COIL Series — Coil

For BM520, BM320-02, PU520, PS520, PU320, PU322,CY520, CY525, SPU520, PU220AR-01/02 series

Features

1. High temperature resistant thermoplastic contains 30% PC.
2. Brass winding H class heat resistant up to 200℃ according to IEC317-8.
3. Built-in magnetic yoke made by low carbon magnet.

Order code

Voltage	Order code	Remarks
110VAC	SA10822DFSN	Standard (6.0VA)
220VAC	SA20822DFSN	Standard (6.0VA)
24VDC	SD90822DJSN	Standard (4.8W)
12VDC/24VAC	SX70822DJNN	Option (4.6W)

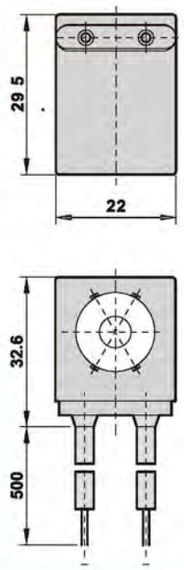
＊Special voltage on your request

Specifications

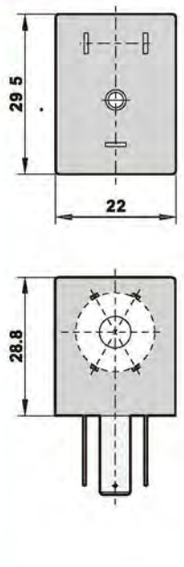
Coil width	22mm
Voltage tolerance	±10%
Duty cycle	100% ED
Ambient temperature	-20℃～50℃
Isolation class of material	F (according to Din VDE0580)
Degree of protection	IP65 (according to EN60529)
Moulding material	Thermoplastic (PA, PPS)
Rated power DC	4.8W (Option 2.5W)
Rated power AC (60Hz)	4.9VA
Rated power AC (50Hz)	6.0VA
Type	DIN

Dimensions

Lead wire

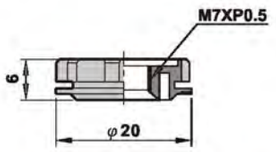


DIN

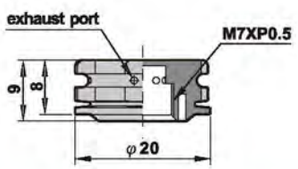


Coil nuts

Part no.	Material
NVS5000031	Plastic



Part no.	Material
NVS5000033	Plastic



COIL Series — Coil

For AM520, BM320-01, SM520 series

Features

1. High temperature resistant thermoplastic contains 30% PC.
2. Brass winding H class heat resistant up to 200℃ according to IEC317-8.
3. Built-in magnetic yoke made by low carbon magnet.

Order code

Voltage	Order code	Type	Remarks
220VAC	SA20716FCSK	Lead wire	Standard (3.6VA)
220VAC	SA20716DCSK	DIN	Option (3.6VA)
110VAC	SA10716FCSK	Lead wire	Standard (3.6VA)
110VAC	SA10716DCSK	DIN	Option (3.6VA)
24VAC	SA90716FXSK	Lead wire	Standard (3.6VA)
24VAC	SA90716DXSK	DIN	Option (3.6VA)
24VDC	SD90716FESK	Lead wire	Standard (3.5W)
24VDC	SD90716DESK	DIN	Option (3.5W)
12VDC	SD70716FESK	Lead wire	Standard (2.5W)
12VDC	SD70716DESK	DIN	Option (2.5W)

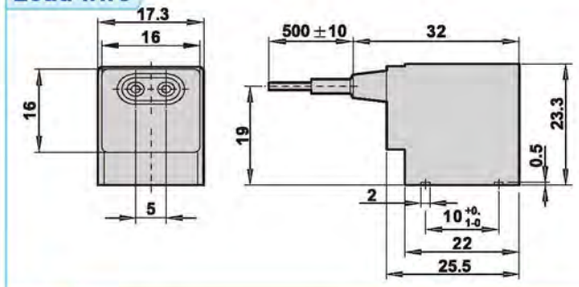
＊Special voltage on your request

Specifications

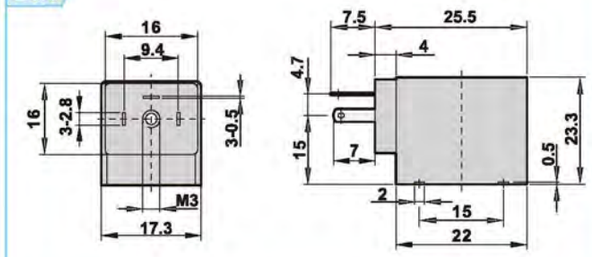
Coil width	16mm
Voltage tolerance	±10%
Duty cycle	100% ED
Ambient temperature	-20℃～50℃
Isolation class of material	F (according to Din VDE0580)
Degree of protection	IP65 (according to EN60529)
Moulding material	Thermoplastic (PA, PPS)
Rated power DC	2.5W
Rated power AC(60Hz)	4.5VA
Rated power AC(50Hz)	4.0VA
Type	Lead wire (Standard) or DIN(Option)

Dimensions

Lead wire

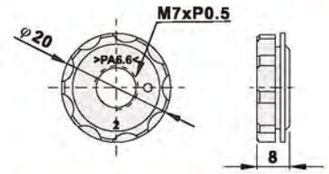


DIN

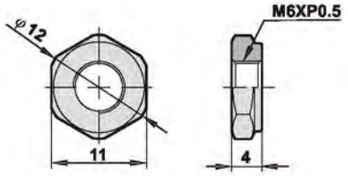


Coil nuts

Part no.	Material
NVS5000032	POM



Part no.	Material
KWR2020050	Metal



COIL Series — Coil

For PU220A, PU220AR-03, PU225, AM325, SPU225, PE220, SPU220, SPUY220 series

Features

1. The data of power and final temperature are valid for the standard voltages 24VDC and 230VAC; the power consumption may be higher at different nominal voltages.
2. Function is warranted at max. ambient temperature, max. voltage change and operating temperature.
3. The data of final temperature is valid for thermoplastic valve bodies and thermoplastic encapsulated coils. The temperature will be approximately 10-20K higher if the bodies are manifold.
4. This will cause a reduction of the magnetic force.
5. For additional information see German standard "Specification for Electronic Devices"DIN VDE 0580 or folder 1.4.0.0.

CE

Order code

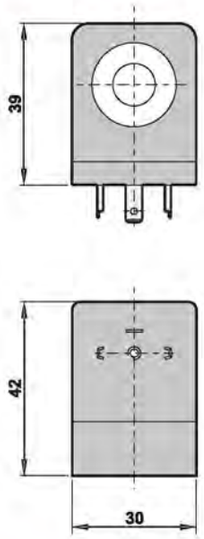
Voltage	Order code	Remarks
24VAC	SA91330DXNN	Option (17.6VA)
48VAC	SA41330DXSN	Option (22VA)
12VDC	SD71330DQNN	Option (15W)
24VDC	SD91330DQSN	Standard (15W)
110VAC	SA11330DXSN	Standard (17.6VA)
220VAC	SA21330DXSN	Standard (18.1VA)
240VAC	SA81330DXXN	Option (22VA)

＊Special voltage on your request

Specifications

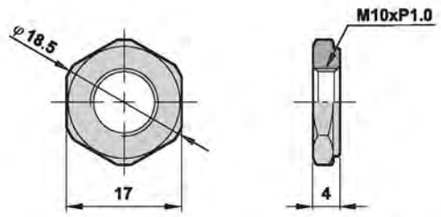
Coil width	30mm
Voltage tolerance	±10%
Duty cycle	100% ED
Ambient temperature	-20℃～50℃
Isolation class of material	F (according to Din VDE0580)
Degree of protection	IP65 (according to EN60529)
Moulding material	Thermoplastic (PA, PPS)
Rated power DC	15W
Rated power AC (60Hz)	16VA
Rated power AC (50Hz)	19VA
Type	DIN 43650A (ISO4400)

Dimensions



Coil nuts

Part no.	Material
KVB2200090	Metal



COIL Series — Coil

For PE220H, SPUY220 series

Features

1. The data of power and final temperature are valid for the standard voltages; the power consumption may be higher at different nominal voltages.
2. Function is warranted at max. ambient temperature and operating temperature.
3. The data of final temperature is valid for thermoplastic valve bodies and thermoplastic encapsulated coils. The temperature will be approximately 10-20K higher if arrangemeut devices in modular design, and this will cause a reduction of the magnetic force.
4. For additional information see German standard "Specification for Electronic Devices"DIN VDE 0580.

CE

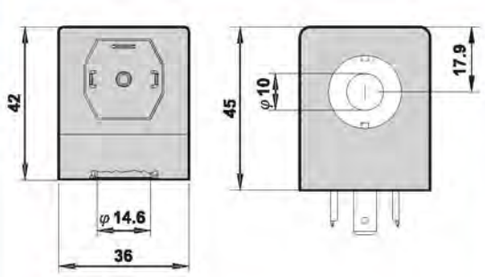
Order code

Voltage	Order code	Remarks
24VDC	SD91336DTNN	18.5W
110VAC	SA11336DZNN	50Hz 27.5VA
220VAC	SA21336DZNN	50Hz 25.5VA

Specifications

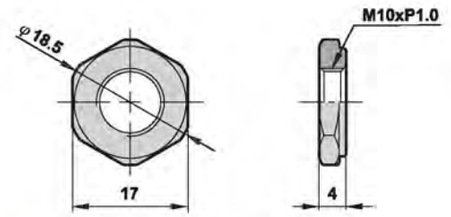
Coil width	36mm
Voltage tolerance	±10%
Duty cycle	100% ED
Ambient temperature	-20℃～50℃
Isolation class of material	F (according to Din VDE0580)
Degree of protection	IP65 (according to EN60529)
Moulding material DC	Thermoplastic (PA, PPS)
Moulding material AC	Thermoset Resin

Dimensions



Coil nuts

Part no.	Material
KVB2200090	Metal



COIL Series Connector

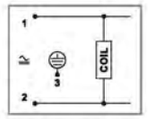
For BM520, BM320-02, PU520, PS520, PU320, PU322,CY520, CY525, SPU520, PU220AR-01/02 series

Order code

CN2211S9BSG

AC: CN2211S9ASG
DC: CN2211S9DSG

CN2211S9BGG
1/2" NPTF conduit connector



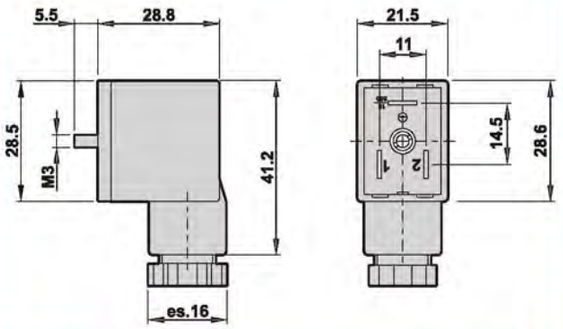
Clamping contact

Specifications

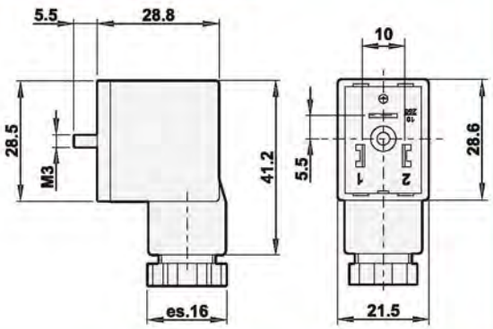
Housing	Black and gray: PA + 30% GF
Contact holder, Gland out	PA + 30% FV/ /PA 30% GF
Cable diameter, Gland size	6-8mm (PG 9 or 1/2" NPTF)
Contact material	Cu Zn (AG)
Max. voltage	250VAC/300VDC
Max. current	16A
Operating current	10A
Spacing	11mm
Max. wire cross-section	1.5mm²
Insulation class	C-VDE0110
Working temperature	-40℃ ~ +120℃

Dimensions

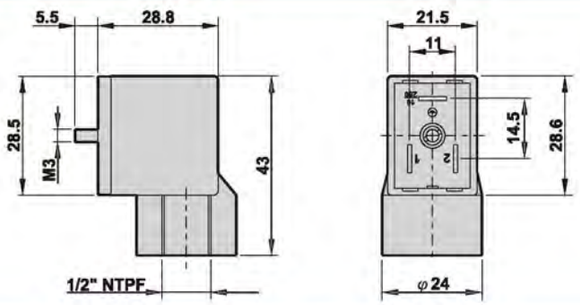
CN2211S9BSG



CN2211S9ASG, CN2211S9DSG



CN2211S9BGG



COIL Series Connector

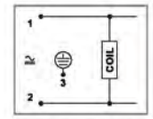
For PU220A, PU220AR-03, PU225, AM325, SPU225, PE220, SPU220, SPUY220 series

Order code

CN3018S9BSG

AC : CN3018S9ASM
DC : CN3018S9DSM

CN3018SNBMM
1/2" NPTF conduit connector



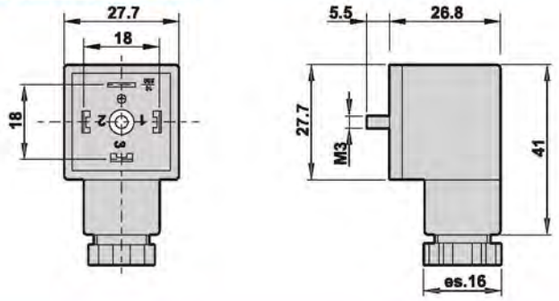
Clamping contact

Specifications

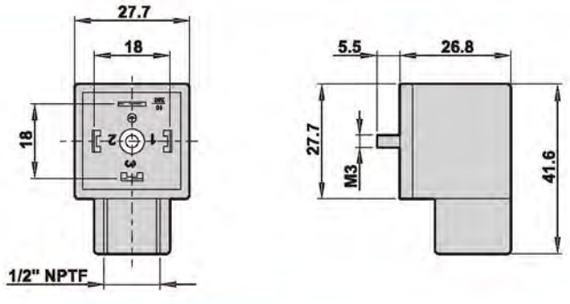
Housing	Black and gray: PA + 30% GF
Contact holder, Gland out	PA + 30% FV/ /PA 30% GF
Gland size	M20x1.5 or 1/2"NPTF
Contact material	Cu Zn (AG)
Max. voltage	250VAC/300VDC
Max. current	16A
Operating current	10A
Spacing	18mm
Max. wire cross-section	1.5mm²
Insulation class	C-VDE0110
Working temperature	-40℃ ~ +120℃

Dimensions

CN3018S9BSG, CN3018S9ASM, CN3018S9DSM



CN3018SNBMM



Notice Explosion Prevention Coil

Installation

1. After removing the packing, make sure that dirt cannot penetrate into the system.
2. Before mounting the system,check that there is no dirt in the piping or the valve housing.
3. When inserting the system, make sure that the flange o-ring will not be damaged.
4. Mounting is admissible in any position. Preferably the solenoid system has to point upwards.
5. The solenoid coil can be locked in 90° steps.
6. Tightening torque for fastening 5/2 way solenoid coil nut: 0.5Nm; Tightening torque for fastening 2/2way solenoid coil nut :1.2Nm.
7. Electrical connection:cable designed for screw/clamping connection.
   If connecting the lead wires, make ensure the wire ends of the leads are properly inserted to the electrical terminal.
8. Connecting cable and wires should be free of sharp bends in order to avoid short circuits and interruptions.
9. Before initial operation of the device, make sure that the overall equipment or unit respectively meets the requirements of the EMC directive.
10. The installation has to done by technical personnel under consideration of relevant regulations.
    Valve-housing material:
    Casting alloy :Mg contents < 6%
    Plastics :Surface resistance < 1GΩ according to EN 50014 7.3.2
11. Each solenoid operator has to be protected by a fuse according to the rated current(max.3x rated current accord. DIN4157or IEC 60127-2-1)resp. Motor protection switich with short-ciruit and fast thermal tripping protection. The fuse can be accommodated in the associated device or must be added separately.
12. The fuse voltage has to be equal or higher than the rated solenoid voltage.
13. The shutdown capability has to be equal or higher than the max. assumed short-circuit current at the installation point. (usually 1500A)
14. The maxium permissible ripple for all magnets of DC-design is 20%.

According to IEC standard, the inflammable gas can be classified to group T1-T6 by ignition temperature.
North America standard is also identical to IEC standard to the classification of temperature group.
They even divide it into more specific groups. In the new directive, the explosion-proof symbol is:

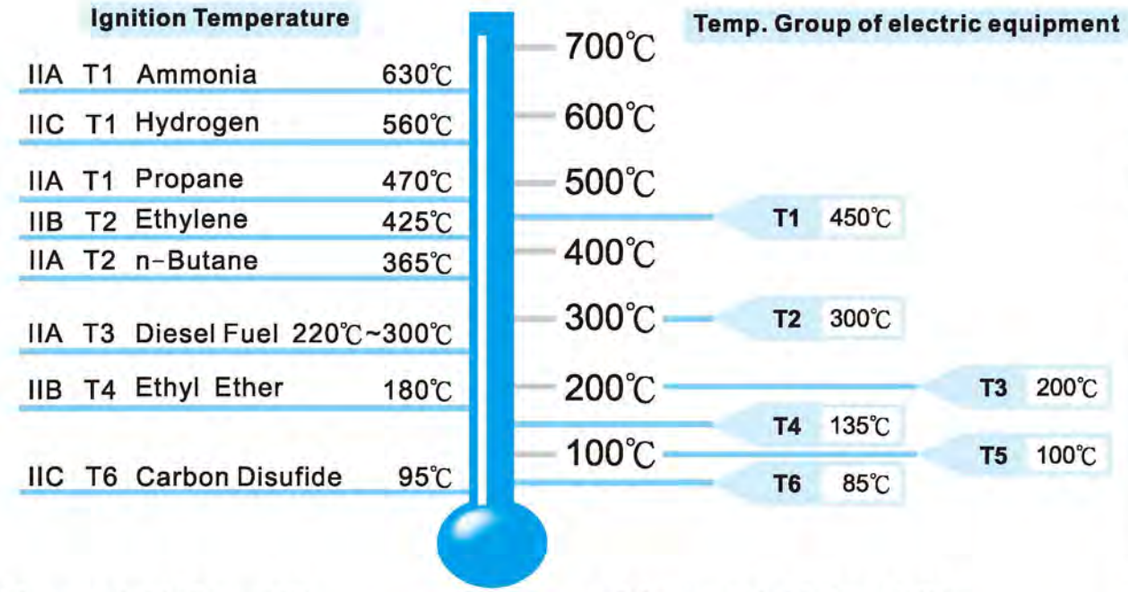
Typical European ATEX/CENELEC Marking

Temperature classification table

Class	Max.Temp	Japan	European	North America			
1	450℃	G1	T1	T1 450℃			
2	300℃	G2	T2	T2	300℃	T2C	230℃
				T2A	280℃	T2D	215℃
				T2B	260℃		
3	200℃	G3	T3	T3	200℃	T3B	165℃
				T3A	180℃	T3C	160℃
4	135℃	G4	T4	T4	135℃	T4A	120℃
4	100℃	G5	T5	T5 100℃			
5	85℃	G6	T6	T6 85℃			

Temperature group table

In accordance with the major media of enviromment, to decide suitable electric equipment



System 8-22 Ex m II T4

Type	051300...051349			121300...12349			0518 00... 0518 29			1218 00...1218 29		
Current	AC Operation -50..60Hz			DC Operation Max. 20% ripple			AC Operation -50..60Hz			DC Operation Max. 20% ripple		
Temperature	Temperature classT4 135℃ Max.temp. of coil surface											
Rated voltage	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA
12	392	4.1	800	375	4.5	630	623	7.5	1600	822	9.9	1600
24	192	4.6	400	207	4.97	315	315	7.2	800	421	10.1	800
110	41	4.5	80				83	9.1	200			
220	22	4.8	50				35	7.7	100			
240	22	5.5	50				39	9.2	100			

System 8-36CSA NPTF1/2" T4

Rated voltage (V)	AC Operation Temperature class T4,135℃		DC Operation Max.temp. of coil surface	
	Rated current (A)	Rated power (VA)	Rated current (A)	Rated power (W)
12	-	-	0.038	4.5
24	-	-	0.191	4.6
110	0.068	7.5	-	-
220	0.035	7.7	0.026	6
230	0.033	7.7	-	-
240	0.028	6.8	-	-

System 13-36 Ex m II T4

Type	0518 00... 0518 29			1218 00...1218 29		
Current	AC Operation -50..60Hz			DC Operation Max. 20% ripple		
Temperature	Temperature classT4 135℃ Max.temp. of coil surface					
Rated voltage	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA
12	623	7.5	1600	822	9.9	1600
24	315	7.2	800	421	10.1	800
110	83	9.1	200			
220	35	7.7	100			
240	39	9.2	100			

System 8-22 Ex m II T5

Type	051350...051399			121350...121399		
Current	AC Operation -50..60Hz			DC Operation Max.20%		
Temperature	Temperature classT5 100℃ Max.temp. of coil surface					
Rated voltage	Rated current	Rated power	Fuse mA	Rated current	Rated power	Fuse mA
12	192	2.3	400	231	2.77	400
24	121	2.9	250	115	2.76	200
110	21	2.3	40			
220	9	2.1	32			
230	10	2.3	32			
240						

COIL Series Ex-Proof Coil

For PU220A, PU220AR-03, PU225, AM325, SPU225, PE220, SPU220, SPUY220 series

Features

1. The data of power and final temperature are valid for the standard voltages 24VDC and 230VAC; the power consumption may be higher at different nominal voltages.
2. Function is warranted at max. ambient temperature, max. voltage change and operating temperature.
3. The data of final temperature is valid for thermoplastic valve bodies and thermoplastic encapsulated coils. The temperature will be approximately10-20K higher if the bodies are manifold.
4. This will cause a reduction of the magnetic force.
5. For additional information see German standard "Specification for Electronic Devices"DIN VDE 0580 or folder 1.4.0.0.

IECEx PTB 05.0005X

Order code

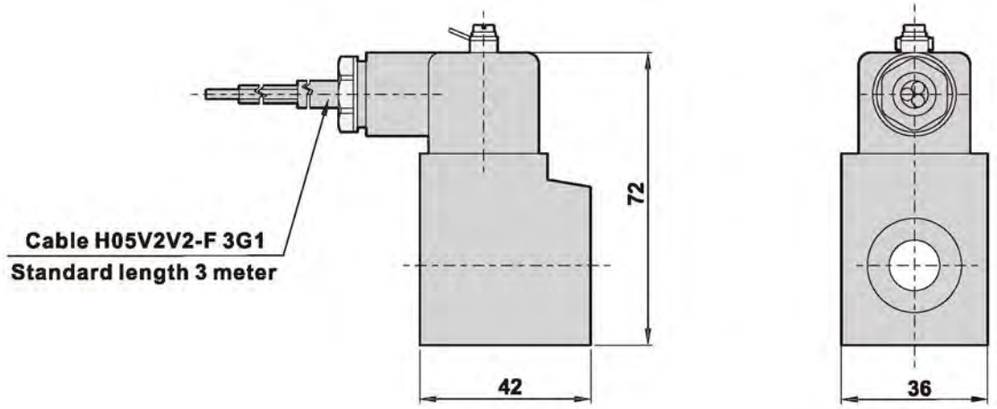
Voltage	E4: EExmII T4	Coil width
220VAC	SA21336GT4N	36mm
110VAC	SA11336GT4N	36mm
24VDC	SD91336KT4N	36mm
24VAC	SA91336GT4N	36mm

＊Special voltage on your request

Specifications

Function	2/2 way	
Operating	Normally closed	
Voltage tolerance	±10%	
Duty cycle	100% ED	
Ambient temperature	-20℃ ~ +50℃	
Isolation class of material	F (according to Din VDE0580)	
Degree of protection	IP65 (according to EN60529)	
Moulding material	Thermoplastic	
Current frequency	DC	AC 50Hz/60Hz
Rated power	10W	8.5VA
Final temperature rise	70K	50K

Dimensions



COIL Series Ex-Proof Col

For BM520, BM320-02, PU520, PS520, PU320, PU322,CY520, CY525, SPU520, PU220AR-01/02 series

System 8-36 CSA NPTF 1/2" T4

System 8-22, EEx m II T4
IECEx PTB 05.0006X

System 8-30, EEx m II T4
IECEx PTB 04.0002X

Order code

VOLTAGE	E3: CSA T4 WIDTH 36mm	E1: EEx m II T4 WIDTH 22mm	E2: EEx m II T4 WIDTH 30mm
220VAC	SA20836GTCN	SA20822ET4N	SA20830DT4N
110VAC	SA10836GTCN	SA10822ET4N	SA10830DT4N
24VDC	SD90836JTCN	SD90822KT4N	SD90830KT4N
24VAC		SA90822ET4N	

＊Special voltage on your request

Specifications

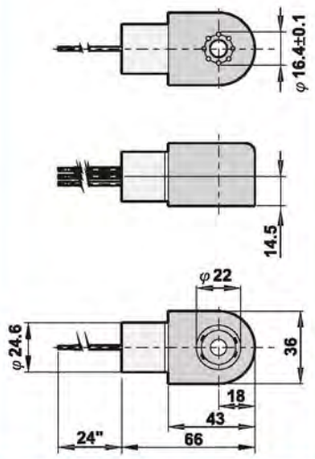
Ex-proof coil system	8-36 CSA NPTF 1/2" T4		8-22 EEx m II T4		8-30 EEx m II T4	
Operating	Normally closed					
Ambient temperature	-20℃ ~ +50℃					
Isolation class of material	F (according to Din VDE0580)					
Degree of protection	IP65 (according to EN60529)					
Moulding material	Thermoplastic					
Voltage tolerance	±10%					
Duty cycle	100% ED					
Voltage	VDC	AC(50Hz,60Hz)	VDC	AC(50Hz,60Hz)	VDC	AC(50Hz,60Hz)
Rated power	4.5W	7.5VA, 6.5VA	5W	5.5VA, 4.4VA	5.2W	5.3VA, 4.8VA
Final temperature rise	50K	40K	50K	40K	55K	50K
Cable length	24"			3m		

Ex-Proof Coil

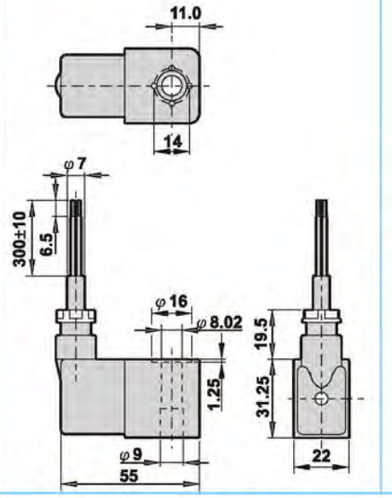
For BM520, BM320-02, PU520, PS520, PU320, PU322,CY520, CY525, SPU520, PU220AR-01/02 series

■ Dimensions

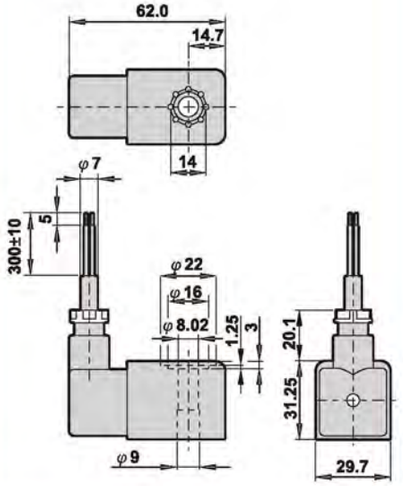
8-36 CSA NPTF 1/2"



8-22 EExm T4

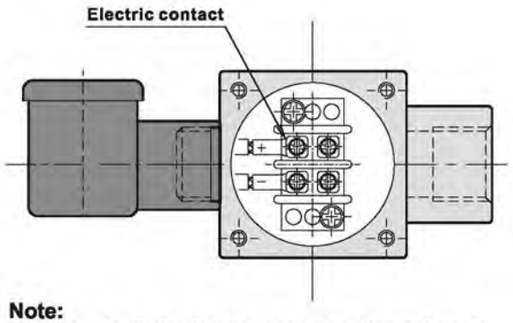


8-30 EExm T4



■ Ex-proof terminal box

*It is required to work with 1/2" NPTF conduit connector

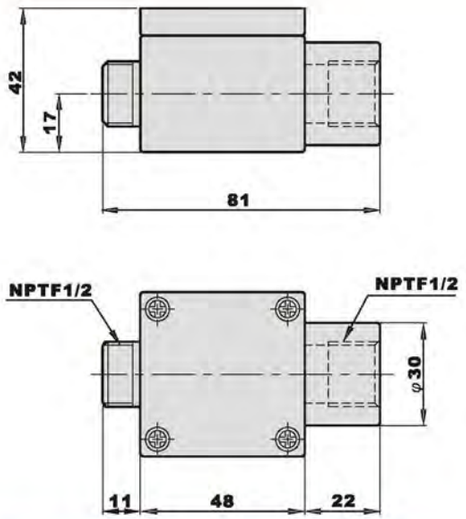


Note:
It makes no distinction between negative pole and positive pole for power distribution of coil.

■ Order code

NIP2	2	00050
Ex-proof terminal box	Port size	
	2 : NPTF1/2	

■ Dimensions



Memo..