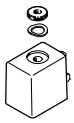
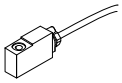
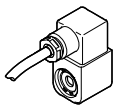
Solenoid coils

FESTO

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**	■	■	■	■	■	■	–	–	–	–	5
	VACF	–	–	–	–	–	–	–	–	■	■	13 12 17
F solenoid coil for explosive atmospheres (➔ certification)												
	**MSF...-EX**	■	■	■	■	■	■	–	–	–	–	9
	VACF	–	–	–	–	■	–	–	–	–	–	19
N solenoid coil												
	**VACN-N**	–	–	–	–	–	–	–	–	■	–	21
N solenoid coil for explosive atmospheres (➔ certification)												
	**VACN-N**	–	–	–	–	–	–	–	–	■	–	24 26 28 30
C solenoid coil												
	**VACC-S13**	–	–	–	–	–	–	■	■	–	–	32
	**VACC-S18**	–	–	–	–	–	–	■	–	–	–	39

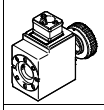
- Note

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

➔www.festo.com/en/ex

Solenoid coils

Product range overview

Version	Type	For valve series						➔ Page/ Internet
		MN1H	JMN1H	JMN1DH	VZWM-L	VUVS	VZWE	
N1 solenoid coil								
	**MSN1**	■	■	■	–	–	–	56
S solenoid coil								
	**VACS**	–	–	–	–	■	–	59
H solenoid coil								
	**MH-2**	–	–	–	■	–	–	62
H1 solenoid coil								
	**VACN-H1**	–	–	–	–	–	■	65
D solenoid coil								
	**MD-2**	–	–	–	■	–	–	68

Note

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

➔www.festo.com/en/ex

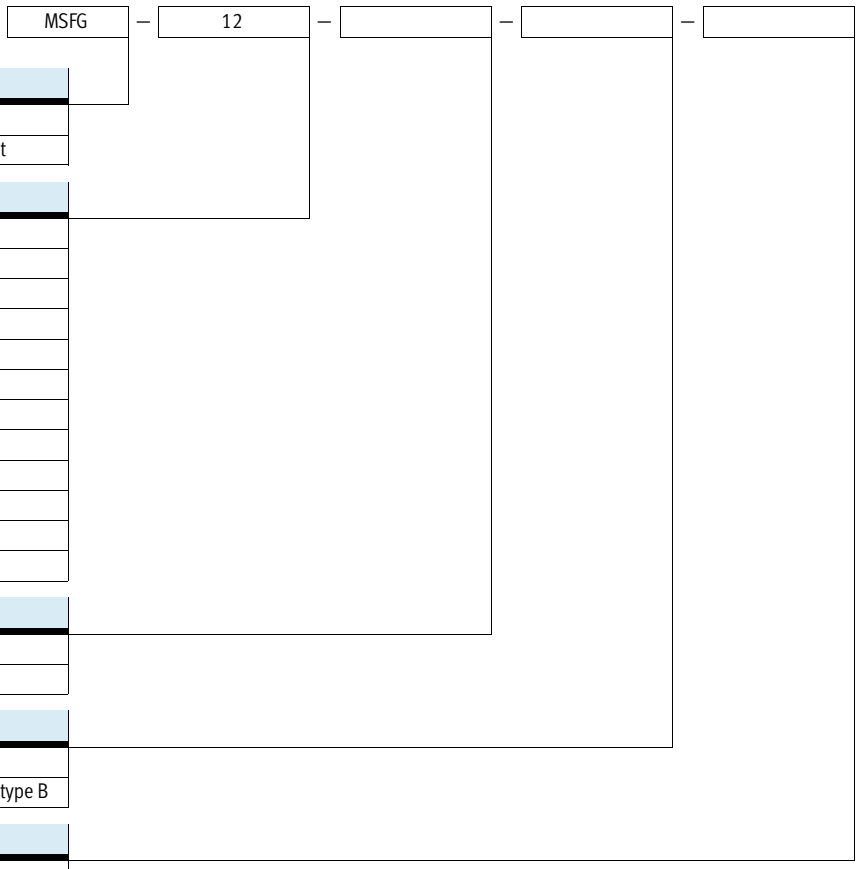
Solenoid coils

Selection aid

Solenoid valves and corresponding solenoid coils									
Valve series	**Valve type**	**Solenoid coil**							
		C	**D**	**F**	**H**	**H1**	**N**	**N1**	**S**
Standard valves to ISO 5599-1	MN1H, JMN1H, JMN1DH	–	–	–	–	–	–	■	–
	MFH, JMFH, JMFDH	–	–	■	–	–	–	–	–
	MDH, JMDH	–	■	–	–	–	–	–	–
Standard NAMUR valves	NVF3	–	–	■	–	–	–	–	–
	MN1H	–	–	–	–	–	–	■	–
Solenoid valves for process automation	VOFC	■	–	–	–	–	–	–	–
	VOFD	■	–	–	–	–	–	–	–
	VSNC	–	–	■	–	–	■	–	–
Tiger 2000	MFH, JMFH	–	–	■	–	–	–	–	–
Tiger Classic	MFH, MOFH, JMFH, JMFDH	–	–	■	–	–	–	–	–
Directly actuated solenoid valves	MDH, MODH	–	■	–	–	–	–	–	–
VS series	VUVS	–	–	■	–	–	–	–	■
M5 compact system	MUFH	–	–	■	–	–	–	–	–
Process directional control valves	VZWM-L	–	■	–	■	–	–	–	–
	VZWE	–	–	–	–	■	–	–	–

Solenoid coils MSF

Type codes



Type	
MSFG	F solenoid coil, for direct current
MSFW	F solenoid coil, for alternating current

Operating voltage	
12	12 V DC
12DC	12 V DC
42DC	42 V DC
24/42	24 V DC/42 V AC
24	24 V AC
24AC	24 V AC
48AC	48 V AC
110	110 V AC
110AC	110 V AC
230	230 V AC
230AC	230 V AC
240AC	240 V AC

Frequency	
50/60	50 Hz and 60 Hz
–	No alternating voltage

Electrical connection	
DS	Plug connector to EN 175301, type A
–	Plug connector to industry standard, type B

Scope of delivery	
OD	Without plug socket
–	With plug socket

Solenoid coils MSF

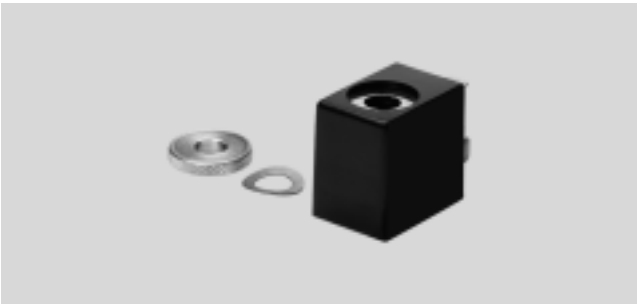
Technical data

FESTO

- Voltage
  12 … 42 V DC
  24 … 240 V AC

- Temperature range
  −5 … +40 °C

- In accordance with VDE regulation 0580, insulation class F
- Can be replaced without interrupting the pneumatic circuit
- Low power consumption and temperature rise



General technical data		
Type of mounting		Via knurled nut
Mounting position		Any (can be rotated 360° on the armature tube)
Max. tightening torque of plug socket	[Nm]	0.4
Product weight	[g]	55

Materials	
Solenoid coil	Duroplast, copper, steel
Note on materials	RoHS compliant

Electrical data			
Electrical connection		3-pin	
		Plug connector to industry standard, type B	Plug connector to EN 175301, type A
Min. pickup time	[ms]	10	
Permissible voltage fluctuations	[%]	−10 / +10	
Duty cycle	[%]	100	
Degree of protection to EN 60529		IP65 with plug socket	

Characteristic coil data										
Operating voltage		12 V DC	24 V DC	42 V DC	24 V AC	42 V AC	48 V AC	110 V AC	230 V AC	240 V AC
Power	[W]	4.1	4.5	5.5	–	–	–	–	–	–
Pick-up power, 50 Hz	[VA]	–	–	–	9	9	9	9	9	9
Holding power, 50 Hz	[VA]	–	–	–	7	7	7	7	7	7
Power factor cos(phi)		–	–	–	0.7	0.7	0.7	0.7	0.7	0.7
Frequency	[Hz]	–	–	–	50/60	50/60	50/60	50/60	50/60	50/60
Permissible frequency fluctuations	[%]	–	–	–	−5 / +5	−5 / +5	−5 / +5	−5 / +5	−5 / +5	−5 / +5

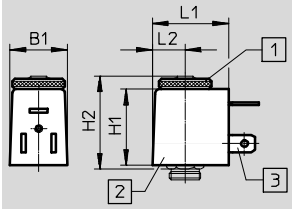
Operating and environmental conditions										
Operating voltage		12 V DC	24 V DC	42 V DC	24 V AC	42 V AC	48 V AC	110 V AC	230 V AC	240 V AC
Ambient temperature	[°C]	−5 … +40						−5 … +40		
CE marking (see declaration of conformity)[2]		–						To EU Low Voltage Directive[1]		

1) 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.
2) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils MSF

Technical data

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



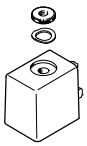
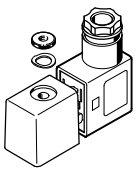
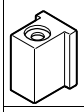
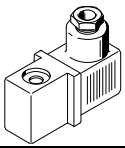
1 Retaining nut
2 Solenoid coil (can be rotated 360° on the armature tube)
3 Plug pins

Note

Can only be used on aluminium valves with valve body dimensions ≥ 26 x 16 x 14 mm

Type	B1	H1	H2	L1	L2
MSFG-...	22	29	33.8	29.5	12.5
MSFW-...					

Ordering data

	Description	Operating voltage	Part No.	Type
Solenoid coil, plug connector to industry standard, type B				
	Without plug socket	12 V DC	**34410**	**MSFG-12DC-OD**
		24 V DC, 42 V AC	**34411**	**MSFG-24/42-50/60-OD**
		42 V DC	**34413**	**MSFG-42DC-OD**
		24 V AC	**34415**	**MSFW-24AC-OD**
		48 V AC	**34418**	**MSFW-48AC-OD**
		110 V AC	**34420**	**MSFW-110AC-OD**
		230 V AC	**34422**	**MSFW-230AC-OD**
		240 V AC	**34424**	**MSFW-240AC-OD**
	With plug socket	12 V DC	**4526**	**MSFG-12**
		24 V DC, 42 V AC	**4527**	**MSFG-24/42-50/60**
		24 V AC	**4534**	**MSFW-24-50/60**
		110 V AC	**6720**	**MSFW-110-50/60**
		230 V AC	**4540**	**MSFW-230-50/60**
Solenoid coil, plug connector to EN 175301, type A				
	Without plug socket	24 V DC, 42 V AC	**34412**	**MSFG-24/42-50/60-DS-OD**
		230 V AC	**175118**	**MSFW-230-50/60-DS-OD**
	With plug socket, plug connector can be repositioned by 180° Certification: Germanischer Lloyd	24 V DC, 42 V AC	**13264**	**MSFG-24/42-50/60-DS**
		110 V AC	**13265**	**MSFW-110-50/60-DS**
		230 V AC	**13266**	**MSFW-230-50/60-DS**

Solenoid coils MSF

Technical data

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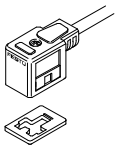
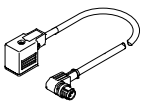
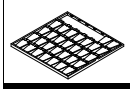
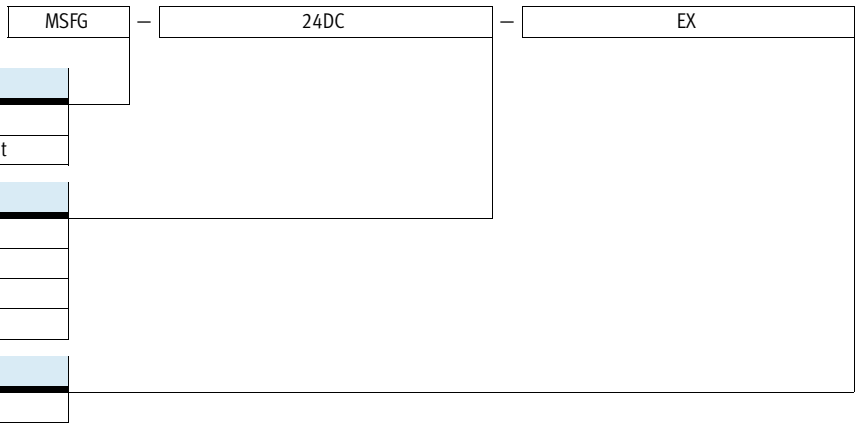
Ordering data					
	Electrical connection	Description		Part No.	Type
Plug socket					
	To industry standard, type B	Cable connection using clamping screws	Cable fitting Pg9	**34431**	**MSSD-F**
			Cable fitting M16	**539710**	**MSSD-F-M16**
		Cable connection using insulation displacement technology	–	**192746**	**MSSD-F-S-M16**
	To EN 175301, type A	Cable connection using clamping screws	Cable fitting Pg9	**34583**	**MSSD-C**
			Cable fitting M16	**539709**	**MSSD-C-M16**
		–	Cable fitting Pg11	**177617**	**MSSD-C-TY-24DC**
Connecting cable					
	To industry standard, type B	Operating voltage 24 V DC, signal status display with LED	Cable length 0.6 m	**3679778**	**NEBV-B2W3F-P-K-0.6-N-LE3**
			Cable length 2.5 m	**30935**	**KMF-1-24DC-2,5-LED**
			Cable length 5 m	**30937**	**KMF-1-24DC-5-LED**
			Cable length 10 m	**193458**	**KMF-1-24DC-10-LED**
		Operating voltage up to 240 V	Cable length 0.6 m	**3579468**	**NEBV-B2W3-K-0.6-N-LE3**
			Cable length 2.5 m	**30936**	**KMF-1-230AC-2,5**
			Cable length 5 m	**30938**	**KMF-1-230AC-5**
	To EN 175301, type A	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 up to 240 V	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 1, to industry standard, type B • Electrical connection 2, M12x1, A-coded	Operating voltage 24 V DC, signal status display with LED	Cable length 0.3 m	**3679773**	**NEBV-B2W3F-P-K-0.3-N-M12W3**
			Cable length 0.6 m	**3679774**	**NEBV-B2W3F-P-K-0.6-N-M12W3**
		Operating voltage up to 240 V	Cable length 0.3 m	**3579463**	**NEBV-B2W3-K-0.3-N-M12W3**
			Cable length 0.6 m	**3579464**	**NEBV-B2W3-K-0.6-N-M12W3**
	• Electrical connection 1, to EN 175301, type A • 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**
		Operating voltage up to 240 V	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					
	To industry standard, type B	Operating voltage 12 ... 24 V DC		**19143**	**MF-LD-12-24DC**
		Operating voltage 230 V DC/V AC		**19144**	**MF-LD-230AC**
	To EN 175301, type A	Operating voltage 12 ... 24 V DC		**19145**	**MC-LD-12-24DC**
		Operating voltage 230 V DC/V AC		**19146**	**MC-LD-230AC**
Inscription label					
	–	Scope of delivery: 35 labels in frames		**33362**	**KMC/F/V-BZ-35X**

Solenoid coils MSF...-EX

Type codes



Type	
MSFG	F solenoid coil, for direct current
MSFW	F solenoid coil, for alternating current

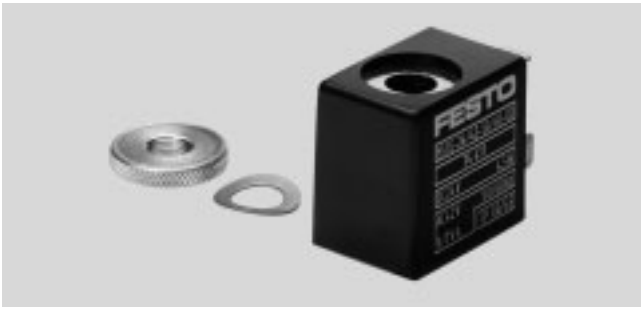
Operating voltage	
24	24 V DC
24-50/60	24 V AC, 50/60 Hz
110-50/60	110 V AC, 50/60 Hz
230-50/60	230 V AC, 50/60 Hz

Explosion prevention and protection	
EX	Explosion-proof to EN 50 028

Solenoid coils MSF...-EX

Technical data

- In accordance with ATEX directive
- In accordance with VDE regulation 0580, insulation class F
- Plug connection
- Can be replaced without interrupting the pneumatic circuit
- Manifold assembly permissible (minimum distance from coil to coil 5 mm)



General technical data		
Type of mounting		Via knurled nut
Mounting position		Any (can be rotated 360° on the armature tube)
Product weight	[g]	55

Materials	
Solenoid coil	Steel, copper, duroplast
Winding	Copper
Note on materials	RoHS compliant

Electrical data		
Electrical connection		3-pin
		Plug pins with connection pattern to Festo standard for MSSD-F
Max. tightening torque of plug socket	[Nm]	0.4
Min. pickup time	[ms]	10
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket

Characteristic coil data					
		Operating voltage			
		24 V DC	24 V AC	110 V AC	230 V AC
Power	[W]	4.5	–	–	–
Pick-up power, 50 Hz	[VA]	–	9	9	9
Holding power, 50 Hz	[VA]	–	7	7	7
Power factor cos(phi)		–	0.7	0.7	0.7
Frequency	[Hz]	–	50/60	50/60	50/60
Permissible frequency fluctuations	[%]	–	–5 / +5	–5 / +5	–5 / +5

Operating and environmental conditions					
		Operating voltage			
		24 V DC	24 V AC	110 V AC	230 V AC
Ambient temperature	[°C]	–5 ... +40		–5 ... +40	
CE marking (see declaration of conformity)[2]		–		To EU Low Voltage Directive[1]	

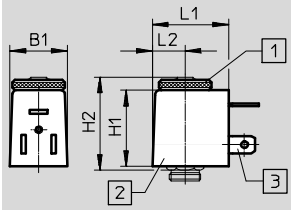
1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp ➔ Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the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

Solenoid coils MSF...-EX

Technical data

ATEX	
ATEX category for gas	II 3G
Type of ignition protection for gas	Ex nA IIC T4X Gc
ATEX category for dust	II 3D
Type of ignition protection for dust	Ex tc IIIC T130 °C X Dc IP65
Explosion ambient temperature [°C]	−5 ≤ Ta ≤ +40
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
Explosion protection certification outside the EU	EPL Gc (CN) EPL Dc (CN)

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



1 Retaining nut (tightening torque 0.4 Nm)

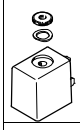
2 Solenoid coil
3 Plug pins for plug sockets MSSD-F

- Note

Can only be used on aluminium valves with valve body dimensions ≥ 26 x 16 x 14 mm

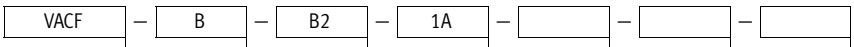
Type	B1	H1	H2	L1	L2
MSFG-...-EX	22	29	33.8	29.5	12.5
MSFW-...-EX					

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Explosion-proof, without plug socket	24 V DC	**536931**	**MSFG-24-EX**
		24 V AC	**536932**	**MSFW-24-50/60-EX**
		110 V AC	**536933**	**MSFW-110-50/60-EX**
		230 V AC	**536934**	**MSFW-230-50/60-EX**
Plug socket				
	For solenoid coils, cable connection with clamping screws		**34431**	**MSSD-F**

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-A-A1

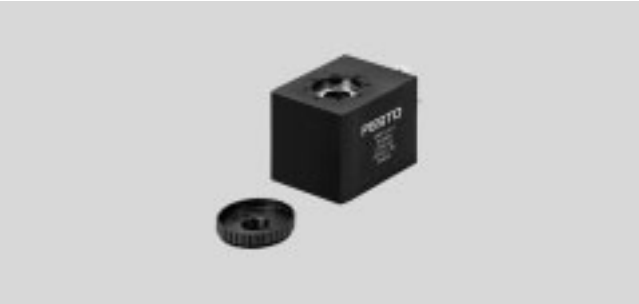
Technical data

FESTO

- Voltage
  12 … 48 V DC
  24 … 240 V AC

- Temperature range
  –20 … +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 EN 175301-803, type A
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
Power	[W]	2.8	2.6	2.8	–	–	–	–
Pick-up power, 50 Hz	[VA]	–	–	–	2.5	2.5	2.7	3.9
Holding power, 50 Hz	[VA]	–	–	–	1.7	1.7	1.9	2.8
Frequency	[Hz]	–	–	–	50/60	50/60	50/60	50/60

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

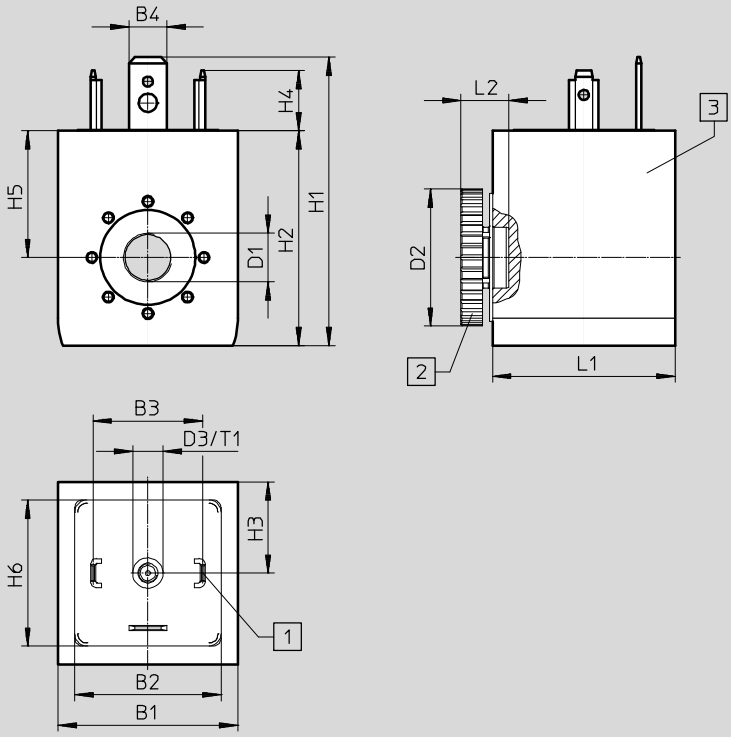
1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial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

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

Solenoid coils VACF-A-A1

Technical data

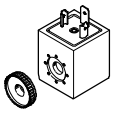
Dimensions Download CAD data ➔ **www.festo.com**



1 Plug pattern to EN 175301-803, type A
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-A-A1-...	29.5	24	18	6.3	8.2	22.5	M3	47.4	35.3	15	9.9	20.8	24	30	7.9	5

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type A	12 V DC	**8030821**	**VACF-A-A1-5**
		24 V DC	**8030822**	**VACF-A-A1-1**
		48 V DC	**8030823**	**VACF-A-A1-7**
		24 V AC	**8030824**	**VACF-A-A1-1A**
		48 V AC	**8030825**	**VACF-A-A1-7A**
		110/120 V AC	**8030826**	**VACF-A-A1-16B**
		230/240 V AC	**8030828**	**VACF-A-A1-3W**
Seal set				
	To achieve degree of protection IP67	For solenoid coil VACF	**8034611**	**VAMC-B10-A-B-S8**

Solenoid coils VACF-B-B2

Technical data

FESTO

- 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								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
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								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
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.

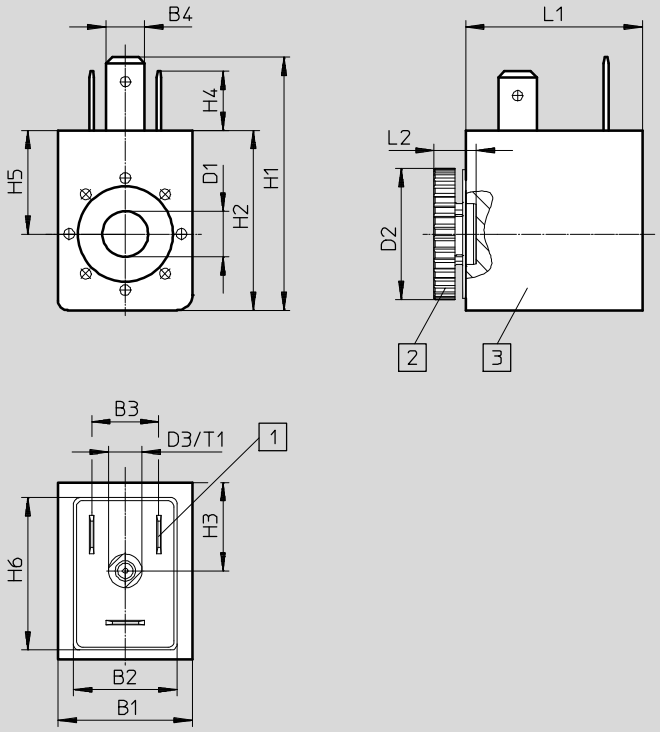
2) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp ➔ Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the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

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

Solenoid coils VACF-B-B2

Technical data

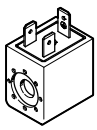
Dimensions Download CAD data ➔ **www.festo.com**



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 VACF-B-C1

Technical data

FESTO

- 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 EN 175301-803, type C
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
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								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
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-C1

Technical data

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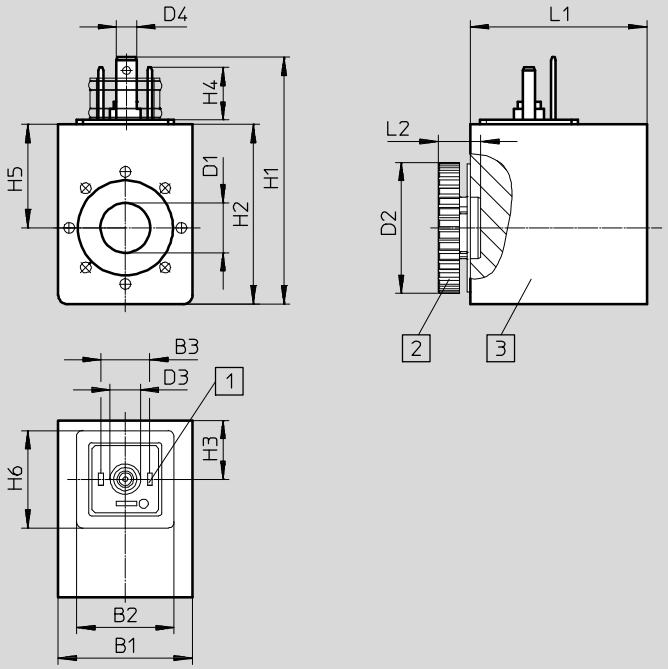
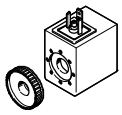


1 Plug pattern to EN 175301-803, type C
2 Knurled nut (seal set for solenoid coil)
3 Solenoid coil (can be rotated in increments of 45° on the armature tube, push on in any direction)

Type	B1	B2	B3	D1	D2	D3	D4	H1	H2	H3	H4	H5	H6	L1	L2
VACF-B-C1-...	22	16	8	8.2	21.5	27	3.3	40.5	29.5	9.7	8.6	17	16	29	6.9

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type C	12 V DC	**8030810**	**VACF-B-C1-5**
		24 V DC	**8030811**	**VACF-B-C1-1**
		48 V DC	**8030812**	**VACF-B-C1-7**
		24 V AC	**8030813**	**VACF-B-C1-1A**
		48 V AC	**8030814**	**VACF-B-C1-7A**
		110/120 V AC	**8030815**	**VACF-B-C1-16B**
		230/240 V AC	**8030817**	**VACF-B-C1-3W**
Seal set				
	To achieve degree of protection IP67	For solenoid coil VACF	**8034609**	**VAMC-B10-B-B-S8**

Solenoid coils VACF-B-K1

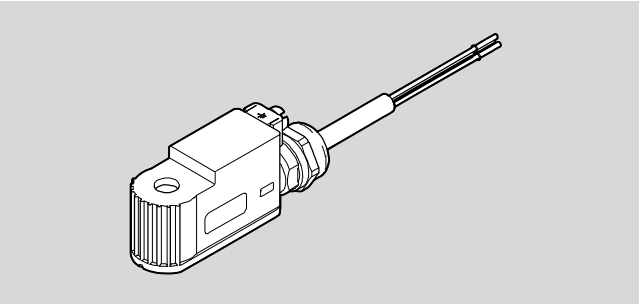
Technical data

FESTO

Voltage
24 V DC
24 ... 230 V AC

Temperature range
–30 ... +40 °C

- In accordance with ATEX directive
- 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]	170

Materials	
Solenoid coil	Aluminium, epoxy resin, copper, steel
Winding	Copper
Note on materials	RoHS compliant

Electrical data		
Electrical connection		Cable with open end, 3-wire
Nominal conductor cross section	[mm²]	0.75
Permissible voltage fluctuations	[%]	–10 / +10
Permissible frequency fluctuations	[%]	–5 / +5
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65

Characteristic coil data					
Operating voltage		24 V DC	24 V AC	110 V AC	230 V AC
Power	[W]	4.36	–	–	–
	[VA]	–	3.85	4.18	5
Frequency	[Hz]	–	50/60	50/60	50/60
Min. pickup time	[ms]	10	10	10	10

Operating and environmental conditions		
Ambient temperature	[°C]	–30 ... +40
CE marking (see declaration of conformity)[1)]		To EU Explosion Protection Directive (ATEX)

1) Additional information www.festo.com/sp ➔ Certificates.

New

Solenoid coils VACF-B-K1

Technical data

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex mb IIC T5 Gb
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex mb IIIC T95°C Db
Explosion ambient temperature [°C]	–30 ≤ Ta ≤ +40
Explosion protection certification outside the EU	EPL Db (IEC-EX)
	EPL Gb (IEC-EX)
Certificate issuing authority	IBExU 16 ATEX1146X
	IECEx IBE16.0024X

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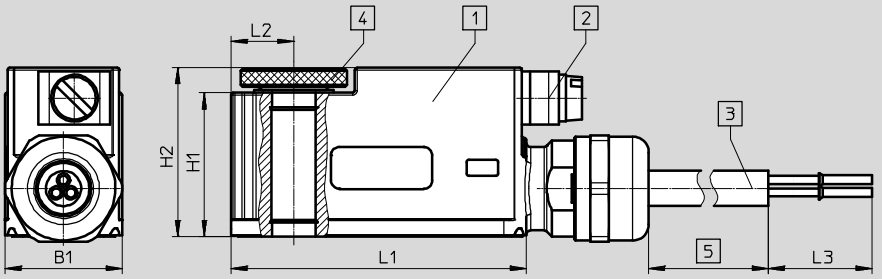
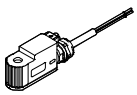


1 Solenoid coil
2 Equipotential bonding terminal
3 Heat-resistant rubber tubing
4 Knurled nut
5 Length depending on order

Type	B1	H1	H2	L1	L2	L3
VACF-B-K1-...	22	27	31.7	55.5	11.8	50

Ordering data

	Description	Operating voltage	Cable length	Part No.	Type
	Cable with open end, 3-wire	24 V DC	1 m	**8059804**	**VACF-B-K1-1-1-EX4-M**
			5 m	**8059805**	**VACF-B-K1-1-5-EX4-M**
			10 m	**8059806**	**VACF-B-K1-1-10-EX4-M**
			20 m	**8059807**	**VACF-B-K1-1-20-EX4-M**
		24 V AC	1 m	**8059808**	**VACF-B-K1-1A-1-EX4-M**
		110 V AC	1 m	**8059811**	**VACF-B-K1-16B-1-EX4-M**
			5 m	**8059812**	**VACF-B-K1-16B-5-EX4-M**
		230 V AC	1 m	**8059809**	**VACF-B-K1-3A-1-EX4-M**
			5 m	**8059810**	**VACF-B-K1-3A-5-EX4-M**

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

- Temperature range
  –20 … +60 °C

- 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		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.

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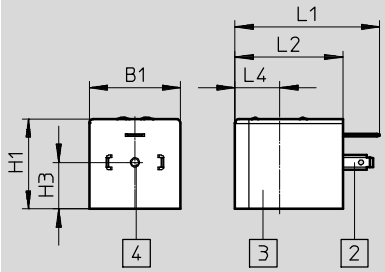
3) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils VACN-N

Technical data

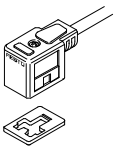
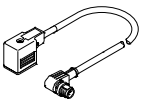
Dimensions Download CAD data ➔ **www.festo.com**



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

	Description		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**

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.

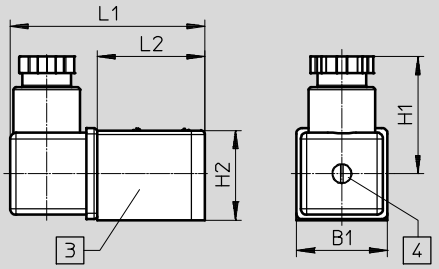
2) Additional information www.festo.com/sp ➔ Certificates.

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

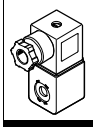
Dimensions Download CAD data ➔ **www.festo.com**



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

	Description		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-...-U4-M

Technical data

FESTO

FM APPROVED

- Encapsulated solenoid coil with insulating conduit connection
- Explosion protection certification "Class I", "Class II" and "Class III"
- FM 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]	207

Materials	
Housing	Steel, polymer
Winding	Copper
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Cable
Cable length	[m]	0.61
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Insulation class		H
Enamelled wire insulation class		H
Degree of protection to EN 60529		IP65

Characteristic coil data				
Nominal operating voltage	[V]	24 DC	110 AC	230 AC
Frequency	[Hz]	–	60	50
Power	[W]	4.6	–	–
Pick-up power	[VA]	–	10	11.5
Holding power	[VA]	–	6.8	8

Operating and environmental conditions				
Nominal operating voltage		24 V DC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 ... +60	–20 ... +60	
Corrosion resistance class CRC[1)]		2	2	
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.

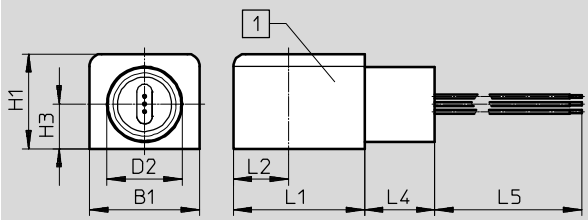
3) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils VACN-N-...-U4-M

Technical data

ATEX		
Type of ignition protection for gas	AEx m II T4	
	Ex m II T4	
Explosion ambient temperature [°C]	−20 ≤ Ta ≤ +60	
Explosion protection certification outside the EU	EPL Gb (US)	
	Class I, Div. 1 (US)	Class I, Div. 1 (CA)
	Class I, Div. 2 (US)	Class I, Div. 2 (CA)
	Class II, Div. 1 (US)	Class II, Div. 1 (CA)
	Class III, Div. 1 (US)	Class III, Div. 1 (CA)
Certificate issuing authority	CSA 265489	
	FM 3053936	

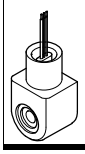
Dimensions Download CAD data ➔ **www.festo.com**



1 Solenoid coil

Type	B1	D2	H1	H3	L1	L2	L4	L5
VACN-N-K11-...	36	24.6	31	14.5	43	18	23	610

Ordering data

	Description		Part No.	Type
	Moulded-in cable	24 V DC	**8029146**	**VACN-N-K11-1-0.5-U4-M**
		110 V AC	**8029145**	**VACN-N-K11-16B-0.5-U4-M**
		230 V AC	**8029140**	**VACN-N-K11-3A-0.5-U4-M**

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

Technical data

- 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	2.1

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

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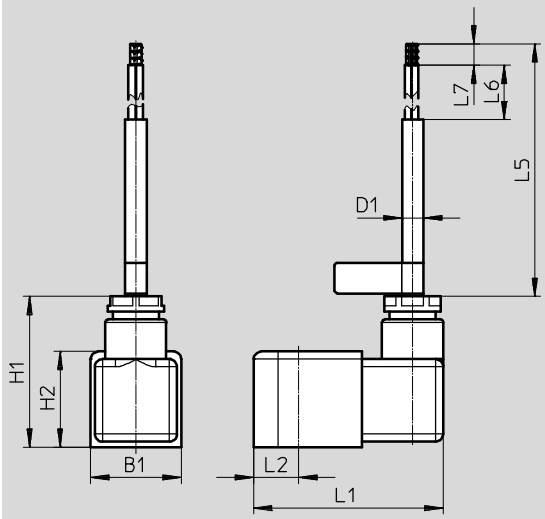
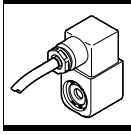


Type	B1	D1	H1	H2	L1	L2	L5	L6	L7
VACN-N-K1-...	29.7	7	49.3	31.3	67	14.8	3000	43	7

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

- 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
	[°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)
Certificate issuing authority		DNV 15.0188
		IECEx PTB 15.0013
		PTB 09 ATEX 2043

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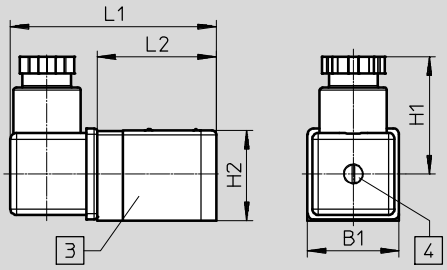
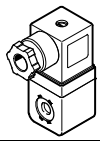


3 Solenoid coil
4 Mounting screw M3

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	24 V DC	**8029139**	**VACN-N-A1-1-EX4-A**

Solenoid coils VACC-S13

Type codes

Type	
VACC	Solenoid coil, C series

Solenoid coil type	
S13	Solenoid coil, for 13 mm armature tube

Power consumption	
11	1.1 W
18	1.8 W

Electrical connection	
A1	Connection pattern type A, to EN 175301
K4	Cable fitting, metric

Operating voltage	
1U	24 V DC and AC
2U	110 V DC and AC
3U	230 V DC and AC
27U	60 V DC and AC
1	24 V DC

Circuitry	
–	None
F	With fuse

ATEX certification EU	
–	None
EX4	ATEX category II 2GD

Type of ignition protection	
–	None
A	Intrinsically safe
ME	Moulded encapsulation, enhanced safety

Solenoid coils VACC-S13-18-A1

Technical data

FESTO

- Voltage
  24 V DC
  24 V AC/DC
  110 V AC/DC
  230 V AC/DC

Nominal power
2 watt at 24 V DC

- Temperature range
  –20 … +60 °C

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	210

Materials		
Housing		PA, UP
Note on materials		Contains paint-wetting impairment substances
		RoHS compliant

Electrical data		
Electrical connection		Plug pins, 3-pin, with connection pattern to EN 175301-803, type A
Permissible voltage fluctuations	[%]	–15 … 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data								
Nominal operating voltage		24 V DC	24 V AC/DC		110 V AC/DC		230 V AC/DC	
Frequency	[Hz]	–	40/65	–	40/65	–	40/65	–
Power	[W]	1.8	–	1.8	–	1.8	–	1.8
	[VA]	–	1.8	–	1.8	–	1.8	–

Operating and environmental conditions					
Nominal operating voltage		24 V DC	24 V AC/DC	110 V AC/DC	230 V AC/DC
Ambient temperature	[°C]	–20 … 60		–20 … 60	
Corrosion resistance class CRC[1)]		4		4	
CE marking (see declaration of conformity)[2)]		–		To EU Low Voltage Directive (only for alternating voltage AC)	

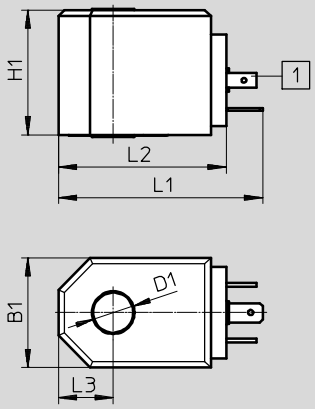
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S13-18-A1

Technical data

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



1 Plug pattern type A, to EN 175301-803

Type	B1	D1	H1	L1	L2	L3
VACC-S13-18-A1-...	36	13.1	41	67	55	18

Ordering data

	Description		Part No.	Type
	Plug connector type A, to EN 175301-803	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**

Solenoid coils VACC-S13-11-...-EX4A

Technical data

FESTO

- ⎓ - Voltage
24 V DC

Nominal power
1.1 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	330

Materials	
Housing	PA, UP
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Terminal box, cable entry thread metric, M20x1.5
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Maximum input power, Pi	[W]	1.2
Maximum input voltage, Ui	[V]	32
Maximum input current, Ii	[A]	0.2
Required current consumption, Imin	[mA]	16
Degree of protection to EN 60529		IP64
Insulation class		H

Characteristic coil data		
Nominal operating voltage	[V DC]	14 ... 32
Power	[W]	0.22 ... 1.1
Effective internal capacitance, Ci		Negligibly low
Effective internal inductance, Li		Negligibly low

Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE mark (see declaration of conformity)[3)]	To EU EMC Directive[2)]
	To EU Explosion Protection Directive (ATEX)

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

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.

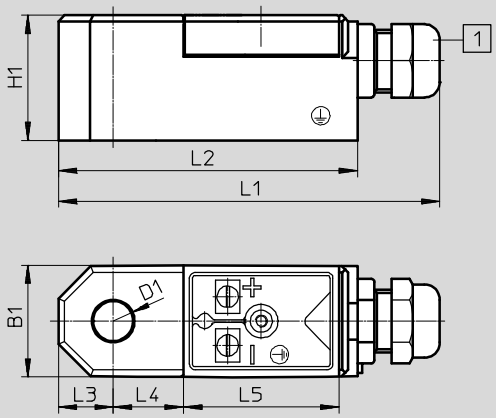
3) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils VACC-S13-11-...-EX4A

Technical data

ATEX	
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 T80°C,T95°C Db
Explosion ambient temperature	T5, T95°C: –30°C <= Ta <= +65°C
	T6, T80°C: –30°C <= Ta <= +50°C
Explosion protection certification outside the EU	EPL Gb (BR), EPL Gb (CN)
Certificate issuing authority	BVS15 ATEXE030X
	NEPSI GYJ111105
	TÜV 12.1949 X

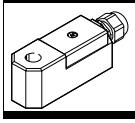
Dimensions Download CAD data ➔ **www.festo.com**



1 Terminal box, cable entry thread M20x1.5

Type	B1	D1	H1	L1	L2	L3	L4	L5
VACC-S13-11-K4-1-EX4A	37	13.1	41	131	98	18	23	51

Ordering data

	Description	Part No.	Type
	Terminal box, cable entry thread metric, M20x1.5	**562896**	**VACC-S13-11-K4-1-EX4A**

Solenoid coils VACC-S13-18-...-EX4ME

Technical data

FESTO

- 4 - Voltage
24 V AC/DC
60 V AC/DC
110 V AC/DC
230 V AC/DC

Nominal power
2 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	330

Materials	
Housing	PA, UP
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical		
Electrical connection		Terminal box, cable entry thread metric, M20x1.5
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Insulation class		H
Degree of protection to EN 60529		IP64 (IP65 with internal fuse protection)

Characteristic coil data											
Nominal operating voltage		24 V AC/DC		24 V AC/DC With fuse		60 V AC/DC		110 V AC/DC		230 V AC/DC	
Frequency	[Hz]	40/65	–	40/65	–	40/65	–	40/65	–	40/65	–
Power	[W]	–	1.8	–	1.8	–	1.8	–	1.8	–	1.8
	[VA]	1.8	–	1.8	–	1.8	–	1.8	–	1.8	–

Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

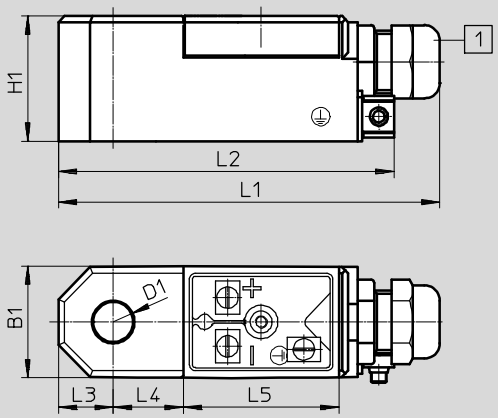
2) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils VACC-S13-18-...-EX4ME

Technical data

ATEX			
		Solenoid coil without internal fuse	Solenoid coil with internal fuse
ATEX category for gas		II 2G	II 2G
Type of ignition protection for gas		Ex e mb IIC T6, T5, T4 Gb	Ex e mb IIC T6 Gb
ATEX category for dust		II 2D	II 2D
Type of ignition protection for dust		ExtbIIICT85°C,T95°C,T130°C Db	Ex tb IIIC T70°C Db
Explosion ambient temperature	[°C]	T4, T130°C: -20°C <= Ta <= +60°C	–
		T5, T95°C: -20°C <= Ta <= +60°C	–
		T6, T80°C: -20°C <= Ta <= +50°C	T6, T70°C: -20°C <= Ta <= +40°C
Explosion protection certification outside the EU		EPL Db (BR)	–
		EPL Db (CN)	–
		EPL Db (IEC-EX)	EPL Db (IEC-EX)
		EPL Gb (BR)	–
		EPL Gb (CN)	–
		EPL Gb (IEC-EX)	EPL Gb (IEC-EX)
Certificate issuing authority		BVS15 ATEXE029X	BVS15 ATEXE029X
		IECEx BVS15.0075 X	–
		NEPSI GYJ111104X	–
		TÜV 12.1947 X	–

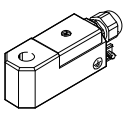
Dimensions Download CAD data ➔ **www.festo.com**



1 Terminal box, cable entry thread M20x1.5

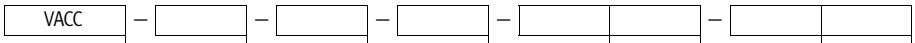
Type	B1	D1	H1	L1	L2	L3	L4	L5
VACC-S13-18-K4-...-EX4ME	37	13.1	41	125	98	18	23	51
VACC-S13-18-K4-27U-EX4ME					111			

Ordering data

	Description		Part No.	Type
	Terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	**562893**	**VACC-S13-18-K4-1U-EX4ME**
		24 V AC/DC With fuse	**570784**	**VACC-S13-18-K4-1UF-EX4ME**
		60 V AC/DC	**8040578**	**VACC-S13-18-K4-27U-EX4ME**
		110 V AC/DC	**562894**	**VACC-S13-18-K4-2U-EX4ME**
		230 V AC/DC	**562895**	**VACC-S13-18-K4-3U-EX4ME**

Solenoid coils VACC-S18

Type codes



Type	
VACC	Solenoid coil, C series

Solenoid coil type	
S18	Solenoid coil, for 18 mm armature tube

Power consumption	
18	1.8 W
25	2.5 W
35	3.5 W
70	7 W
120	12 W

Electrical connection	
A1	Connection pattern type A, to EN 175301
K4	Cable fitting, metric
K5	Cable fitting NPT

Operating voltage	
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

Circuitry	
–	None
F	With fuse

Certification	
–	Without certification
EX4	ATEX category II 2GD
U2	Hazardous environment for USA and Canada (to NEC 500) cULus

Type of ignition protection	
–	None
D	Flameproof enclosure
ME	Moulded encapsulation, enhanced safety

Solenoid coils VACC-S18-35-A1

Technical data

FESTO

- Voltage
  24 V DC
  24 V AC
  110 V AC
  230 V AC
- Temperature range
  –20 … +60 °C

Nominal power
3.6 watt at 24 V DC

General technical data					
Nominal operating voltage	[V]	24 V DC	24 V AC	110 V AC	230 V AC
Type of mounting		Via knurled nut			
Type of actuation		Electrical			
Mounting position		Any			
Product weight	[g]	530			580

Materials	
Solenoid coil	Steel, PA
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Plug pins, 3-pin, with connection pattern type A, to EN 175301-803
Permissible voltage fluctuations	[%]	–15 … 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data					
Nominal operating voltage		24 V DC	24 V AC	110 V AC	230 V AC
Frequency	[Hz]	–	50/60	50/60	50/60
Power	[W]	3.5	–	–	–
	[VA]	–	3.5	3.5	3.5

Operating and environmental conditions					
Nominal operating voltage		24 V DC	24 V AC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 … 60		–20 … 60	
Corrosion resistance class CRC[1)]		4		4	
CE marking (see declaration of conformity)[2)]		–		To EU Low Voltage Directive	

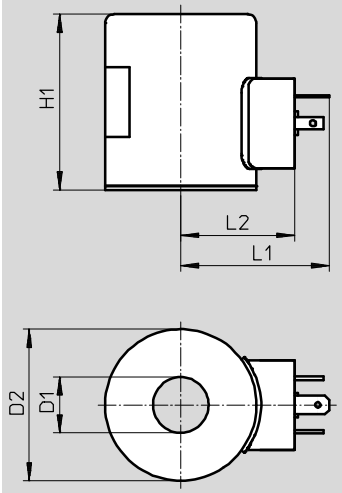
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S18-35-A1

Technical data

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



Type	D1 ∅	D2 ∅	H1	L1	L2
VACC-S18-35-A1-1	18.2	50	58	50	38
VACC-S18-35-A1-1A					
VACC-S18-35-A1-2A					
VACC-S18-35-A1-3A					

Ordering data

	Description		Part No.	Type
	Plug connector type A, to EN 175301-803	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**

Solenoid coils VACC-S18-120-A1

Technical data

FESTO

- Voltage
  24 V DC
  24 V AC
  110 V AC
  230 V AC
- Temperature range
  –20 … +60 °C

Nominal power
12 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	530

Materials	
Housing	PA, steel
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Plug pins, 3-pin, with connection pattern to EN 175301-803, type A
Permissible voltage fluctuations	[%]	–15 … 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data					
Nominal operating voltage		24 V DC	24 V AC	110 V AC	230 V AC
Frequency	[Hz]	–	50/60	50/60	50/60
Power	[W]	12.0	–	–	–
	[VA]	–	12.0	12.0	12.0

Operating and environmental conditions					
Nominal operating voltage		24 V DC	24 V AC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 … 60		–20 … 60	
Corrosion resistance class CRC[1)]		4		4	
CE marking (see declaration of conformity)[2)]		–		To EU Low Voltage Directive	

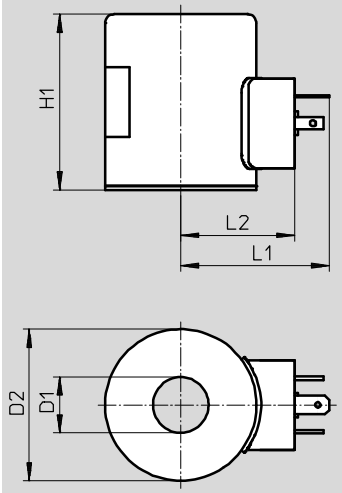
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S18-120-A1

Technical data

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



Type	D1 ∅	D2 ∅	H1	L1	L2
VACC-S18-120-A1-1	18.2	50	58	50	38
VACC-S18-120-A1-1A					
VACC-S18-120-A1-2A					
VACC-S18-120-A1-3A					

Ordering data

	Description		Part No.	Type
	Plug connector type A, to EN 175301-803	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**

Solenoid coils VACC-S18-18-...-EX4D

Technical data

FESTO

- Voltage
  230 V AC
- Temperature range
  –20 ... +90 °C

Nominal power
3 watt at 230 V AC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	1700

Materials		
Housing		Wrought aluminium alloy, grey cast iron
Note on materials		Contains paint-wetting impairment substances
		RoHS compliant

Electrical data		
Electrical connection	K4	Terminal box, cable entry thread metric, M20x1.5
	K5	Terminal box, cable entry thread NPT, 1/2 NPT
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data		
Nominal operating voltage	[V AC]	230
Frequency	[Hz]	50/60
Power	[VA]	1.8

ATEX		
ATEX category for gas		II 2G
Type of ignition protection for gas		Ex d IIC T6, T5, T4 Gb
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex tb IIIC T80°C,T95°C,T130°C Db
Explosion ambient temperature	[°C]	T4,T130°C: -50°C <= Ta <= +90°C
		T5,T95°C: -50°C <= Ta <= +55°C
		T6,T80°C: -50°C <= Ta <= +40°C
Explosion protection certification outside the EU		EPL Db (BR), EPL Db (CN), EPL Db (IEC-EX), EPL Gb (BR), EPL Gb (CN), EPL Gb (IEC-EX)
Certificate issuing authority		NEPSI GYJ111107
		BVS15ATEXE135
		IECExBVS.15.0116
		TÜV 12.1948

Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

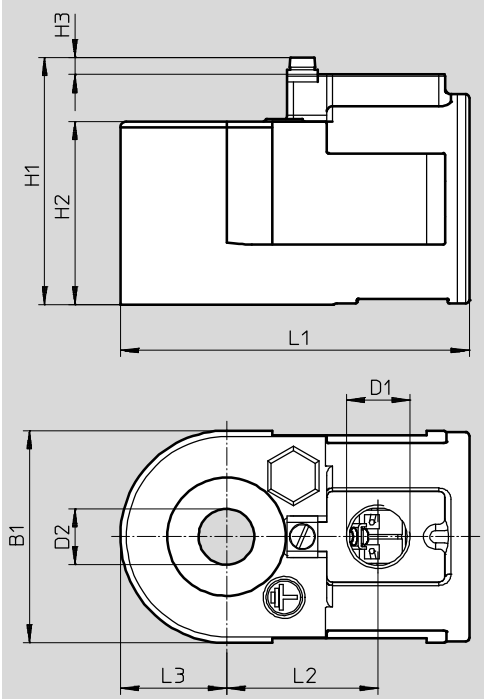
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S18-18-...-EX4D

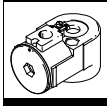
Technical data

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



Type	B1	D1	D2 ∅	H1	H2	H3	L1	L2	L3
VACC-S18-18-K4-3A-EX4D	70	M20x1.5	18.2	82	60.5	6	115	50	35
VACC-S18-18-K5-3A-EX4D		1/2 NPT							

Ordering data

	Description	Part No.	Type
	Terminal box, cable fitting metric, M20x1.5	**3504741**	**VACC-S18-18-K4-3A-EX4D**
	Terminal box, cable fitting NPT, 1/2 NPT	**3546734**	**VACC-S18-18-K5-3A-EX4D**

Solenoid coils VACC-S18-25-...-EX4D

Technical data

FESTO

- Voltage
  24 V AC/DC
  110 V AC/DC
  230 V AC/DC
- Temperature range
  –20 ... +60 °C

Nominal power
2.5 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	1700

Materials	
Housing	Wrought aluminium alloy, grey cast iron
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection	K4	Terminal box, cable entry thread metric, M20x1.5
	K5	Terminal box, cable entry thread NPT, 1/2 NPT
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65
Insulation class		H

Characteristic coil data				
Nominal operating voltage		24 V AC/DC	110 V AC/DC	230 V AC/DC
Frequency	[Hz]	40/65	40/65	40/65
Power	[W]	2.5	2.5	2.5
	[VA]	2.5	2.5	2.5

ATEX		
ATEX category for gas		II 2G
Type of ignition protection for gas		Ex d IIC T6, T5, T4 Gb
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex tb IIIC T80°C,T95°C,T130°C Db
Explosion ambient temperature	[°C]	T4,T130°C: -50°C <= Ta <= +90°C
		T5,T95°C: -50°C <= Ta <= +55°C
		T6,T80°C: -50°C <= Ta <= +40°C
Explosion protection certification outside the EU		EPL Gb (BR), EPL Gb (CN)
Certificate issuing authority		NEPSI GYJ111107
		PTB 08 ATEX 1086
		TÜV 12.1948

Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

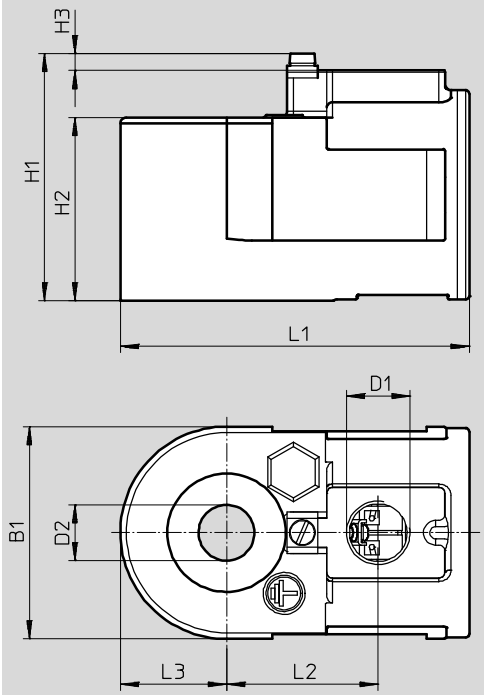
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S18-25-...-EX4D

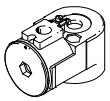
Technical data

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



Type	B1	D1	D2 ∅	H1	H2	H3	L1	L2	L3
VACC-S18-25-K4-...U-EX4D	70	M20x1.5	18.2	82	60.5	6	115	50	35
VACC-S18-25-K5-...U-EX4D		1/2 NPT							

Ordering data

	Description		Part No.	Type
	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**
	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**

Solenoid coils VACC-S18-70-...-EX4D

Technical data

FESTO

- Voltage
  24 V AC/DC
  48 V AC/DC
  110 V AC/DC
  120 V AC/DC
  230 V AC/DC
- Temperature range
  –20 ... +90 °C

Nominal power
7 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	1700

Materials	
Housing	Wrought aluminium alloy, grey cast iron
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection	K4	Terminal box, cable entry thread metric, M20x1.5
	K5	Terminal box, cable entry thread NPT, 1/2 NPT
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65
Insulation class		H

Characteristic coil data						
Nominal operating voltage		24 V AC/DC	48 V AC/DC	110 V AC/DC	120 V AC/DC	230 V AC/DC
Frequency	[Hz]	40/65	40/65	40/65	40/65	40/65
Power	[W]	7	7	7	7	7
	[VA]	7	7	7	7	7

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex d IIC T6, T5, T4 Gb
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex tb IIIC T80°C,T95°C,T130°C Db
Explosion ambient temperature [°C]	T4,T130°C: -50°C <= Ta <= +90°C
	T5,T95°C: -50°C <= Ta <= +55°C
	T6,T80°C: -50°C <= Ta <= +40°C
Explosion protection certification outside the EU	EPL Db (BR), EPL Db (CN), EPL Db (IEC-EX), EPL Gb (BR), EPL Gb (CN), EPL Gb (IEC-EX)
Certificate issuing authority	NEPSI GYJ111107
	BVS15ATEXE135
	IECExBVS.15.0116
	TÜV 12.1948

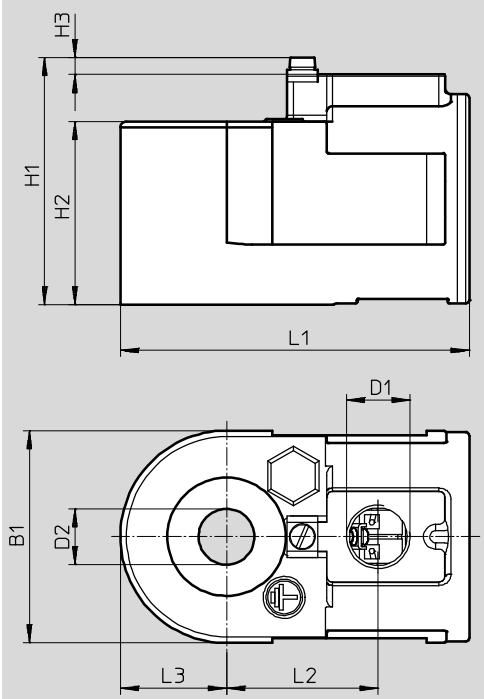
Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.
2) Additional information www.festo.com/sp → Certificates.

Solenoid coils VACC-S18-70-...-EX4D

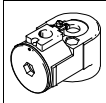
Technical data

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



Type	B1	D1	D2 ∅	H1	H2	H3	L1	L2	L3
VACC-S18-70-K4-...-EX4D	70	M20x1.5	18.2	82	60.5	6	115	50	35
VACC-S18-70-K5-...-EX4D	70	1/2 NPT	18.2	82	60.5	6	115	50	35

Ordering data

	Description		Part No.	Type
	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**
	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**

Solenoid coils VACC-S18-35-...-EX4ME

Technical data

FESTO

- 4 - Voltage
24 V AC/DC
110 V AC/DC
230 V AC/DC

Nominal power
3.4 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	580

Materials	
Housing	PA, steel
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Terminal box, cable entry thread metric, M20x1.5
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data					
Nominal operating voltage		24 V AC/DC	24 V AC/DC With fuse	110 V AC/DC	230 V AC/DC
Frequency	[Hz]	50/60	50/60	50/60	50/60
Power	[W]	3.5	3.5	3.5	3.5
	[VA]	3.5	3.5	3.5	3.5

ATEX	
ATEX category for gas	II 2G
Type of ignition protection for gas	Ex e mb II T6, T5
ATEX category for dust	II 2D
Type of ignition protection for dust	Ex tD A21 IP65 T80°C, T95°C
Explosion ambient temperature [°C]	T5, T95°C: -20°C <= Ta <= +60°C
	T6, T80°C: -20°C <= Ta <= +50°C
Explosion protection certification outside the EU	EPL Db (BR), EPL Db (CN), EPL Gb (BR), EPL Gb (CN)
Certificate issuing authority	NEPSI GYJ111106X
	PTB 08 ATEX 2033 X
	TÜV 12.1946 X

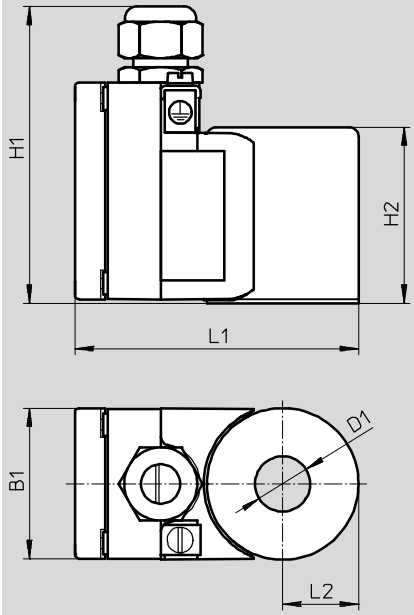
Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.
2) Additional information www.festo.com/sp → Certificates.

Solenoid coils VACC-S18-35-...-EX4ME

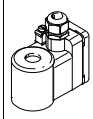
Technical data

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



Type	B1	D1 ∅	H1	H2	L1	L2
VACC-S18-35-K4-...-EX4ME	50	18.2	100	58	95	25

Ordering data

	Description		Part No.	Type
	Terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	**562897**	**VACC-S18-35-K4-1U-EX4ME**
		24 V AC/DC With fuse	**570785**	**VACC-S18-35-K4-1UF-EX4ME**
		110 V AC/DC	**562898**	**VACC-S18-35-K4-2U-EX4ME**
		230 V AC/DC	**562899**	**VACC-S18-35-K4-3U-EX4ME**

Solenoid coils VACC-S18-120-...-EX4ME

Technical data

FESTO

-4- Voltage
24 V AC/DC
48 V DC
60 V DC
110 V AC/DC
230 V AC/DC

Nominal power
12.0 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	580

Materials		
Housing		PA, steel
Note on materials		Contains paint-wetting impairment substances
		RoHS compliant

Electrical data		
Electrical connection		Terminal box, cable entry thread metric, M20x1.5
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data							
Nominal operating voltage		24 V AC/DC	24 V AC/DC With fuse	48 V AC/DC	60 V AC/DC	110 V AC/DC	230 V AC/DC
Frequency	[Hz]	50/60	50/60	–	–	50/60	50/60
Power	[W]	12	12	12	12	12	12
	[VA]	12	12	–	–	12	12

ATEX		
ATEX category gas		II 2G
Type of ignition protection for gas		Ex e mb II T4
ATEX category for dust		II 2D
Type of ignition protection for dust		Ex tD A21 IP65 T130°C
Explosion ambient temperature	[°C]	T4, T130°C: -20°C = Ta = +40°C
Explosion protection certification outside the EU		EPL Db (BR), EPL Db (CN), EPL Gb (BR), EPL Gb (CN)
Certificate issuing authority		NEPSI GYJ111106X
		PTB 08 ATEX 2033 X
		TÜV 12.1946 X

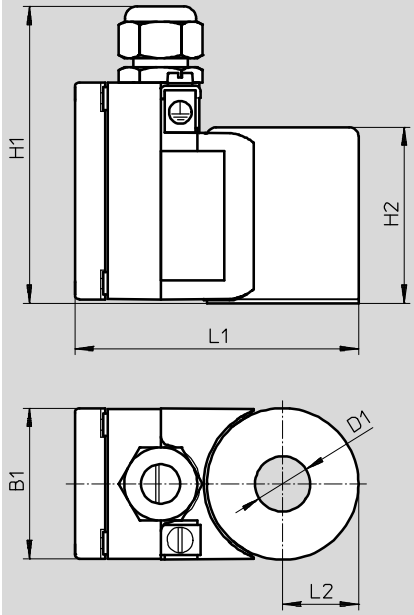
Operating and environmental conditions	
Corrosion resistance class CRC[1)]	4
CE marking (see declaration of conformity)[2)]	To EU Explosion Protection Directive (ATEX)

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.
2) Additional information www.festo.com/sp → Certificates.

Solenoid coils VACC-S18-120-...-EX4ME

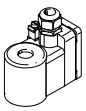
Technical data

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



Type	B1	D1 ∅	H1	H2	L1	L2
VACC-S18-120-K4-...-EX4ME	50	18.2	100	58	95	25

Ordering data

	Description		Part No.	Type
	Terminal box, cable entry thread metric, M20x1.5	24 V AC/DC	**3536527**	**VACC-S18-120-K4-1U-EX4ME**
		24 V AC/DC With fuse	**3535840**	**VACC-S18-120-K4-1UF-EX4ME**
		48 V DC	**3536573**	**VACC-S18-120-K4-7-EX4ME**
		60 V DC	**3536569**	**VACC-S18-120-K4-27-EX4ME**
		110 V AC/DC	**3536565**	**VACC-S18-120-K4-2U-EX4ME**
		230 V AC/DC	**3536568**	**VACC-S18-120-K4-3U-EX4ME**

Solenoid coils VACC-S18-70-...-U2D

Technical data

FESTO

-4- Voltage
24 V DC
48 V DC
125 V DC
220 V DC

Nominal power
7.0 watt at 24 V DC

General technical data		
Type of mounting		Via knurled nut
Type of actuation		Electrical
Mounting position		Any
Product weight	[g]	1700

Materials	
Housing	Grey cast iron, wrought aluminium alloy
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Terminal box, cable entry thread 1/2 NPT
Permissible voltage fluctuations	[%]	–15 ... 10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data					
Nominal operating voltage		24 V DC	48 V DC	125 V DC	220 V DC
Power	[W]	7.0	7.0	7.0	7.0

Operating and environmental conditions					
Nominal operating voltage		24 V DC	48 V DC	125 V DC	220 V DC
Corrosion resistance class CRC[1)]		4		4	
CE marking (see declaration of conformity)[2)]		–		To EU Low Voltage Directive	

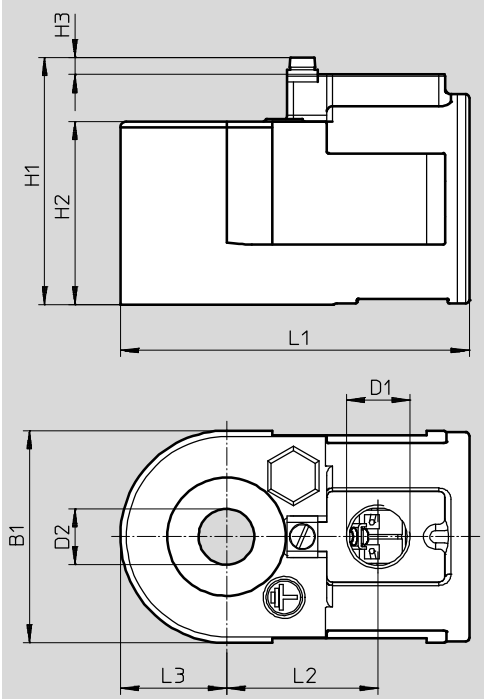
1) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔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

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

Solenoid coils VACC-S18-70-...-U2D

Technical data

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



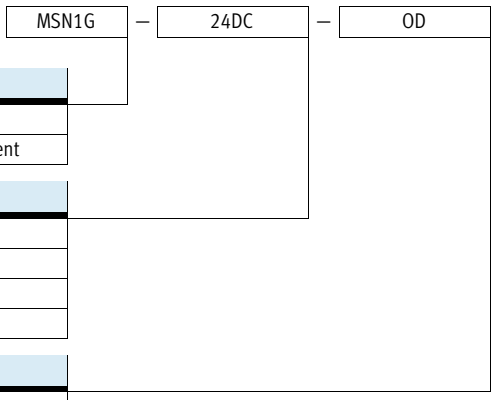
Type	B1	D1	D2 ∅	H1	H2	H3	L1	L2	L3
VACC-S18-70-K5-...-U2D	70	1/2 NPT	18.2	82	60.5	6	115	50	35

Ordering data

	Description		Part No.	Type
	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**

Solenoid coils MSN1

Type codes



Type	
MSN1G	N1 solenoid coil, for direct current
MSN1W	N1 solenoid coil, for alternating current

Operating voltage	
24DC	24 V DC
24AC/12DC	12 V DC/24 V AC
110AC	110 V AC
230AC	230 V AC

Scope of delivery	
OD	Without plug socket
–	Without plug socket

Solenoid coils MSN1

Technical data

FESTO

- Voltage
  12 V DC
  24 V DC
  24 … 230 V AC

- Temperature range
  –10 … +50 °C

- Can be replaced without interrupting the pneumatic circuit
- Connection pattern to EN 175301-803, type A
- Free of copper, PTFE and silicone

General technical data		
Type of mounting		Clamped using retaining clamp
Mounting position		Any (can be rotated 360° on the armature tube)
Product weight	[g]	80

Materials	
Housing	PA
Pin contact	Steel
Winding	Copper
Note on materials	Free of copper and PTFE

Electrical data							
Operating voltage		12 V DC	24 V DC	24 V AC	110 V AC	120 V AC	230 V AC
Electrical connection		Plug pins, 3-pin, with connection pattern to EN 175301-803, type A					
		Clip-on	–	Clip-on	–	–	–
Min. pickup time	[ms]	10	10	10			10
Permissible voltage fluctuations	[%]	–15 / +10	–15 / +10	At 50 Hz: –10 / +10 At 60 Hz: –10 / +20			–10 / +10
Duty cycle	[%]	100	100	100			100
Degree of protection to EN 60529		IP65 with plug socket		IP65 with plug socket			

Characteristic coil data											
Operating voltage		12 V DC	24 V DC	24 V AC		110 V AC		120 V AC	230 V AC		
Power	[W]	5	2.5	–		–		–	–		
Pick-up power, 50 Hz	[VA]	–	–	7.5	5	7.5	5	5	7.5	5	
Holding power, 50 Hz	[VA]	–	–	5	3.7	5	3.7	3.7	5	3.7	
Power factor cos(phi)		–	–	0.7		0.7		0.7	0.7		
Frequency	[Hz]	–	–	50	60	50	60	60	50	60	

Operating and environmental conditions							
Operating voltage		12 V DC	24 V DC	24 V AC	110 V AC	120 V AC	230 V AC
Ambient temperature	[°C]	–10 … +50	–10 … +50	–10 … +50	–10 … +50		
Temperature of medium	[°C]	–10 … +50	–10 … +50	–10 … +50	–10 … +50		
CE mark (see declaration of conformity)[1)]		–	–	–	To EU Low Voltage Directive		
Approval certificate		–	c UL us - Recognised (OL)	–	Germanischer Lloyd		

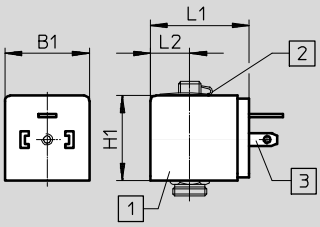
1) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils MSN1

Technical data

FESTO

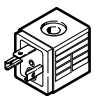
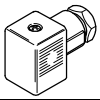
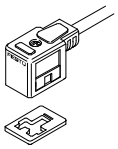
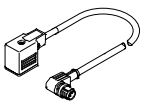
Dimensions Download CAD data ➔ **www.festo.com**



1 Solenoid coil (can be rotated 360° on the armature tube)
2 Safety clip
3 Plug pins with connection pattern to EN 175301-803, type A

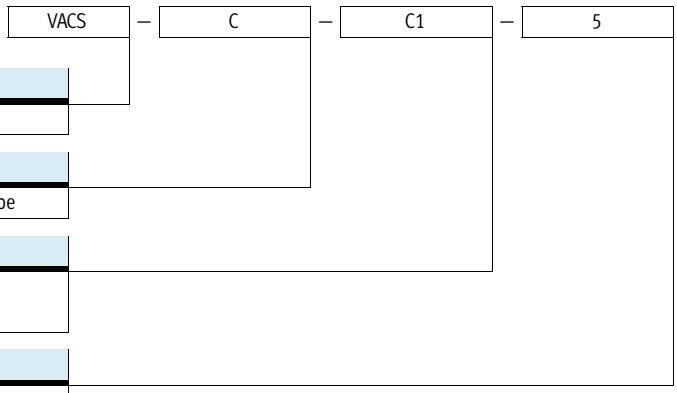
Type	B1	H1	L1	L2
MSN1...	30	30	35.5	14.5

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type A	24 V DC	**123060**	**MSN1G-24DC-OD**
		12 V DC, 24 V AC	**170152**	**MSN1W-24AC/12DC**
		110 V AC, 120 V AC	**123061**	**MSN1W-110AC-OD**
		230 V AC	**123062**	**MSN1W-230AC-OD**
Plug socket				
	Cable connection using clamping screws		**34583**	**MSSD-C**
	Cable connection using insulation displacement technology		**192748**	**MSSD-C-S-M16**
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 up to 240 V	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 up to 240 V	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 12 ... 24 V DC		**19145**	**MC-LD-12-24DC**
	Operating voltage 230 V DC/V AC		**19146**	**MC-LD-230AC**
Inscription label				
	Scope of delivery: 35 labels in frames		**33362**	**KMC/F/V-BZ-35X**

Solenoid coils VACS

Type codes



Type	
VACS	Solenoid coil, S series

Solenoid coil type	
C	Width 18 mm, for 8 mm armature tube

Electrical connection	
C1	Connection pattern type C, to EN 175301

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
3W	230/240 V AC, 50/60 Hz

Solenoid coils VACS

Technical data

FESTO

- Voltage
  12 … 48 V DC
  24 … 240 V AC

- Temperature range
  –10 … +50 °C

- In accordance with VDE regulation 0580, insulation class H
- Connection pattern to EN 175301-803, type C
- 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 EN 175301-803, type C
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket
Insulation class		H

Characteristic coil data								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
Power	[W]	2.6	2.6	2.4	–	–	–	–
Pick-up power, 50 Hz	[VA]	–	–	–	2.5	2.5	2.3	3.0
Holding power, 50 Hz	[VA]	–	–	–	1.8	1.9	1.7	2.3
Frequency	[Hz]	–	–	–	50/60	50/60	50/60	50/60
Surge resistance	[kV]	–	–	–	–	–	2.5	4

Operating and environmental conditions								
Operating voltage		12 V DC	24 V DC	48 V DC	24 V AC	48 V AC	110/120 V AC	230/240 V AC
Ambient temperature	[°C]	–10 … +50					–10 … +50	
Corrosion resistance class CRC[1)]		2					2	
Degree of contamination		–					3	
CE marking (see declaration of conformity)[2)]		–					To EU Low Voltage Directive	
Certification		c UL us - Recognized (OL)		–	c UL us - Recognized (OL)	–	–	

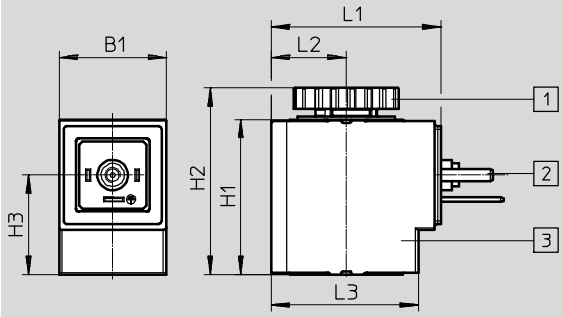
1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial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

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

Solenoid coils VACS

Technical data

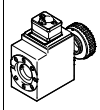
Dimensions Download CAD data ➔ **www.festo.com**



1 Knurled nut (seal set for solenoid coil)
2 Plug pattern to EN 175301-803, type C
3 Solenoid coil (can be rotated in increments of 45° on the armature tube, push on in any direction)

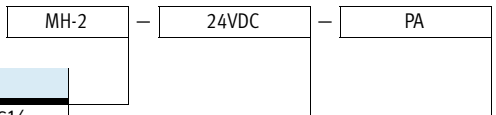
Type	B1	H1	H2	H3	L1	L2	L3
VACS-C-C1-...	17.6	25.4	30.6	16.3	27.8	12.3	24.1

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type C	12 V DC	**8025331**	**VACS-C-C1-5**
		24 V DC	**8025330**	**VACS-C-C1-1**
		48 V DC	**8025336**	**VACS-C-C1-7**
		24 V AC	**8025335**	**VACS-C-C1-1A**
		48 V AC	**8025337**	**VACS-C-C1-7A**
		110/120 V AC	**8025334**	**VACS-C-C1-16B**
		230/240 V AC	**8025338**	**VACS-C-C1-3W**
Seal set				
	To achieve degree of protection IP67		**2643771**	**VAMC-B10-C-B-S8**

Solenoid coils MH-2

Type codes



Type	
MH-2	Solenoid coil with lock nut (hex nut) G1⁄8

Operating voltage	
24VDC	24 V DC
110VAC	110 V AC
230VAC	230 V AC

Electrical connection	
PA	Connection pattern to EN 175301-803, type A

Solenoid coils MH-2

Technical data

FESTO

- Voltage
  24 V DC
  110, 230 V AC

- Temperature range
  –20 ... +50 °C

- Can be replaced without interrupting the pneumatic circuit
- Connection pattern to EN 175301-803, type A

General technical data		
Type of mounting		Via lock nut
Max. tightening torque of fitting	[Nm]	2
Mounting position		Any
Product weight	[g]	150

Materials	
Solenoid coil	Duroplast, copper, steel
Winding	Copper
Note on materials	Contains paint-wetting impairment substances

Electrical data		
Electrical connection		Plug pins with connection pattern to EN 175301-803, type A
Min. pickup time	[ms]	12
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket

Characteristic coil data				
Operating voltage		24 V DC	110 V AC	230 V AC
Power	[W]	7.9	–	–
	[VA]	–	14	14
Power factor cos(phi)		–	0.7	0.7
Frequency	[Hz]	–	50/60	50/60
Permissible frequency fluctuations	[%]	–10 / +10	–10 / +10	–10 / +10

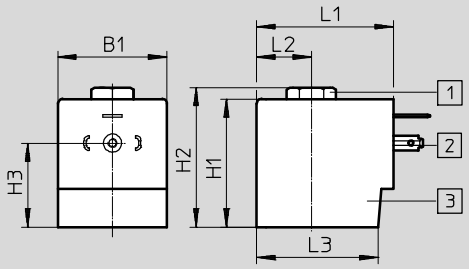
Operating and environmental conditions				
Operating voltage		24 V DC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 ... 50	–20 ... 50	
CE mark (see declaration of conformity)[1)]		–	To EU Low Voltage Directive	

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

Solenoid coils MH-2

Technical data

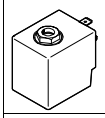
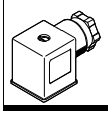
Dimensions Download CAD data ➔ **www.festo.com**



1 Lock nut (hex nut) G1⁄8
2 Plug pattern to EN 175301-803, type A
3 Solenoid coil

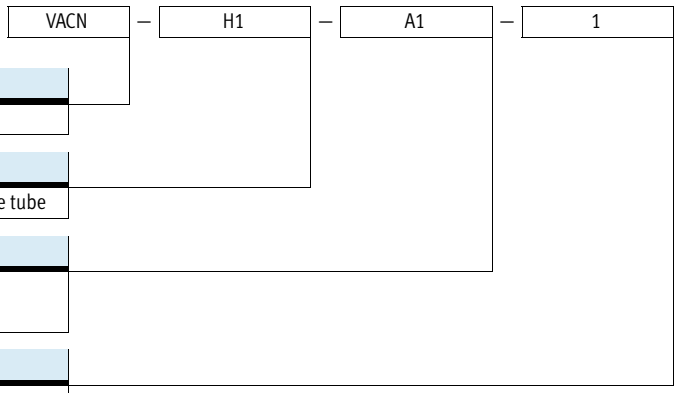
Type	B1	H1	H2	H3	L1	L2	L3
MH-2-...	35.8	42.1	45.9	27.6	45.5	18	39.8

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type A	24 V DC	**549906**	**MH-2-24VDC-PA**
		110 V AC	**549907**	**MH-2-110VAC-PA**
		230 V AC	**549908**	**MH-2-230VAC-PA**
Plug socket				
	3-pin, square design, connection pattern to EN 175301-803, type A		**550067**	**MSSD-N**

Solenoid coils VACN-H1

Type codes



Type	
VACN	Solenoid coil, N series

Solenoid coil type	
H1	H1 solenoid coil, for 14 mm armature tube

Electrical connection	
A1	Connection pattern type A, to EN 175301

Operating voltage	
1	24 V DC
2A	110 V AC, 50/60 Hz
3A	230 V AC, 50/60 Hz

Solenoid coils VACN-H1

Technical data

FESTO

- Voltage
  24 V DC
  110, 240 V AC

- Temperature range
  –20 ... +50 °C

- Can be replaced without interrupting the pneumatic circuit

General technical data		
Type of mounting		Via lock nut
Mounting position		Any (can be rotated 360° on the armature tube)
Product weight	[g]	150

Materials	
Solenoid coil	Copper, steel, thermoplastic
Winding	Copper
Note on materials	Contains paint-wetting impairment substances
	RoHS compliant

Electrical data		
Electrical connection		Plug pins, 3-pin, with connection pattern to EN 175301-803, type A
Max. tightening torque of fitting	[Nm]	2
Min. pickup time	[ms]	12
Permissible voltage fluctuations	[%]	–10 / +10
Permissible frequency fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket

Characteristic coil data				
Operating voltage		24 V DC	110 V AC	230 V AC
Power	[W]	11.9	–	–
Pick-up power	[VA]	–	36	36
Holding power	[VA]	–	21.4	21.8
Power factor cos(phi)		–	0.7	0.7
Frequency	[Hz]	–	50	50/60

Operating and environmental conditions				
Operating voltage		24 V DC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 ... +50	–20 ... +50	
	[°C]	–20 ... +60 (with limited duty cycle)	–20 ... +60 (with limited duty cycle)	
Corrosion resistance class CRC[1)]		4	4	
Degree of contamination		–	3	
CE marking (see declaration of conformity)[2)]		–	To EU Low Voltage Directive	

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, for instance in the chemical or food industries. These applications may need to be supported by special tests (➔ also FN 940082) using appropriate media.

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

Solenoid coils VACN-H1

Technical data

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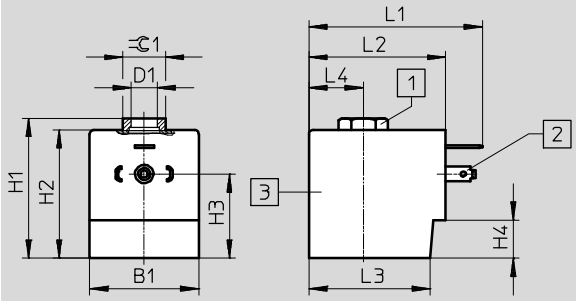
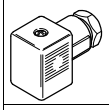
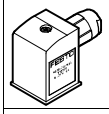
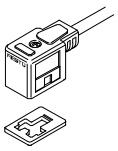
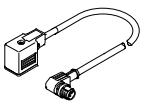
Dimensions Download CAD data ➔ **www.festo.com**



1 Hex nut G1⁄8
2 Plug pattern to EN 175301-803, type A
3 Solenoid coil

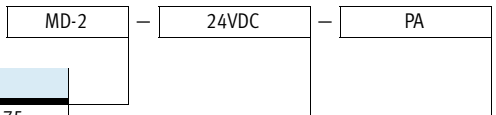
Type	B1	D1	H1	H2	H3	H4	L1	L2	L3	L4	⌀1
VACN-H1-A1-...	35.8	G1/8	45.9	42.1	27.6	12.5	57	45	39.8	17.9	14

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type A	24 V DC	**8022877**	**VACN-H1-A1-1**
		110 V AC	**8022878**	**VACN-H1-A1-2A**
		230 V AC	**8022879**	**VACN-H1-A1-3A**
Plug socket				
	Cable connection using clamping screws		**34583**	**MSSD-C**
	Cable connection using insulation displacement technology		**192748**	**MSSD-C-S-M16**
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 up to 240 V	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 up to 240 V	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**

Solenoid coils MD-2

Type codes



Type	
MD-2	Solenoid coil with knurled nut M8x0.75

Operating voltage	
24VDC	24 V DC
110VAC	110 V AC
230VAC	230 V AC

Electrical connection	
PA	Connection pattern to EN 175301-803, type A

Solenoid coils MD-2

Technical data

FESTO

- Voltage
  24 V DC
  110, 230 V AC

- Temperature range
  –20 … +50 °C

- Can be replaced without interrupting the pneumatic circuit
- Connection pattern to EN 175301-803, type A

General technical data		
Type of mounting		Via knurled nut
Max. tightening torque of fitting	[Nm]	0.5
Mounting position		Any
Product weight	[g]	110

Materials	
Solenoid coil	Duroplast, copper, steel
Winding	Copper

Electrical data		
Electrical connection		Plug pins with connection pattern to EN 175301-803, type A
Permissible voltage fluctuations	[%]	–10 / +10
Duty cycle	[%]	100
Degree of protection to EN 60529		IP65 with plug socket

Characteristic coil data				
Operating voltage		24 V DC	110 V AC	230 V AC
Power	[W]	4.3	–	–
Pick-up power, 50 Hz	[VA]	–	14.5	14.5
Holding power, 50 Hz	[VA]	–	10.5	10.5
Power factor cos(phi)		–	0.7	0.7
Frequency	[Hz]	–	50/60	50/60
Permissible frequency fluctuations	[%]	–	–10 / +10	–10 / +10

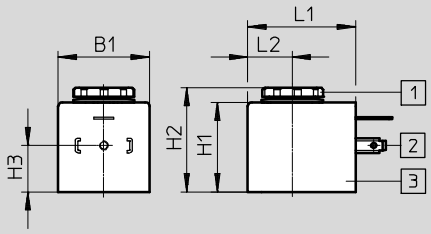
Operating and environmental conditions				
Operating voltage		24 V DC	110 V AC	230 V AC
Ambient temperature	[°C]	–20 … 50	–20 … 50	
CE mark (see declaration of conformity)[1)]		–	To EU Low Voltage Directive	

1) Additional information www.festo.com/sp ➔ Certificates.

Solenoid coils MD-2

Technical data

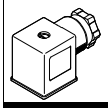
Dimensions Download CAD data ➔ **www.festo.com**



1 Knurled nut M8x0.75
2 Plug pattern to EN 175301-803, type A
3 Solenoid coil

Type	B1	H1	H2	H3	L1	L2
MD-2-...	30	29.5	34.3	15.3	35.5	14.7

Ordering data

	Description		Part No.	Type
Solenoid coil				
	Without plug socket, connection pattern to EN 175301-803, type A	24 V DC	**549903**	**MD-2-24VDC-PA**
		110 V AC	**549904**	**MD-2-110VAC-PA**
		230 V AC	**549905**	**MD-2-230VAC-PA**
Plug socket				
	3-pin, square design, connection pattern to EN 175301-803, type A		**550067**	**MSSD-N**