

Coils for solenoid valves

for industrial valves

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		ac	dc	
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Compatibility

- X* = typical choice
 • = optional choice for specific applications

Solenoid valve type	Coil type							
2/2-way Compact	AB	AC	AK	AL	AM	AR		
EV210A	X ¹⁾	X ¹⁾	X ¹⁾	X	X	•		
EV220A	X		X	X	X	•		
EV220A with filter				X	X			
2/2-way High Performance	BA	BD	BB	BE	BG	BN	BO	BP
EV210B	X	X	X	X	X	•	•	•
EV212B	X	X	X	X	•	•	•	•
EV220B 6-12	X	X	X	X	X	•	•	•
EV220B 15-50	X	X	X	X	X	•	•	•
EV220B 65-100		X	X	X	X	•	•	•
EV222B			X	X	•	•	•	•
EVI-U / EVSI-U	See datasheet DKACV.PD.200.G							
EV250B			X	X	X	•	•	•
3/2-way Compact	AB	AC	AK	AL	AM	AR		
EV310A	X ²⁾	X	X ²⁾	X	X			
3/2-way High Performance	BA	BD	BB	BE	BG	BN	BO	BP
EV310B	X	X	•	•	•	•	•	•
Valves for distinct purposes								
EV215B / EV225B / EV245B	See specific datasheet							
EVSI5 (UL approved)	See specific datasheet							
EV260B	See specific datasheet							

¹⁾ NC versions only

²⁾ NO versions only

Coils type AB

4.5 W ac
5 W dc

IP 00
IP 65

Features



- Compact
- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +50°C
- All usual ac and dc voltages
- IP 00 version with 6.3 × 0.8 mm spade connectors
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	± 10%
Power consumption. cut-in	ac: 9.5 VA
Power consumption. holding	ac: 6.3 VA. 4.5 W / dc: 5 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connectors, 6.3 × 0.8 mm
Enclosure, IEC 529	IP 00 with spade connector; IP 65 with cable plug
Ambient temperature	Max. +50°C
Duty rating	Continuous

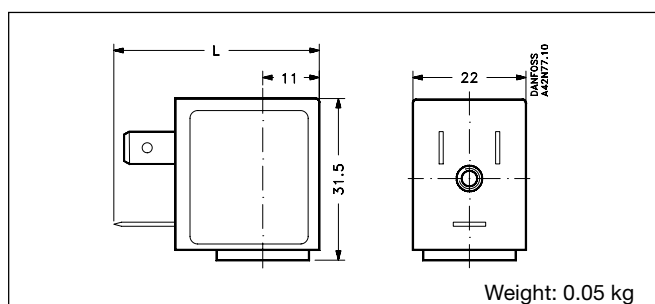
Ordering

	Coil type	Supply voltage	Code no. IP 00
4.5 W ac	AB024C	24 V, 50/60 Hz	042N0802
	AB110C	110 V, 50/60 Hz	042N0804
	AB230C	220-230 V, 50/60 Hz	042N0800
	AB240C	240 V, 50/60 Hz	042N0801
5 W dc	AB012D	12 V	042N0806
	AB024D	24 V	042N0803

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Cable plug for 6.3 × 0.8 mm spade connectors	IP 65	042N0139

Dimensions and weight



	L
Without cable plug	40 mm
With cable plug	56 mm

Coils type AC

IP 00
IP 65

7.0 W ac
10 W dc

Features



- Compact
- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +50°C
- IP 00 version with 6.3 ∅ 0.8 mm spade connectors
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	± 10%
Power consumption. cut-in	ac: 15.7 VA
Power consumption. holding	ac: 10 VA. 7 W / dc: 10 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connectors, 6.3 ∅ 0.8 mm
Enclosure, IEC 529	IP 00 with spade connector; IP 65 with cable plug
Ambient temperature	Max. +50°C
Duty rating	Continuous

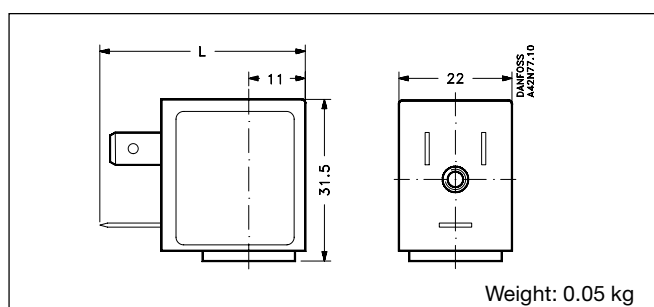
Ordering

	Coil type	Supply voltage	Code no. IP 00
7 W ac	AC024C	24 V, 50/60 Hz	042N0823
	AC110C	110 V, 50/60 Hz	042N0825
	AC230C	220 - 230 V, 50/60 Hz	042N0821
	AC240C	240 V, 50/60 Hz	042N0822
10 W dc	AC012D	12 V	042N0826
	AC024D	24 V	042N0824

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Cable plug for 6.3 ∅ 0.8 mm spade connectors	IP 65	042N0139

Dimensions and weight



	L
Without cable plug	40 mm
With cable plug	56 mm

Coils type AK

IP 00

3.0 W dc

Features



- Compact
- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +50°C
- Power consumption: Only 3 W dc
- IP 00 version with spade connector in accordance with DIN 43650, form A
- IP 20 version with protective cap
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	± 10%
Power consumption, holding	dc: 3 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP 00: Spade connector; IP 20: Protective cap; IP 65: Cable plug
Ambient temperature	Max. +50°C
Duty rating	Continuous

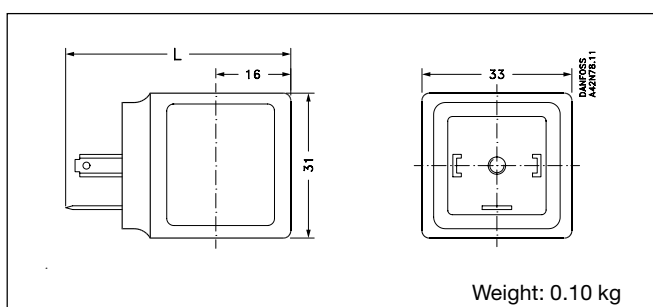
Ordering

	Coil type	Supply voltage	Code no. IP 00
3 W dc	AK024D	24 V	042N0844

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Protective cap (pack of 100 pcs.)	IP 20	018Z0282
	Cable plug according to DIN 43650-A Pg 11	IP 65	042N0156

Dimensions and weight



	L
Without cable plug	48 mm
With protective cap	64 mm
With cable plug	72 mm

Coils type AL

IP 00

4.0 W ac

Features



- Compact
- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +50°C
- Power consumption: Only 4 W ac
- IP 00 version with spade connector in accordance with DIN 43650, form A
- IP 20 version with protective cap
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	± 10%
Power consumption cut-in	10 VA
Power consumption, holding	ac: 4 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP 00: Spade connector; IP 20: Protective cap; IP 65: Cable plug
Ambient temperature	Max. +50°C
Duty rating	Continuous

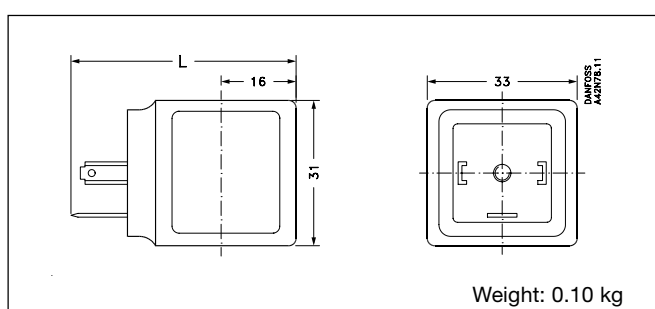
Ordering

	Coil type	Supply voltage	Code no. IP 00
4 W ac	AL230C	230 V ac, 50/60 Hz	042N0864

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Protective cap (pack of 100 pcs.)	IP 20	018Z0282
	Cable plug according to DIN 43650-A Pg 11	IP 65	042N0156

Dimensions and weight



	L
Without cable plug	48 mm
With protective cap	64 mm
With cable plug	72 mm

Coils type AM

IP 00

7.5 W ac
9.5 W dc

Features



- Compact
- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +50°C
- All usual ac and dc voltages
- IP 00 version with spade connector in accordance with DIN 43650, form A
- IP 20 version with protective cap
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	± 10%
Power consumption, cut-in	ac: 22.5 VA
Power consumption, holding	ac: 15 VA, 7.5 W / dc: 9.5 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP 00: Spade connector; IP 20: Protective cap; IP 65: Cable plug
Ambient temperature	Max. +50°C
Duty rating	Continuous

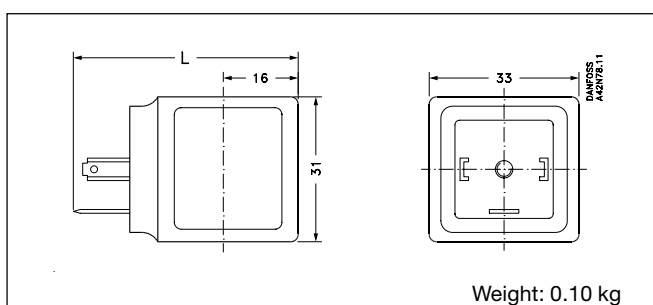
Ordering

	Coil type	Supply voltage	Code no. IP 00
7.5 W ac	AM024C	24 V, 50/60 Hz	042N0842
	AM110C	110 V, 50/60 Hz	042N0845
	AM230C	220-230 V, 50/60 Hz	042N0840
	AM240C	240 V, 50/60 Hz	042N0841
9.5 W dc	AM012D	12 V	042N0848
	AM024D	24 V	042N0843

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Protective cap (pack of 100 pcs.)	IP 20	018Z0282
	Cable plug according to DIN 43650-A Pg 11	IP 65	042N0156

Dimensions and weight



	L
Without cable plug	48 mm
With protective cap	64 mm
With cable plug	72 mm

Coils type AR; EEx m II T4

IP 65

6 W ac
4.8 W dc, 7 W dc

Features



- Compact
- The coils are suitable for use in installations where flammable liquids and gases are produced, transported or tapped
- Approvals for use in Zone 1 according to Directive 94/9/EC (ATEX 100A) EN50014 and EN50028
- Grade of enclosure IP 65 to IEC 529
- Supplied with 3, 3.8 or 5.5 m moulded-in 3-core cable

Technical data

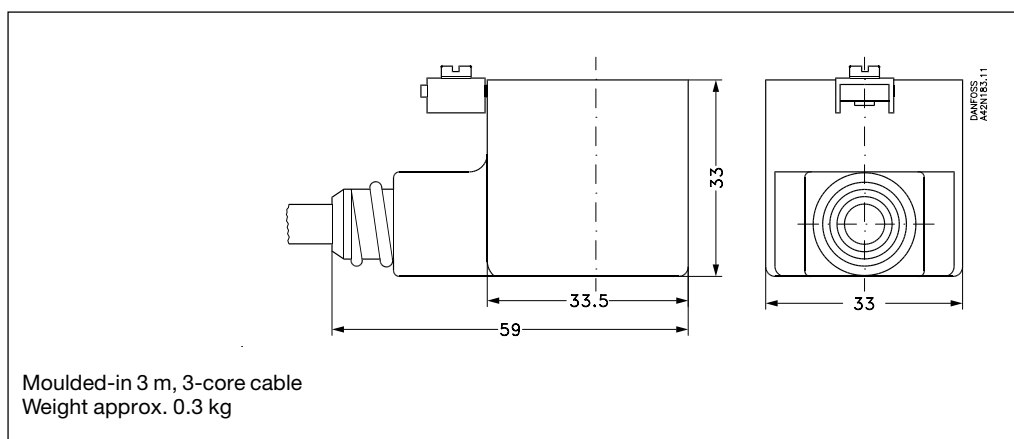
Voltage tolerance	± 10%
Power consumption, holding	ac: 6 W, dc: 4.8 W and 7 W
Insulation of coil windings	Class H according to IEC 85
Connection	3, 3.8 or 5.5 m 3-core cable
Enclosure, IEC 529	IP 65
Ambient temperature	Max. +55° C
Media temperature	Max. +90° C
Duty rating	Continuous

Ordering

Conformity certification EX DEMKO 99ATEX 125689X

	Coil Type	Supply Voltage	Cable	Code no.
6 W ac	AR024C	24 V, 50/60 Hz	5.5 m	042N5525
6 W ac	AR230C	230 V, 50/60 Hz	5.5 m	042N5535
7 W dc	AR024D	24 V dc	5.5 m	042N5505
4.8 W dc	AR024D	24 V dc	5.5 m	042N5515

Dimensions



Special requirements:

The supply must be secured against a too high power consumption in case of a short circuit

Coil type BA and BD

IP 00

9 W/15 W ac
15 W dc

Features



- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +40°C and +50°C
- All usual ac and dc voltages
- IP 00 version with spade connector in accordance with DIN 43650, form A
- IP 20 version with protective cap
- IP 65 version with mounted cable plug

Technical data

Design	In accordance with VDE 0580	
Voltage tolerance	220/380 V ac coils: +10%, -15%. 230/400 V ac coils: +6%, -10%. Other ac coils with NC valve: +10%, -15% Other ac coils with NO valve and all dc coils: ±10%	
Power consumption, cut-in	BA ac: 39 VA	BD ac: 54 VA
Power consumption, holding	ac: 19 VA, 9 W / dc: 29 VA, 15 W	
Insulation of coil windings	Class H according to IEC 85	
Connection	Spade connector in accordance with DIN 43650 form A	
Enclosure, IEC 529	IP 00 with spade connec. IP 20 with protective cap; IP 65 with cable plug	
Ambient temperature	Max. +40°C for BA / Max. +50°C for BD	
Duty rating	Continuous	

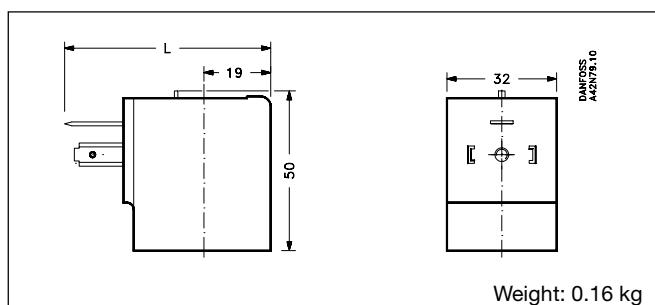
Ordering

	Coil Type	Supply voltage	Code no. IP 00
9 W ac	BA024A	24 V, 50 Hz	042N7508
	BA048A	48 V, 50 Hz	042N7510
	BA115A	115 V, 50 Hz	042N7512
	BA230A	220-230 V, 50 Hz	042N7501
	BA240A	240 V, 50 Hz	042N7502
	BA380A	380-400 V, 50 Hz	042N7504
	BA024B	24 V, 60 Hz	042N7520
	BA115B	115 V, 60 Hz	042N7522
15 W ac	BD024A	24 V, 50 Hz	042N7597
	BD110A	110 V, 50 Hz	042N7599
	BD230A	230 V, 50 Hz	042N7541
15 W dc	BA012D	12 V	042N7550
	BA024D	24 V	042N7551

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Protective cap (pack of 100 pcs.)	IP 20	018Z0282
	Cable plug according to DIN 43650-A Pg 11	IP 65	042N0156

Dimensions and weight



	L
Without cable plug	54 mm
With protective cap	71 mm
With cable plug	79 mm

Coils type BB

IP 00, IP 20
IP 65

10 W ac
18 W dc

Features



- Windings of class H insulated wire moulded in the coil body
- Ambient temperature: Up to +80°C
- All usual ac and dc voltages
- IP 00 version with spade connector in accordance with DIN 43650, form A.
- IP 20 version with protective cap
- IP 65 version with mounted cable plug
- Most common voltages as clip-on coil

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	220/380 V ac coils: +10%, -15%. 230/400 V ac coils: +6%, -10%. Other ac coils with NC valve: +10%, -15% Other ac coils with NO valve and all dc coils: ±10%
Power consumption, cut-in	ac: 44 VA
Power consumption, holding	ac: 21 VA, 10 W / dc: 18 W
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP 00 with spade connec. IP 20 with protective cap; IP 65 with cable plug
Ambient temperature	Max. +50/+80°C - see table below for details
Duty rating	Continuous

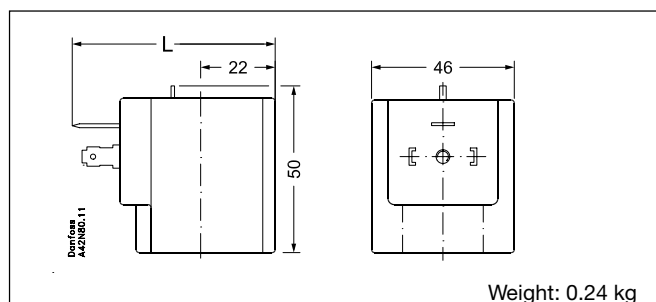
Ordering

	Coil Type	Ambient Temperature	Supply voltage	Code no. IP 00	Clip-on
10 W ac	BB024A	max. +80°C	24 V, 50 Hz	042N7408	018F7358
	BB115A	max. +80°C	115 V, 50 Hz	042N7412	018F7361
	BB230A	max. +80°C	220-230 V, 50 Hz	042N7401	018F7351
	BB240A	max. +80°C	240 V, 50 Hz	042N7402	018F7352
	BB380A	max. +80°C	380-400 V, 50 Hz	042N7404	
	BB024B	max. +80°C	24 V, 60 Hz	042N7415	
	BB110C	max. +50°C	110 V, 50/60 Hz	042N7430	018F7360
18 W dc	BB230C	max. +50°C	220-230 V, 50/60 Hz	042N7432	018F7363
	BB012D	max. +50°C	12 V	042N7456	
	BB024D	max. +50°C	24 V	042N7457	

Contact Danfoss for delivery of coils for other voltages

Symbol	Description	Enclosure grade	Code no.
	Protective cap (pack of 100 pcs.)	IP 20	018Z0282
	Cable plug according to DIN 43650-A Pg 11	IP 65	042N0156

Dimensions and weight



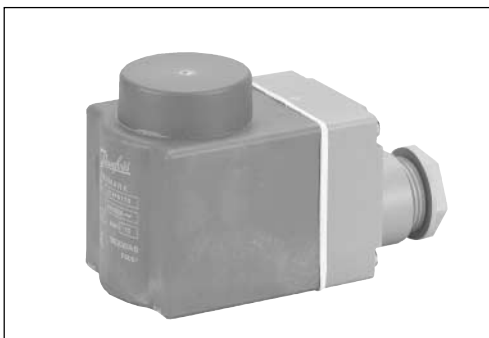
	L
Without cable plug	62 mm
With protective cap	77 mm
With cable plug	85 mm

Coils type BE

IP 67

10 W ac
18 W dc

Features



- Clip-on version
- Encapsulated coils with long operation life
- Ambient temperature: Up to +80°C
- Suitable for moist environments
- All usual ac and dc voltages
- IP 67 version with terminal box
- IP 67 version 1 m 3-core flying lead
- Can be fitted without tools
- Can only be removed with tool

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	220/380 V ac coils: +10%, -15%. 230/400 V ac coils: +6%, -10%. Other ac coils with NC valve: +10%, -15% Other ac coils with NO valve and all dc coils: ±10%
Power consumption, cut-in	ac: 44 VA
Power consumption, holding	ac: 21 VA, 10 W / dc: 18 W
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box; Pg 13.5 – or 1 m 3-core flying lead
Enclosure, IEC 529	IP 67
Ambient temperature	Max. +50/+80°C, see table below for details
Duty rating	Continuous

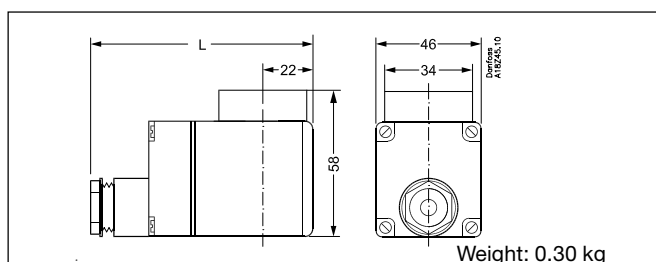
Ordering

	Coil Type	Ambient temperature	Supply voltage	Code no.	
				With terminal box	With cable
10 W ac	BE024A	max. +80°C	24 V, 50 Hz	018F6707	018F6257
	BE048A	max. +80°C	48 V, 50 Hz	018F6709	018F6259
	BE115A	max. +80°C	115 V, 50 Hz	018F6711	018F6261
	BE240A	max. +80°C	220-230 V, 50 Hz	018F6701	018F6251
	BE240A	max. +80°C	240 V, 50 Hz	018F6702	018F6252
	BE380A	max. +80°C	380-400, 50 Hz	018F6703	018F6253
	BE024B	max. +80°C	24 V, 60 Hz	018F6715	018F6265
	BE115B	max. +80°C	115 V, 60 Hz	018F6710	018F6260
	BE220B	max. +80°C	220 V, 60 Hz	018F6714	018F6264
	BE110C	max. +50°C	110 V, 50/60 Hz	018F6730	018F6280
18 W dc	BE230C	max. +50°C	220-230 V, 50/60 Hz	018F6732	018F6282
	BE012D	max. +50°C	12 V	018F6756	
	BE024D	max. +50°C	24 V	018F6757	

Contact Danfoss for delivery of coils for other voltages

	Application	Code no.
O-ring	Coil enclosures	018F0094
Terminal box with LED indication	48-220 V dc 24-250 V, 50/60 Hz	018Z0089

Dimensions and weight



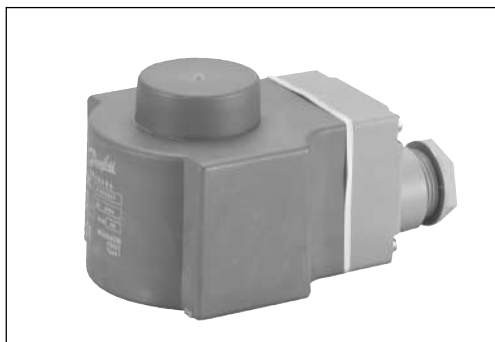
	L
With terminal box	94 mm
With 1 m cable	65 mm

Coils type BG

IP 67

12 W ac
20 W dc

Features



- Clip-on version
- Encapsulated coils with long operation life
- Ambient temperature: Up to +80°C
- All usual ac and dc voltages
- Suitable for moist environments
- IP 67 version with terminal box
- Can be fitted without tools
- Can only be removed with tool

Technical data

Design	In accordance with VDE 0580
Voltage tolerance	220/380 V ac coils: +10%, -15%. 230/400 V ac coils: +6%, -10%. Other ac coils with NC valve: +10%, -15% Other ac coils with NO valve and all dc coils: ±10%
Power consumption, cut-in	ac: 44 VA
Power consumption, holding	ac: 21 VA, 10 W / dc: 18 W
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box; Pg 13.5
Enclosure, IEC 529	IP 67
Ambient temperature	Max . +80°C
Duty rating	Continuous

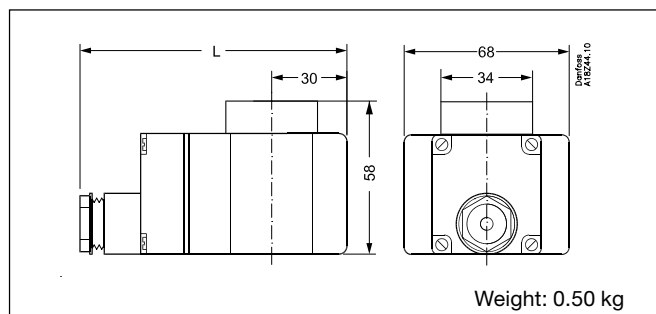
Ordering

	Coil Type	Supply voltage	Code no. IP 67
12 W ac	BG024A	24 V, 50 Hz	018F6807
	BG110A	110 V, 50 Hz	018F6811
	BG230A	220-230 V, 50 Hz	018F6801
	BG240A	240 V, 50 Hz	018F6802
	BG380A	380-400 V, 50 Hz	018F6803
	BG024B	24 V, 60 Hz	018F6815
	BG110B	110 V, 60 Hz	018F6813
20 W dc	BG220B	220 V, 60 Hz	018F6814
	BG012D	12 V	018F6856
	BG024D	24 V	018F6857

Contact Danfoss for delivery of coils for other voltages

Description	Application	Code no.
O-ring	Coil enclosure	018F0094

Dimensions and weight



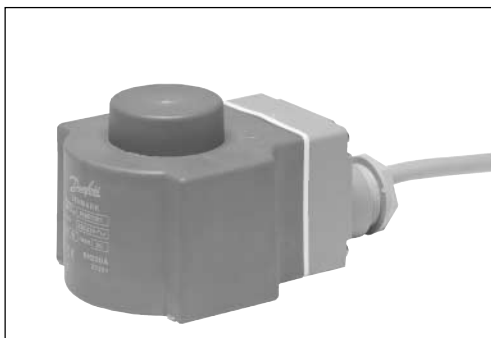
	L
With terminal box	112 mm

Coils type BN

IP 67

20 W ac
Hum-free coil

Features



- Clip-on version
- Windings of class H insulated wire moulded in the coil body
- For installations sensitive to noise, such as heating systems
- Ambient temperature: Up to +50°C
- Built-in rectifier
- Suitable for moist environments
- Available with 1 m 3-core flying lead
- Coil enclosure: IP 67

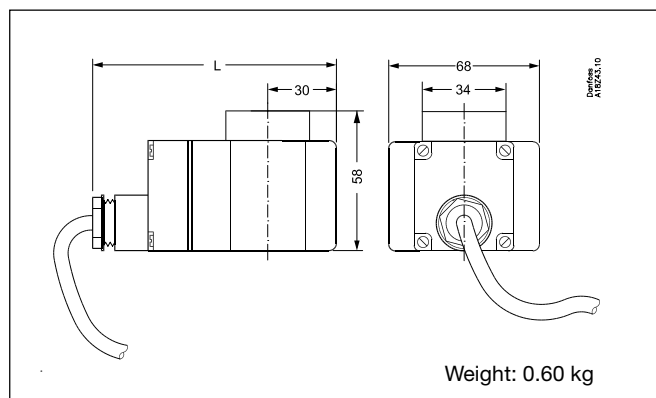
Technical data

Design	In accordance with VDE 0580
Voltage tolerance	±10%
Power consumption, cut-in	ac: 24 VA
Power consumption, holding	ac: 26 VA
Insulation of coil windings	Class H according to IEC 85
Connection	1 m 3-core flying lead; Pg 13.5
Enclosure, IEC 529	IP 67
Ambient temperature	Max . +50°C
Duty rating	Continuous

Ordering

	Coil type	Supply voltage	Code no. IP 67
20 W ac	BN230C	220-230 V, 50/60 Hz	018F7301
O-rings		Coil enclosure	018F0094

Dimensions and weight



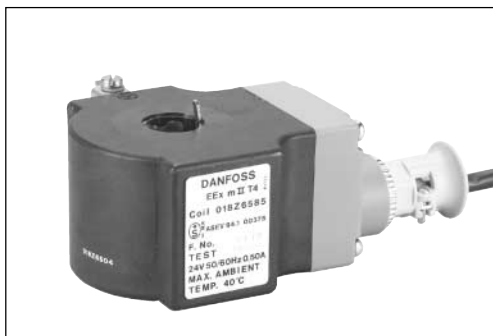
	L
With 1 m cable	112 mm

Coils type BO; Eex m II T4

IP 67

10 W ac
10 W dc

Features



- For explosion-risk environments, such as where flammable liquids and gases are produced, transported or tapped
- Approvals for use in Zone 1 according to Directive 94/9/EC (ATEX 100A) EN50014 and EN50028
- Medium temperature: Up to +90°C
- Ambient temperature: Up to +40°C
- IP 67 version with 5 m 3-core flying lead
- Seal kit as accessory for extremely wet and aggressive environments (please contact Danfoss)

Technical data

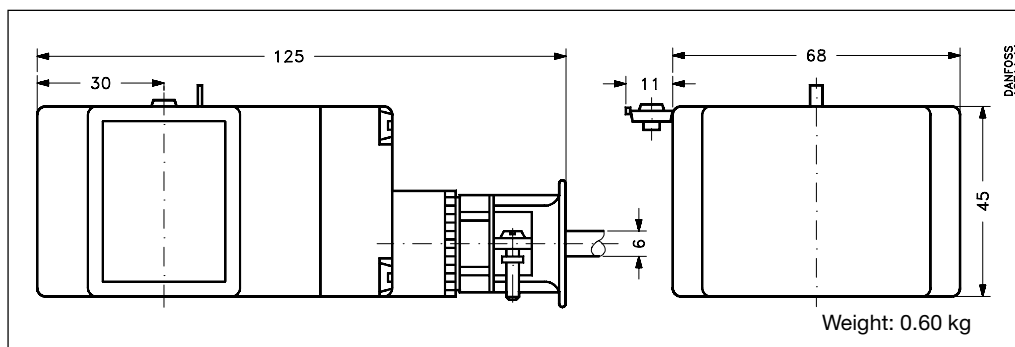
Voltage tolerance	±10%
Power consumption, holding	ac: 10 W / dc: 10 W
Insulation of coil windings	Class H according to IEC 85
Connection	5 m 3-core flying lead
Enclosure, IEC 529	IP 67
Ambient temperature	Max . +40°C
Duty rating	Continuous
Media temperature	Max . +90°C

Ordering

	Coil Type	Supply voltage	Code no.	
			Standard	SEV-approval
10 W ac	BO024C	24 V, 50/60 Hz	018Z6595	018Z6585
	BO048C	48 V, 50/60 Hz	018Z6594	018Z6584
	BO110C	110 V, 50/60 Hz	018Z6593	018Z6583
	BO230C	220 - 230 V, 50/60 Hz	018Z6592	018Z6582
	BO240C	240 V, 50/60 Hz	018Z6591	018Z6581
10 W dc	BO024D	24 V	018Z6596	018Z6586

	Description	Application	Code no.
	Seal kit	Wet environment	018Z0090

Dimensions and weight



Coils type BP; EEx m II T4

IP 67

16 W dc

Features



- The coils are suitable for use in installations where flammable liquids and gases are produced, transported or tapped
- Approved for use in Zone 1 according to Directive 94/9/EC (ATEX 100A) EN50014 and EN50028
- Grade of enclosure IP 67
- Supplied with 3 m moulded-in 3-core cable

Technical data

Voltage tolerance	± 10%
Power consumption, holding	dc: 16 W
Insulation of coil windings	Class H according to IEC 85
Connection	3 m 3-core cable
Enclosure, IEC 529	IP 67
Ambient temperature	Max. +55° C
Media temperature	Max. +90° C
Duty rating	Continuous

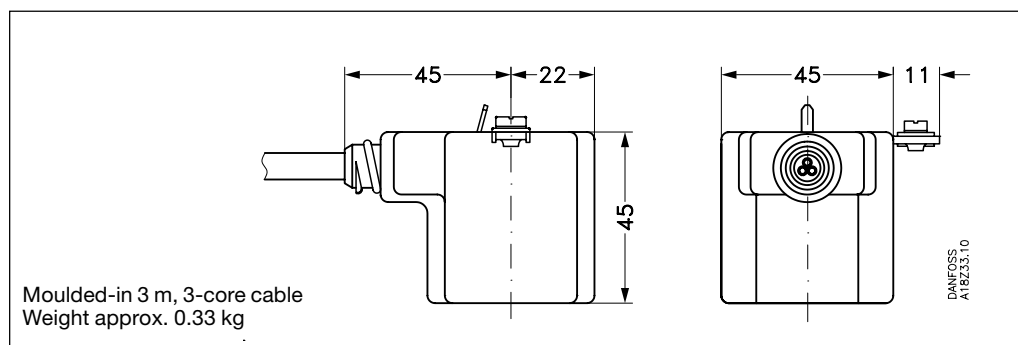
Ordering

Conformity certification EX DEMKO 99ATEX 125688X

	Coil Type	Supply Voltage	Connection	Code no.
16 W dc	BP024D	24 V dc	3 m	018Z6633

	Description	Application	Code no.
	Seal kit	Wet environment	018Z0090

Dimensions



Special requirements:

The supply must be secured against a too high power consumption in case of a short circuit

for solenoid valves

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