

Valve series VOFD

FESTO



Key features

General

- The valves from the series VOFD are special 3/2-way valves for process automation for use in chemical and petrochemical plants. Here 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.
- The NAMUR flange pattern makes the solenoid valves especially 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) approval up to SIL 3

Function, design

- 3/2-way directly actuated poppet valves

Safety

- Can be used in emergency shutdown (ESD) applications
- Suitable for use in safety-related systems up to and including SIL 3 to IEC 61508

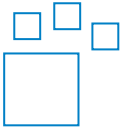
Heavy-duty

- 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.

Economical

- One valve, two connection options
- Connection patterns to NAMUR for direct installation on the actuator as well as G and NPT threaded connections
- Manual override can be ordered optionally
- Manual override can be retrofitted and removed again – no additional valve version required

Ordering data – Product options



Configurable product

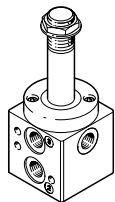
This product and all its product options can be ordered using the configurator.

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

Part no.	Type
2956784	VOFD-L35T
3212962	VOFD-L50T
2964753	VOFD-L100T

Key features

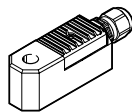
VOFD – Basic valves



- 3/2-way valves
- Connections G1/4, 1/4 NPT, G1/2, 1/2 NPT
- NAMUR connection pattern, NAMUR connection pattern with P duct

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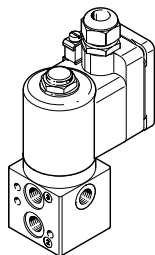
VACC - Solenoid coils



- EX4ME coil
- EX4D coil
- A1 coil
- U2D coil
- EX4A coil

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VOFD – Solenoid valves



- Combination of basic valve VOFD and coil VACC-S18 (in the case of basic valve VOFD-L12T... VACC-S13 coil)
- 3/2-way valves
- Type of ignition protection EX EMB II, EX tD

Configurable product

→ Page 2

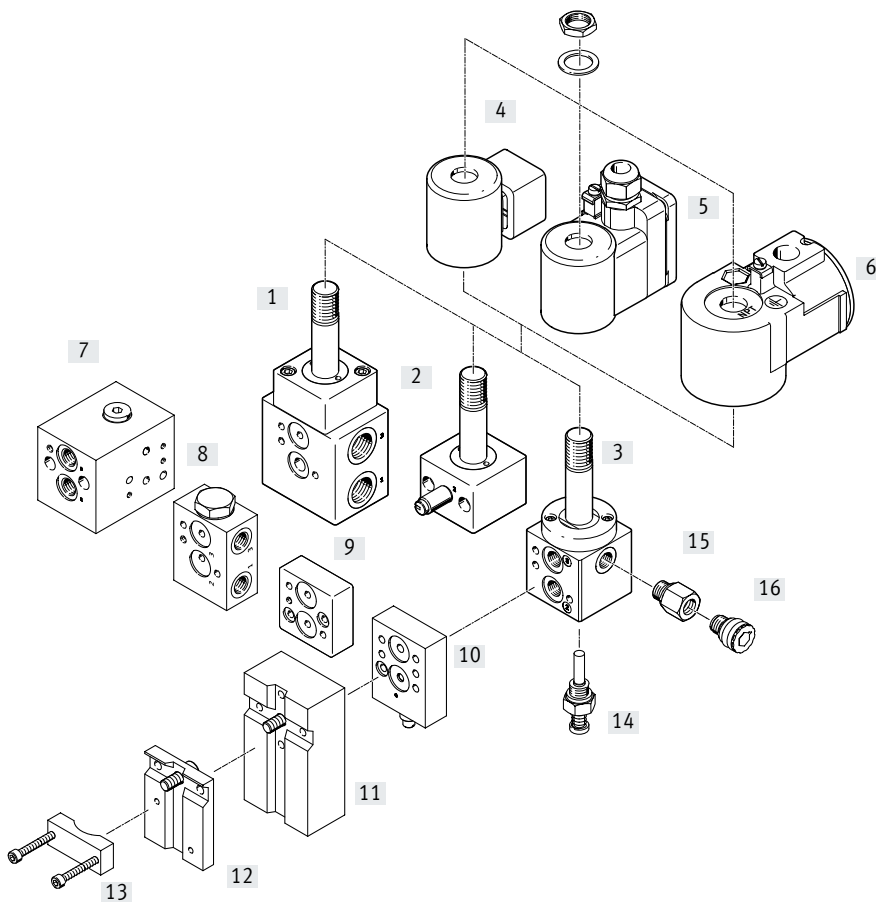
VOFD – Accessories



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

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Peripherals overview

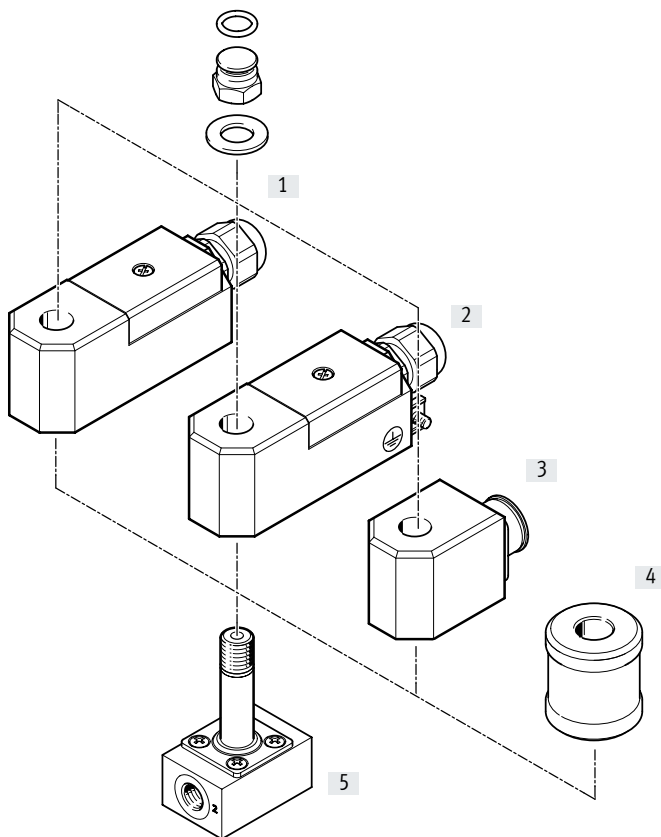


Mounting components and accessories

	Brief description	→ Page/Internet
[1]	Basic valve VOFD-L100T-... → modular product system – can be configured using the online configurator	2
[2]	Basic valve VOFD-L35T-... → modular product system – can be configured using the online configurator	2
[3]	Basic valve VOFD-L50T-... → modular product system – can be configured using the online configurator	2
[4]	Solenoid coil VACC-S18-...-A1-... A1 standard solenoid	27
[5]	Solenoid coil VACC-S18-...-ME Ex-ME solenoid	27
[6]	Solenoid coil VACC-S18-...-D Ex-D solenoid	27
[7]	Sub-base VABS-S7-RB-... Sub-base for mounting two solenoid valves for redundant circuitry	29
[8]	Sub-base VABS-S7-BE-... Sub-base as a pressurisation and exhaust block	29
[9]	Mounting plate VAME-S7-P-N-V14-A Mounting plate as a spacer plate for solenoid valves when combined with ATEX solenoid coils	33
[10]	Throttle plate VABF-S7-F1B5P1-F Exhaust air throttle plate for NAMUR interface for installation between the solenoid valve and single-acting actuators	32
[11]	Connection set VABF-S7-S-G14 Mounting plate for attaching the valve to the NAMUR rib	33
[12]	Mounting plate VAME-S7-P Mounting plate for attaching the valve to the NAMUR rib	32

Peripherals overview

Mounting components and accessories		Brief description	→ Page/Internet
[13]	Mounting bracket VAME-S7-Y	Alternative (instead of screw) for attaching the valve to the NAMUR rib using a mounting bracket	33
[14]	Manual override VAOH-S8	Manual override	35
[15]	Adapter NPFV-AF-...-MF	Adapter with filter	34
[16]	Exhaust protection VABD-D3-SN-G14	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	34



Accessories – Valve pilot control interface for solenoid coil 13 mm		Brief description	→ Page/Internet
[1]	Solenoid coil VACC-S13-...-4A	Ex-4A solenoid	28
[2]	Solenoid coil VACC-S13-...-ME	Ex-ME solenoid	28
[3]	Solenoid coil VACC-S13-...-A1-...	A1 standard solenoid	28
[4]	Manual override VAOH-MB-S7-S13	Manual override (MO)	35
[5]	Basic valve VOFD-L12T-...	3/2-way valve, connection G1/4, poppet valve, valve pilot control interface for solenoid coil 13 mm	7

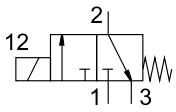
Type codes VOFD


001	Series	
VOFD	Solenoid valve, series D	
002	Directional control valve type	
L	In-line valve	
003	Nominal width	
12	1.2 mm	
35	3.5 mm	
50	5 mm	
100	10 mm	
004	Design principle	
T	Poppet valve	
005	Valve function	
M32	3/2-way valve, normally closed or open	
M32A	3/2-way valve, normally closed, semi-automatic	
006	Reset method for monostable/single solenoid valves	
M	Mechanical spring	
007	Pilot air	
N	None	
008	Manual override	
	None	
H	Non-detenting	
Y	Detenting	
009	Pneumatic connection	
G12	G1/2	
G14	G1/4	
N12	1/2 NPT	
N14	1/4 NPT	
FG12	Flange G1/4, connections G1/2	
FG14	Flange G1/4, connections G1/4	
FGP14	Flange G1/4, connections G1/4 and other pneumatic connection	
FNP14	Flange 1/4 NPT, connections 1/4 NPT and another pneumatic connection	
010	Supply connection version	
	Standard	
PF	With particle filter	
NPF	With particle filter and connecting thread NPT	
011	Exhaust	
	No fitting	
U6	With exhaust protection	
012	Pressure range [bar]	
8	0 ... 8	
10	0 ... 10	
12	0 ... 12	
013	Temperature range	
	Standard	
T6	-50 ... +60°C	

014	Corrosion protection	
	Standard	
R1	Stainless steel	
015	Valve pilot control interface	
F10	Electric with armature tube for solenoid coil, 18 mm	
F19	Electric with armature tube for solenoid coil, 13 mm	
F19A	Electric with armature tube for solenoid coil 13 mm, intrinsically safe	
016	Power consumption	
	None	
18	1.8 W	
25	2.5 W	
35	3.5 W	
70	7 W	
120	12 W	
017	Nominal operating voltage	
	None	
1A	24 V AC/50-60 Hz	
1U	24 V DC and AC	
2A	110 V AC/50-60 Hz	
2U	110 V DC and AC	
3A	230 V AC/50-60 Hz	
3U	230 V DC and AC	
7U	48 V DC and AC	
16U	120 V DC and AC	
1	24 V DC	
3	230 V DC	
7	48 V DC	
16	120 V DC	
27	60 V DC	
018	Electrical connection	
	None	
A1	Connection pattern type A, to EN 175 301	
K4	Cable connector metric	
K5	Cable connector NPT	
019	Circuitry	
	None	
F	Fuse	
020	EU certification	
	None	
EX4	II 2GD	
021	Certification	
	None	
U2	cULus, hazardous environment, USA and Canada (NEC 500)	
022	Type of ignition protection	
	None	
A	Intrinsically safe	
D	Flameproof encapsulation	
ME	Encapsulation, enhanced security	

Data sheet – Basic valve VOFD-L12T-...

Function
3/2-way valve



 Flow rate
up to 52 l/min



General technical data		VOFD- ... -F19	VOFD- ... -F19-A
Basic valve G1/4		VOFD- ... -F19	VOFD- ... -F19-A
Valve function		3/2-way, single solenoid, closed	
Pneumatic connection	1	G1/4	
	2	G1/4	
	3	G1/4	
Design		Directly actuated poppet valve	
Width	[mm]	50	
Mounting position		Any	
Sealing principle		Soft	
Manual override		None	
Reset method		Mechanical spring	
Actuation type		Electric	
Suitable for vacuum		Yes	
Type of control		Direct	
Flow rate Kv for pressurisation	[m ³ /h]	0.04	
Flow rate Kv for exhausting	[m ³ /h]	0.04	
b value		0.2	0.53
C value	[l/s bar]	0.44	0.21
Flow direction		Non-reversible	
Product weight	[g]	170	
Switching time off	[ms]	60	
Switching time on	[ms]	40	
Nominal width	[mm]	1.2	
Standard nominal flow rate	[l/min]	52	
Standard nominal flow rate 2→3	[l/min]	49	

Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:2:2]
Operating pressure range	[bar] 0 ... 8
Temperature of medium	[°C] -25 ... 60
Ambient temperature	[°C] -25 ... 60
Corrosion resistance class CRC ¹⁾	4

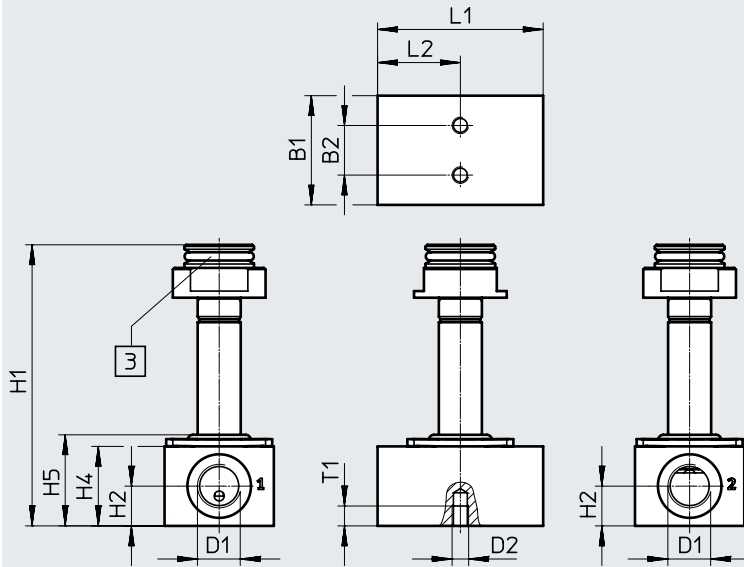
- 1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests
(→ also FN 940082), using appropriate media.

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

Data sheet – Basic valve VOFD-L12T...

Dimensions

Download CAD data → www.festo.com



[3] Pneumatic connection 3

Type	B1	B2	D1	D2 ∅	H1	H2	H4	H5	L1	L2	T1
VOFD-L12T-M32-MN-G14-F19	33	15	G1/4	M5	85	12	24	27.5	50	25	6
VOFD-L12T-M32-MN-G14-F19-A											


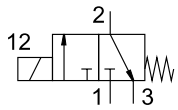
Ordering data

Circuit symbol	Function	Pneumatic connection	Type of ignition protection	Part no.	Type
	3/2-way closed, single solenoid	G1/4	None	3013904	VOFD-L12T-M32-MN-G14-8-F19
			Intrinsically safe	3014556	VOFD-L12T-M32-MN-G14-8-F19A

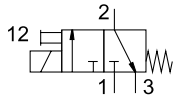
Data sheet – Modular system NW 3.5 mm

Function

3/2-way valve

 Flow rate
up to 406 l/min


-MN-



-MNH-

-MNY-



General technical data

Basic valve G1/4		VOFD-L35T-...-MN-...	VOFD-L35T-...-MNH-...	VOFD-L35T-...-MNY-...
Valve function		3/2-way, single solenoid, closed (M32)		
		3/2-way, single solenoid, closed, semi-automatic (M32A)		
Pneumatic connection	1	G1/4		
VOFD-...-G14	2	G1/4		
	3	G1/4		
Pneumatic connection	1	1/4 NPT		
VOFD-...-N14	2	1/4 NPT		
	3	1/4 NPT		
Design		Directly actuated poppet valve		
Width	[mm]	51 (50 stainless steel design)		
Mounting position		Any		
Sealing principle		Soft		
Manual override		None	Non-detenting	Detenting
Reset method		Mechanical spring		
Actuation type		Electric		
Suitable for vacuum		No		
Type of control		Direct		
Flow rate Kv for pressurisation	[m³/h]	0.32		
Flow rate Kv for exhausting	[m³/h]	0.32		
b value		0.15		
C value	[l/s bar]	1.8		
Flow direction		Non-reversible		
Product weight	[g]	390		
Switching time off	[ms]	60		
Switching time on	[ms]	40		
Nominal width	[mm]	3.5		
Standard nominal flow rate 1 → 2	[l/min]	406		
Standard nominal flow rate 2 → 3	[l/min]	440		

Selection of solenoid coils

Suitable solenoid coils for the basic valves are available in the section on accessories.

The following solenoid coils can be selected:

- S18-18, nominal power: 3 watt at 230 V AC (Ex-D)
- S18-70, nominal power: 7 watt at 24 V DC (Ex-D)
- S18-120, nominal power: 12 watt at 24 V DC (Ex-ME)

 **Note**

Additional information and solenoid coils to fit basic valves can be found in the Festo online configurator.

- → Internet: VACC
- → www.festo.com/sp

Data sheet – Modular system NW 3.5 mm

Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:2:2]
Operating pressure range	[bar]	0 ... 8
Temperature of medium	[°C]	-25 ... 60
Temperature of medium, low temperature	[°C]	-50 ... 60
Ambient temperature	[°C]	-25 ... 60
Ambient temperature, low temperature	[°C]	-50 ... 60
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
Stainless steel housing	High-alloy stainless steel
Seals	NBR
Low temperature seals, stainless steel	VMQ
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – Modular system NW 3.5 mm

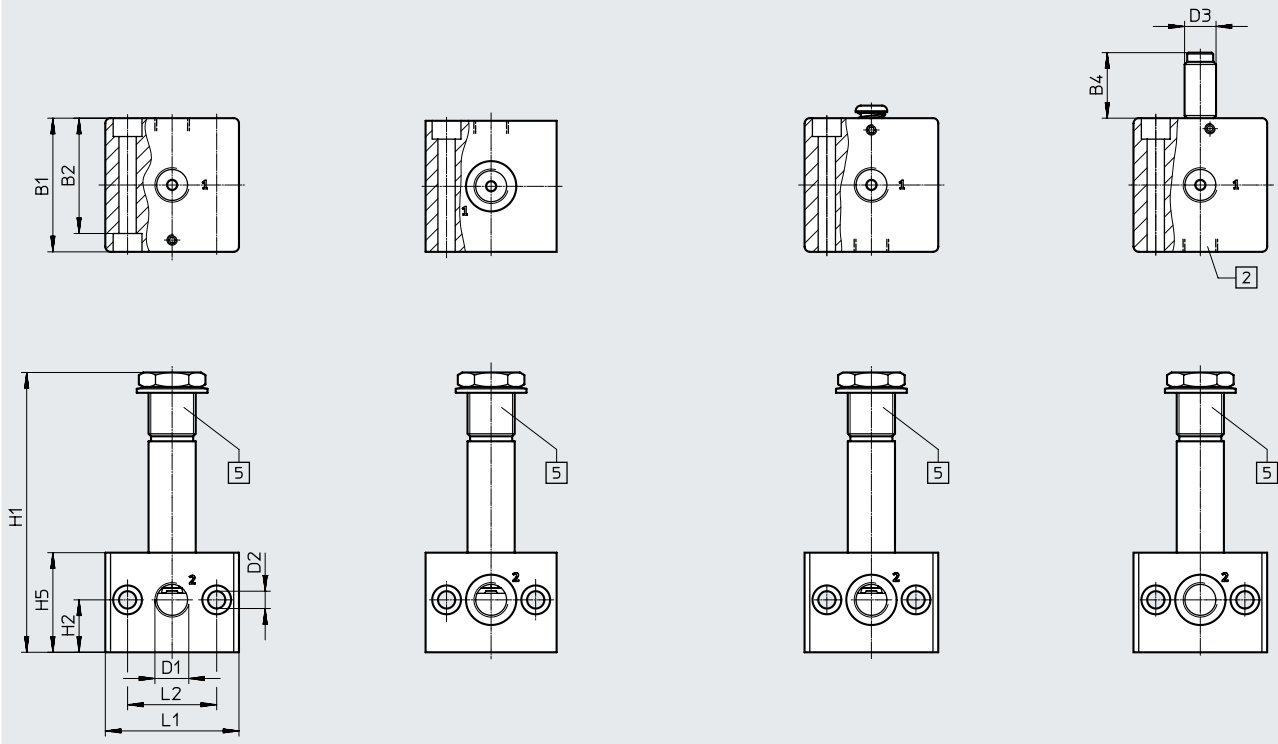
Dimensions

Download CAD data → www.festo.com

VOFD-L35T-M32-MN-...-R1

VOFD-L35T-M32-MNH-...

VOFD-L35T-M32-MNY-...



[2] Working port


[5] Connection 3

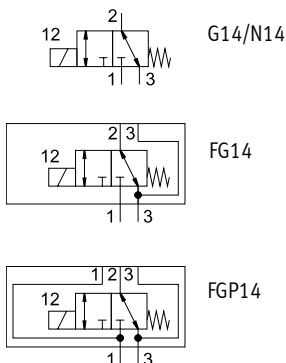
Type of G thread	B1	B2	B4	D1	D2 ∅	D3 ∅	H1	H2	H5	L1	L2
VOFD-L35T-M32-MN-G14-...-F10	51	44	-	G1/4	6.6	-	106.5	20	38	51	34
VOFD-L35T-M32-MN-G14-...-R1-F10	50	43	-			-					
VOFD-L35T-M32-MNH-G14-...-F10	51	44	-			-					
VOFD-L35T-M32-MNY-G14-...-F10	51	44	25			12					

Type of NPT thread	B1	B2	B4	D1	D2 ∅	D3 ∅	H1	H2	H5	L1	L2
VOFD-L35T-M32-MN-N14-...-F10	51	44	-	1/4 NPT	6.6	-	106.5	20	38	51	34
VOFD-L35T-M32-MN-N14-...-R1-F10	50	43								50	
VOFD-L35T-M32-MNH-N14-...-F10	51	44								51	
VOFD-L35T-M32A-MNH-N14-...-F10	51	44								51	
VOFD-L35T-M32A-MNH-N14-...-R1-F10	50	43								50	

Data sheet – Modular system NW 5 mm

Function
3/2-way valve

 Flow rate
up to 493 l/min



General technical data		VOFD-L50T-...G14-...	VOFD-L50T-...FG14-...	VOFD-L50T-...G14-R1-...
Basic valve G1/4		VOFD-L50T-...N14-...	VOFD-L50T-...FGP14-...	VOFD-L50T-...N14-R1-...
Valve function		3/2-way, single solenoid, closed		
Pneumatic connection	1	G1/4		
VOFD-...-G14	2	G1/4		
	3	G1/4		
Pneumatic connection	1	1/4 NPT		
VOFD-...-N14	2	1/4 NPT		
	3	1/4 NPT		
Pneumatic connection	1	G1/4		
VOFD-...-FG14	2	Connection pattern to NAMUR, flange 1/4		
	3	G1/4		
Pneumatic connection	1	M5 connection pattern to NAMUR		
VOFD-...-FGP14	2	Connection pattern to NAMUR, flange 1/4		
	3	G1/4		
Design		Directly actuated poppet valve		
Width	[mm]	51	50.5 (flange thread)	28 (stainless steel design)
Mounting position		Any		
Sealing principle		Soft		
Manual override		None		
Reset method		Mechanical spring		
Actuation type		Electric		
Suitable for vacuum		Yes		
Type of control		Direct		
Flow rate Kv for pressurisation	[m ³ /h]	0.36		
Flow rate Kv for exhausting	[m ³ /h]	0.36		
b value		0.25		
C value	[l/s bar]	2		
Flow direction		Reversible		
Product weight	[g]	560		
Switching time off	[ms]	60		
Switching time on	[ms]	40		
Nominal width	[mm]	5		
Standard nominal flow rate	[l/min]	493		
Standard nominal flow rate 2→3	[l/min]	429		

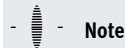
Data sheet – Modular system NW 5 mm

Selection of solenoid coils

Suitable solenoid coils for the basic valves are available in the section on accessories.

The following solenoid coils can be selected:

- S18-25, nominal power: 2.5 watt at 24 V DC (Ex-D)
- S18-35, nominal power: 3.5 watt at 24 V DC (Ex-ME)

**Note**

Additional information and solenoid coils to fit basic valves can be found in the Festo online configurator.

- → Internet: VACC
- → www.festo.com/sp

Operating and environmental conditions

Operating medium		Compressed air to ISO 8573-1:2010 [7:2:2]
Operating pressure range	[bar]	0 ... 10
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Extended ambient temperature, Low Demand mode	[°C]	-25 ... 60
Safety integrity level	[SIL]	To SIL 3 Low 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.

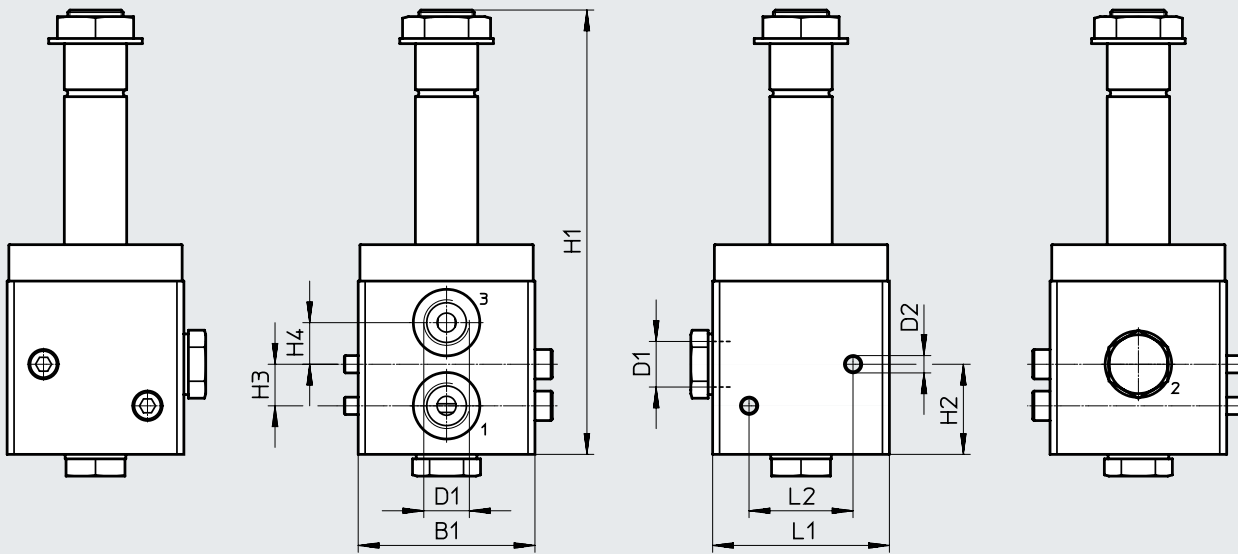
Materials

Housing	Ematal-coated aluminium
Stainless steel housing	High-alloy stainless steel
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – Modular system NW 5 mm

Dimensions

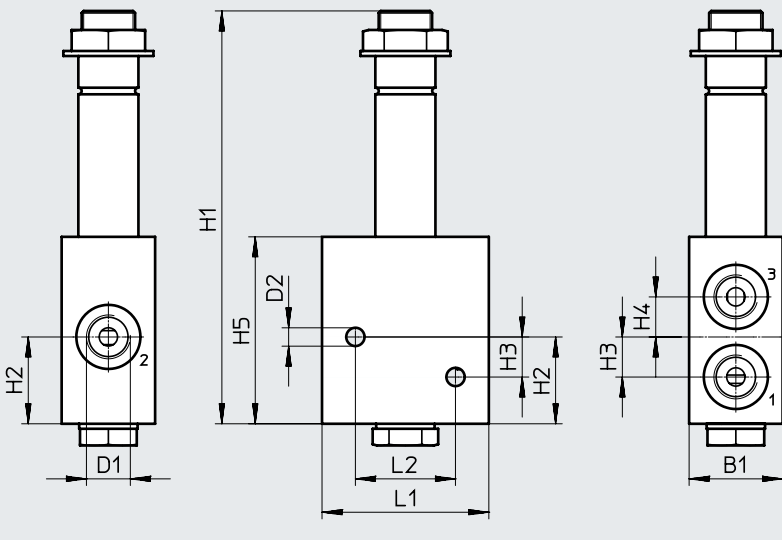
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Type of G thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-G14-...-F10	51	G1/4	5.5	128	26	12	12	60.5	51	30
Type of NPT thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-N14-...-F10	51	1/4 NPT	5.5	128	26	12	12	60.5	51	30

Dimensions

Download CAD data → www.festo.com

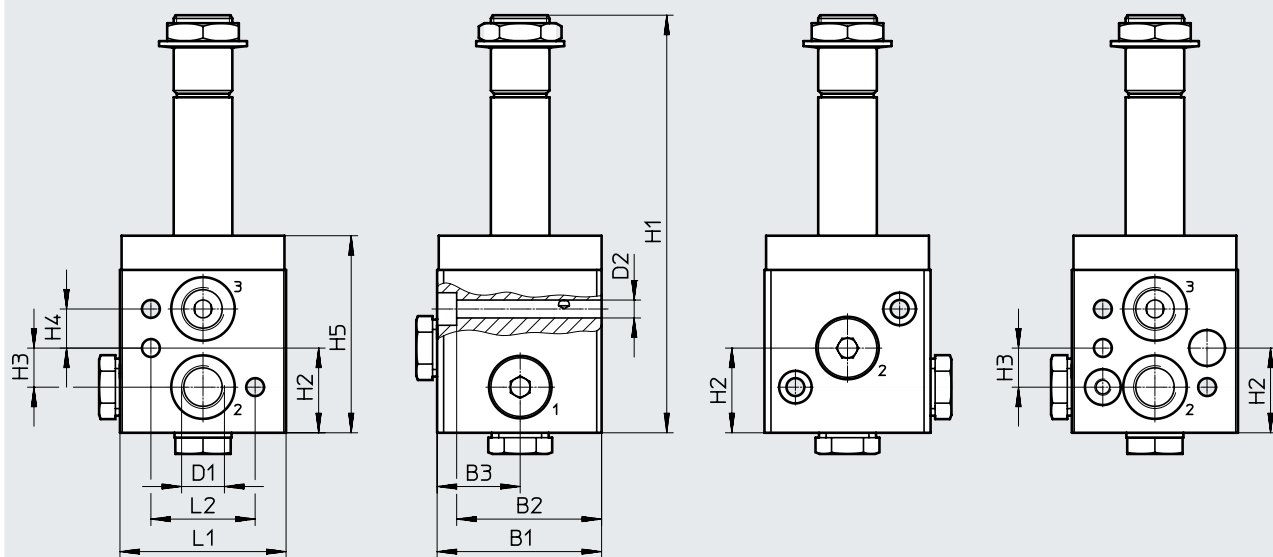


Type of G thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-G14-...-R1-F10	28	G1/4	5.5	124	26	12	12	56	50	30
Type of NPT thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-N14-...-R1-F10	28	1/4 NPT	5.5	124	26	12	12	56	50	30

Data sheet – Modular system NW 5 mm

Dimensions

Download CAD data → www.festo.com

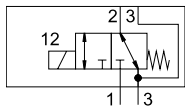


Type of flange thread	B1	B2	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-FG14-F10	50.5	44.5	25.5	G1/4	5.5	128	26	12	12	60.5	51	32
VOFD-L50T-M32-MN-FGP14-F10												

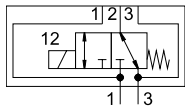
Data sheet – Basic valve NW 5 mm, G1/4 NAMUR

Function

3/2-way valve



-FG14-



-FGP14-



Flow rate

450 l/min (-LT-M32-)

493 l/min (-L50T-M32-)



General technical data		
Type VOFD-LT-M32-...	G1/4 basic valve and NAMUR	G1/4 basic valve and NAMUR, supply port
Valve function	3/2-way, single solenoid, closed	
Pneumatic connection	1	G1/4
	2	G1/4 and connection pattern to NAMUR
	3	G1/4
	4	G1/4 and connection pattern to NAMUR
Design	Directly actuated poppet valve	
Width [mm]	51	
Mounting position	Any	
Duty cycle	100%	
Sealing principle	Soft	
Manual override	None	
Reset method	Mechanical spring	
Actuation type	Electric	
Suitable for vacuum	Yes	
Type of control	Direct	
Flow rate Kv for pressurisation [m³/h]	0.36	
Flow rate Kv for exhausting [m³/h]	0.36	
Flow direction	Non-reversible	
Product weight [g]	560	
Switching time off [ms]	9	
Switching time on [ms]	45	
Nominal width [mm]	5	
Standard nominal flow rate [l/min]	450	

Operating and environmental conditions		
Operating medium	Compressed air to ISO 8573-1:2010 [7:2:2]	
Degree of protection	IP65	
Operating pressure range [bar]	0 ... 10	
Temperature of medium [°C]	-25 ... 60	
Ambient temperature [°C]	-25 ... 60	
Extended ambient temperature, Low Demand mode [°C]	-25 ... 60	
Safety integrity level [SIL]	To SIL 3 Low Demand mode	
	To SIL 3 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	Hard Ematal-anodised aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – Basic valve NW 5 mm, G1/4 NAMUR

General technical data			
Type VOFD-L50T-M32-...	G1/4 basic valve and NAMUR		G1/4 basic valve and NAMUR, supply port
Valve function	3/2-way, single solenoid, closed		
Pneumatic connection	1	G1/4	M5 and connection pattern to NAMUR
	2	Flange 1/4 and connection pattern to NAMUR	
	3	G1/4	G1/4
Design	Directly actuated poppet valve		
Width	[mm]	50.5	
Mounting position	Any		
Sealing principle	Soft		
Manual override	None		
Reset method	Mechanical spring		
Actuation type	Electric		
Suitable for vacuum	Yes		
Type of control	Direct		
Flow rate Kv for pressurisation	[m ³ /h]	0.36	
Flow rate Kv for exhausting	[m ³ /h]	0.36	
b value	0.25		
C value	[l/s bar]	2	
Flow direction	Reversible		
Product weight	[g]	560	
Switching time off	[ms]	60	
Switching time on	[ms]	40	
Nominal width	[mm]	5	
Standard nominal flow rate	[l/min]	493	
Standard nominal flow rate 2→3	[l/min]	429	

Operating and environmental conditions			
Operating medium	Compressed air to ISO 8573-1:2010 [7:2:2]		
Degree of protection	IP65		
Operating pressure range	[bar]	0 ... 10	
Temperature of medium	[°C]	-25 ... 60	
Ambient temperature	[°C]	-25 ... 60	
Extended ambient temperature, Low Demand mode	[°C]	-25 ... 60	
Safety integrity level	[SIL]	To SIL 3 Low Demand mode	
		To SIL 3 high demand mode	
Corrosion resistance class CRC ¹⁾	4		

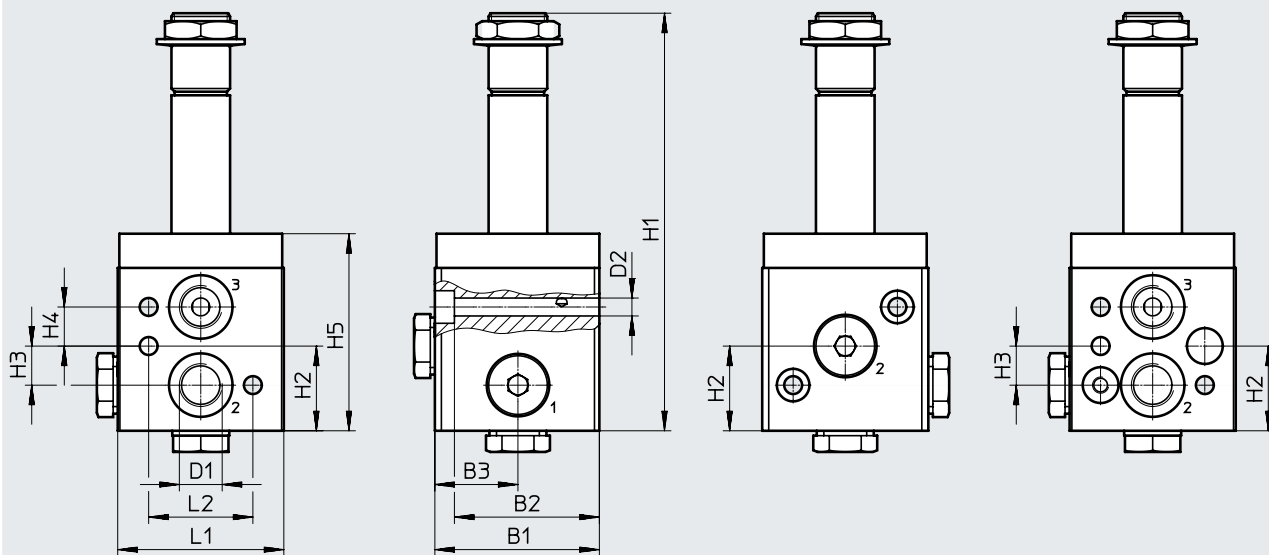
- 1) Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests
 (→ also FN 940082), using appropriate media.

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

Data sheet – Basic valve NW 5 mm, G1/4 NAMUR

Dimensions – G1/4 basic valve and NAMUR

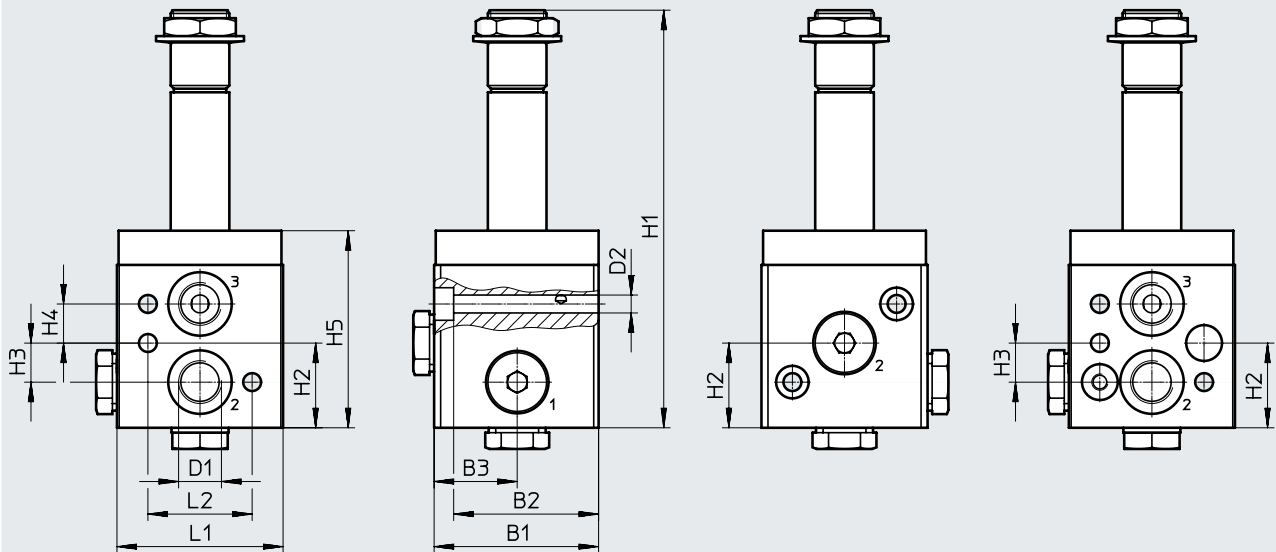
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Type of flange thread	B1	B2	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-FG14-F10	50.5	44.5	25.5	G1/4, NAMUR	5.5	128	26	12	12	60.5	51	32
VOFD-L50T-M32-MN-FGP14-F10												

Data sheet – Basic valve NW 5 mm, G1/4 NAMUR

Dimensions – G1/4 basic valve and NAMUR, supply port

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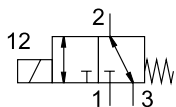
Type of flange thread	B1	B2	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-LT-M32-MN-FGP14-F10	51	44.5	25.5	G1/4, NAMUR	5.5	128	26	12	12	60.5	51	32
VOFD-L50T-M32-MN-FGP14-10-F10												

Ordering data				
Circuit symbol	Function	Pneumatic connection	Part no.	Type
Directly actuated poppet valve				
	3/2-way, single solenoid, closed	G1/4 and NAMUR	4514999	VOFD-L50T-M32-MN-FG14-10-F10
	3/2-way, single solenoid, closed	NAMUR with supply port	4515000	VOFD-L50T-M32-MN-FGP14-10-F10

Data sheet – Basic valve NW 5 mm, G/NPT 1/4, in-line

Function

3/2-way valve



Flow rate
450 l/min (-LT-M32-)
493 l/min (-L50T-M32-)



General technical data

Type VOFD-LT-M32-...	G1/4 basic valve	1/4 NPT basic valve
Valve function	3/2-way, single solenoid, closed	
Pneumatic connection	1	G1/4
	2	G1/4
	3	G1/4
Design	Directly actuated poppet valve	
Width [mm]	51	
Mounting position	Any	
Duty cycle	100%	
Sealing principle	Soft	
Manual override	None	
Reset method	Mechanical spring	
Actuation type	Electric	
Suitable for vacuum	Yes	
Type of control	Direct	
Flow rate Kv for pressurisation [m³/h]	0.36	
Flow rate Kv for exhausting [m³/h]	0.36	
Flow direction	Reversible	
Product weight [g]	560	
Switching time off [ms]	9	
Switching time on [ms]	45	
Nominal width [mm]	5	
Standard nominal flow rate [l/min]	450	

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:2:2]	
Degree of protection	IP65	
Operating pressure range [bar]	0 ... 10	
Temperature of medium [°C]	-25 ... 60	
Ambient temperature [°C]	-25 ... 60	
Extended ambient temperature, Low Demand mode [°C]	-25 ... 60	
Safety integrity level [SIL]	To SIL 3 Low Demand mode	
	To SIL 3 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	Hard Ematal-anodised aluminium
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – Basic valve NW 5 mm, G/NPT 1/4, in-line

General technical data			
Type VOFD-L50T-M32-...	G1/4 basic valve	1/4 NPT basic valve	
Valve function	3/2-way, single solenoid, closed		
Pneumatic connection	1	G1/4	1/4 NPT
	2	G1/4	1/4 NPT
	3	G1/4	1/4 NPT
Design	Directly actuated poppet valve		
Width	[mm]	51, 28 (stainless steel design)	
Mounting position	Any		
Sealing principle	Soft		
Manual override	None		
Reset method	Mechanical spring		
Actuation type	Electric		
Suitable for vacuum	Yes		
Type of control	Direct		
Flow rate Kv for pressurisation	[m ³ /h]	0.36	
Flow rate Kv for exhausting	[m ³ /h]	0.36	
b value	0.25		
C value	[l/s bar]	2	
Flow direction	Reversible		
Product weight	[g]	560	
Switching time off	[ms]	60	
Switching time on	[ms]	40	
Nominal width	[mm]	5	
Standard nominal flow rate	[l/min]	493	
Standard nominal flow rate 2→3	[l/min]	429	

Operating and environmental conditions		
Operating medium	Compressed air to ISO 8573-1:2010 [7:2:2]	
Degree of protection	IP65	
Operating pressure range	[bar]	0 ... 10
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Extended ambient temperature, Low Demand mode	[°C]	-25 ... 60
Safety integrity level	[SIL]	To SIL 3 Low Demand mode
		To SIL 3 high demand mode
Corrosion resistance class CRC ¹⁾	4	

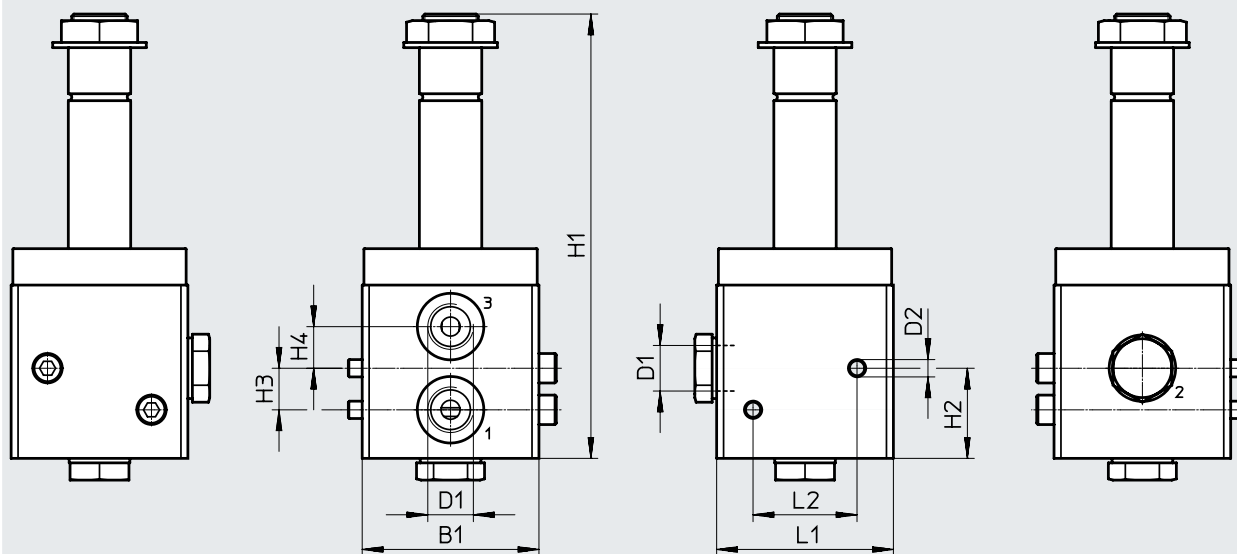
- 1) Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests
 (→ also FN 940082), using appropriate media.

Materials	
Housing	Ematal-coated aluminium
Stainless steel housing	High-alloy stainless steel
Seals	NBR
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant

Data sheet – Basic valve NW 5 mm, G/NPT 1/4, in-line

Dimensions

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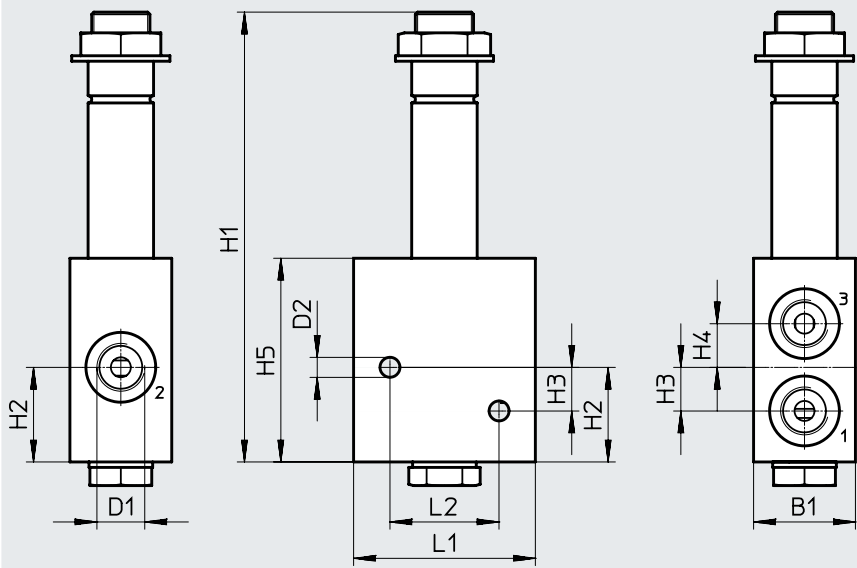


Type of G thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-LT-M32-MN-G14-F10	51	G1/4	5.5	128	26	12	12	60.5	51	30
VOFD-L50T-M32-MN-G14-...-F10										
Type of NPT thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-LT-M32-MN-N14-F10	51	1/4 NPT	5.5	128	26	12	12	60.5	51	30
VOFD-L50T-M32-MN-N14-...-F10										

Data sheet – Basic valve NW 5 mm, G/NPT 1/4, in-line

Dimensions

Download CAD data → www.festo.com



Type of G thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-G14-...-R1-F10	28	G1/4	5.5	124	26	12	12	56	50	30
Type of NPT thread	B1	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L50T-M32-MN-N14-...-R1-F10	28	1/4 NPT	5.5	124	26	12	12	56	50	30


Ordering data

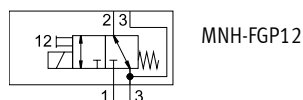
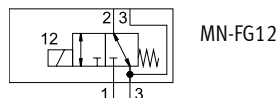
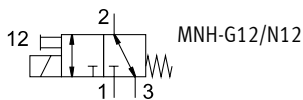
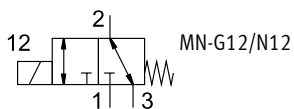
Circuit symbol	Function	Pneumatic connection	Part no.	Type
Directly actuated poppet valve				
	3/2-way, single solenoid, closed	G1/4	4514997	VOFD-L50T-M32-MN-G14-10-F10
			4515019	VOFD-L50T-M32-MN-G14-10-R1-F10
		1/4 NPT	4514998	VOFD-L50T-M32-MN-N14-10-F10
			4515018	VOFD-L50T-M32-MN-N14-10-R1-F10

Data sheet – Modular system NW 10 mm, G/NPT 1/2, NAMUR, and in-line

Function

3/2-way valve

 Flow rate
up to 1900 l/min



General technical data


Basic valve G1/2		VOFD-L100T-M32-MN-...	VOFD-L100T-M32-MNH-...
Valve function		3/2-way, single solenoid, closed	
Pneumatic connection	1	G1/2	
VOFD-...-G12	2	G1/2	
	3	G1/2	
Pneumatic connection	1	1/2 NPT	
VOFD-...-N12	2	1/2 NPT	
	3	1/2 NPT	
Pneumatic connection	1	G1/2	
VOFD-...-FG12	2	Connection pattern to NAMUR, flange 1/2	
	3	G1/2	
Design		Directly actuated poppet valve	
Width	[mm]	51	
Mounting position		Any	
Sealing principle		Soft	
Manual override		None	Non-detenting
Reset method		Mechanical spring	
Actuation type		Electric	
Suitable for vacuum		Yes	
Type of control		Direct	
Flow rate Kv for pressurisation	[m ³ /h]	1.68	
Flow rate Kv for exhausting	[m ³ /h]	1.68	
b value		0.22	
C value	[l/s bar]	7.6	
Flow direction		Reversible	
Product weight	[g]	950	
Switching time off	[ms]	60	
Switching time on	[ms]	40	
Nominal width	[mm]	10	
Standard nominal flow rate 1→2	[l/min]	1900	
Standard nominal flow rate 2→3	[l/min]	1888	

Selection of solenoid coils

Suitable solenoid coils for the basic valves are available in the section on accessories.

The following solenoid coils can be selected:

- S18-70, nominal power: 7 watt at 24 V DC (Ex-D)
- S18-120, nominal power: 12 watt at 24 V DC (Ex-ME)

 **Note**

Additional information and solenoid coils to fit basic valves can be found in the Festo online configurator.

- → Internet: VACC
- → www.festo.com/sp

Data sheet – Modular system NW 10 mm, G/NPT 1/2, NAMUR, and in-line

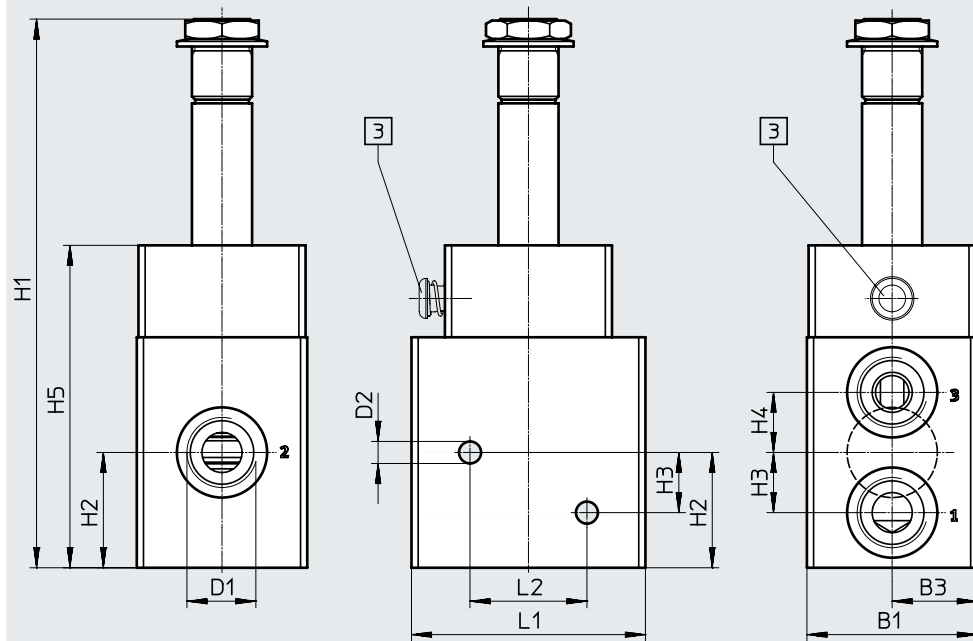
Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:2:2]
Operating pressure range	[bar]	0 ... 12
Temperature of medium	[°C]	-25 ... 60
Ambient temperature	[°C]	-25 ... 60
Corrosion resistance class CRC ¹⁾		4

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

Dimensions Download CAD data → www.festo.com

VOFD-L100T-M32-MN...



[3] MO manual override, non-detenting

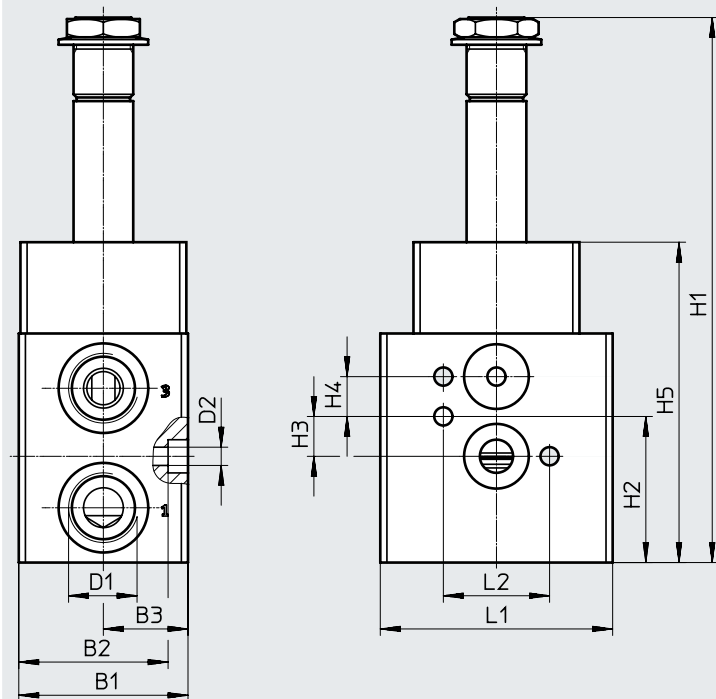
Type of G thread	B1	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L100T-M32-MN-G12-...-F10	51	25	G1/2	6.6	164	34.5	18	18	96.5	70	35
VOFD-L100T-M32-MNH-G12-...-F10											
Type of NPT thread	B1	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L100T-M32-MN-N12-...-F10	51	25	1/2 NPT	6.6	164	34.5	18	18	96.5	70	35
VOFD-L100T-M32-MNH-N12-...-F10											

Data sheet – Modular system NW 10 mm, G/NPT 1/2, NAMUR, and in-line

Dimensions

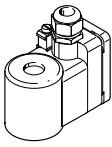

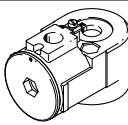
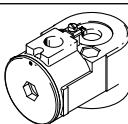
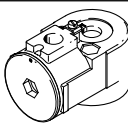
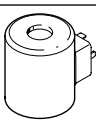
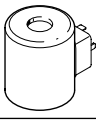
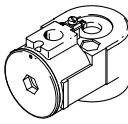
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VOFD-L100T-...-FG12-...-F10

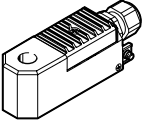
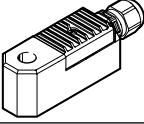
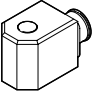


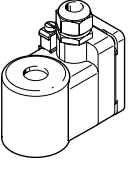
Type of flange thread	B1	B2	B3	D1	D2 ∅	H1	H2	H3	H4	H5	L1	L2
VOFD-L100T-...-FG12-...-F10	51	45	25.5	G1/2	5.5	164	44	12	12	96.5	70	32

Accessories

Ordering data – Solenoid coils				
	Description		Part no.	Type
	EX4ME coil, terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	8109389	VACC-S18-35-K4-1U-EX4ME
		24 V AC/DC	8109388	VACC-S18-35-K4-1UF-EX4ME
		110 V AC/DC	8109387	VACC-S18-35-K4-2U-EX4ME
		230 V AC/DC	8109386	VACC-S18-35-K4-3U-EX4ME
	EX4ME coil, terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	8109395	VACC-S18-120-K4-1U-EX4ME
		24 V AC/DC	8109394	VACC-S18-120-K4-1UF-EX4ME
		48 V DC	8109390	VACC-S18-120-K4-7-EX4ME
		60 V DC	8109393	VACC-S18-120-K4-27-EX4ME
		110 V AC/DC	8109392	VACC-S18-120-K4-2U-EX4ME
		230 V AC/DC	8109391	VACC-S18-120-K4-3U-EX4ME
	EX4D coil, terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	562903	VACC-S18-25-K4-1U-EX4D
		110 V AC/DC	562904	VACC-S18-25-K4-2U-EX4D
		230 V AC/DC	562905	VACC-S18-25-K4-3U-EX4D
	EX4D coil, terminal box, cable entry thread NPT, 1/2 NPT	24 V AC/DC	562900	VACC-S18-25-K5-1U-EX4D
		110 V AC/DC	562901	VACC-S18-25-K5-2U-EX4D
		230 V AC/DC	562902	VACC-S18-25-K5-3U-EX4D
	EX4D coil, terminal box, cable fitting metric, M20x1.5	230 V AC	3504741	VACC-S18-18-K4-3A-EX4D
	EX4D coil, terminal box, cable fitting NPT, 1/2 NPT	230 V AC	3546734	VACC-S18-18-K5-3A-EX4D
	EX4D coil, terminal box, cable fitting metric, M20x1.5	24 V AC/DC	3504563	VACC-S18-70-K4-1U-EX4D
		48 V AC/DC	3504574	VACC-S18-70-K4-7U-EX4D
		120 V AC/DC	3504609	VACC-S18-70-K4-16U-EX4D
		230 V AC/DC	3504639	VACC-S18-70-K4-3U-EX4D
	EX4D coil, terminal box, cable fitting NPT, 1/2 NPT	24 V AC/DC	3546549	VACC-S18-70-K5-1U-EX4D
		48 V AC/DC	3546588	VACC-S18-70-K5-7U-EX4D
		110 V AC/DC	3546625	VACC-S18-70-K5-2U-EX4D
		230 V AC/DC	3546662	VACC-S18-70-K5-3U-EX4D
	A1 coil, plug to EN 175301-803, type A	24 V DC	562906	VACC-S18-35-A1-1
		24 V AC	562907	VACC-S18-35-A1-1A
		110 V AC	562908	VACC-S18-35-A1-2A
		230 V AC	562909	VACC-S18-35-A1-3A
	A1 coil, plug to EN 175301-803, type A	24 V DC	8040580	VACC-S18-120-A1-1
		24 V AC	8040890	VACC-S18-120-A1-1A
		110 V AC	8040582	VACC-S18-120-A1-2A
		230 V AC	8040584	VACC-S18-120-A1-3A
	U2D coil, terminal box, cable entry thread 1/2 NPT	24 V DC	3546816	VACC-S18-70-K5-1-U2D
		48 V DC	3546876	VACC-S18-70-K5-7-U2D
		125 V DC	3546913	VACC-S18-70-K5-16-U2D
		220 V DC	3546949	VACC-S18-70-K5-3-U2D

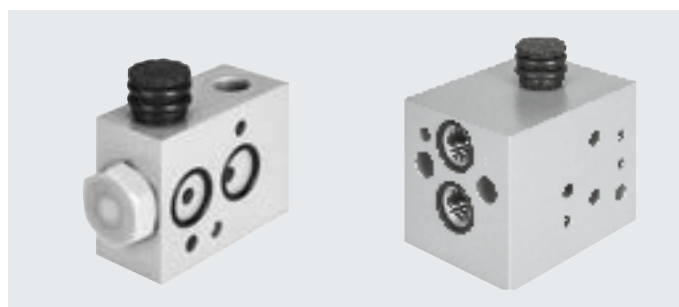
Accessories

Ordering data – Solenoid coils						
	Description		Part no.	Type		
	EX4ME 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		

Ordering data						
	Description	Certification	Operating voltage	Internal fuse protection	Part no.	Type
	Terminal box, cable entry thread, M20x1.5	NEPSI	24 V AC/DC	–	8118257	VACC-S18-35-K4-1U-NE4ME
				Fuse	8118256	VACC-S18-35-K4-1UF-NE4ME
			110 V AC/DC	–	8118255	VACC-S18-35-K4-2U-NE4ME
			230 V AC/DC	–	8118254	VACC-S18-35-K4-3U-NE4ME
			24 V AC/DC	–	8118263	VACC-S18-120-K4-1U-NE4ME
				Fuse	8118262	VACC-S18-120-K4-1UF-NE4ME
			48 V DC	–	8118258	VACC-S18-120-K4-7-NE4ME
			60 V DC	–	8118261	VACC-S18-120-K4-27-NE4ME
			110 V AC/DC	–	8118260	VACC-S18-120-K4-2U-NE4ME
		230 V AC/DC	–	8118259	VACC-S18-120-K4-3U-NE4ME	
		INMETRO	24 V AC/DC	Fuse	8118181	VACC-S18-120-K4-1U-NM4ME
				–	8118182	VACC-S18-35-K4-1U-NM4ME
				Fuse	8118179	VACC-S18-35-K4-1UF-NM4ME
				–	8118177	VACC-S18-120-K4-1UF-NM4ME
			48 V DC	–	8118175	VACC-S18-120-K4-7-NM4ME
			60 V DC	–	8118176	VACC-S18-120-K4-27-NM4ME
			110 V AC/DC	–	8118178	VACC-S18-120-K4-2U-NM4ME
				–	8118174	VACC-S18-35-K4-2U-NM4ME
			230 V AC/DC	–	8118173	VACC-S18-120-K4-3U-NM4ME
–	8118180	VACC-S18-35-K4-3U-NM4ME				

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

Connection pattern: NAMUR



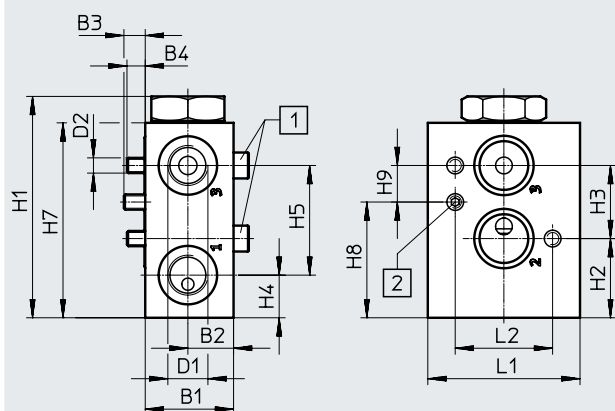
General technical data		Pressurisation and exhaust block VABS-S7-BE...	Redundancy block VABS-S7-RB...
Type		Pressurisation and exhaust block VABS-S7-BE...	Redundancy block VABS-S7-RB...
Type of mounting		With through-hole	
Mounting position		Any	
Flow rate Kv for pressurisation	[m ³ /h]	2.2	–
Flow rate Kv for exhausting	[m ³ /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	
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

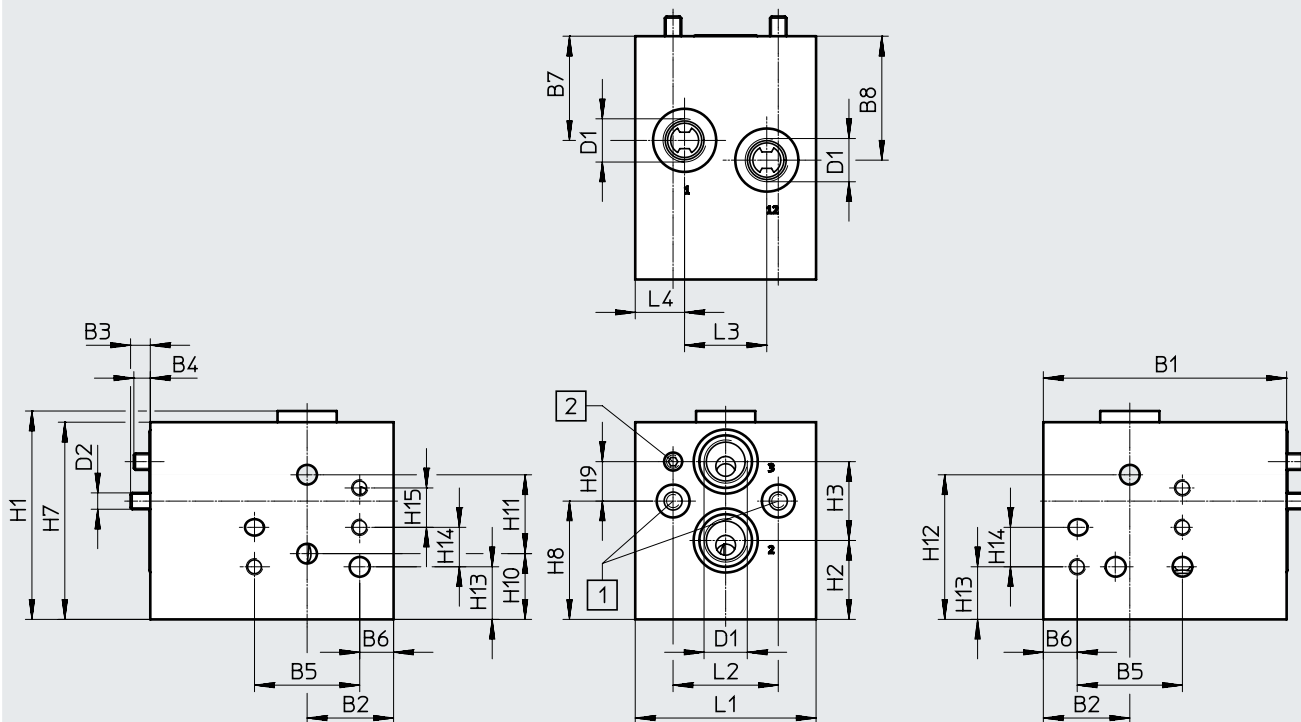
[2] Threaded pin M5x10

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					

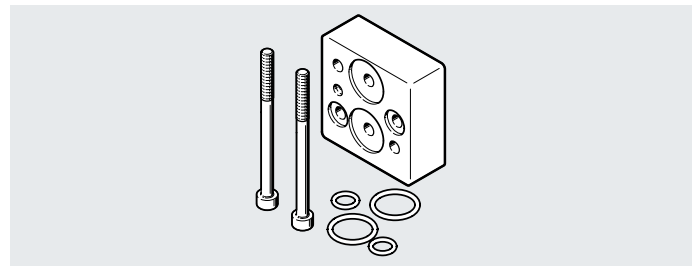
Type	H1	H2	H3	H7	H8	H9	H10	H11	H12	H13	H14	H15
VABS-S7-RB-B-G14-V14-A	63.4	24	24	60	36	12	20	24	44	16	12	12
VABS-S7-RB-B-N14-V14-A												

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-N-...

Connection pattern: NAMUR



General technical data

Type of mounting	With through-hole	
Mounting position	Any	
Pneumatic connection	1	M5, connection pattern to NAMUR
	2	Flange 1/4, connection pattern to NAMUR
	3	G1/4

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [---:--]	
Operating pressure range	[bar]	0 ... 10
Operating pressure range	[psi]	0 ... 145
Degree of protection	IP65 (in the installed state)	
Corrosion resistance class CRC ¹⁾	4	

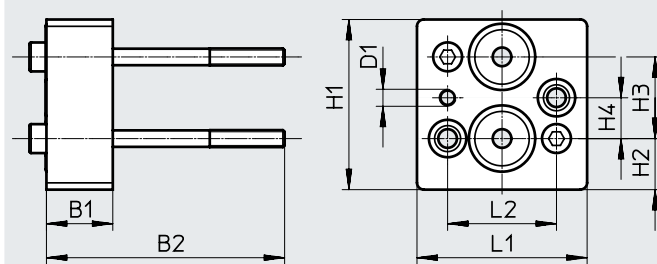
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Materials

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

Dimensions

Download CAD data → www.festo.com



Type	B1	B2	D1	H1	H2	H3	H4	L1	L2
VAME-S7-P-N-V14-A	19.5	70	M5	50	15	24	12	50	32

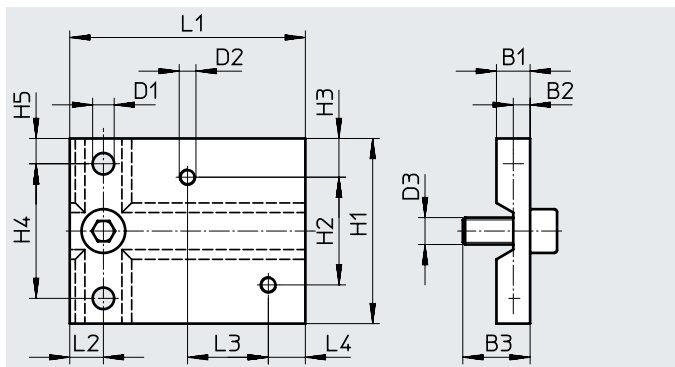
Ordering data

	Description	Part no.	Type
	Mounting/spacer plate for solenoid valves when combined with ATEX solenoid coils, with flange 1/4, connection pattern to NAMUR	3581412	VAME-S7-P-N-V14-A

Accessories

Mounting plate VAME-S7-P

Mounting plate material: Ematal-coated aluminium
 Seals material: NBR
 Contains paint-wetting impairment substances, RoHS-compliant
 Mounting: Via through-holes

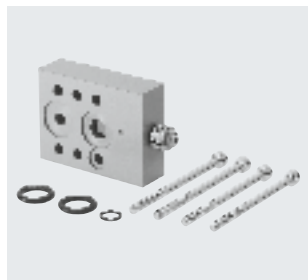


Dimensions [mm] and ordering data																Part no.	Type
B1	B2	B3	D1	D2	D3	H1	H2	H3	H4	H5	L1	L2	L3	L4	CRC ¹⁾		
10	5	20	6.4	M5	M8	55	32	11.5	40	7.5	70	10	24	11	4	563399	VAME-S7-P

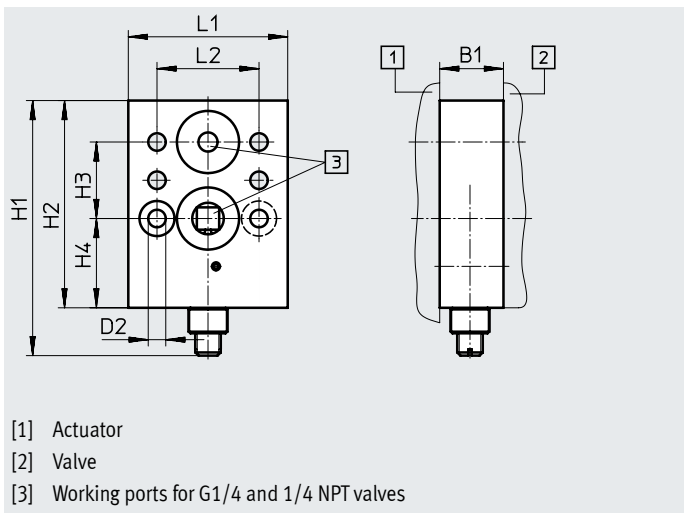
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
 Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 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-holes
 Degree of protection: IP65



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										Part no.	Type
B1	D2	H1	H2	H3	H4	L1	L2	CRC ¹⁾			
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

Sub-base

Mounting plate material: Ematal-coated aluminium

Seals material: NBR

Contains paint-wetting impairment substances, RoHS-compliant

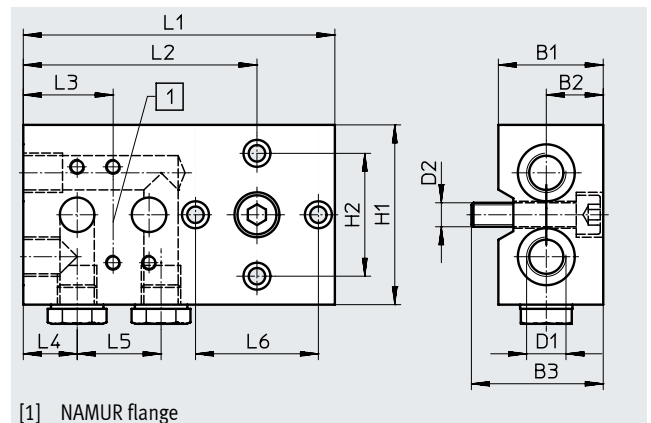
Operating medium: Compressed air to ISO 8573-1:2010 [7:--:-]

Operating pressure: 0 ... 10 bar

Mounting position: Any

Mounting: Via through-holes

Degree of protection: IP65



[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

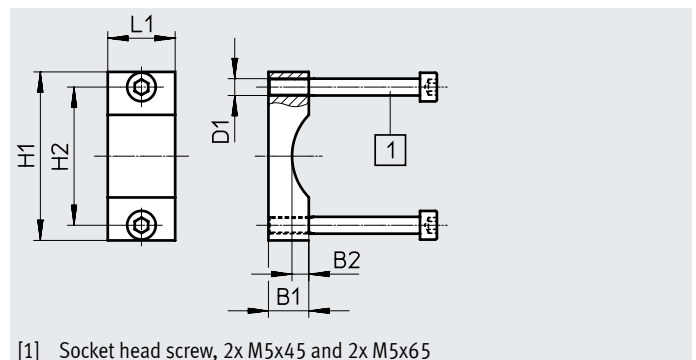
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by special tests (→ also FN 940082), using appropriate media.

Mounting bracket

Mounting bracket material:

Ematal-coated aluminium

Contains paint-wetting impairment substances, RoHS-compliant



[1] Socket head screw, 2x M5x45 and 2x M5x65

Dimensions [mm] and ordering data

B1	B2	D1	H1	H2	L1	CRC ¹⁾	Part no.	Type
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.

Accessories

Adapter with filter

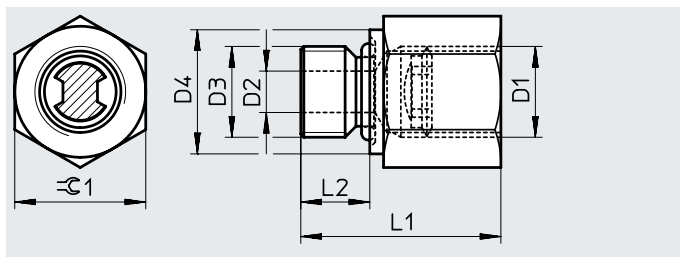
Adapter material: High-alloy stainless steel

Seals material: NBR

Note on materials:

Contains paint-wetting impairment substances, RoHS-compliant

Operating pressure 2 ... 8 bar



Dimensions [mm] and ordering data									
D1	D2	D3	D4	L1	L2	≅G1	CRC ¹⁾	Part no.	Type
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

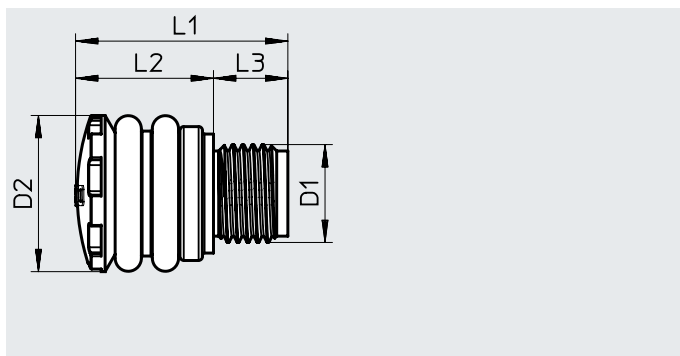
Contains paint-wetting impairment substances, RoHS-compliant

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						
D1	D2	L1	L2	L3	Part no.	Type
G1/4, 1/4 NPT	21	28.5	18.5	10	563400	VABD-D3-SN-G14

Exhaust protection 1/2 NPT

Housing material: PA

Seals material: EPDM

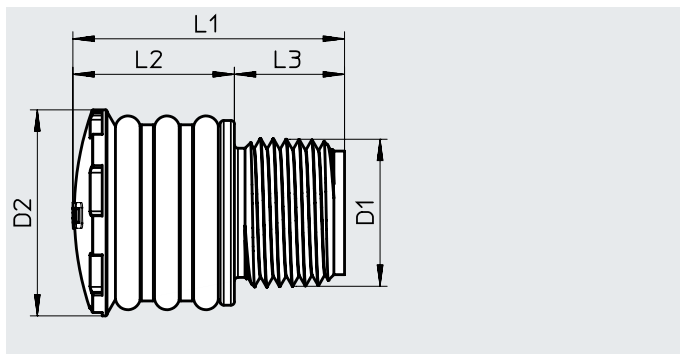
Contains paint-wetting impairment substances, RoHS-compliant

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



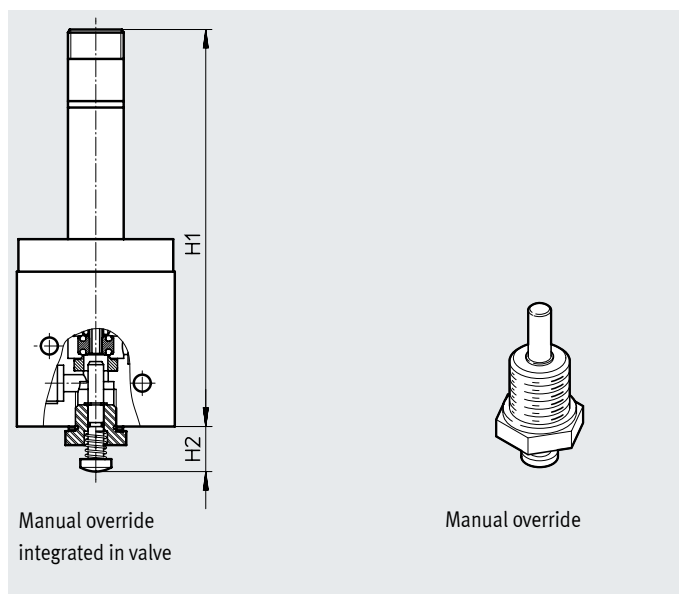
Dimensions [mm] and ordering data						
D1	D2	L1	L2	L3	Part no.	Type
G1/2, 1/2 NPT	29	38	23	15	3535104	VABD-D3-SN-N12

Accessories

Manual override

Housing material: Anodised aluminium
 Contains paint-wetting impairment substances, RoHS-compliant
 Actuation: Manual
 Mounting position: Any

Function:
 Manual override that can be retrofitted (VOFD-50T only) in version with spring return, acting directly on the valve seat.
 The manual override can also be used only temporarily, e.g. during commissioning or inspections.

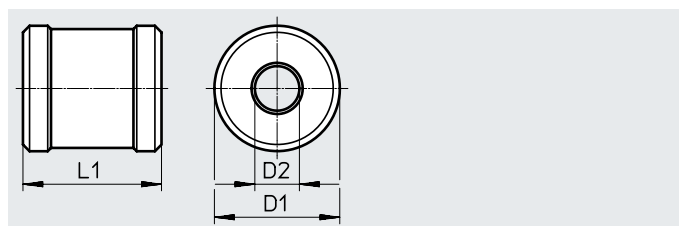


Dimensions [mm] and ordering data					
H1	H2	CRC ¹⁾	Part no.	Type	
128	14	3	563402	VAOH-S8	

1) Corrosion resistance class CRC 3 to Festo standard FN 940070
 High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Manual override

Material: anodised aluminium
 Contains paint-wetting impairment substances, RoHS-compliant
 Function:
 For manual override of basic valves in place 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			
Description	Part no.	Type	
Connecting cable Data sheets → Internet: kmc			
Operating voltage 24 V DC, switching status indication with LED Operating voltage up to 240 V AC	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
	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	