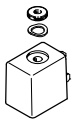

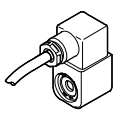



Solenoid coils



Solenoid coils

Product range overview

Version	Type	For valve series										→ Page/ Internet
		MFH	MOFH	JMFH	JMFDH	NVF3	MUFH	VOFD	VOFC	VSNC	VUVS	
F solenoid coil												
	MSF	■	■	■	■	■	■	-	-	-	-	
	VACF	-	-	-	-	-	-	-	-	■	■	3
N solenoid coil												
	VACN-N	-	-	-	-	-	-	-	-	■	-	6
N solenoid coil for explosive atmospheres (→ certification)												
	VACN-N	-	-	-	-	-	-	-	-	■	-	9

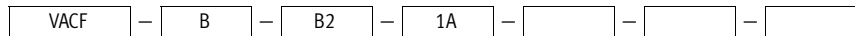
-  - Note

ATEX certification is only effective in combination with other ATEX-certified components.

→ www.festo.com/en/ex

Solenoid coils VACF



Type codes



Type	
VACF	Solenoid coil, F series
Solenoid coil type	
A	Width 30 mm, for 8 mm armature tube
B	Width 22 mm, for 8 mm armature tube
Electrical connection	
A1	Connection pattern type A, to EN 175301
B2	Connection pattern type B, to industry standard
C1	Connection pattern type C, to EN 175301
K1	Cable
Operating voltage	
5	12 V DC
1	24 V DC
7	48 V DC
1A	24 V AC, 50/60 Hz
7A	48 V AC, 50/60 Hz
16B	110/120 V AC, 50/60 Hz
3A	230 V AC, 50/60 Hz
3W	230/240 V AC, 50/60 Hz
Cable length	
-	None
1	12 V DC
5	24 V DC
20	24 V DC
ATEX certification EU	
-	None
EX4	ATEX category II 2GD
Type of ignition protection	
-	None
ME	Moulded encapsulation, enhanced safety

Solenoid coils VACF-B-B2

Technical data

-  Voltage
12 ... 48 V DC
24 ... 240 V AC
-  Temperature range
-10 ... +50 °C
- In accordance with VDE regulation 0580, insulation class H
- Can be replaced without interrupting the pneumatic circuit



General technical data	
Type of mounting	Via knurled nut
Mounting position	Any (can be rotated in increments of 45° on the armature tube)

Materials	
Housing seal set	Aluminium, HNBR
Housing	PA, steel
Winding	Copper
Note on materials	RoHS compliant

Electrical data	
Electrical connection	Plug pins, 3-pin, with connection pattern to industry standard, type B
Permissible voltage fluctuations [%]	-10 / +10
Duty cycle [%]	100
Degree of protection to EN 60529	IP65 with plug socket
Insulation class	H

Characteristic coil data		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
Operating voltage								
Power [W]		3.4	3.3	3.4	-	-	-	-
Pick-up power, 50 Hz [VA]		-	-	-	3.9	3.9	4.4	5.8
Holding power, 50 Hz [VA]		-	-	-	2.6	2.7	3.3	4.6
Frequency [Hz]		-	-	-	50/60	50/60	50/60	50/60
Surge resistance [kV]		-	-	-	-	-	2.5	4

Operating and environmental conditions		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
Operating voltage								
Ambient temperature [°C]		-20 ... +50					-20 ... +50	
Corrosion resistance class CRC ¹⁾		2					2	
Degree of contamination		-					3	
CE marking (see declaration of conformity) ³⁾		-					To EU Low Voltage Directive ²⁾	
Certification		c UL us - Recognized (OL)		-	c UL us - Recognized (OL)	-	-	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

3) Additional information www.festo.com/sp → Certificates.

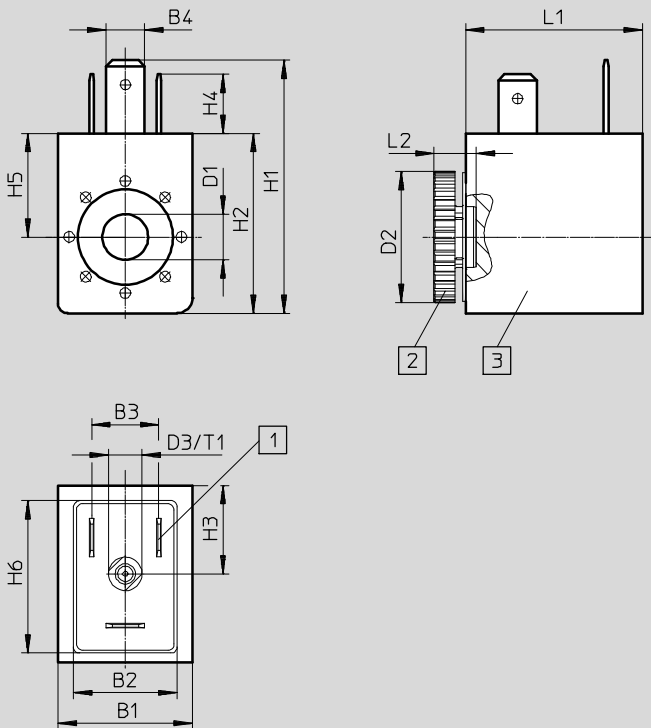
Solenoid coils VACF-B-B2

Technical data

FESTO

Dimensions

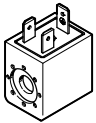

Download CAD data → www.festo.com



- 1 Plug pattern to industry standard, type B
- 2 Knurled nut (seal set for solenoid coil)
- 3 Solenoid coil (can be rotated in increments of 45° on the armature tube, push on in any direction)

Type	B1	B2	B3	B4	D1	D2	D3	H1	H2	H3	H4	H5	H6	L1	L2	T1
VACF-B-B2-...	22	17	11	6.3	8.2	21.5	M3	41.5	29.5	14.5	9.7	17	25	29	6.9	5

Ordering data

	Description	Part No.	Type
Solenoid coil			
	Without plug socket, connection pattern to industry standard, type B	12 V DC	8030801 VACF-B-B2-5
		24 V DC	8030802 VACF-B-B2-1
		48 V DC	8030803 VACF-B-B2-7
		24 V AC	8030804 VACF-B-B2-1A
		48 V AC	8030805 VACF-B-B2-7A
		110/120 V AC	8030806 VACF-B-B2-16B
		230/240 V AC	8030808 VACF-B-B2-3W
Seal set			
	To achieve degree of protection IP67	8034609	VAMC-B10-B-B-S8

Solenoid coils VACN-N

Type codes


VACN – N – K11 – 16B – 0,5 – – U4 – M

Type	
VACN	Solenoid coil, N series
Solenoid coil type	
N	N solenoid coil, for 9 mm armature tube
Electrical connection	
A1	Connection pattern type A, to EN 175301
K1	With 3 m cable
K11	With 0.6 m cable
Operating voltage	
1	24 V DC
3A	230 V AC, 50/60 Hz
16B	120 V AC or 110 V AC
Cable length	
–	3 m
0,5	0.6 m
ATEX certification EU	
–	Without certification
EX2	ATEX category II 3D
EX4	ATEX category II 2D
Additional certifications	
–	Without certification
U4	Explosion protection certification for USA
Type of ignition protection	
–	None
A	Intrinsically safe
M	Encapsulation
N	Non-sparking


Solenoid coils VACN-N

Technical data

FESTO

-  Voltage
24 V DC
110, 230 V AC

• Can be replaced without interrupting the pneumatic circuit

-  Temperature range
-20 ... +60 °C



General technical data	
Type of mounting	Via knurled nut
Mounting position	Any (can be rotated in increments of 45° on the armature tube)
Product weight [g]	95

Materials	
Housing	Steel, polymer
Winding	Copper
Pin contacts	Brass
Note on materials	RoHS compliant

Electrical data	
Electrical connection	Plug pins, 3-pin, with connection pattern to EN 175301-803, type A
Permissible voltage fluctuations [%]	-10 / +10
Duty cycle [%]	100
Insulation class	F
Enamelled wire insulation class	F
Degree of protection to EN 60529	IP65 with plug socket

Characteristic coil data						
Nominal operating voltage [V]	24 DC	110 AC		230 AC		
Frequency [Hz]	-	50	60	50	60	
Power [W]	0.7	-	-	-	-	
Pick-up power [VA]	-	5.2	4.2	6.2	4.9	
Holding power [VA]	-	3.1	2.5	3.7	2.9	
Surge resistance [kV]	-	2.5		4		

Operating and environmental conditions			
Nominal operating voltage [V]	24 DC	110 AC	230 AC
Ambient temperature [°C]	-20 ... +60	-20 ... +60	
Corrosion resistance class CRC ¹⁾	2	2	
Degree of contamination	-	3	
CE marking (see declaration of conformity) ³⁾	-	To EU Low Voltage Directive ²⁾	

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
- 2) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.
- 3) Additional information www.festo.com/sp → Certificates.

Solenoid coils VACN-N

Technical data

FESTO

★ Core product range

Dimensions Download CAD data → www.festo.com

2 Plug pattern to EN 175301-803, type A
3 Solenoid coil
4 Mounting screw M3

Type	B1	H1	H3	L1	L2	L4
VACN-N-A1-...	30	29.5	15.3	47.6	35.5	14.7

Ordering data		Part No.	Type
Solenoid coil			
	Without plug socket, connection pattern to EN 175301-803, type A	24 V DC	★ 8029144 VACN-N-A1-1
		110 V AC	8029134 VACN-N-A1-16B
		230 V AC	8029135 VACN-N-A1-3A
Plug socket			
	Operating voltage 230 V DC/V AC	Cable fitting Pg9	34583 MSSD-C
		Cable fitting M16	539709 MSSD-C-M16
	Operating voltage 24 V DC, signal status display with LED	Cable fitting Pg11	177617 MSSD-C-TY-24DC
Connecting cable			
	Operating voltage 24 V DC, signal status display with LED	Cable length 0.6 m	3679776 NEBV-A1W3F-P-K-0.6-N-LE3
		Cable length 2.5 m	30931 KMC-1-24DC-2,5-LED
		Cable length 5 m	30933 KMC-1-24DC-5-LED
		Cable length 10 m	193459 KMC-1-24-10-LED
	Operating voltage 230 V DC/V AC	Cable length 0.6 m	3579466 NEBV-A1W3-K-0.6-N-LE3
		Cable length 2.5 m	30932 KMC-1-230AC-2,5
Cable length 5 m		30934 KMC-1-230AC-5	
	Electrical connection 2, M12x1, A-coded Operating voltage 24 V DC, signal status display with LED	Cable length 0.3 m	3679771 NEBV-A1W3F-P-K-0.3-N-M12W3
		Cable length 0.6 m	3679772 NEBV-A1W3F-P-K-0.6-N-M12W3
	Electrical connection 2, M12x1, A-coded Operating voltage 230 V DC/V AC	Cable length 0.3 m	3579461 NEBV-A1W3-K-0.3-N-M12W3
		Cable length 0.6 m	3579462 NEBV-A1W3-K-0.6-N-M12W3
Illuminating seal			
	Operating voltage 24 V DC	19145	MC-LD-12-24DC
	Operating voltage 230 V DC/V AC	19146	MC-LD-230AC

Festo core product range ★ Ready for dispatch from the Festo factory in 24 hours
☆ Ready for dispatch in 5 days maximum from stock

Solenoid coils VACN-N-...-EX2-N

Technical data



- Non-sparking solenoid coil
- Category "II 3G" and "II 3D"
- Type of ignition protection for gas "Ex nA"
- ATEX certification
- Can be replaced without interrupting the pneumatic circuit



General technical data	
Type of mounting	Via knurled nut
Mounting position	Any (can be rotated in increments of 45° on the armature tube)
Product weight [g]	95

Materials	
Housing	Steel, polymer
Winding	Copper
Pin contacts	Brass
Note on materials	RoHS compliant

Electrical data	
Electrical connection	Plug pins, 3-pin, with connection pattern to EN 175301-803, type A
Permissible voltage fluctuations [%]	-10 / +10
Duty cycle [%]	100
Insulation class	F
Enamelled wire insulation class	H
Degree of protection to EN 60529	IP65 with plug socket

Characteristic coil data						
Nominal operating voltage [V]	24 DC	110 AC			230 AC	
Frequency [Hz]	-	50	60	50	60	
Power [W]	2.1	-	-	-	-	
Pick-up power [VA]	-	6.9	5.4	6.9	5.4	
Holding power [VA]	-	4.1	3.2	4.1	3.3	

Operating and environmental conditions	
Ambient temperature [°C]	-20 ... +60
Corrosion resistance class CRC ¹⁾	2
CE marking (see declaration of conformity) ²⁾	To EU Explosion Protection Directive (ATEX)

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Additional information www.festo.com/sp → Certificates.

Solenoid coils VACN-N-...-EX2-N

Technical data

ATEX	
ATEX category for gas	II 3G
Type of ignition protection for gas	Ex nA IIC T5/T4 X Gc
ATEX category for dust	II 3D
Type of ignition protection for dust	Ex tc IIIC T95°C/T105°C X Dc
Explosion ambient temperature [°C]	-20 ≤ Ta ≤ +60

Dimensions Download CAD data → www.festo.com

3 Solenoid coil
4 Mounting screw M3

Type	B1	H1	H2	L1	L2
VACN-N-A1-...-EX2-N	30	38.5	29.5	64	35.5

Ordering data		Part No.	Type
	With plug socket included in delivery, connection pattern to EN 175301-803, type A	24 V DC	8029136 VACN-N-A1-1-EX2-N
		110 V AC	8029137 VACN-N-A1-16B-EX2-N
		230 V AC	8029138 VACN-N-A1-3A-EX2-N

Solenoid coils VACN-N-...-EX4-M

Technical data

FESTO



- Category "II 2G" and "II 2D"
- Type of ignition protection for gas "Ex mb"
- ATEX certification
- Can be replaced without interrupting the pneumatic circuit



General technical data	
Type of mounting	Via knurled nut
Mounting position	Any (can be rotated in increments of 45° on the armature tube)
Product weight [g]	353

Materials	
Housing	Steel, polymer
Winding	Copper
Note on materials	RoHS compliant

Electrical data	
Electrical connection	Cable
Cable length [m]	3
Cable diameter [mm]	7
Permissible voltage fluctuations [%]	-10 / +10
Duty cycle [%]	100
Insulation class	F
Enamelled wire insulation class	H
Degree of protection to EN 60529	IP65 with plug socket

Characteristic coil data			
Nominal operating voltage [V]	24 DC	110 AC	230 AC
Frequency [Hz]	-	50/60	50/60
Power	[W]	2.6	-
	[VA]	-	2.4

Operating and environmental conditions	
Ambient temperature [°C]	-20 ... +50
Corrosion resistance class CRC ¹⁾	2
CE marking (see declaration of conformity) ²⁾	To EU Explosion Protection Directive (ATEX)

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Additional information www.festo.com/sp → Certificates.

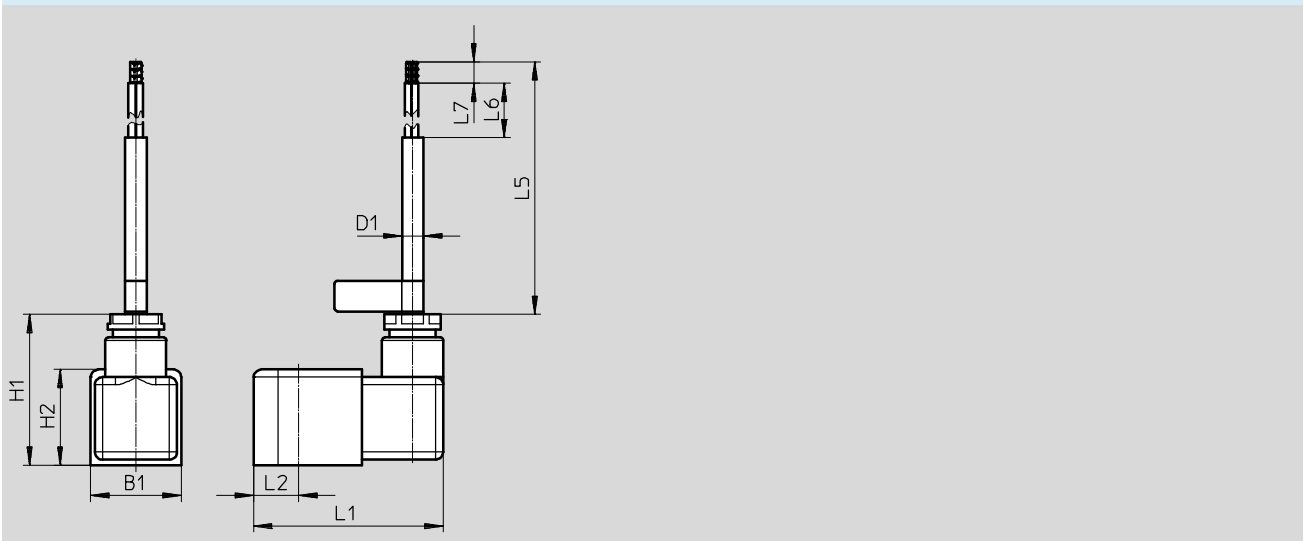
Solenoid coils VACN-N-...-EX4-M

Technical data

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex mb IIC T6
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex mb tb IIIC T80°C
Explosion ambient temperature [°C]	-20 ≤ Ta ≤ +50
Explosion protection certification outside the EU	EPL Db (BR), EPL Db (IEC-EX), EPL Gb (BR), EPL Gb (IEC-EX)
Certificate issuing authority	DNV 15.0189X IECEX PTB 15.0016X PTB 14 ATEX 2027 X

Dimensions

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Type	B1	D1	H1	H2	L1	L2	L5	L6	L7
VACN-N-K1-...	29.7	7	49.3	31.3	67	14.8	3000	43	7

Ordering data

	Description	Part No.	Type
	With plug socket, with 3 m cable	24 V DC	8029143 VACN-N-K1-1-EX4-M
		110 V AC	8029142 VACN-N-K1-16B-EX4-M
		230 V AC	8029141 VACN-N-K1-3A-EX4-M

Solenoid coils VACN-N-...-EX4-A

Technical data

FESTO



- Intrinsically safe solenoid coil
- Category "II 2G" and "II 2D"
- Type of ignition protection for gas "Ex ia"
- ATEX certification
- Can be replaced without interrupting the pneumatic circuit



General technical data	
Type of mounting	Via knurled nut
Mounting position	Any (can be rotated in increments of 45° on the armature tube)
Product weight [g]	114

Materials	
Housing	Steel, polymer
Winding	Copper
Note on materials	RoHS compliant

Electrical data	
Electrical connection	Plug connector, connection pattern to EN 175301-803, type A
Permissible voltage fluctuations [%]	-10 / +10
Duty cycle [%]	100
Insulation class	F
Enamelled wire insulation class	H
Degree of protection to EN 60529	IP65 with plug socket

Characteristic coil data	
Nominal operating voltage [V]	24 DC
Max. input voltage [V]	28 DC
Max. input current [mA]	115
Required current consumption [mA]	≤27
Effective internal capacitance	Negligibly low
Effective internal inductance	Negligibly low

Operating and environmental conditions	
Ambient temperature [°C]	-20 ... +50
Corrosion resistance class CRC ¹⁾	2
CE marking (see declaration of conformity) ²⁾	To EU Explosion Protection Directive (ATEX)

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Additional information www.festo.com/sp → Certificates.

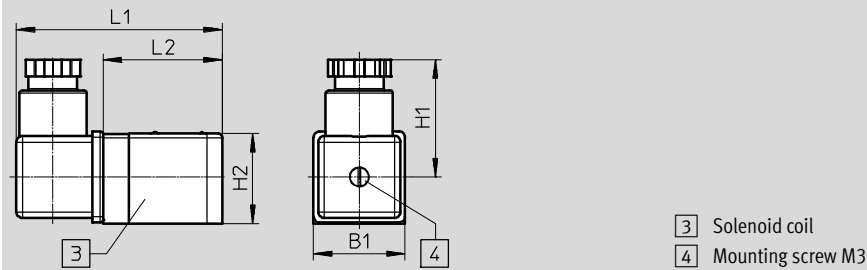
Solenoid coils VACN-N-...-EX4-A

Technical data

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex ia IIC T6, T4 Ga
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex tb IIIC T80°C, T130°C Db IP65
Explosion ambient temperature [°C]	T4,T130°C: -40°C ≤ Ta ≤ +85°C
	T6,T80°C: -40°C ≤ Ta ≤ +50°C
Explosion protection certification outside the EU	EPL Db (BR), EPL Db (IEC-EX), EPL Ga (BR), EPL Gb (IEC-EX), EPL Gb (IN), EPL Db (IN)
Certificate issuing authority	DNV 15.0188 IECEX PTB 15.0013 PTB 09 ATEX 2043

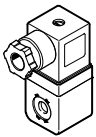
Dimensions

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Type	B1	H1	H2	L1	L2
VACN-N-A1-...-EX4-A	30	38.5	29.5	67.7	39.2

Ordering data

	Description	Part No.	Type
	Intrinsically safe solenoid coil with plug socket included in delivery, connection pattern to EN 175301-803, type A	8029139	VACN-N-A1-1-EX4-A