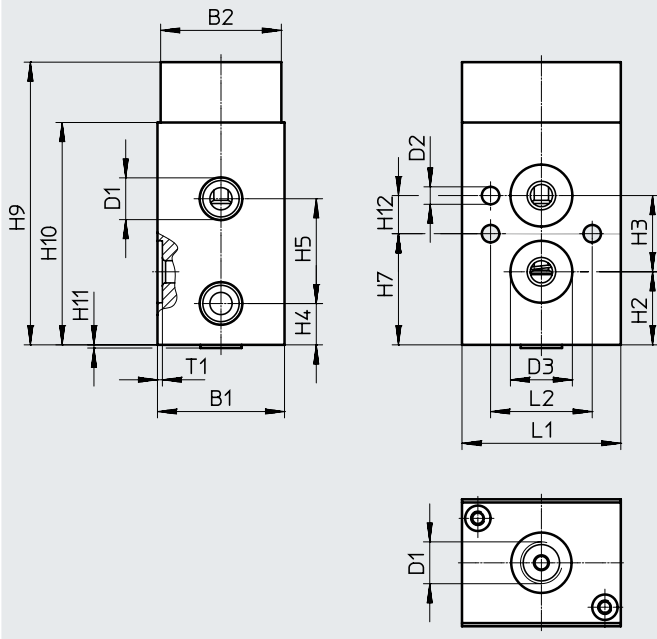
Data sheet – Modular system, piston spool valves

Valve functions		
Circuit symbol	Type code	Description
The circuit symbol shows a 5/2-way double solenoid valve. It has two solenoid coils at the top, labeled 14 and 12. The valve has five ports: 4 (top left), 2 (top right), 5 (bottom left), 1 (bottom center), and 3 (bottom right). The symbol indicates that in the de-energized state, port 4 is connected to port 1 and port 2 is connected to port 3. In the energized state, port 4 is connected to port 3 and port 2 is connected to port 1.	VOFC-L-B52-G14-... VOFC-L-B52-N14-...	5/2-way double solenoid valve • Electrically piloted • Non-reversible • Internal pilot air supply • Without manual override (MO)
The circuit symbol is identical to the first one, but it includes a manual override (MO) symbol, which is a small rectangle with a diagonal line, located between the solenoid coils 14 and 12.	VOFC-L-B52-H-G14-... (MO non-detenting) VOFC-L-B52-H-N14-... (MO non-detenting)	5/2-way double solenoid valve • Electrically piloted • Non-reversible • Internal pilot air supply • With manual override (MO)
The circuit symbol is identical to the first one, but it includes a NAMUR connection symbol, which is a small rectangle with a diagonal line, located between the solenoid coils 14 and 12.	VOFC-L-B52-FG14-... VOFC-L-B52-FN14-...	5/2-way double solenoid valve • Electrically piloted • Non-reversible • Internal pilot air supply • With NAMUR connection • Without manual override (MO)
The circuit symbol is identical to the first one, but it includes both a manual override (MO) symbol and a NAMUR connection symbol, located between the solenoid coils 14 and 12.	VOFC-L-B52-H-FG14-... (MO non-detenting)	5/2-way double solenoid valve • Electrically piloted • Non-reversible • Internal pilot air supply • With NAMUR connection • With manual override (MO)

Data sheet – Modular system, piston spool valves

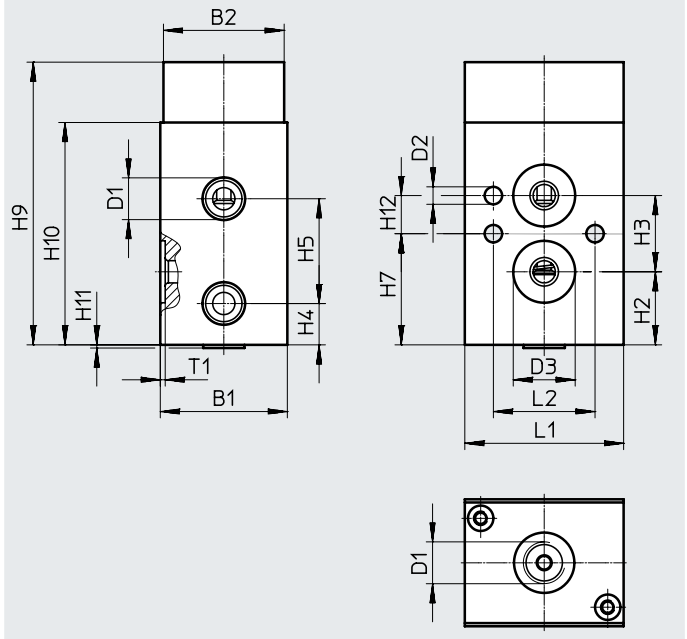
Dimensions

3/2-way valves (without armature tube)
Interface -SG14/-SN14



Download CAD data → www.festo.com

5/2-way valves (without armature tube)
Interface -SG14/-SN14

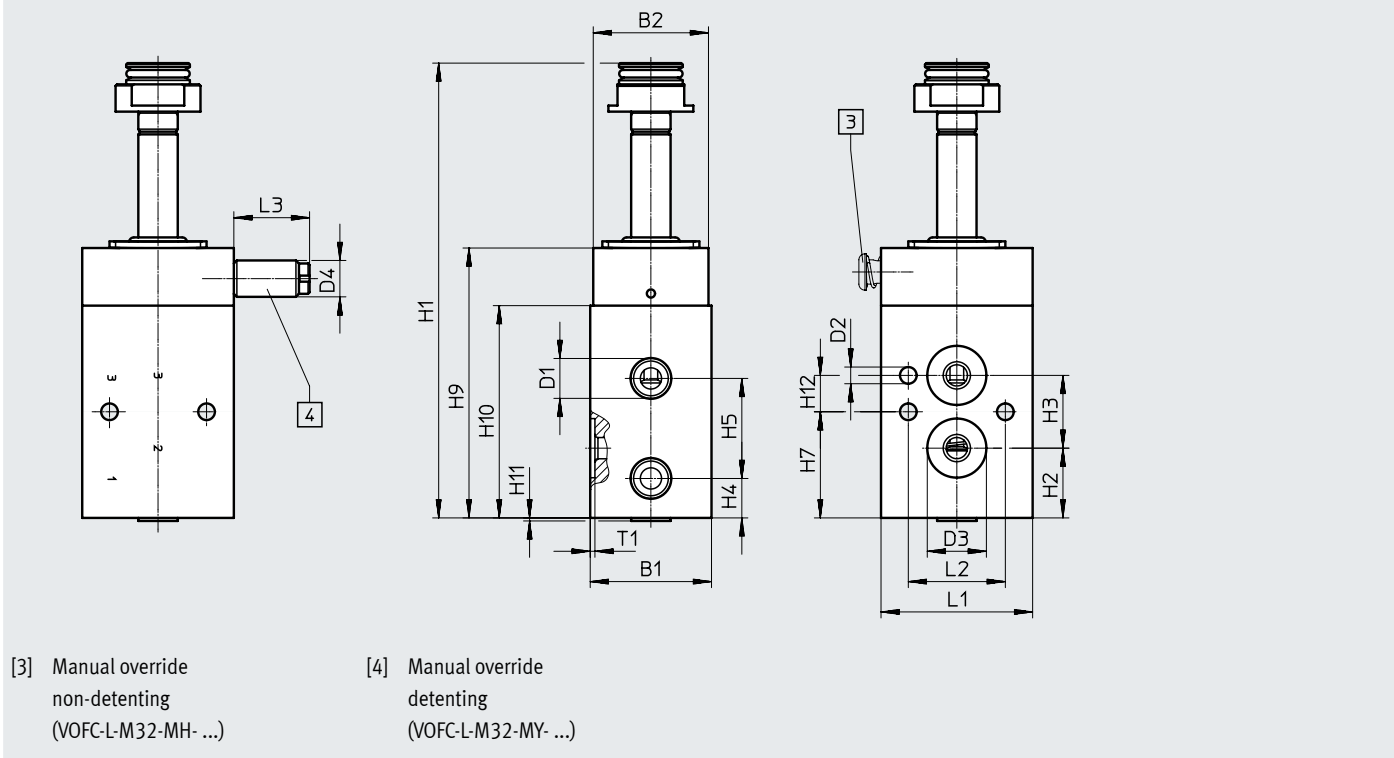


Type	B1	B2	D1	D2 Ø	D3 Ø	H2	H3	H4	H5	H6	H7	H9	H10	H11	H12	L1	L2	T1
VOFC-L-M32-MZ-FG14-SG14-...	40	38	G1/4	5.5	19.5	23	24	13	33	-	35	89	70	1	12	50	32	1.6
VOFC-L-M32-MZ-FN14-SN14-...			1/4 NPT															
VOFC-L-M52-MZ-FG14-SG14-...			G1/4															
VOFC-L-M52-MZ-FN14-SN14-...			1/4 NPT															

Data sheet – Modular system, piston spool valves

Dimensions Download CAD data → www.festo.com

3/2-way valves, basic valve



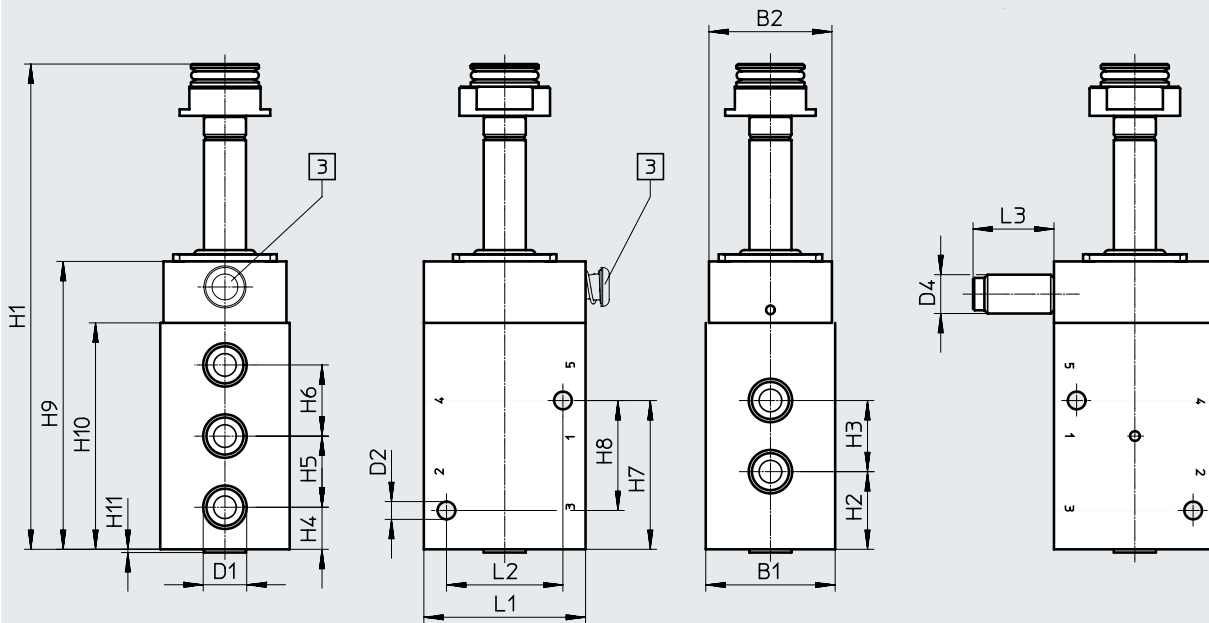
Type	B1	B2	D1	D2 Ø	D3 Ø	D4 Ø	H1	H2	H3	H4	H5	H7	H9	H10	H11	H12	L1	L2	L3	T1
VOFC-L-M32-M-FG14-...	40	38	G1/4	5.5	19.5	—	150	23	24	13	33	35	89	70	1	12	50	32	—	1.6
VOFC-L-M32-MH-FG14-...																				
VOFC-L-M32-MY-FG14-...						12													25	

Data sheet – Modular system, piston spool valves

Dimensions

Download CAD data → www.festo.com

5/2-way valves, basic valve, connection -G14/-N14



[3] Manual override
non-detenting
(VOFC-L-M52-MH- ...)

[4] Manual override
detenting
(VOFC-L-M52-MY- ...)

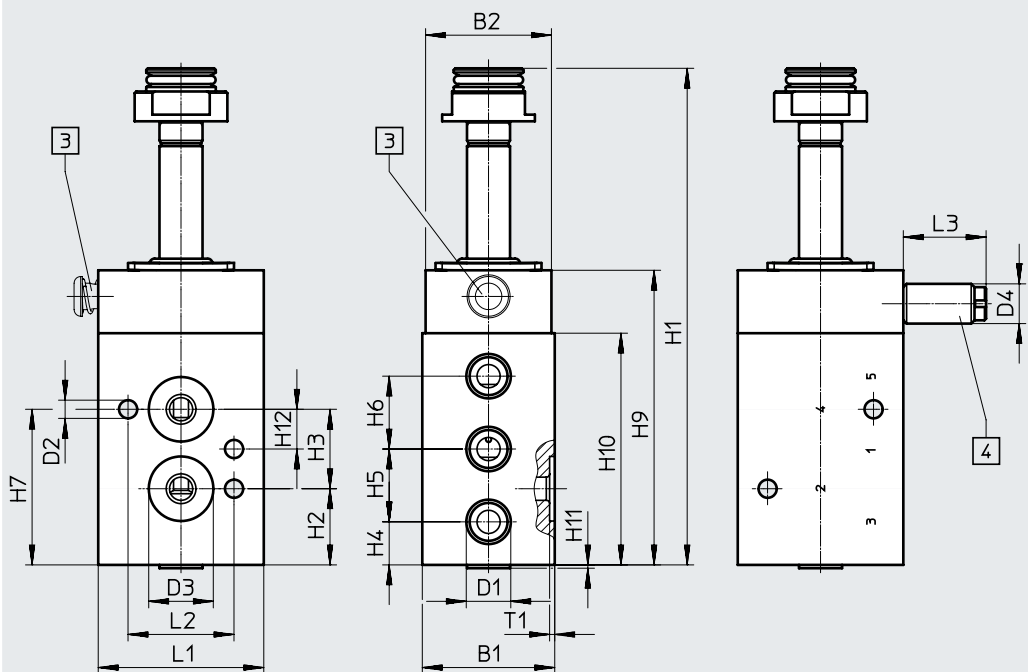
Type	B1	B2	D1	D2 Ø	D4 Ø	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	L1	L2	L3
VOFC-L-M52-M-G14-...	40	38	G1/4	5.5	-	150	24	22	13	22	22	46	34	89	70	1	50	36	-
VOFC-L-M52-MH-G14-...			1/4 NPT																
VOFC-L-M52-M-N14-...			1/4 NPT																
VOFC-L-M52-MH-N14-...			G1/4		12														25
VOFC-L-M52-MY-G14-...																			

Data sheet – Modular system, piston spool valves

Dimensions

Download CAD data → www.festo.com

5/2-way valves, basic valve, connection -FG14



[3] Manual override
non-detenting
(VOFC-L-M52-MH- ...)

[4] Manual override
detenting
(VOFC-L-M52-MY- ...)

Type	B1	B2	D1	D2 Ø	D3 Ø	D4 Ø	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H12	L1	L2	L3	T1
VOFC-L-M52-M-FG14-...	40	38	G1/4	5.5	19.5	-	150	23	24	13	22	22	47	89	70	1	12	50	32	-	1.6
VOFC-L-M52-MH-FG14-...						12														25	
VOFC-L-M52-MY-FG14-...																					

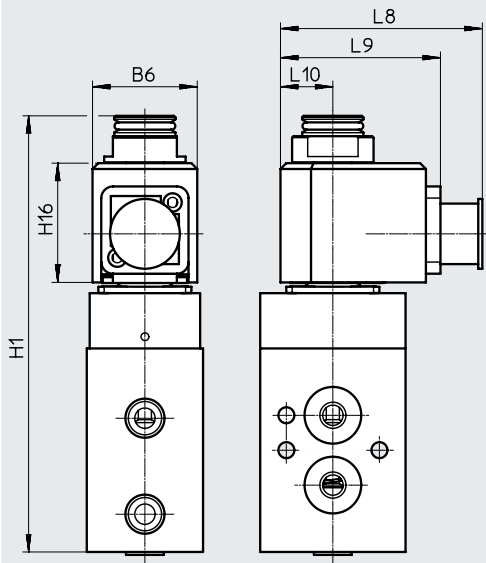
Data sheet – Modular system, piston spool valves

Dimensions

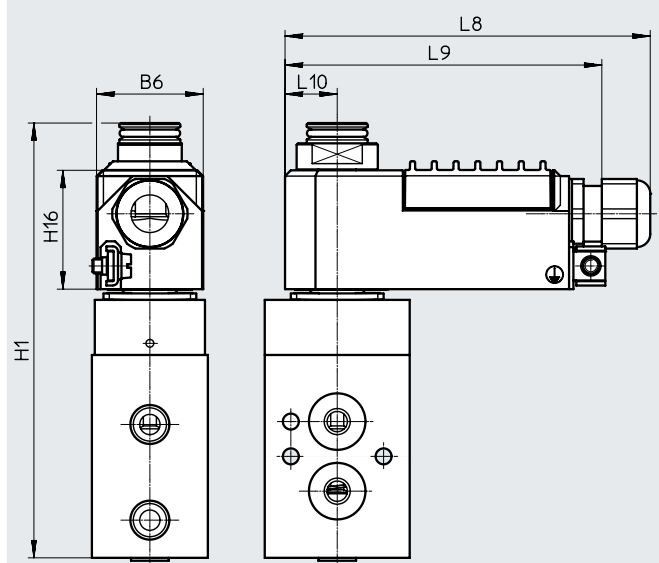
Download CAD data → www.festo.com

Single solenoid valves with solenoid coil

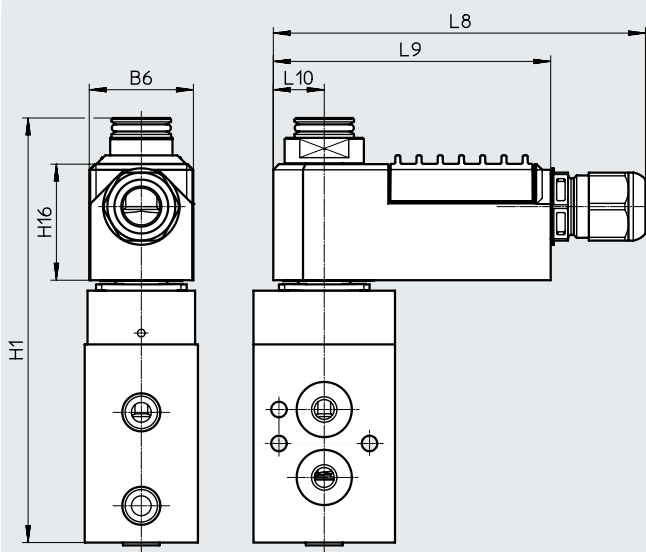
VOFC-...-18-A1-...



VOFC-...-18-K4-...-EX4ME



VOFC-...-11-K4-1-EX4A



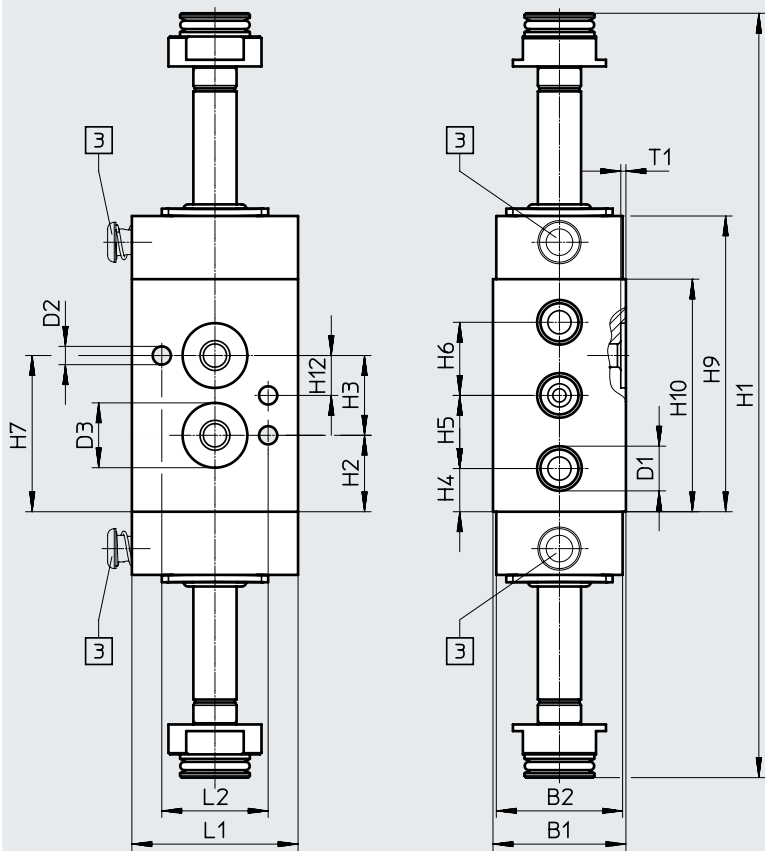
Type	B6	H1	H16	L8	L9	L10
VOFC-...-18-A1-...	36	150	41	69.4	55	18
VOFC-...-18-K4-...-EX4ME	37	150	41	125	111	18
VOFC-...-11-K4-1-EX4A	37	150	41	125	98	18

Data sheet – Modular system, piston spool valves

Dimensions

Download CAD data → www.festo.com

5/2-way valves, double solenoid, basic valve
Connection -FG



[3] Manual override
non-detenting
(VOFC-L-B52-H- ...)

Type	B1	B2	D1	D2 Ø	D3 Ø	H1	H2	H3	H4	H5	H6	H7	H9	H10	H12	L1	L2	T1
VOFC-L-B52-...-FG14-...	40	38	G1/4	5.5	19.5	230	23	24	13	22	22	47	89	70	12	50	32	1.6
VOFC-L-B52-H-...-FG14-...																		

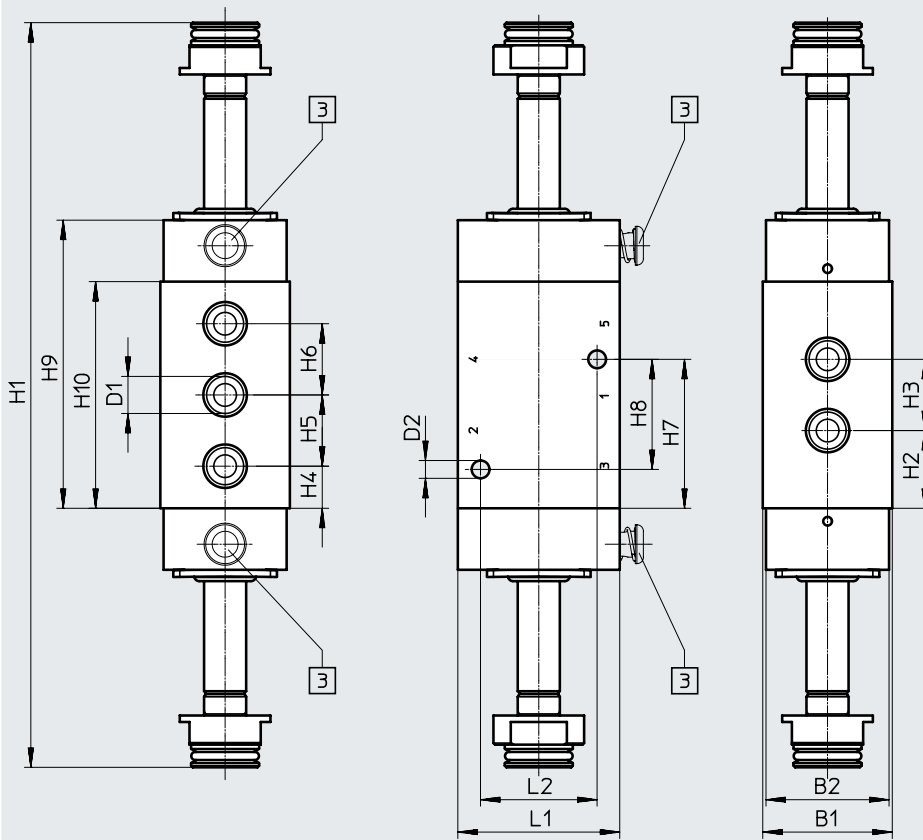
Data sheet – Modular system, piston spool valves

Dimensions

Download CAD data → www.festo.com

5/2-way valves, double solenoid, basic valve

Connection -G14/-N14



[3] Manual override
non-detenting
(VOFC-L-B52-H- ...)

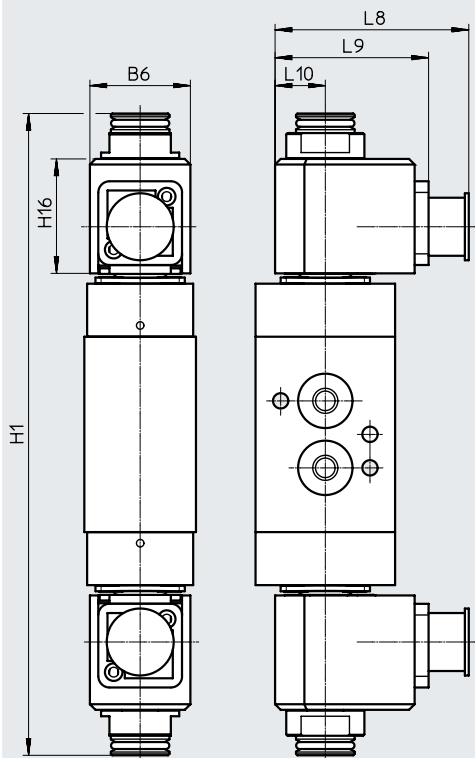
Type	B1	B2	D1	D2 Ø	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	L1	L2
VOFC-L-B52-...-G14-...	40	38	G1/4	5.5	230	24	22	13	22	22	46	34	89	70	50	36
VOFC-L-B52-H-G14-...			1/4 NPT													
VOFC-L-B52-...-N14-...																
VOFC-L-B52-H-N14-...																

Data sheet – Modular system, piston spool valves

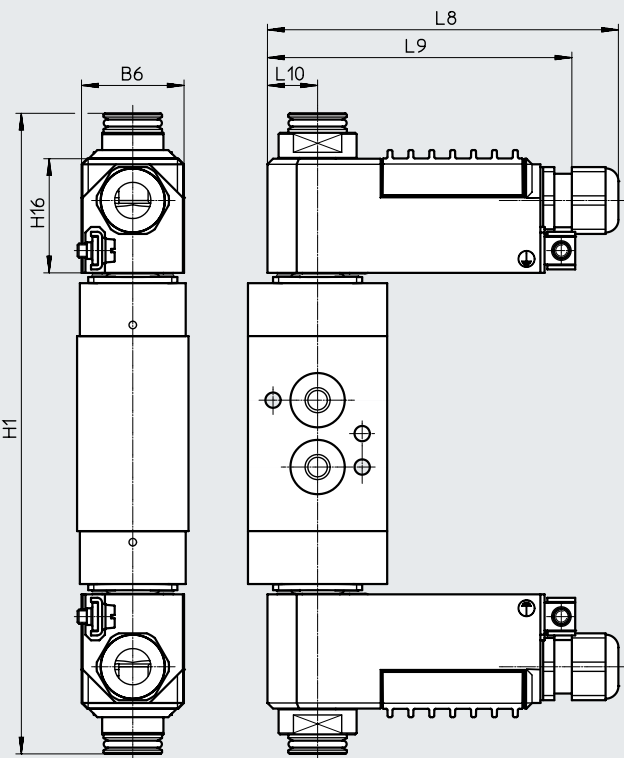
Dimensions

Download CAD data → www.festo.com

Double solenoid valves with solenoid coil
VOFC-...-18-A1-...



VOFC-...-18-K4-...-EX4ME

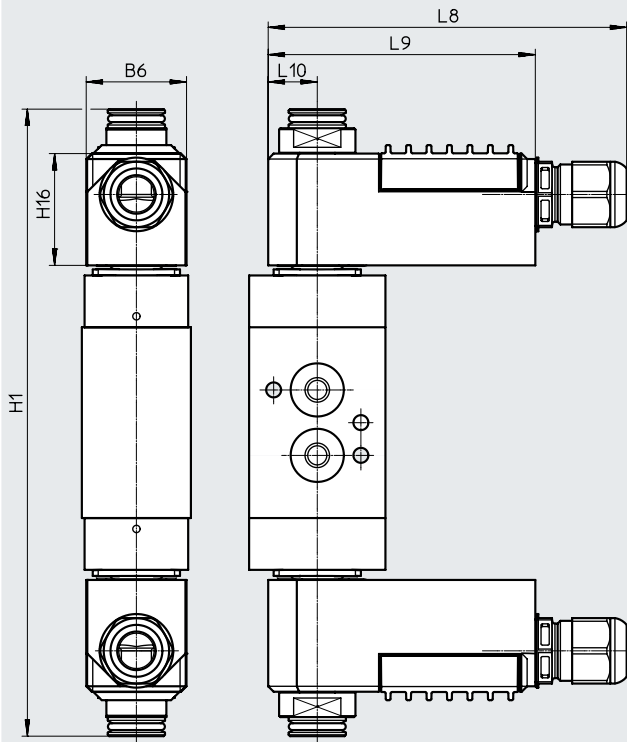


Type	B6	H1	H16	L8	L9	L10
VOFC-...-18-A1-...	36	230	41	69.4	55	18
VOFC-...-18-K4-...-EX4ME	37	230	41	125	111	18

Data sheet – Modular system, piston spool valves

DimensionsDownload CAD data → www.festo.com

Double solenoid valves with solenoid coil
 VOFC-...-11-K4-1-EX4A



Type	B6	H1	H16	L8	L9	L10
VOFC-...-11-K4-1-EX4A	37	230	41	125	98	18

Data sheet – Modular system, piston spool valves

Solenoid valve, nozzle/baffle plate
(VOFC-...-P3-...)

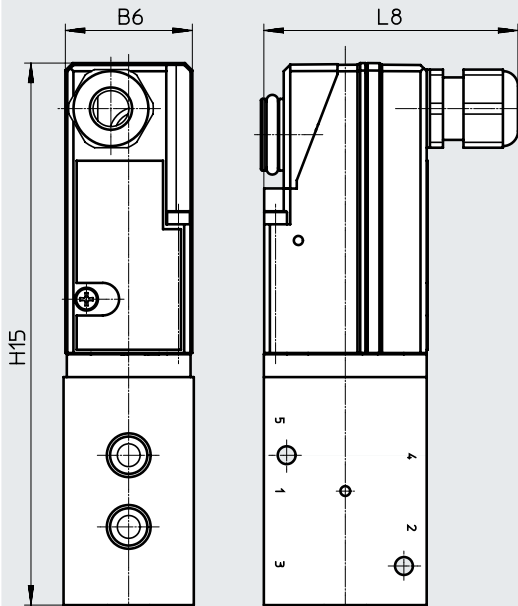


Technical data, solenoid valve, nozzle/baffle plate		
Type	VOFC-...-P3-...-0.09-...-EX4A	VOFC-...-P3-...-0.4-...-EX4A
With pilot control unit	VACC-P3-0.09-K4-1-EX4A	VACC-P3-0.4-K4-1-EX4A
Design	Nozzle/baffle plate pilot control	
Operating voltage range [V DC]	6.4 ... 40	16 ... 40
Degree of protection	IP50	
Reverse polarity protection	Bipolar	
Duty cycle [%]	100	
Max. input power P_i [mW]	650	
Max. input voltage U_i [V]	40	
Max. input current I_i [mA]	200	
Effective internal capacitance C_i	Negligibly low	
Effective internal inductance L_i	Negligibly low	
ATEX category for gas	II 2G	
Type of ignition protection for gas	Ex ia IIC T6, T5 Gb	
ATEX category for dust	II 2D	
Type of ignition protection for dust	Ex ia IIIC T85°C, T125°C Db	
Explosion-proof ambient temperature [°C]	T5, T125: -40 ≤ Ta ≤ +70	
	T6, T85: -40 ≤ Ta ≤ +30	
Certificate issuing authority	BVS14ATEXE098X	
	IECEX BVS14.0063X	
	KGS15-GA4BO-0565X	
Notified body for quality testing	0344	
Explosion protection certification outside the EU	EPL Gb (IECEX)	
	EPL Db (IECEX)	
	EPL Gb (KR)	
	EPL Db (KR)	
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)	
Insulation class	H	
Electrical connection	Terminal box, cable entry, thread M20x1.5, conductor cross-section max. 1.5 mm ² , cable diameter 5-9 mm	
Information on materials for solenoid coil	PBT reinforced, UP	

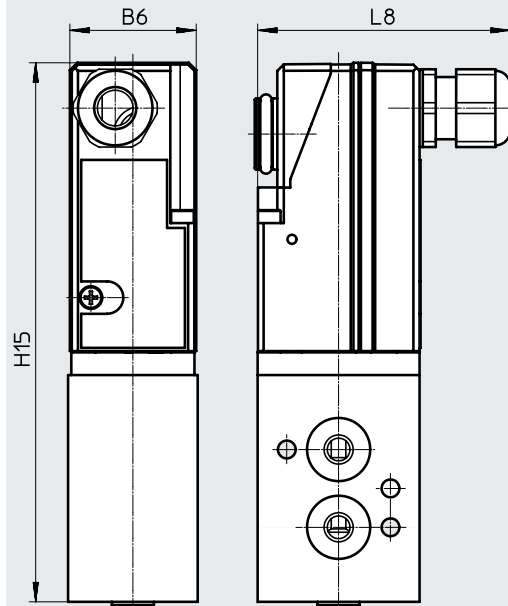
Data sheet – Modular system, piston spool valves

DimensionsDownload CAD data → www.festo.com

Solenoid valve with pilot nozzle/baffle plate
Connection -G14/-N14



Connection -FG14



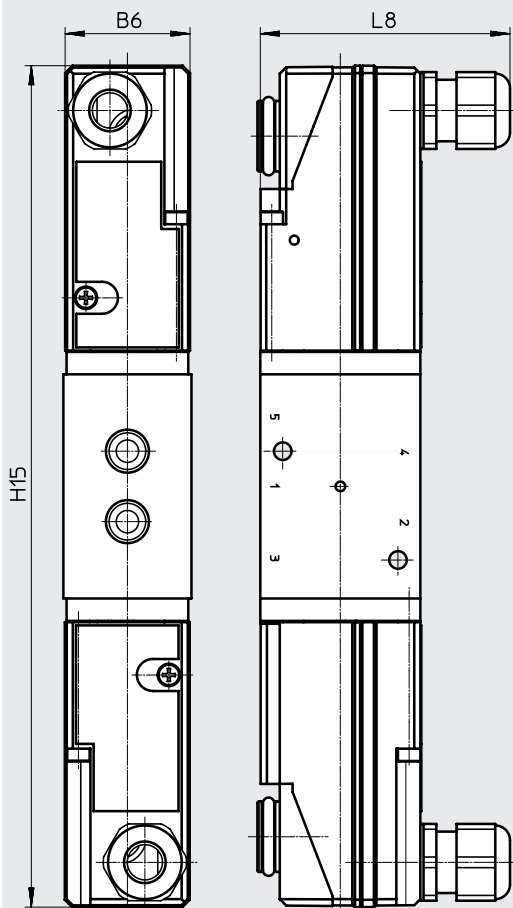
Type	B6	H15	L8
VOFC-L-M52-M...-G14-P3-0.4-1-K4-EX4A	39	167	76
VOFC-L-M52-M...-N14-P3-0.4-1-K4-EX4A			
VOFC-L-M52-M...-FG14-P3-0.4-1-K4-EX4A			
VOFC-L-M52-M...-G14-P3-0.09-1-K4-EX4A			
VOFC-L-M52-M...-N14-P3-0.09-1-K4-EX4A			
VOFC-L-M52-M...-FG14-P3-0.09-1-K4-EX4A			

Data sheet – Modular system, piston spool valves

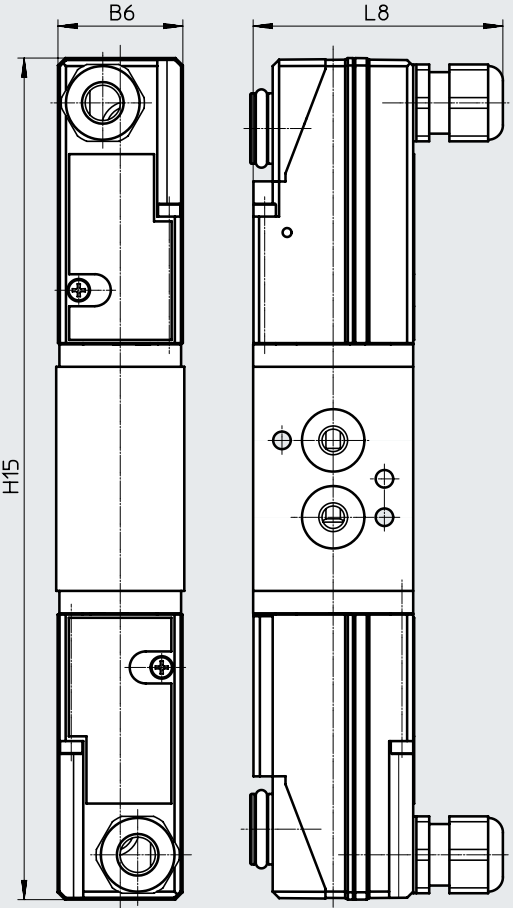
Dimensions

Download CAD data → www.festo.com

Double solenoid valve with pilot nozzle/baffle plate
Connection -G14/-N14



Connection -FG14



Type	B6	H15	L8
VOFC-L-B52-...-G14-P3-0.4-1-K4-EX4A	39	263	76
VOFC-L-B52-...-N14-P3-0.4-1-K4-EX4A			
VOFC-L-B52-...-FG14-P3-0.4-1-K4-EX4A			
VOFC-L-B52-...-G14-P3-0.09-1-K4-EX4A			
VOFC-L-B52-...-N14-P3-0.09-1-K4-EX4A			
VOFC-L-B52-...-FG14-P3-0.09-1-K4-EX4A			

Data sheet – Modular system, poppet valves

Function

- 3/2-way solenoid valve

–  – Temperature range
–25 ... 60°C

–  – Flow rate
766 ... 2686 l/min



General technical data

Type	VOFC-LT-M32C-M...12-... VOFC-LT-M32C-M...13-...	VOFC-LT-M32C-M...14-...
Valve functions	3/2-way closed, single solenoid	
Design	Poppet valve	
Sealing principle	Hard	
Width [mm]	51	
Mounting position	Any	
Manual override	None	
Reset method	Mechanical spring	
Actuation type	Electric	
Type of control	Piloted	
Pilot air supply	Internal Internal/external	
Flow rate Kv for pressurisation [m³/h]	0.5 ... 2.4	
Flow rate Kv for exhausting [m³/h]	0.65 ... 3.3	
Switching time off [ms]	14	18
Switching time on [ms]	25	24
Flow direction	Non-reversible	
Nominal width [mm]	6 ... 12	
Standard nominal flow rate 1 → 2 [l/min]	766 ... 2686	
Standard nominal flow rate 2 → 3 [l/min]	1467 ... 3462	

Technical data of pneumatic connection, type VOFC-LT-...14-...

VOFC-LT-M32C-...-G14-...	1	G1/4
	2	G1/4
	3	G1/4
VOFC-LT-M32C-...-N14-...	1	1/4 NPT
	2	1/4 NPT
	3	1/4 NPT
VOFC-LT-M32C-...-FG14-...	1	G1/4
	2	Connection pattern to NAMUR, flange 1/4
	3	G1/4
VOFC-LT-M32C-...-FGP14-...	1	Connection pattern to M 5 NAMUR
	2	Connection pattern to NAMUR, flange 1/4
	3	G1/4
VOFC-LT-M32C-...-FNP14-...	1	Connection pattern to M 5 NAMUR
	2	Connection pattern to NAMUR, flange 1/4
	3	1/4 NPT
VOFC-LT-M32C-...-FN14-...	1	1/4 NPT
	2	Connection pattern to NAMUR, flange 1/4
	3	1/4 NPT

Data sheet – Modular system, poppet valves

Technical data of pneumatic connection, type VOFC-LT-...12-..., type VOFC-LT-...13-...		
VOFC-LT-M32C-...-G12-...	1	G1/2
	2	G1/2
	3	G1/2
VOFC-LT-M32C-...-N12-...	1	1/2 NPT
	2	1/2 NPT
	3	1/2 NPT
VOFC-LT-M32C-...-FG12-...	1	G1/2
	2	Connection pattern to NAMUR, flange 1/4
	3	G1/2
VOFC-LT-M32C-...-FN12-...	1	1/2 NPT
	2	Connection pattern to NAMUR, flange 1/4
	3	1/2 NPT
VOFC-LT-M32C-...-FG13-...	1	G1/2
	2	Connection pattern to NAMUR, flange 1/2
	3	G1/2
VOFC-LT-M32C-...-FN13-...	1	1/2 NPT
	2	Connection pattern to NAMUR, flange 1/2
	3	1/2 NPT

Technical data, weights		
Type	Weight of basic valve	Weight of pilot control -P3-
VOFC-LT-M32C-M-...12-...	880	85
VOFC-LT-M32C-MC-G14-...	550	85
VOFC-LT-M32C-MC-N14-...	550	85
VOFC-LT-M32C-M-F-...14-...	600	85
VOFC-LT-M32C-MC-F-...P14-...	600	85
VOFC-LT-M32C-MC-F-...13-...	900	85

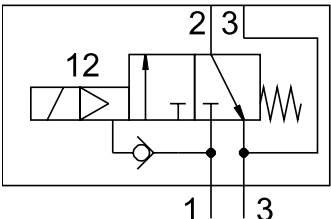
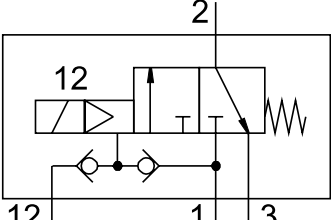
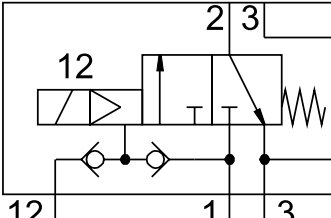
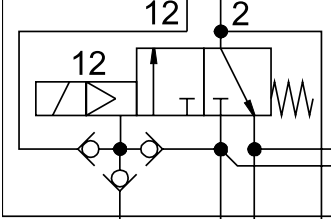
Operating and environmental conditions					
Type VOFC-LT-...	-M32C-M-...12-...	-M32C-M-...14-...	-M32C-MC-...12-... -M32C-MC-...13-...	-M32C-MC-...14-...	-M32C-MZ-...14-...
Operating medium	Compressed air to ISO 8573-1:2010 [7: - : -]				
Degree of protection	IP50, IP65				
Operating pressure range	[bar]	2 ... 8	1 ... 8	2 ... 8	1 ... 8
	[psi]	29 ... 116	15 ... 116	29 ... 116	15 ... 116
Note on operating pressure	[bar]	–			
Pilot pressure	[bar]	–			
Temperature of medium	[°C]	–25 ... 60			
Ambient temperature	[°C]	–25 ... 60			
Safety integrity level	[SIL]	Up to SIL3 low demand mode			
		Up to SIL3 high demand mode			
Corrosion resistance class CRC ¹⁾		4			
Note on materials		Contains paint-wetting impairment substances			
		RoHS-compliant			

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials			
Type	VOFC-LT-...	VOFC-LT-... -R1-...	VOFC-LT-... -P3-...
Housing	Ematal-coated aluminium	High-alloy stainless steel	Ematal-coated aluminium, reinforced PBT
Seals	NBR	NBR	NBR, EPDM, VMQ

Data sheet – Modular system, poppet valves

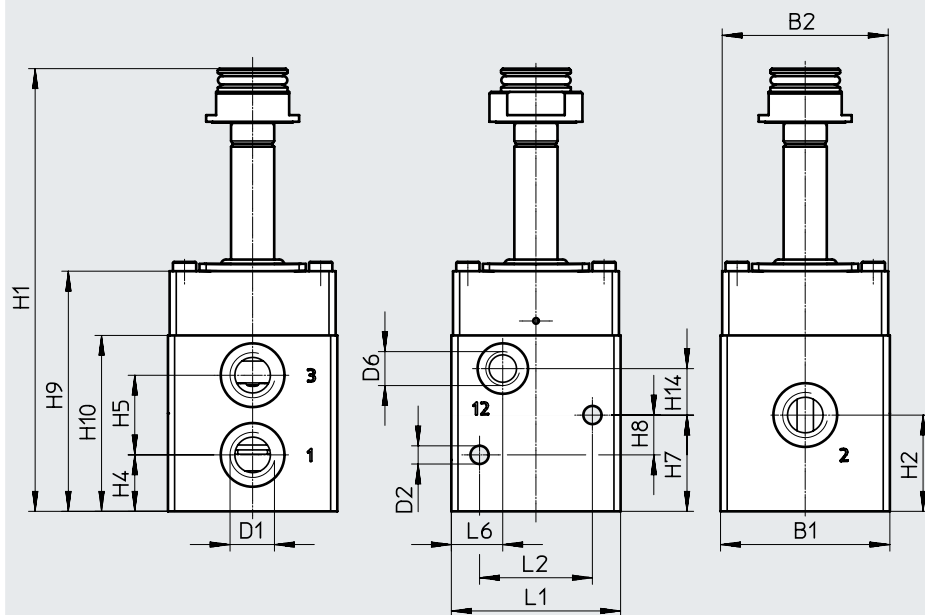
Valve functions Circuit symbol	Type code	Description
	VOFC-LT-M32C-M-FG12- VOFC-LT-M32C-M-FG14- VOFC-LT-M32C-M-FN12- VOFC-LT-M32C-M-FN14-	3/2-way valve, single solenoid, closed • Electrically piloted • Non-reversible • With spring return • Internal pilot air supply • With NAMUR connection • Without manual override • One-way flow control valve
	VOFC-LT-M32C-MC-G12- VOFC-LT-M32C-MC-G14- VOFC-LT-M32C-MC-N12- VOFC-LT-M32C-MC-N14-	3/2-way valve, single solenoid, closed • Electrically piloted • Non-reversible • With spring return • Pilot air supply, internal/external • Without manual override • One-way flow control valve
	VOFC-LT-M32C-MC-FG13- VOFC-LT-M32C-MC-FN13-	3/2-way valve, single solenoid, closed • Electrically piloted • Non-reversible • With spring return • Pilot air supply, internal/external • With NAMUR connection • Without manual override • One-way flow control valve
	VOFC-LT-M32C-MC-FGP14- VOFC-LT-M32C-MC-FNP14-	3/2-way valve, single solenoid, closed • Electrically piloted • Non-reversible • With spring return • Pilot air supply, internal/external • With NAMUR connection with additional P connection • Without manual override • One-way flow control valve

Data sheet – Modular system, poppet valves

Dimensions

Download CAD data → www.festo.com

3/2-way valves, basic valve, connection - G14/-N14



Type	B1	B2	D1	D2 ø	H1	H2	H4	H5
VOFC-LT-M32C-MC-G14-...	51	50	G1/4	5.5	133	29	17	24
VOFC-LT-M32C-MC-N14-...			1/4 NPT					

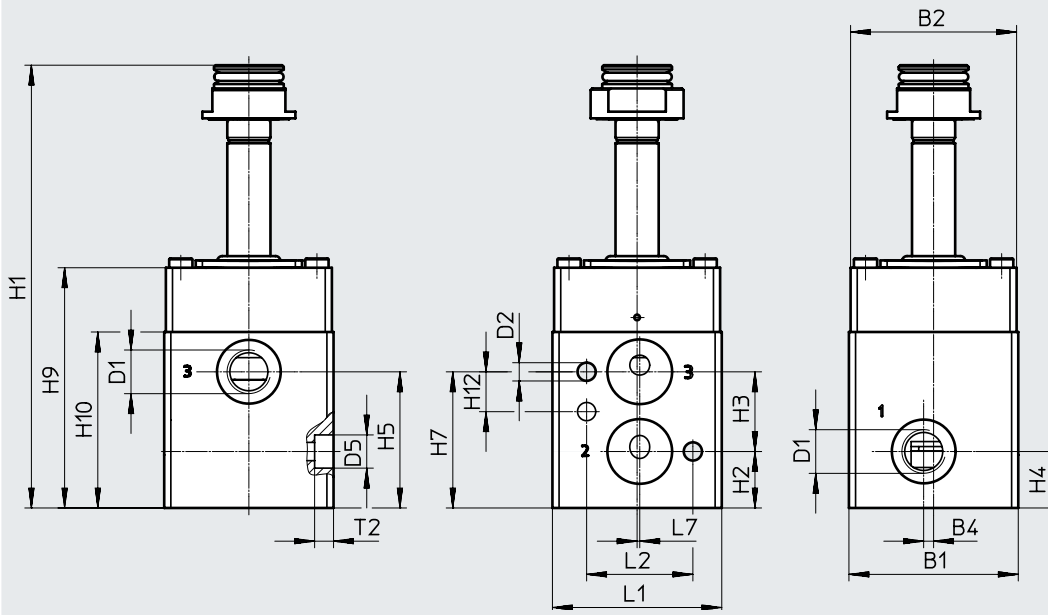
Type	H7	H8	H9	H10	H14	L1	L2	L6
VOFC-LT-M32C-MC-G14-...	29	12	72	53	14	51	34	15.5
VOFC-LT-M32C-MC-N14-...								

Data sheet – Modular system, poppet valves

Dimensions

Download CAD data → www.festo.com

3/2-way valves, basic valve, connection -FG14



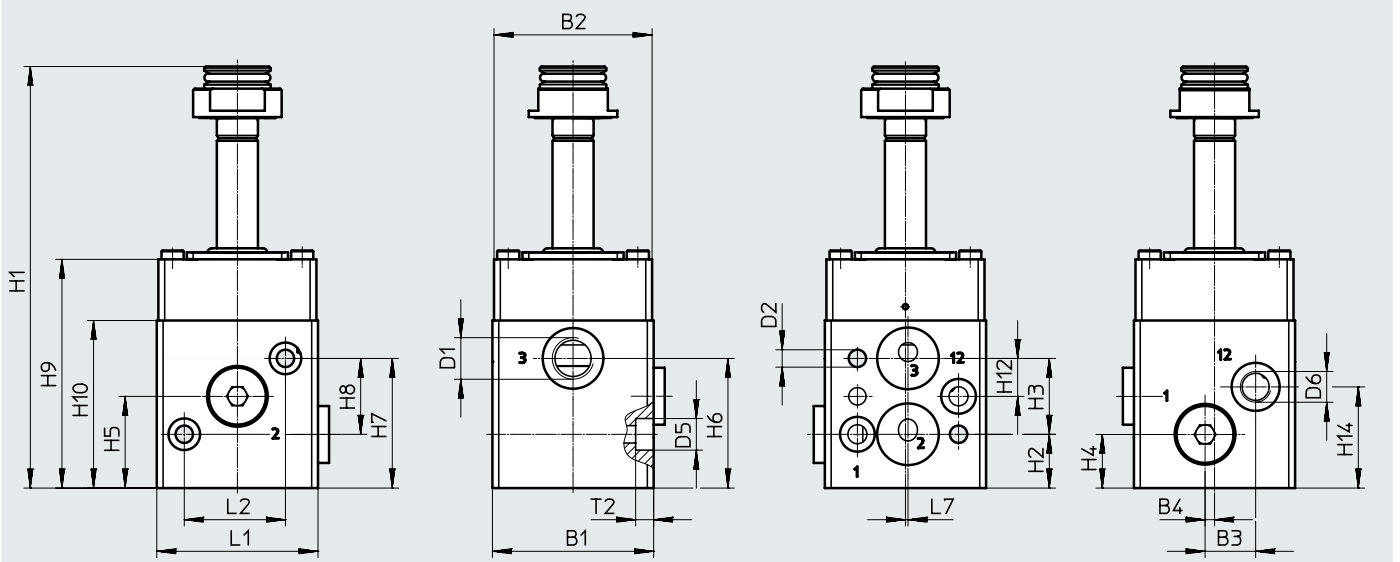
Type	B1	B2	B4	D1	D2 ø	D5 ø	H1	H2	H3	H4
VOFC-LT-M32C-M-FG14-...	51	50	3	G1/4	5.5	10	133	17	24	17

Type	H5	H7	H9	H10	H12	L1	L2	L7	T2
VOFC-LT-M32C-M-FG14-...	41	41	72	53	12	51	32	0.8	5.7

Dimensions

Download CAD data → www.festo.com

3/2-way valves, basic valve, connection -FGP14



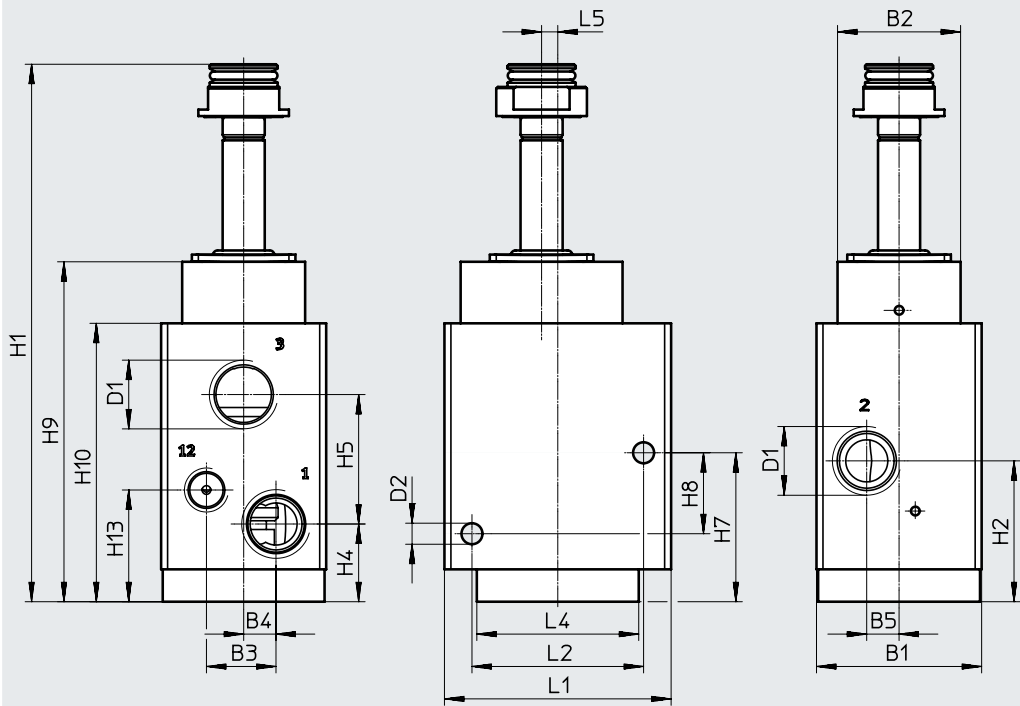
Type	B1	B2	B3	B4	D1	D2 ø	D5 ø	D6	H1	H2	H3	H4
VOFC-LT-M32C-M-FGP14-...	51	50	16	3	G1/4	5.5	10	G1/8	133	17	24	17

Type	H5	H6	H7	H8	H9	H10	H12	H14	L1	L2	L7	T2
VOFC-LT-M32C-M-FGP14-...	29	41	41	24	72	53	12	32	51	32	0.8	5.7

Data sheet – Modular system, poppet valves

Dimensions Download CAD data → www.festo.com

3/2-way valves, basic valve, connection -G12/-N12



Type	B1	B2	B3	B4	B5	D1	D2 Ø	H1	H2	H4
VOFC-LT-M32C-MC-G12-...	51	38	22	10	10	G1/2	5.5	166	43.5	24
VOFC-LT-M32C-MC-N12-...			21.5			1/2 NPT				

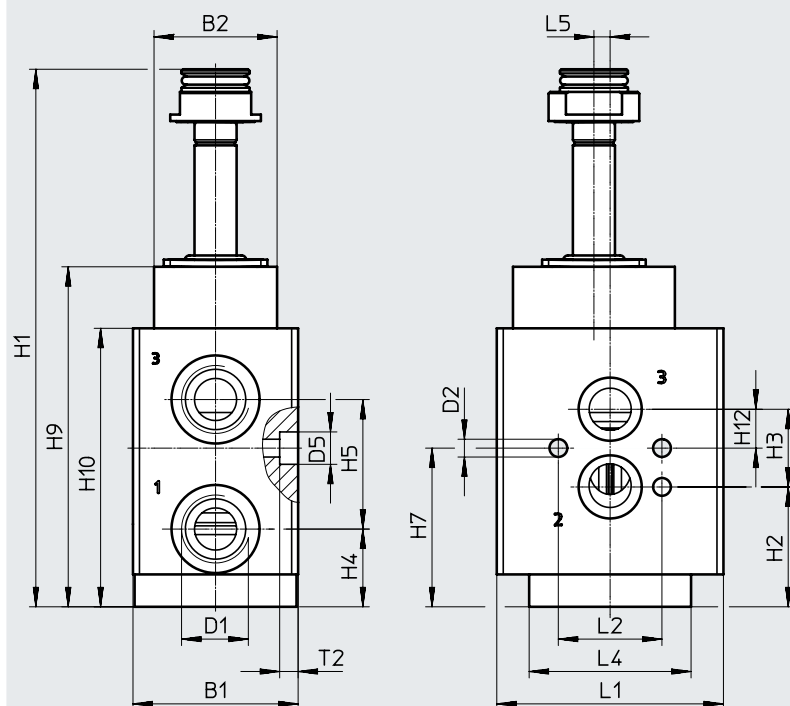
Type	H5	H7	H8	H9	H10	H13	L1	L2	L4	L5
VOFC-LT-M32C-MC-G12-...	40	46	25	89	105	34.5	70	53	50	5
VOFC-LT-M32C-MC-N12-...										

Data sheet – Modular system, poppet valves

Dimensions

Download CAD data → www.festo.com

3/2-way valves, basic valve, connection -FG12



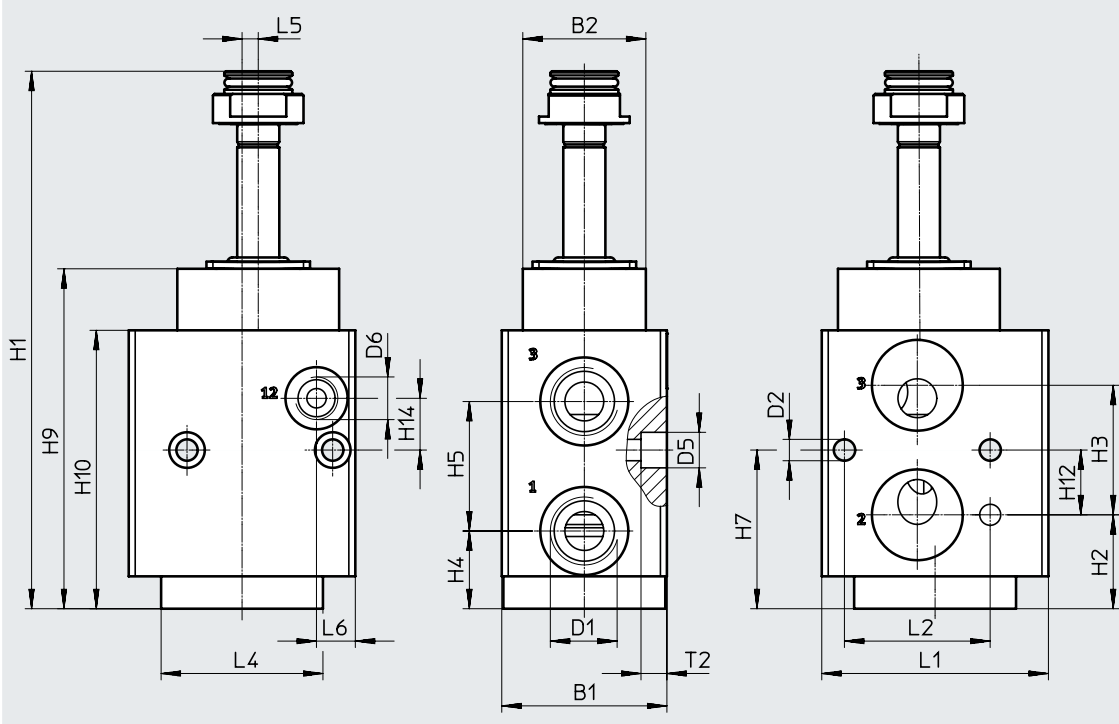
Type	B1	B2	D1	D2 Ø	D5 Ø	H1	H2	H3	H4	H5
VOFC-LT-M32C-MC-FG12-...	51	38	G1/2	5.5	10	166	37	24	24	40

Type	H7	H9	H10	H12	L1	L2	L4	L5	T2
VOFC-LT-M32C-MC-FG12-...	49	105	86	12	70	32	50	5	5.7

Data sheet – Modular system, poppet valves

Dimensions Download CAD data → www.festo.com

3/2-way valves, basic valve, connection -FG13



Type	B1	B2	D1	D2 Ø	D5 Ø	H1	H2	H3	H4	H5
VOFC-LT-M32C-M-FG13-...	51	38	G1/2	6.6	11	166	29	40	24	40

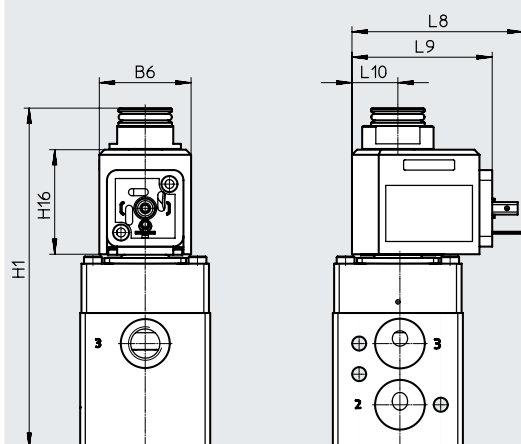
Type	H7	H9	H10	H12	H14	L1	L2	L4	L5	L6	T2
VOFC-LT-M32C-M-FG13-...	49	105	86	20	16	70	45	50	5	12	8

Data sheet – Modular system, poppet valves

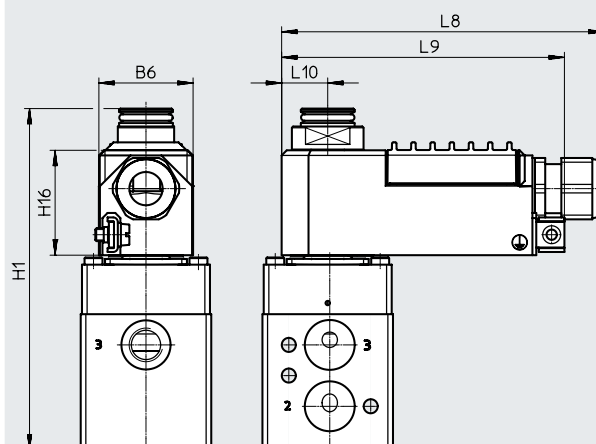
DimensionsDownload CAD data → www.festo.com

Valves with solenoid coil, pneumatic connection, size 1/4"

VOFC-LT-...-18-A1-...

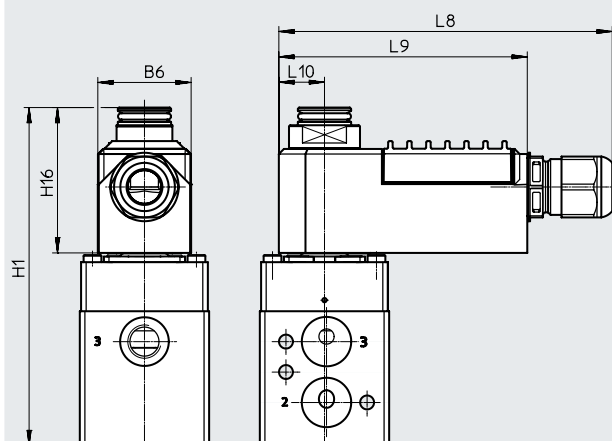


VOFC-LT-...-18-K4-...-EX4ME

**Dimensions**Download CAD data → www.festo.com

Valves with solenoid coil, pneumatic connection, size 1/4"

VOFC-LT-...-11-K4-1-EX4A



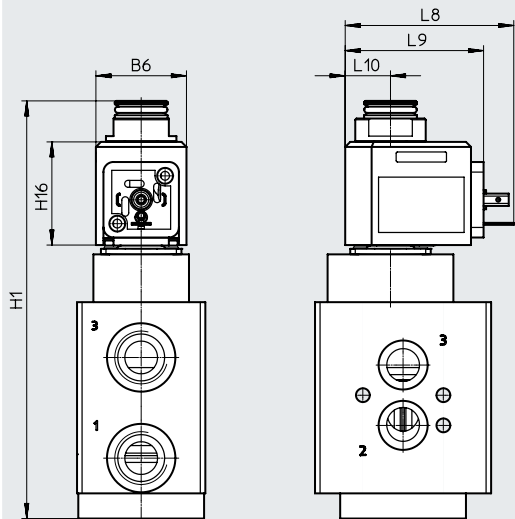
Type	B6	H1	H16	L8	L9	L10
VOFC-LT-...-18-A1-...	36	133	41	67	55	18
VOFC-LT-...-18-K4-...-EX4ME	37	133	41	125	111	18
VOFC-LT-...-11-K4-1-EX4A	37	133	41	125	98	18

Data sheet – Modular system, poppet valves

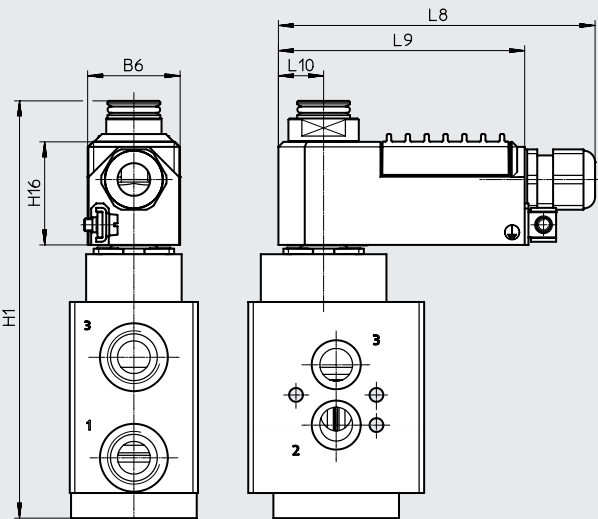
Dimensions

Download CAD data → www.festo.com

Valves with solenoid coil, pneumatic connection, size 1/2"
VOFC-LT-...-18-A1-...



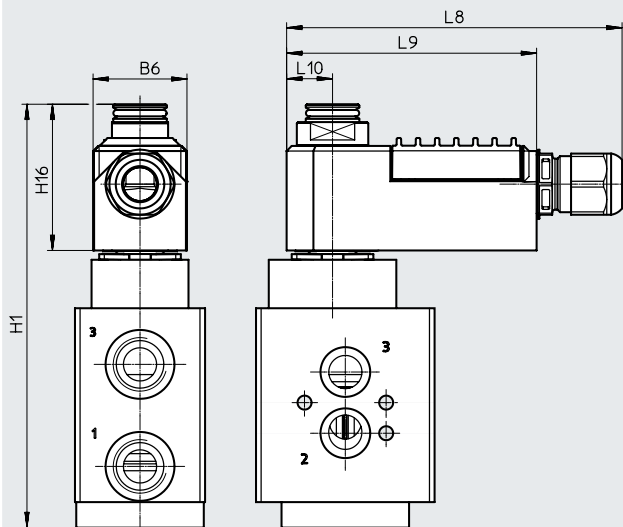
VOFC-LT-...-18-K4-...-EX4ME



Dimensions

Download CAD data → www.festo.com

Valves with solenoid coil, pneumatic connection, size 1/2"
VOFC-LT-...-11-K4-1-EX4A



Type	B6	H1	H16	L8	L9	L10
VOFC-LT-...-18-A1-...	36	166	41	67	55	18
VOFC-LT-...-18-K4-...-EX4ME	37	166	41	125	111	18
VOFC-LT-...-11-K4-1-EX4A	37	166	41	125	98	18

Data sheet – Modular system, poppet valves

Solenoid valve, nozzle/baffle plate
(VOFC-...-P3-...)



Technical data, solenoid valve, nozzle/baffle plate

Type	VOFC-...-P3-...-0.09-...-EX4A	VOFC-...-P3-...-0.4-...-EX4A
With pilot control unit	VACC-P3-0.09-K4-1-EX4A	VACC-P3-0.4-K4-1-EX4A
Design	Nozzle/baffle plate pilot control	
Operating voltage range [V DC]	6.4 ... 40	16 ... 40
Degree of protection	IP50	
Reverse polarity protection	Bipolar	
Duty cycle [%]	100	
Max. input power P_i [mW]	650	
Max. input voltage U_i [V]	40	
Max. input current I_i [mA]	200	
Effective internal capacitance C_i	Negligibly low	
Effective internal inductance L_i	Negligibly low	
ATEX category for gas	II 2G	
Type of ignition protection for gas	Ex ia IIC T6, T5 Gb	
ATEX category for dust	II 2D	
Type of ignition protection for dust	Ex ia IIIC T85°C, T125°C Db	
Explosion-proof ambient temperature [°C]	T5, T125: -40 ≤ Ta ≤ +70 T6, T85: -40 ≤ Ta ≤ +30	
Certificate issuing authority	BVS14ATEXE098X IECEX BVS14.0063X KGS15-GA4BO-0565X	
Notified body for quality testing	0344	
Explosion protection certification outside the EU	EPL Gb (IECEX) EPL Db (IECEX) EPL Gb (KR) EPL Db (KR)	
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)	
Insulation class	H	
Electrical connection	Terminal box, cable entry, thread M20x1.5, conductor cross-section max. 1.5 mm ² , cable diameter 5-9 mm	
Information on materials for solenoid coil	PBT reinforced, UP	

Data sheet – Modular system, poppet valves

Dimensions
Solenoid valve with pilot nozzle/baffle plate, pneumatic connection, size 1/4"
Connection -G14/-N14

Connection -FG14

Type	B6	H15	L8
VOFC-LT-M32C-MC-G14-P3-0.4-1-K4-EX4A	39	151	77
VOFC-LT-M32C-MC-N14-P3-0.4-1-K4-EX4A			
VOFC-LT-M32C-MC-G14-P3-0.09-1-K4-EX4A			
VOFC-LT-M32C-MC-N14-P3-0.09-1-K4-EX4A			
VOFC-LT-M32C-M-FG14-P3-0.4-1-K4-EX4A			
VOFC-LT-M32C-M-FG14-P3-0.09-1-K4-EX4A			

Dimensions
Solenoid valve with pilot nozzle/baffle plate, pneumatic connection, size 1/4"
Connection -FGP14

Connection -FGP14

Type	B6	H15	L8
VOFC-LT-M32C-M-FGP14-P3-0.4-1-K4-EX4A	39	151	77
VOFC-LT-M32C-M-FGP14-P3-0.09-1-K4-EX4A			

34

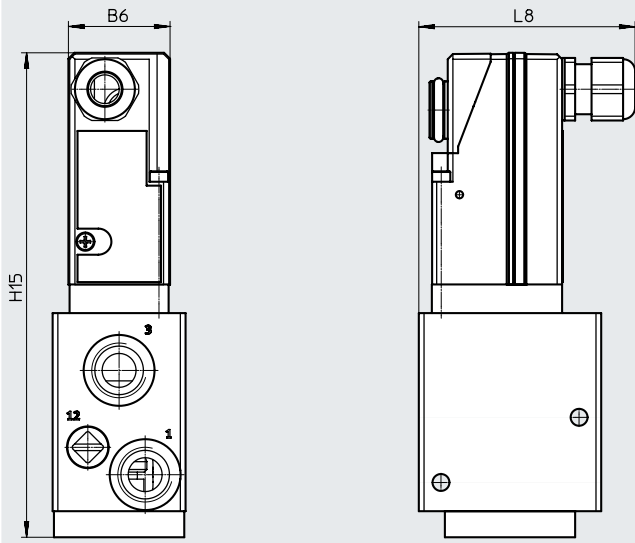
→ Internet: www.festo.com/catalogue/...

Subject to change – 2020/04

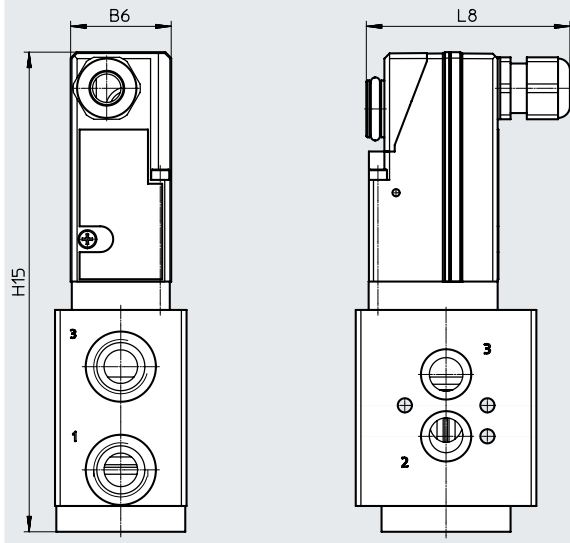
Data sheet – Modular system, poppet valves

DimensionsDownload CAD data → www.festo.com

Solenoid valve with pilot nozzle/baffle plate, pneumatic connection, size 1/2"
 Connection -G12/-N12



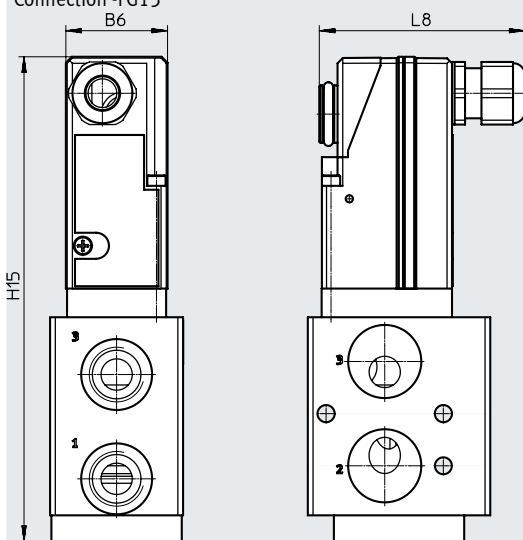
Connection -FG12



Type	B6	H15	L8
VOFC-LT-M32C-MC-G12-P3-0.4-1-K4-EX4A	39	185.9	79.9
VOFC-LT-M32C-MC-N12-P3-0.4-1-K4-EX4A			
VOFC-LT-M32C-MC-G12-P3-0.09-1-K4-EX4A			
VOFC-LT-M32C-MC-N12-P3-0.09-1-K4-EX4A			
VOFC-LT-M32C-M-FG12-P3-0.4-1-K4-EX4A			
VOFC-LT-M32C-M-FG12-P3-0.09-1-K4-EX4A			

DimensionsDownload CAD data → www.festo.com

Solenoid valve with pilot nozzle/baffle plate, pneumatic connection, size 1/2"
 Connection -FG13

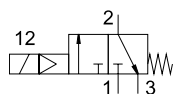


Type	B6	H15	L8
VOFC-LT-M32C-M-FG13-P3-0.4-1-K4-EX4A	39	185.9	79.9
VOFC-LT-M32C-M-FG13-P3-0.09-1-K4-EX4A			

Data sheet – 3/2-way valves, poppet valve, single solenoid, G1/4 NAMUR

Function

3/2-way valve



-  - Temperature range
-25 ... 60°C

-  - Flow rate
766 l/min



General technical data

General technical data		G1/4 basic valve, NAMUR	G1/4 basic valve, NAMUR, intrinsically safe	G1/4 basic valve, NAMUR, P connection	G1/4 basic valve, NAMUR, P connection, intrinsically safe
Valve function		3/2-way closed, single solenoid			
Pneumatic connection	1	G1/4		M5 and connection pattern to NAMUR	
	2	Flange 1/4 and connection pattern to NAMUR			
	3	G1/4			
Design		Piloted poppet valve			
Width	[mm]	51			
Mounting position		Any			
Sealing principle		Hard			
Manual override		None			
Reset method		Mechanical spring			
Actuation type		Electric			
Type of control		Piloted			
Pilot air supply		Internal		Internal, external	
Flow rate Kv for pressurisation	[m³/h]	0.5		0.5	
Flow rate Kv for exhausting	[m³/h]	0.8		0.65	
Flow direction		Non-reversible			
Product weight	[g]	600			
Switching time off	[ms]	18			
Switching time on	[ms]	24			
Nominal width	[mm]	6			
Standard nominal flow rate 1→ 2	[l/min]	766			
Standard nominal flow rate 2→ 3	[l/min]	1467			

Operating and environmental conditions

Operating and environmental conditions		G1/4 basic valve, NAMUR	G1/4 basic valve, NAMUR, intrinsically safe	G1/4 basic valve, NAMUR, P connection	G1/4 basic valve, NAMUR, P connection, intrinsically safe
Operating medium		Compressed air to ISO 8573-1:2010 [7:-:-]			
Degree of protection		IP65			
Operating pressure range	[bar]	1 ... 8			
Operating pressure range in case of external pilot air	[bar]	–		0 ... 8	
Temperature of medium	[°C]	–25 ... 60			
Ambient temperature	[°C]	–25 ... 60			
Safety integrity level	[SIL]	Up to SIL3 low demand mode			
		Up to SIL3 high demand mode			
Corrosion resistance class CRC ¹⁾		4			

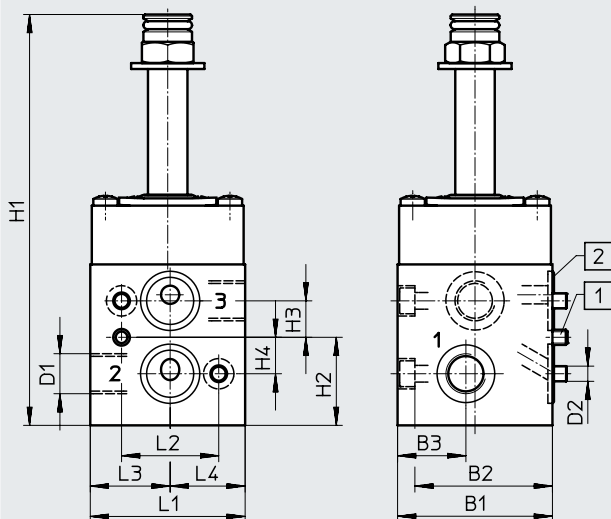
1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Data sheet – 3/2-way valves, poppet valve, single solenoid, G1/4 NAMUR

Materials	
Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Dimensions

Download CAD data → www.festo.com

[1] Coding pin M5x10

[2] O-ring 16x2

Type	B1	B2	B3	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4
VOFC-LT-M32C-M-FG14-F19	51	45.3	22.5	G1/4	5.5	135.3	29	12	12	51	32	26.3	24.7
VOFC-LT-M32C-M-FG14-F19A													

Data sheet – 3/2-way valves, poppet valve, single solenoid, G1/4 NAMUR

Dimensions

Download CAD data → www.festo.com

[1] Coding pin M5x10
[2] O-ring 16x2

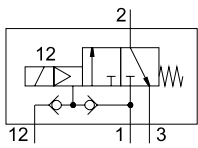
Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4
VOFC-LT-M32C-MC-FGP14-F19	51	45.3	22.5	4.7	NAMUR G1/4	M5	133.4	29	12	12	51	32	26.3	24.7
VOFC-LT-M32C-MC-FGP14-F19A														

Ordering data					
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	3/2-way closed, single solenoid	G1/4 and NAMUR	Without	4514738	VOFC-LT-M32C-M-FG14-F19
			Intrinsically safe	4514739	VOFC-LT-M32C-M-FG14-F19A
	3/2-way closed, single solenoid	G1/4 and NAMUR, P connection	Without	4514744	VOFC-LT-M32C-MC-FGP14-F19
			Intrinsically safe	4514745	VOFC-LT-M32C-MC-FGP14-F19A

Data sheet – 3/2-way valves, poppet valve, single solenoid, G1/4 in-line

Function

3/2-way valve



–  – Temperature range
–25 ... 60°C

–  – Flow rate
766 l/min



General technical data

		G1/4 basic valve	G1/4 basic valve, intrinsically safe	NPT basic valve	NPT basic valve, intrinsically safe
Valve function		3/2-way closed, single solenoid			
Pneumatic connection	1	G1/4	G1/4	1/4 NPT	1/4 NPT
	2	G1/4	G1/4	1/4 NPT	1/4 NPT
	3	G1/4	G1/4	1/4 NPT	1/4 NPT
Design		Piloted poppet valve			
Width	[mm]	51			
Mounting position		Any			
Sealing principle		Hard			
Manual override		None			
Reset method		Mechanical spring			
Actuation type		Electric			
Type of control		Piloted			
Pilot air supply		Internal, external			
Flow rate Kv for pressurisation	[m³/h]	0.72			
Flow rate Kv for exhausting	[m³/h]	1.4			
Flow direction		Non-reversible			
Product weight	[g]	550			
Switching time off	[ms]	18			
Switching time on	[ms]	24			
Nominal width	[mm]	6			
Standard nominal flow rate 1→2	[l/min]	766			
Standard nominal flow rate 2→3	[l/min]	1467			

Operating and environmental conditions

Operating medium			Compressed air to ISO 8573-1:2010 [7:-:-]
Degree of protection			IP65
Operating pressure range	[bar]	1 ... 8	
Operating pressure range in case of external pilot air	[bar]	0 ... 8	
Temperature of medium	[°C]	-25 ... 60	
Ambient temperature	[°C]	-25 ... 60	
Safety integrity level	[SIL]	Up to SIL3 low demand mode	
		Up to SIL3 high demand mode	
Corrosion resistance class CRC ¹⁾			4

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

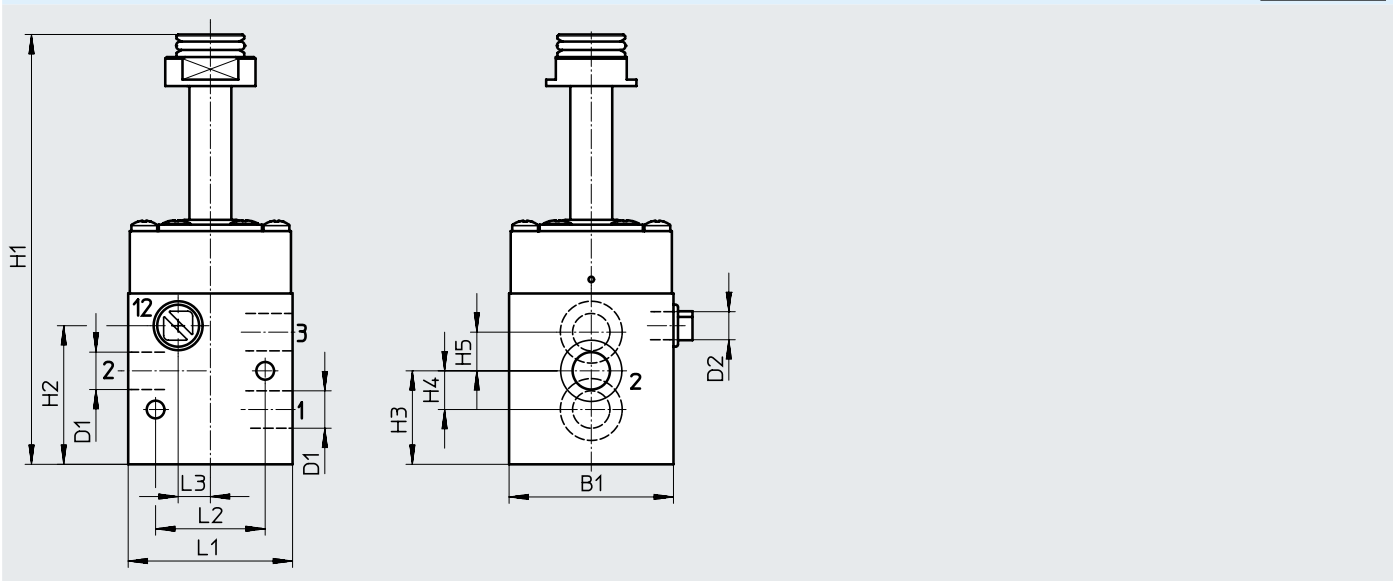
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials

Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – 3/2-way valves, poppet valve, single solenoid, G1/4 in-line

Dimensions Download CAD data → www.festo.com



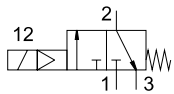
Type	B1	D1	D2	H1	H2	H3	H4	H5	L1	L2	L3
VOFC-LT-M32C-MC-G14-F19	51	G1/4	G1/8	133	43	29	12	12	51	34	10
VOFC-LT-M32C-MC-G14-F19A											
VOFC-LT-M32C-MC-N14-F19		1/4NPT	1/8NPT								
VOFC-LT-M32C-MC-N14-F19A											

Ordering data					
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	3/2-way closed, single solenoid	G1/4	Without	4514740	VOFC-LT-M32C-MC-G14-F19
			Intrinsically safe	4514741	VOFC-LT-M32C-MC-G14-F19A
		1/4 NPT	Without	4514742	VOFC-LT-M32C-MC-N14-F19
			Intrinsically safe	4514743	VOFC-LT-M32C-MC-N14-F19A

Data sheet – 3/2-way valve, poppet valve, single solenoid, G1/2 NAMUR

Function

3/2-way valve



-  - Temperature range
-25 ... 60°C

-  - Flow rate
2868 l/min



General technical data

		VOFC-...-FG12-F19 VOFC-...-FG12-F19A	VOFC-...-FG13-F19 VOFC-...-FG13-F19A
Valve function		3/2-way closed, single solenoid	
Pneumatic connection	1	G1/2	
	2	Flange 1/4 and connection pattern to NAMUR	
	3	G1/2	
Design		Piloted poppet valve	
Width	[mm]	51	
Mounting position		Any	
Sealing principle		Hard	
Manual override		None	
Reset method		Mechanical spring	
Actuation type		Electric	
Type of control		Piloted	
Pilot air supply		Internal	Internal, external
Flow rate Kv for pressurisation	[m³/h]	2.4	
Flow rate Kv for exhausting	[m³/h]	3.3	
Flow direction		Non-reversible	
Product weight	[g]	880	900
Switching time off	[ms]	14	
Switching time on	[ms]	25	
Nominal width	[mm]	12	
Standard nominal flow rate 1 → 2	[l/min]	2686	
Standard nominal flow rate 2 → 3	[l/min]	3462	

Operating and environmental conditions

		VOFC-...-FG12-F19 VOFC-...-FG12-F19A	VOFC-...-FG13-F19 VOFC-...-FG13-F19A
Operating medium		Compressed air to ISO 8573-1:2010 [7:-:-]	
Degree of protection		IP65	
Operating pressure range		2 ... 8	
Operating pressure range in case of external pilot air		-	0 ... 8
Temperature of medium		-25 ... 60	
Ambient temperature		-25 ... 60	
Safety integrity level		Up to SIL3 low demand mode Up to SIL3 high demand mode	
Corrosion resistance class CRC ¹⁾		4	

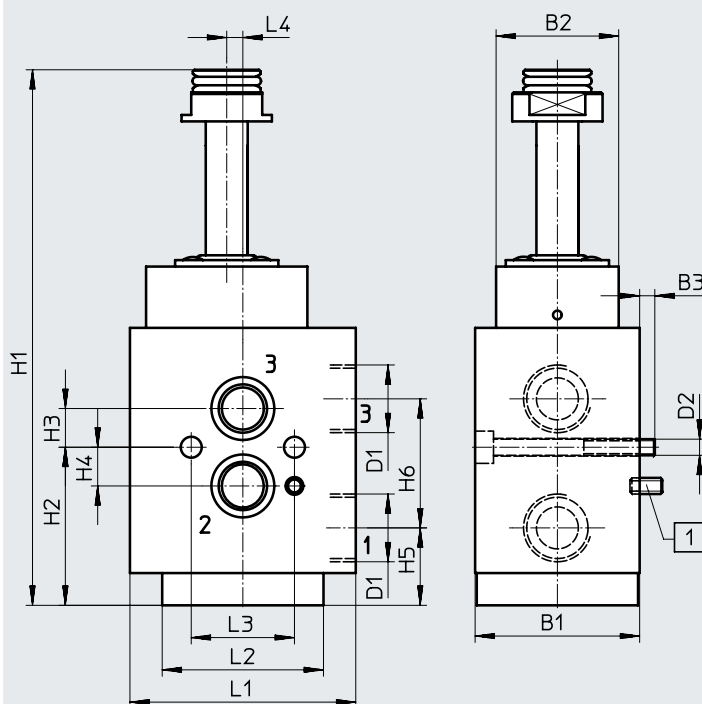
1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Data sheet – 3/2-way valve, poppet valve, single solenoid, G1/2 NAMUR

Materials	
Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Dimensions

Download CAD data → www.festo.com

[1] Coding pin M5x10

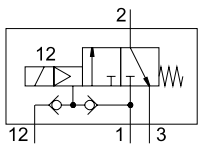
Type	B1	B2	B3	D1	D2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4
VOFC-LT-M32C-M-FG12-F19	51	38	4.7	G1/2	M5	166	49	12	12	24	40	70	50	32	5
VOFC-LT-M32C-M-FG12-F19A															
VOFC-LT-M32C-MC-FG13-F19															
VOFC-LT-M32C-MC-FG13-F19A															

Ordering data

Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	3/2-way closed, single solenoid	G1/2 and NAMUR	Without	4514746	VOFC-LT-M32C-M-FG12-F19
			Intrinsically safe	4514747	VOFC-LT-M32C-M-FG12-F19A
	3/2-way closed, single solenoid	G1/2 Flange 1/2 (connection pattern to NAMUR), G1/2	Without	4527268	VOFC-LT-M32C-MC-FG13-F19
			Intrinsically safe	4527269	VOFC-LT-M32C-MC-FG13-F19A

Data sheet – 3/2-way valve, poppet valve, single solenoid, G1/2 in-line

Function
3/2-way valve



-  - Temperature range
-25 ... 60°C

-  - Flow rate
2686 l/min



General technical data

Valve function		3/2-way closed, single solenoid
Pneumatic connection	1	G1/2
	2	G1/2
	3	G1/2
Design		Piloted poppet valve
Width	[mm]	51
Mounting position		Any
Sealing principle		Hard
Manual override		None
Reset method		Mechanical spring
Actuation type		Electric
Type of control		Piloted
Pilot air supply		Internal, external
Flow rate Kv for pressurisation	[m³/h]	2.4
Flow rate Kv for exhausting	[m³/h]	3.3
Flow direction		Non-reversible
Product weight	[g]	880
Switching time off	[ms]	14
Switching time on	[ms]	25
Nominal width	[mm]	12
Standard nominal flow rate 1 → 2	[l/min]	2686
Standard nominal flow rate 2 → 3	[l/min]	3462

Operating and environmental conditions

Operating medium		Compressed air to ISO 8573-1:2010 [7:-:-]
Degree of protection		IP65
Operating pressure range	[bar]	2 ... 8
Operating pressure range in case of external pilot air	[bar]	0 ... 8
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Safety integrity level	[SIL]	Up to SIL3 low demand mode
		Up to SIL3 high demand mode
Corrosion resistance class CRC ¹⁾		4

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

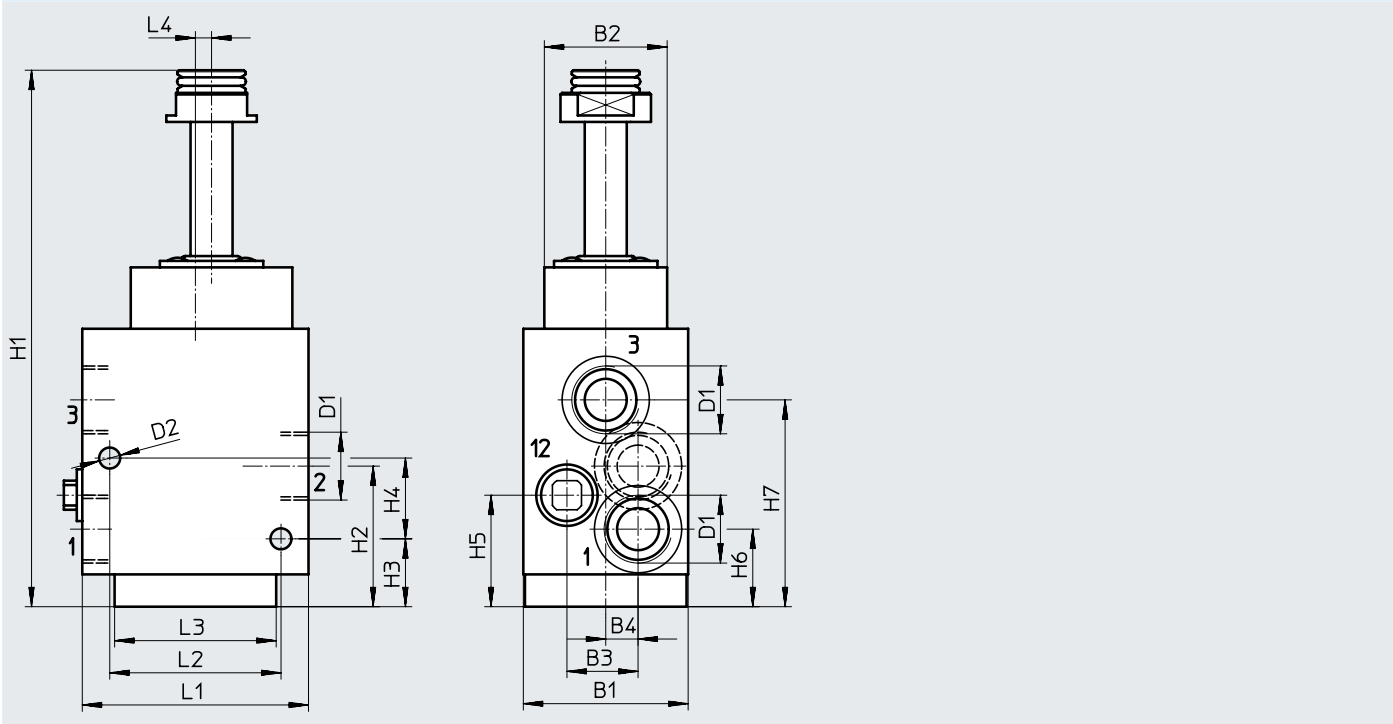
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials

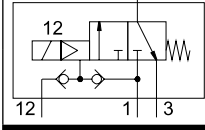
Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – 3/2-way valve, poppet valve, single solenoid, G1/2 in-line

Dimensions Download CAD data → www.festo.com



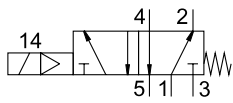
Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	L1	L2	L3	L4
VOFC-LT-M32C-MC-G12-F19	51	37	22	10	G1/2	6.5	166	43.5	21	25	34.5	70	53	50	5
VOFC-LT-M32C-MC-G12-F19A															

Ordering data					
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	3/2-way closed, single solenoid	G1/2	Without	4514748	VOFC-LT-M32C-MC-G12-F19
			Intrinsically safe	4514749	VOFC-LT-M32C-MC-G12-F19A

Data sheet – 5/2-way valve, piston spool, single solenoid, G1/4 NAMUR

Function

5/2-way valve



-  - Temperature range
-25 ... 60°C

-  - Flow rate
1030 l/min



General technical data

Valve function	5/2-way, single solenoid	
Pneumatic connection	1	G1/4
	2	G1/4 and connection pattern to NAMUR
	3	G1/4
	4	G1/4 and connection pattern to NAMUR
	5	G1/4
Design	Piston spool valve	
Mounting position	Any	
Width	[mm]	40
Sealing principle	Soft	
Manual override	None	
Reset method	Mechanical spring	
Actuation type	Electric	
Type of control	Piloted	
Pilot air supply	Internal	
Flow rate Kv for pressurisation	[m³/h]	1.08
Flow rate Kv for exhausting	[m³/h]	1.08
Flow direction	Non-reversible	
Product weight	[g]	520
Switching time off	[ms]	22
Switching time on	[ms]	26
Nominal width	[mm]	6
Standard nominal flow rate 1→2	[l/min]	1030
Standard nominal flow rate 2→3	[l/min]	978

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Degree of protection	IP65	
Operating pressure range	[bar]	2.5 ... 8
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Safety integrity level	[SIL]	Up to SIL2 low demand mode
		Up to SIL2 high demand mode
Corrosion resistance class CRC ¹⁾	4	

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

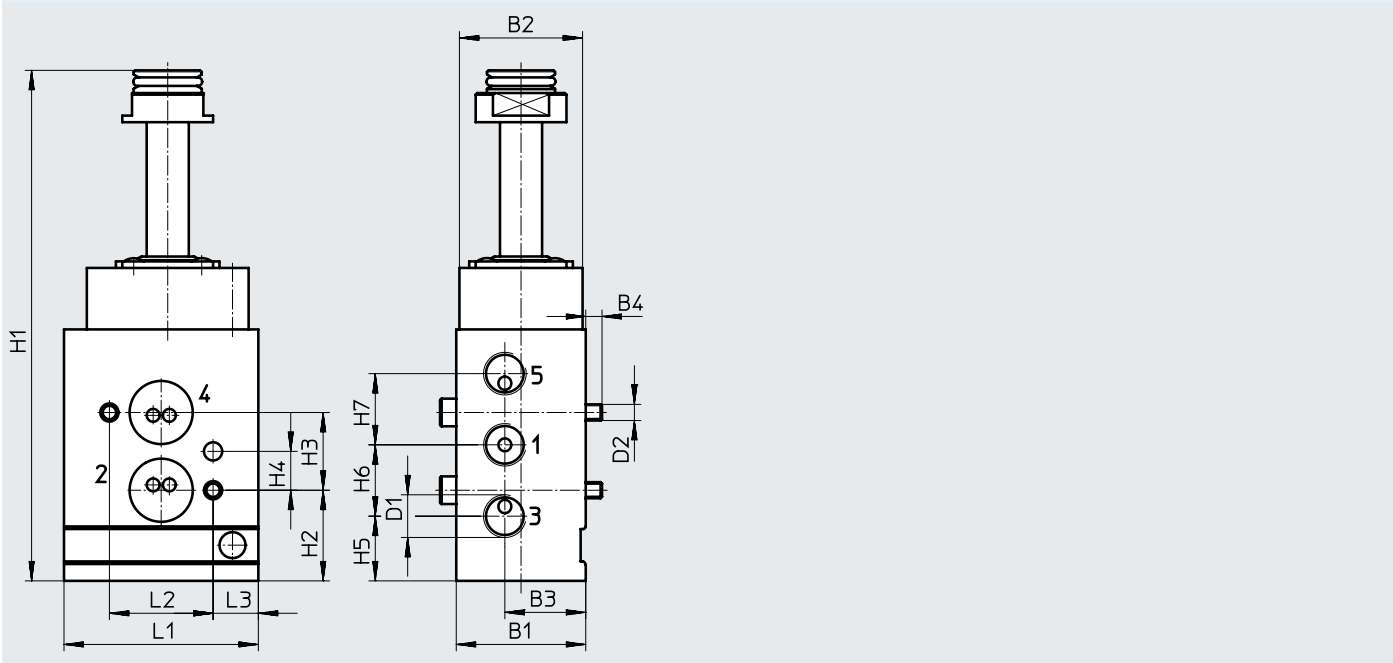
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials

Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – 5/2-way valve, piston spool, single solenoid, G1/4 NAMUR

Dimensions Download CAD data → www.festo.com



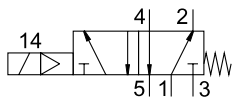
Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3
VOFC-L-M52-M-FG14-F19	40	38	25	5	G1/4	M5	158	28	24	12	20	22	22	60	32	14
VOFC-L-M52-M-FG14-F19A																

Ordering data					
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	5/2-way, single solenoid	G1/4 and NAMUR	Without	4514923	VOFC-L-M52-M-FG14-F19
			Intrinsically safe	4514924	VOFC-L-M52-M-FG14-F19A

Data sheet – 5/2-way valve, piston spool, single solenoid, G1/4 in-line

Function

5/2-way valve



-  - Temperature range
-25 ... 60°C

-  - Flow rate
1030 l/min

**General technical data**

Valve function	5/2-way, single solenoid	
Pneumatic connection	1	G1/4
	2	G1/4
	3	G1/4
	4	G1/4
	5	G1/4
Design	Piston spool valve	
Mounting position	Any	
Width	[mm]	40
Sealing principle	Soft	
Manual override	None	
Reset method	Mechanical spring	
Actuation type	Electric	
Type of control	Piloted	
Pilot air supply	Internal	
Flow rate Kv for pressurisation	[m³/h]	1.08
Flow rate Kv for exhausting	[m³/h]	1.08
Flow direction	Non-reversible	
Product weight	[g]	520
Switching time off	[ms]	22
Switching time on	[ms]	26
Nominal width	[mm]	6
Standard nominal flow rate 1→2	[l/min]	1030
Standard nominal flow rate 2→3	[l/min]	978

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Degree of protection	IP65	
Operating pressure range	[bar]	2.5 ... 8
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Safety integrity level	[SIL]	Up to SIL2 low demand mode
		Up to SIL2 high demand mode
Corrosion resistance class CRC ¹⁾	4	

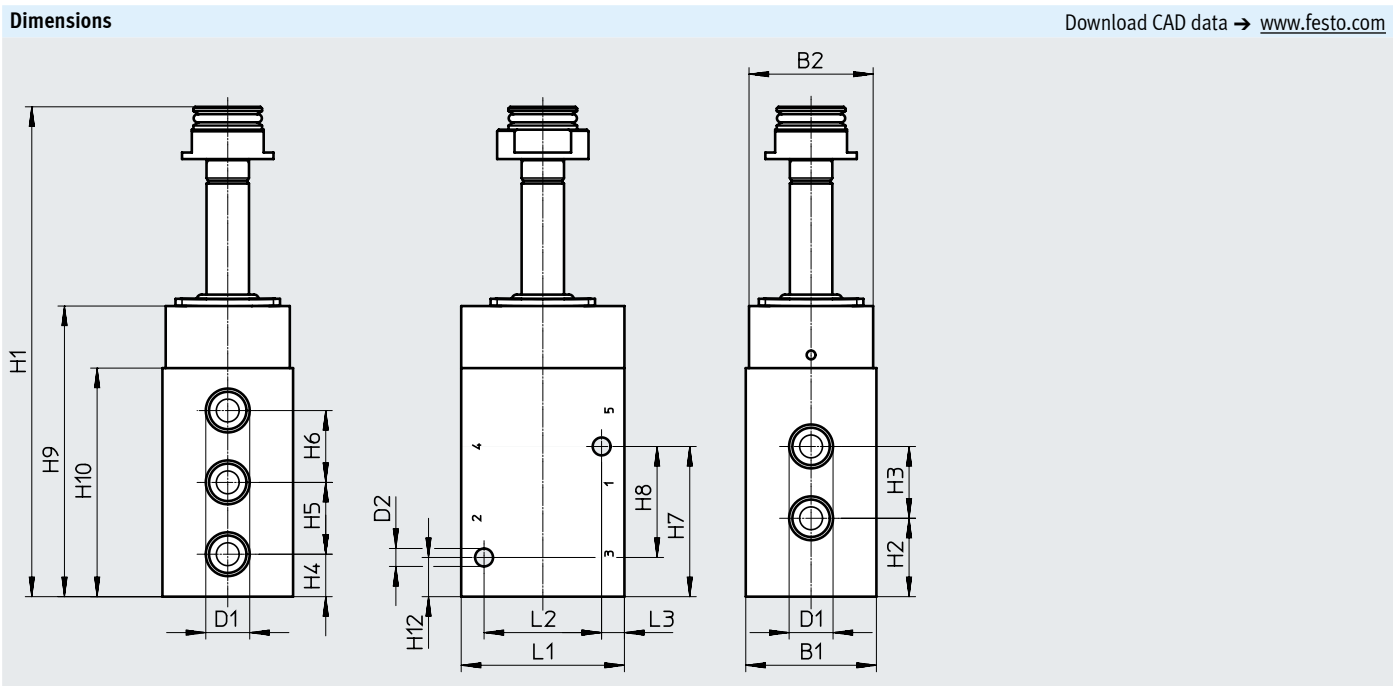
1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials

Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – 5/2-way valve, piston spool, single solenoid, G1/4 in-line



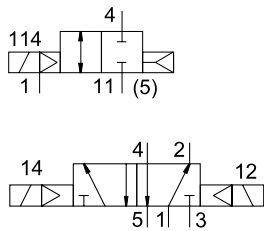
Type	B1	B2	D1	D2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H13	L1	L2	L3
VOFC-L-M52-M-G14-F19	40	38	G1/4	5.5	150	24	22	13	22	22	46	34	89	70	12	50	36	7
VOFC-L-M52-M-G14-F19A																		

Ordering data					
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	5/2-way, single solenoid	G1/4	Without	4514925	VOFC-L-M52-M-G14-F19
			Intrinsically safe	4514926	VOFC-L-M52-M-G14-F19A

Data sheet – 5/2-way valves, piston spool, double solenoid, G1/4, NAMUR

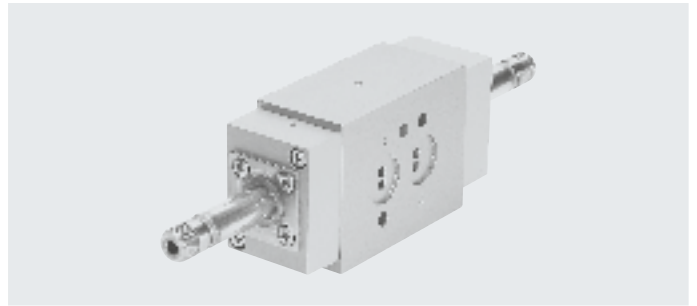
Function

5/2-way valve



–  – Temperature range
–25 ... 60°C

–  – Flow rate
989 l/min



General technical data		G1/4, NAMUR	G1/4
Valve function		5/2-way, double solenoid	
Pneumatic connection	1	G1/4	G1/4
	2	Flange 1/4 and connection pattern to NAMUR	G1/4
	3	G1/4	G1/4
	4	Flange 1/4 and connection pattern to NAMUR	G1/4
	5	G1/4	G1/4
Design		Piston spool valve	
Mounting position		Any	
Width	[mm]	40	
Sealing principle		Soft	
Manual override		None	
Actuation type		Electric	
Type of control		Piloted	
Pilot air supply		Internal	
Flow rate Kv for pressurisation	[m³/h]	1.08	
Flow rate Kv for exhausting	[m³/h]	1.08	
Flow direction		Non-reversible	
Product weight	[g]	680	790
Switching time off	[ms]	22	
Switching time on	[ms]	26	
Max. switching frequency	[Hz]	1	
Nominal width	[mm]	6	
Standard nominal flow rate 1→2	[l/min]	989	
Standard nominal flow rate 2→3	[l/min]	978	

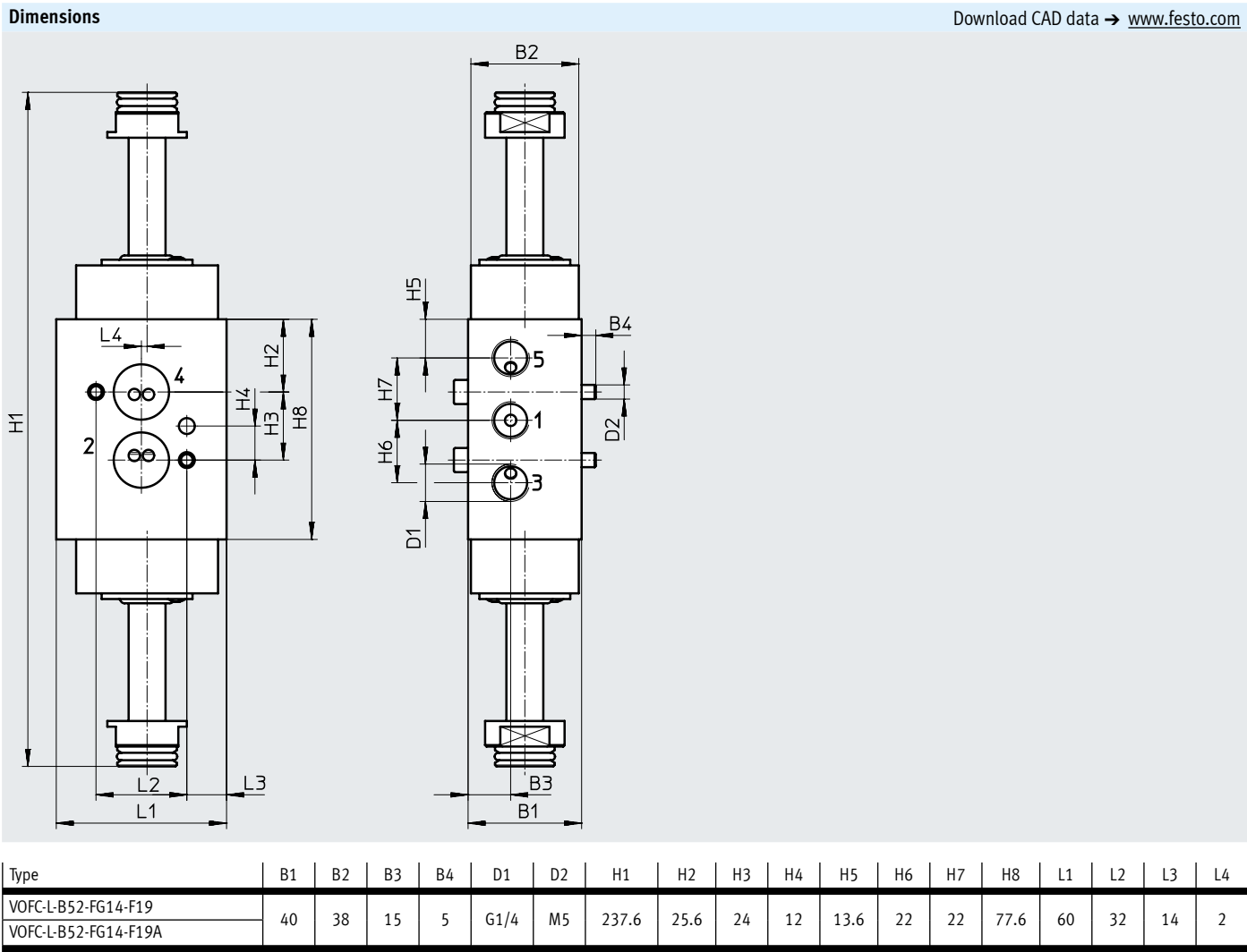
Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Degree of protection	IP65
Operating pressure range	[bar] 2.5 ... 8
Temperature of medium	[°C] –25 ... 60
Ambient temperature	[°C] –25 ... 60
Safety integrity level	[SIL] Up to SIL 2 low demand mode
	Up to SIL 2 high demand mode
Corrosion resistance class CRC ¹⁾	4

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

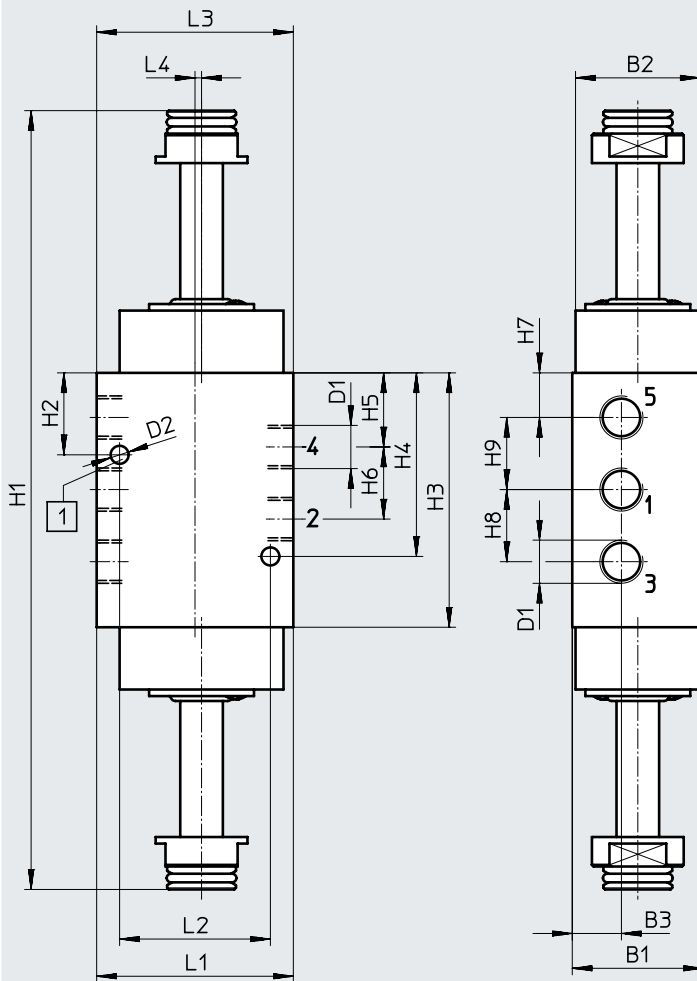
Materials	
Housing	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – 5/2-way valves, piston spool, double solenoid, G1/4, NAMUR



Data sheet – 5/2-way valves, piston spool, double solenoid, G1/4, NAMUR

Dimensions

Download CAD data → www.festo.com

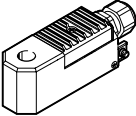
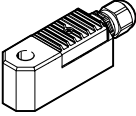
[1] Coding pin M5x10

Type	B1	B2	B3	D1	D2	H1	H2	H3	H4	H5	H6	H7	H8	H9	L1	L2	L3	L4
VOFC-L-B52-G14-F19	40	38	15	G1/4	5.5	240	25	77.6	56	22.6	22	13.6	22	22	60	46	60	2
VOFC-L-B52-G14-F19A																		

Ordering data

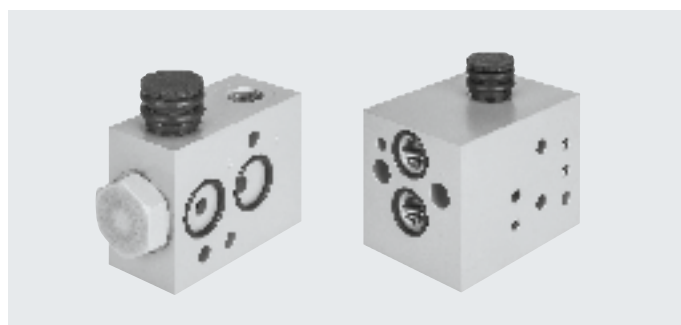
Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
In-line valve					
	5/2-way, double solenoid	G1/4 and NAMUR	Without	4514929	VOFC-L-B52-FG14-F19
			Intrinsically safe	4514930	VOFC-L-B52-FG14-F19A
	5/2-way, double solenoid	G1/4	Without	4514927	VOFC-L-B52-G14-F19
			Intrinsically safe	4514928	VOFC-L-B52-G14-F19A

Accessories – Solenoid coils S13

Ordering data	Description		Part no.	Type
	EX4-ME coil, terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	8109396	VACC-S13-18-K4-1U-EX4ME
		24 V AC/DC	8109399	VACC-S13-18-K4-1UF-EX4ME
		60 V AC/DC	8109400	VACC-S13-18-K4-27U-EX4ME
		110 V AC/DC	8109397	VACC-S13-18-K4-2U-EX4ME
		230 V AC/DC	8109398	VACC-S13-18-K4-3U-EX4ME
	EX4A coil, terminal box, cable entry thread metric, M20x1.5	14 ... 32 V DC	8109401	VACC-S13-11-K4-1-EX4A
	A1 coil, plug to EN 175301-803, type A	24 V DC	562889	VACC-S13-18-A1-1
		24 V AC/DC	562890	VACC-S13-18-A1-1U
		110 V AC/DC	562891	VACC-S13-18-A1-2U
		230 V AC/DC	562892	VACC-S13-18-A1-3U

Accessories – Sub-base VABS-S7-RB/BE-...

Connection pattern: NAMUR



General technical data		Pressurisation and exhaust block VABS-S7-BE-...	Redundancy block VABS-S7-RB-...
Type			
Type of mounting		Via through-hole	
Mounting position		Any	
Flow rate Kv for pressurisation	[m³/h]	2.2	–
Flow rate Kv for exhausting	[m³/h]	8.6	–
Product weight	[g]	250	–
Pneumatic connection	1	G1/4, 1/4 NPT	G1/4, 1/4 NPT
	2	Flange 1/4, connection pattern to NAMUR	Flange 1/4, connection pattern to NAMUR
	3	G1/4, 1/4 NPT	G1/4, 1/4 NPT
	12	–	G1/4, 1/4 NPT

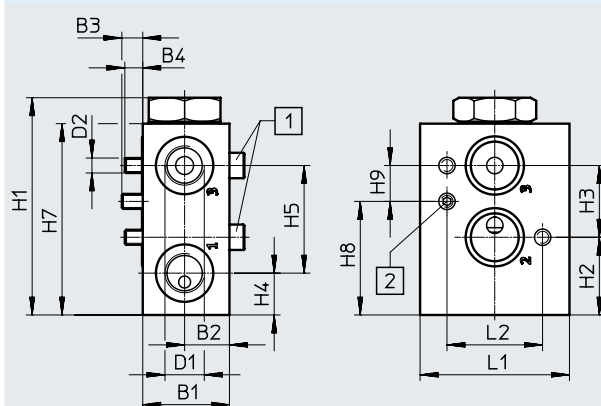
Operating and environmental conditions		VABS-S7-BE	VABS-S7-RB
Operating medium		Compressed air to ISO 8573-1:2010 [–:–:–]	
Operating pressure	[bar]	2 ... 8	0 ... 10
Pilot air supply		Internal	External/internal
Degree of protection		IP65 (in the installed state)	
Corrosion resistance class CRC ¹⁾		4	

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials	
Sub-base	Ematal-coated aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Dimensions

Download CAD data → www.festo.com

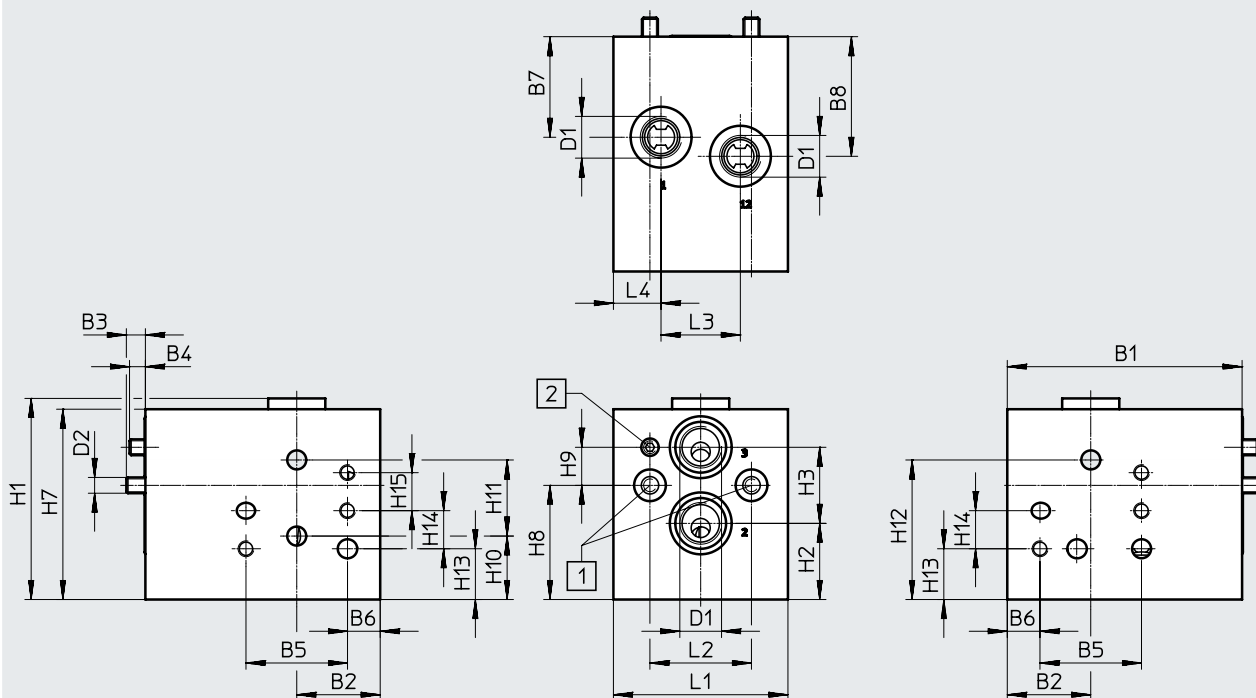
[1] Socket head screw M5x35

[2] Threaded pin M5x10

Type	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	H7	H8	H9	L1	L2
VABS-S7-BE-B-G14-V14-A	29	15	7	6	G1/4	M5	72.7	26	24	14	36	64	38	12	50	32
VABS-S7-BE-B-N14-V14-A					1/4 NPT											

Accessories – Sub-base VABS-S7-RB/BE-...

Dimensions

Download CAD data → www.festo.com

[1] Socket head screw M5x70

[2] Threaded pin M5x10

Type	B1	B2	B3	B4	B5	B6	B7	B8	D1	D2	L1	L2	L3	L4
VABS-S7-RB-B-G14-V14-A	74	26.3	6	5	32	10.3	31.7	37.7	G1/4	M5	55	32	25	15
VABS-S7-RB-B-N14-V14-A									1/4 NPT					

Type	H1	H2	H3	H7	H8	H9	H10	H11	H12	H13	H14	H15
VABS-S7-RB-B-G14-V14-A	63.4	24	24	60	36	12	20	24	44	16	12	12
VABS-S7-RB-B-N14-V14-A												

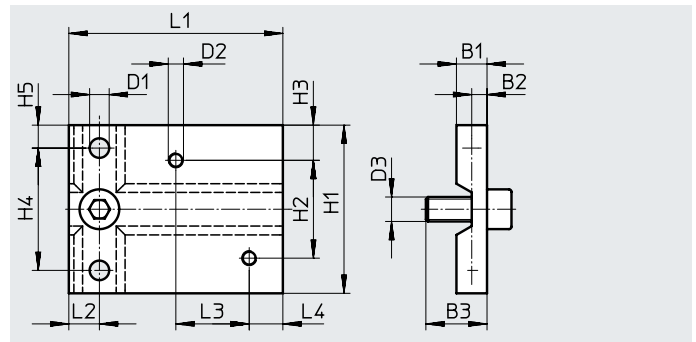
Ordering data

	Description	Part no.	Type
	Sub-base for mounting two solenoid valves with G-thread connection for redundant circuitry, with flange 1/4, connection pattern to NAMUR Using the additional auxiliary power terminal, the intermediate plate can also be used with pilot-controlled solenoid valves on actuators that have a positioner for fail-safe functions.	3580505	VABS-S7-RB-B-G14-V14-A
	Sub-base for mounting two solenoid valves with NPT-thread connection for redundant circuitry, with flange 1/4, connection pattern to NAMUR Using the additional auxiliary power terminal, the intermediate plate can also be used with pilot-controlled solenoid valves on actuators that have a positioner for fail-safe functions.	4727331	VABS-S7-RB-B-N14-V14-A
	Sub-base as a pressurisation and exhaust block with G-thread connection, with flange 1/4, connection pattern to NAMUR	2999476	VABS-S7-BE-B-G14-V14-A
	Sub-base as a pressurisation and exhaust block with NPT-thread connection, with flange 1/4, connection pattern to NAMUR	4727328	VABS-S7-BE-B-N14-V14-A

Accessories

Mounting plate VAME-S7-P

Mounting plate material:
Ematal-coated aluminium
Contains paint-wetting impairment
substances, RoHS-compliant
Mounting: via through-hole



Dimensions [mm] and ordering data

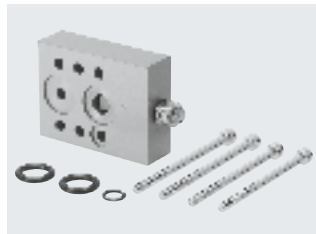
B1	B2	B3	D1	D2	D3	H1	H2	H3	H4	H5	L1	L2	L3	L4	CRC ¹⁾	Part no.	Type
10	5	20	6.4	M5	M8	55	32	11.5	40	7.5	70	10	24	11	4	563399	VAME-S7-P

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

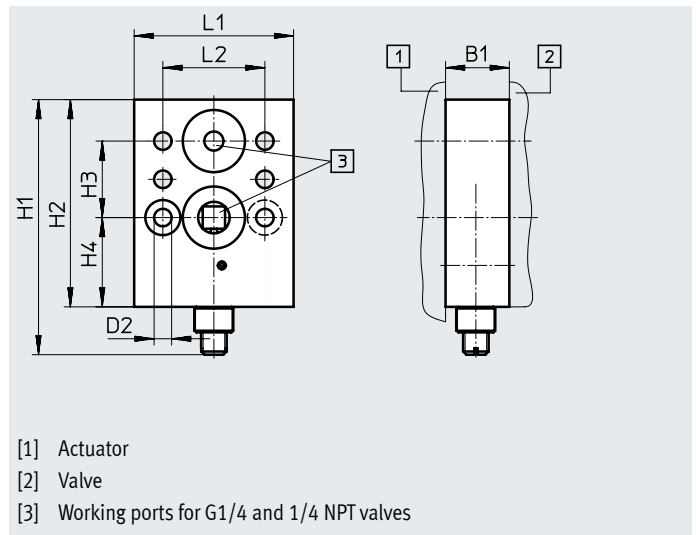
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Throttle plate for single-acting actuators

Throttle plate material: Ematal-coated aluminium
Seals material: NBR
Contains paint-wetting impairment substances, RoHS-compliant
Operating medium: Compressed air to ISO 8573-1:2010 [7:--:-]
Operating pressure: 0 ... 12 bar
Pilot air supply: internal/external
Mounting position: any
Mounting: via through-hole
Degree of protection: IP65 (when installed)



Function:
Flow control for supply air and/or exhaust air for an actuator with NAMUR interface for valves VOFC/VOFD



- [1] Actuator
- [2] Valve
- [3] Working ports for G1/4 and 1/4 NPT valves

Dimensions [mm] and ordering data

B1	D2	H1	H2	H3	H4	L1	L2	CRC ¹⁾	Part no.	Type
20	5.5	80	65	24	28	50	32	4	563401	VABF-S7-F1B5P1-F

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Accessories

Throttle plate for double-acting actuators

Throttle plate material: Ematal-coated aluminium

Seals material: NBR

Contains paint-wetting impairment substances, RoHS-compliant

Operating medium: Compressed air to ISO 8573-1:2010 [7:-:-]

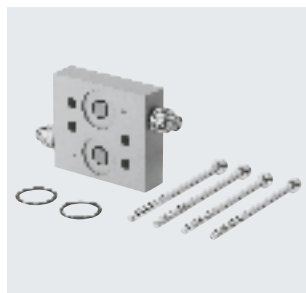
Operating pressure: 0 ... 12 bar

Pilot air supply: internal/
external

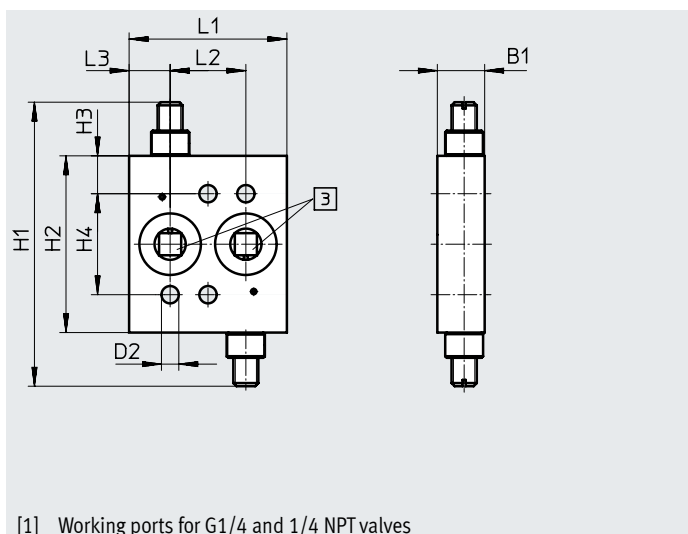
Mounting position: any

Mounting: via through-hole

Degree of protection: IP65 (when installed)



Function:
2-duct exhaust air flow control for an actuator with NAMUR interface



[1] Working ports for G1/4 and 1/4 NPT valves

Dimensions [mm] and ordering data

B1	D2	H1	H2	H3	H4	L1	L2	L3	CRC ¹⁾	Part no.	Type
15	5.5	90	56	12	32	50	24	13	4	563395	VABF-S7-F1B1P2-F

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Sub-base

Sub-base material: Ematal-coated aluminium

Seals material: NBR

Contains paint-wetting impairment substances, RoHS-compliant

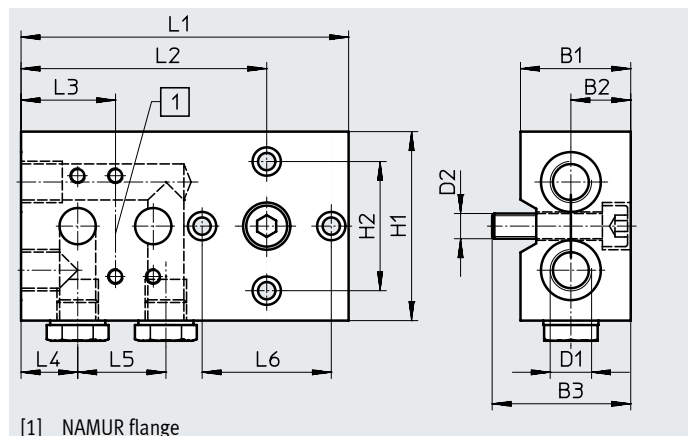
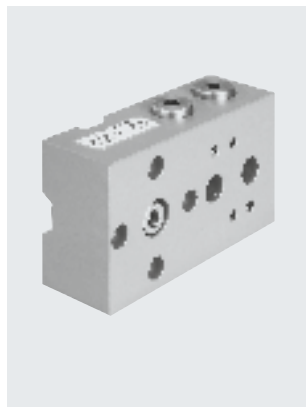
Operating medium: Compressed air to ISO 8573-1:2010 [7:-:-]

Operating pressure: 0 ... 10 bar

Mounting position: any

Mounting: via through-hole

Degree of protection: IP65 (when installed)



[1] NAMUR flange

Dimensions [mm] and ordering data

B1	B2	B3	D1	D2	H1	H2	L1	L2	L3	L4	L5	L6	CRC ¹⁾	Part no.	Type
35	19	44	G1/4	M8	60	41	104	78	30	18	28	41	4	563396	VABS-S7-S-G14

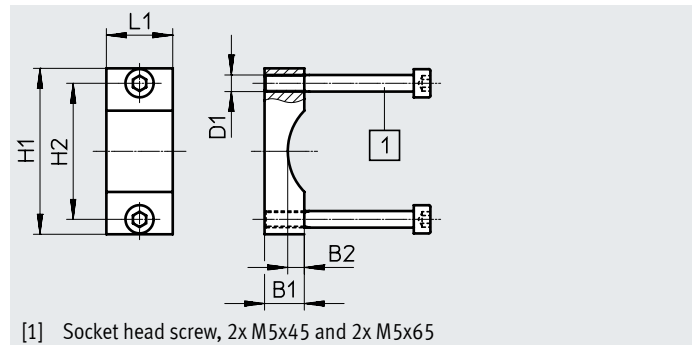
1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Accessories

Mounting bracket

Mounting bracket material:
Ematal-coated aluminium
Contains paint-wetting impairment
substances, RoHS-compliant



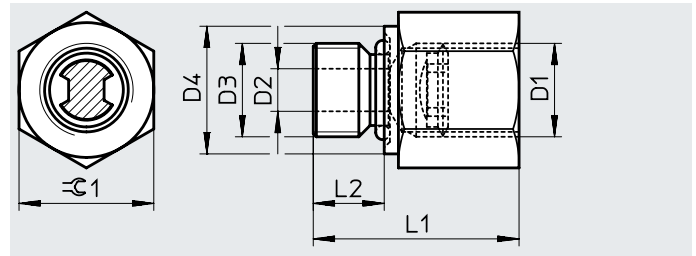
Dimensions [mm] and ordering data								Part no.	Type
B1	B2	D1	H1	H2	L1	CRC ¹⁾			
12	5	M5	50	41	20	4		563403	VAME-S7-Y

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Adapter with filter

Adapter material: high-alloy stainless steel
Seals material: NBR
Note on materials:
Contains paint-wetting impairment
substances, RoHS-compliant
Operating pressure 2 ... 8 bar



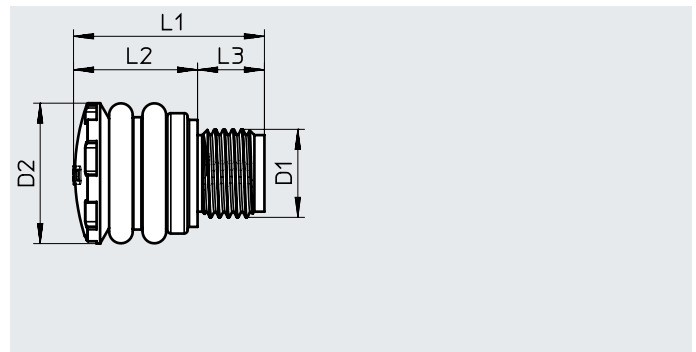
Dimensions [mm] and ordering data								Part no.	Type
D1	D2	D3	D4	L1	L2	≈G1	CRC ¹⁾		
1/4 NPT	6	G1/4	18	29	10	19	1	563397	NPFV-AF-G14-N14-MF
G1/4	6	G1/4	18	29	10	19	1	563398	NPFV-AF-G14-G14-MF
1/4 NPT	6	1/4 NPT	18	29	10	19	1	4727333	NPFV-AF-N14-N14-MF

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry internal application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Exhaust protection G1/4

Housing material: PA
Seals material: EPDM
Contains paint-wetting impairment
substances, RoHS-compliant
Operating medium: Compressed air to
ISO 8573-1:2010 [7:-:-]
Operating pressure: 0 ... 10 bar
Ambient temperature: -50 ... 60°C
Type of mounting: screw-in, with male
thread



Dimensions [mm] and ordering data						Part no.	Type
D1	D2	L1	L2	L3			
G1/4, 1/4 NPT	21	28.5	18.5	10		563400	VABD-D3-SN-G14

Accessories

Exhaust protection 1/2 NPT

Housing material: PA

Seals material: EPDM

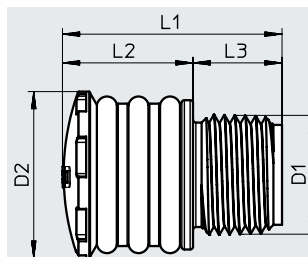
Contains paint-wetting impairment substances, RoHS-compliant

Operating medium: Compressed air to ISO 8573-1:2010 [7:-:-]

Operating pressure: 0 ... 12 bar

Ambient temperature: -50 ... 60°C

Type of mounting: screw-in, with male thread

**Dimensions [mm] and ordering data**

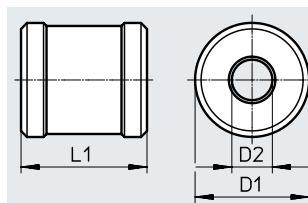
D1	D2	L1	L2	L3	Part no.	Type
G1/2, 1/2 NPT	29	38	23	15	3535104	VABD-D3-SN-N12

Manual override

Material: anodised aluminium, contains paint-wetting impairment substances, RoHS-compliant

Function:

Manual override of basic valves instead of a solenoid coil

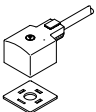
**Dimensions [mm] and ordering data**

D1	D2	L1	Weight [g]	CRC ¹⁾	Part no.	Type
38	13.5	42	120	2	3580654	VAOH-MB-S7-S13

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Ordering data

Ordering data		Part no.	Type	
Description				
Connecting cable				
		Data sheets → Internet: kmc		
	Operating voltage 24 V DC, switching status indication with LED	Cable length 2.5 m	30931	KMC-1-24 DC-2.5-LED
		Cable length 5 m	30933	KMC-1-24 DC-5-LED
		Cable length 10 m	193459	KMC-1-24-10-LED
	Operating voltage up to 240 V AC	Cable length 2.5 m	30932	KMC-1-230 AC-2.5
		Cable length 5 m	30934	KMC-1-230 AC-5
Plug socket				
		Data sheets → Internet: mssd		
	Cable connection using locking screws	34583	MSSD-C	