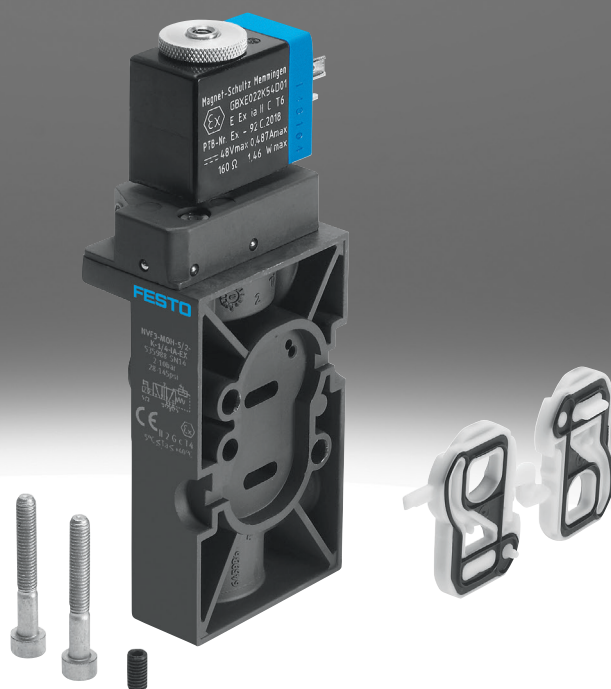


Standards-based NAMUR valve NVF3

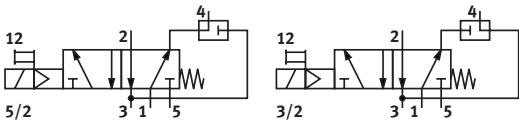
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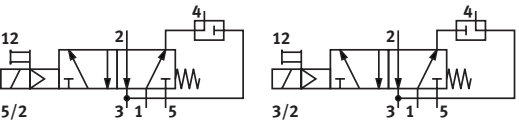
Characteristics

Valve function

[52] 5/2-way valve



[32] 3/2-way valve



With exhaust air recirculation
Convertible by replacing the sealing plate

Datasheet

General technical data

Valve function	5/2- or 3/2-way monostable
Conforms to standard	VDI/VDE 3845 (NAMUR)
Construction width	53 mm
Design	Poppet seat
Sealing principle	Soft
Type of actuation	Electric
Type of reset	Mechanical spring
Type of piloting	Pilot actuated
Flow direction	Non-reversible
Exhaust-air function	With flow control option
Manual override	Detenting, Non-detenting
Type of mounting	On manifold rail
Mounting position	optional
Breather connection	Internal
Nominal size	7 mm
lap	Underlap
Standard nominal flow rate (standardised to DIN 1343)	900 l/min
b value	0.33
C value	4.2 l/sbar
Pneumatic connection, port 1	G1/4
Pneumatic connection, port 2	NAMUR port pattern
Pneumatic connection, port 3	G1/4
Pneumatic connection, port 4	NAMUR port pattern
Pneumatic connection, port 5	G1/4
Pilot exhaust port 84	M5
Product weight	280 g

Operating and environmental conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure	0.2 ... 1 MPa
Operating pressure	2 ... 10 bar
Operating pressure	29 ... 145 psi
Ambient temperature	-5 ... 40°C
Media temperature	-5 ... 40°C
ATEX category gas	II 2G
Explosion ignition protection type for gas	Ex h IIC T6 Gb
ATEX category dust	II 2D
Explosion ignition protection type for dust	Ex h IIIC T70°C Db
Explosion ambient temperature	-5°C ≤ Ta ≤ +40°C
Explosion protection certification outside the EU	EPL Db (GB), EPL Gb (GB)
CE mark (see declaration of conformity) ¹⁾	To EU Explosion Protection Directive (ATEX)
UKCA marking (see declaration of conformity) ²⁾	To UK EX instructions
Corrosion resistance class CRC ³⁾	1 - Low corrosion stress

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

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

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

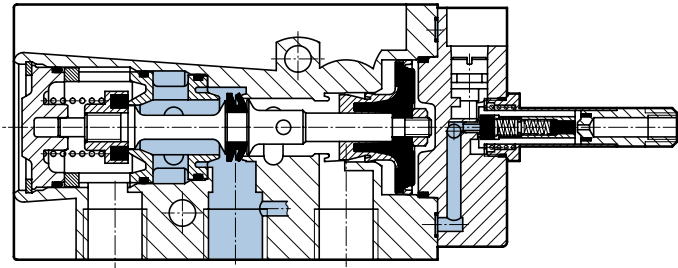
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

3) More information at www.festo.com/x/topic/kbk

Datasheet

Electrical data	
Switching time on	50 ms
Switching time off	100 ms

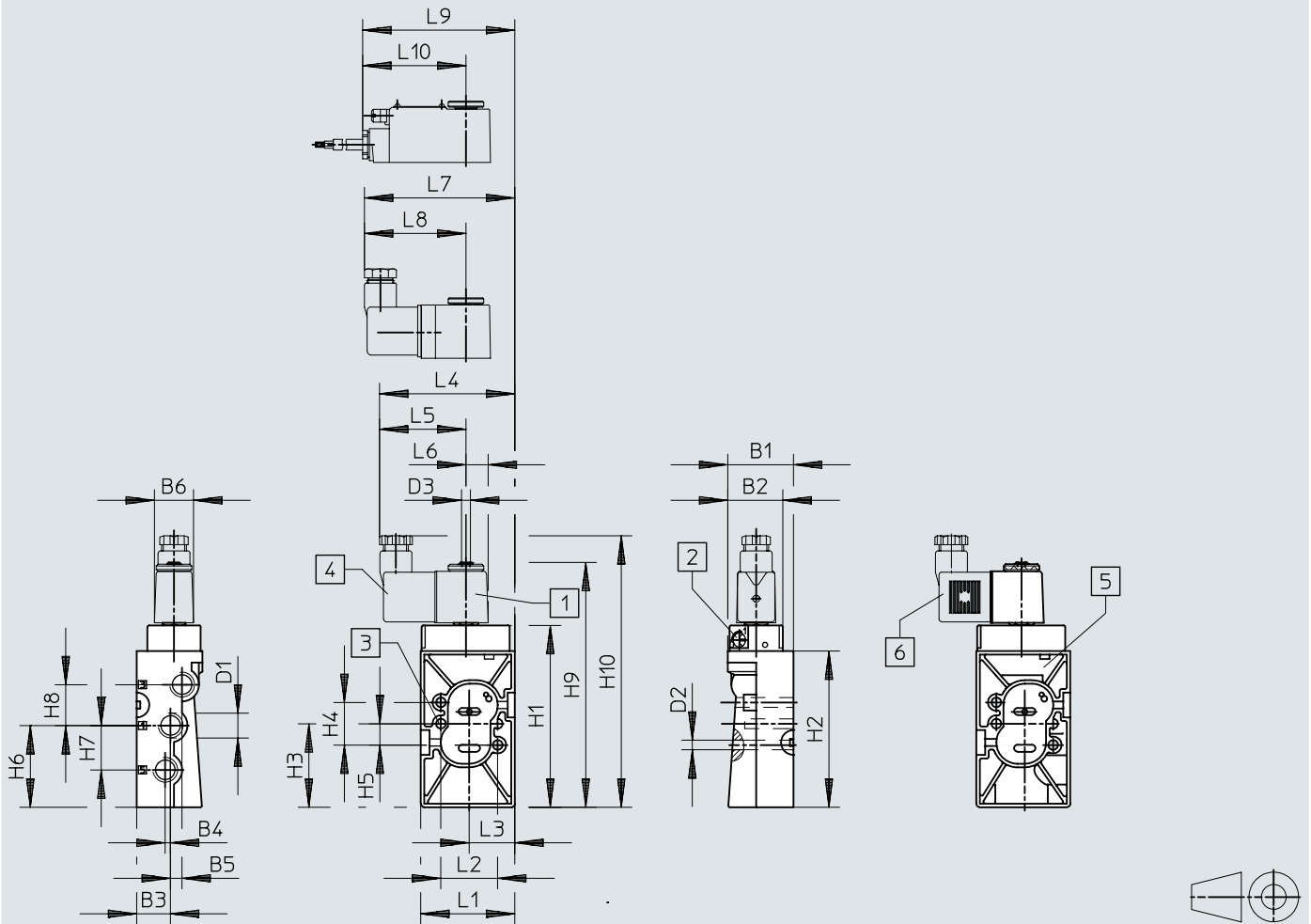
Materials



Material housing	Die-cast aluminium
Material seals	NBR

Dimensions

Dimensions – Solenoid valves

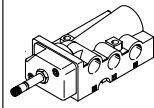
Download CAD data www.festo.com

- [1] Solenoid coil can be rotated 360°
 [2] Manual override, detenting by turning
 [3] Hole for coding pin
 [4] Connection for power supply can be turned through 180°
 [5] Valve and coil assembled for NVF3-MOH-...-IA-EX
 [6] Connection for power supply can be turned through 180° MSSD-V-M16

	B1	B2	B3 ±0,1	B4 ±0,1	B5 ±0,1	B6	D1	D2 ∅	D3	H1	H2	H3 ±0,15	H4 ±0,15	H5 ±0,1	H6 ±0,1
NVF3-...	37	31	19	3	6,5	22	G 1/4	5,5	M5	102,4	88	47	24	12	46

	H7 ±0,15	H8 ±0,15	H9	H10	L1 ±0,2	L2 ±0,15	L3 ±0,1	L4	L5	L6	L7	L8	L9	L10
NVF3-...	25	23	136,4	153	53	32	27,7	76,5	49	12,5	84,7	57,2	85,3	57,8

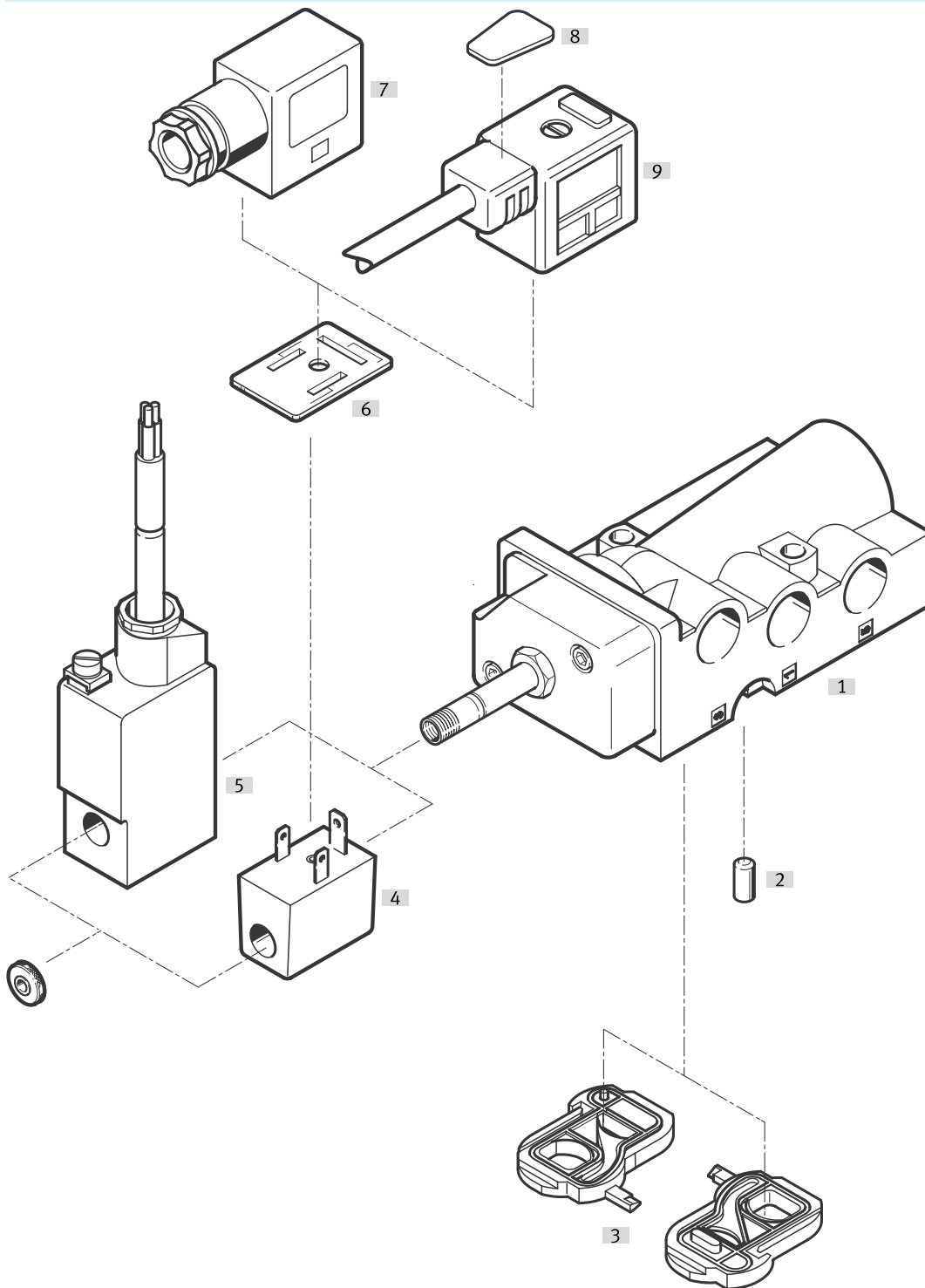
Ordering data

Solenoid valves without solenoid coil			
	Short type code ¹⁾	Part no.	Type
	NVF3	535987	NVF3-MOH-5/2-K-1/4-EX

1) Solenoid coil must be ordered separately

Peripherals

Solenoid valves



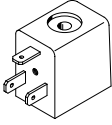
Accessories		→ Link
Type/order code	Description	
[1] NVF3-MOH-5/2-K-1/4-EX	Solenoid valve for solenoid coil F	
[2] Coding pin	Included in the scope of delivery	↗
[3] Sealing plate	for changing the valve function, included in the scope of delivery	↗
[4] Solenoid coil MSFG....-EX and MSFW....-EX	Ignition protection type nA = non-sparking	9
[5] Solenoid coil MSFG....-M-EX and MSFW....-M-EX	Ignition protection type m = encapsulation	9
[6] Illuminating seal MF-LD	For indicating the switching status	9
[7] Plug socket MSSD-F-M16	Can be repositioned around 180°. Type of protection nA = non-sparking	9
[8] Labelling plates KMC/F/V-BZ	for labelling the sockets	9

Peripherals

Accessories		→ Link
Type/order code	Description	
[9] Socket outlet with cable KMF	Insert can be rotated 180°	9

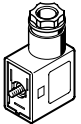
Accessories

Solenoid coil F without plug socket

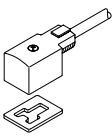
	Characteristic coil data ¹⁾	Part no.	Type
	110 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34420	MSFW-110-50/60-OD
	12 V DC: 4.1 W	34410	MSFG-12-OD
	230 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34422	MSFW-230-50/60-OD
	240 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34424	MSFW-240-50/60-OD
	24 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34415	MSFW-24-50/60-OD
	24 V DC: 4.5 W, 42 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34411	MSFG-24/42-50/60-OD
	42 V DC: 5.5 W	34413	MSFG-42-OD
	48 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	34418	MSFW-48-50/60-OD

1) Valve-solenoid coil combinations that are assembled from the basic valve NVF3-MOH-5/2-K-1/4-EX and the solenoid coils MSF...-OD must not be used in potentially explosive atmospheres. Only combinations with the approved solenoid coils MSF-...-EX may be used here.

Plug socket with screw terminal technology

	Electrical connection	Part no.	Type
	3-pin, Angled socket, Square design MSF	34431	MSSD-F

Plug socket with cable

	Nominal operating voltage DC	Cable length	Part no.	Type
	24 V	2.5 m	30936	KMF-1-230AC-2.5
		5 m	30938	KMF-1-230AC-5
		2.5 m	30935	KMF-1-24DC-2.5-LED
		5 m	30937	KMF-1-24DC-5-LED

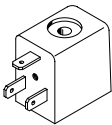
Illuminating seal

	Operational voltage range DC	Part no.	Type
	12 ... 24 V	19143	MF-LD-12-24DC

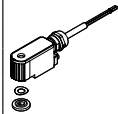
Inscription label

	LABS (PWIS) conformity	Part no.	Type
	VDMA24364-B2-L	33362	KMC/F/V-BZ-35X

Solenoid coil F for ignition protection type nA = non-sparking, for ATEX environment

	Characteristic coil data	Part no.	Type
	110 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	536933	MSFW-110-50/60-EX
	230 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	536934	MSFW-230-50/60-EX
	24 V AC: 50/60 Hz, pick-up power 9.0 VA, holding power 7.0 VA	536932	MSFW-24-50/60-EX
	24 V DC: 4.5 W	536931	MSFG-24-EX

Accessories

Solenoid coil F for type of protection mb, for ATEX environment			
	Characteristic coil data	Part no.	Type
	110 V AC: 50/60 Hz, power 4.18 VA	8059811	VACF-B-K1-16B-1-EX4-M
		8059812	VACF-B-K1-16B-5-EX4-M
	230 V AC: 50/60 Hz, power 5.0 VA	8059810	VACF-B-K1-3A-5-EX4-M
		8059809	VACF-B-K1-3A-1-EX4-M
	24 V AC: 50/60 Hz, power 3.85 VA	8059808	VACF-B-K1-1A-1-EX4-M
	24 V DC: 4.36 W	8059804	VACF-B-K1-1-1-EX4-M
		8059805	VACF-B-K1-1-5-EX4-M
		8059807	VACF-B-K1-1-20-EX4-M