

Data sheet

# Solenoid coils



Danfoss solenoid valves and coils are usually ordered separately to allow maximum flexibility, enabling you to select a valve and coil combination to best suit your needs.

The Danfoss coil program consists of both the easy-to-handle Clip-On system and traditional coils with threaded fastener.

Danfoss offer a wide range of application specific coils for e.g. steam or hazardous areas. The coils are available with approvals such as EN60730-1, EEx/ATEX and UL.

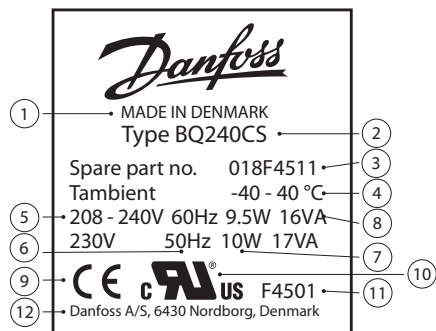
## Features

- Encapsulated coils with long operating life, even under extreme conditions
- Standard coils for AC or DC
- Standard coils from 12 V to 400 V, 50, 60 or 50 / 60 Hz
- Coils can be fitted without use of tools
- Coils can only be removed with use of tools
- Standard coils available with:
  - Cable plugs
  - Industrial plugs
  - Terminal box
  - 3 core cable
  - Junction box
  - Conduit hub

**Coil identification**

Technical data is printed directly on the coil:

- ① Country of origin
- ② Coil type
- ③ Spare part no. (code no.)
- ④ Ambient temperature  
(-40 – 40 °C = Ambient temperature range: -40 °C to 40 °C)
- ⑤ Supply voltage [V]
- ⑥ Frequency [Hz]
- ⑦ Power consumption [W]
- ⑧ Power consumption [VA]
- ⑨ CE marking
- ⑩ UL recognized coil
- ⑪ Raw coil number (F4501=Raw coil number 018F4501)
- ⑫ Point of contact



**BA, High performance coils**



- Cable plug enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with cable plug
- Nut and snap fastener included
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

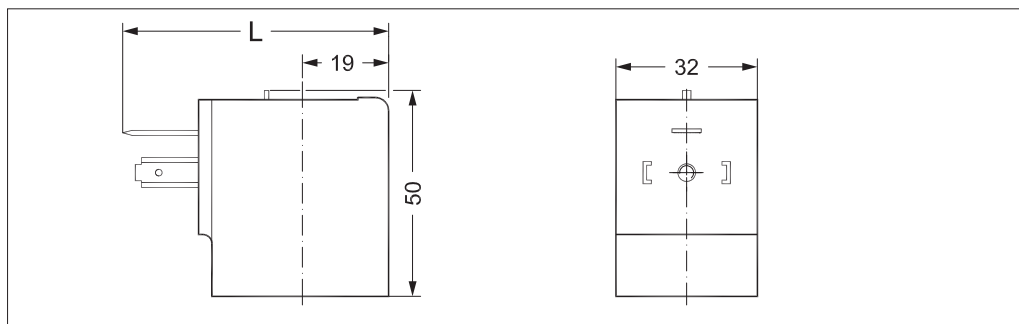
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BA024A	-40 – 40	24	-15%, 10%	50	8.5	17	042N7508
BA048A	-40 – 40	48	-15%, 10%	50	9.5	18	042N7510
BA115A	-40 – 40	115	-15%, 10%	50	9.0	18	042N7512
BA230A	-40 – 40	220 – 230	-15%, 6%	50	12	22	042N7501
BA240A	-40 – 40	240	-15%, 10%	50	10	20	042N7502
BA400A	-40 – 40	380 – 400	-15%, 6%	50	12	22	042N7504
BA024B	-40 – 40	24	-15%, 10%	60	9.5	19	042N7520
BA115B	-40 – 40	115	-15%, 10%	60	12	23	042N7522
BA220B	-40 – 40	220	-15%, 10%	60	11	21	042N7523
BA012D	-40 – 40	12	±10%	DC	14	–	042N7550
BA024D	-40 – 40	24	±10%	DC	14	–	042N7551

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP00 with spade connector, IP20 with protective cap, IP65 with cable plug
Duty rating	Continuous
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with protective cap [mm]	L with cable plug [mm]	Weight [kg]
BA	54	71	79	0.16



**BD, High performance coils**



- Cable plug enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with cable plug
- Nut and snap fastener included
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

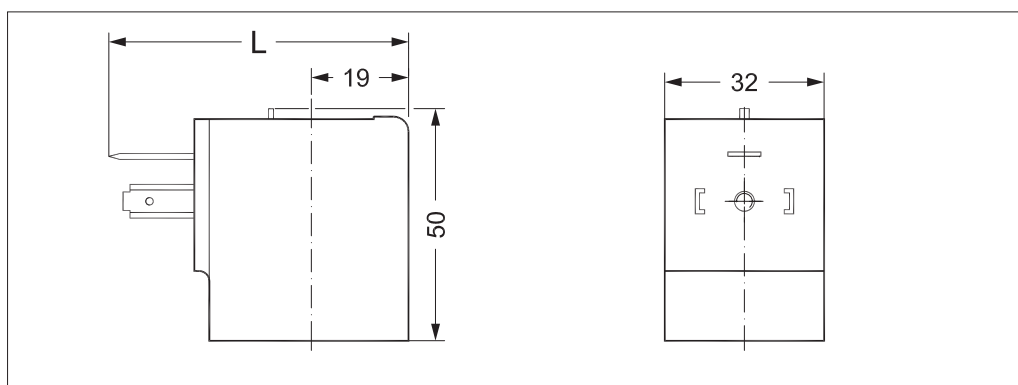
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BD024A	-40 – 40	24	-15%, 10%	50	15	29	042N7597
BD230A	-40 – 40	230	-10%, 6%	50	14	28	042N7591

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP00 with spade connector, IP20 with protective cap, IP65 with cable plug
Duty rating	Continuous
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with protective cap [mm]	L with cable plug [mm]	Weight [kg]
BD	54	71	79	0.16



**BB, High performance coils**



- Enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with mounted cable plug
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

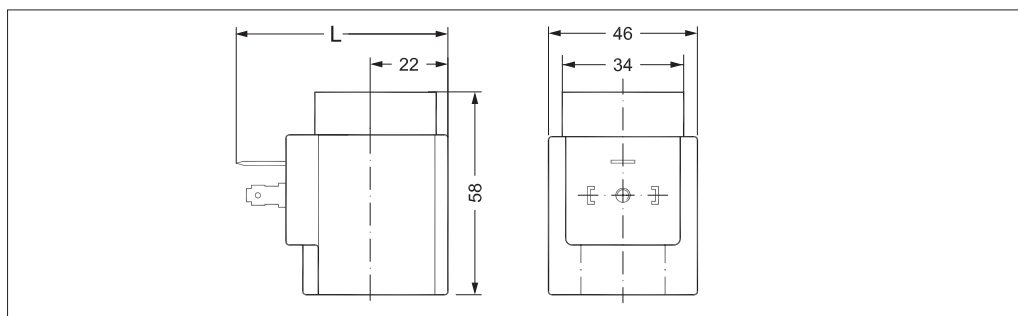
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BB024AS	-40 – 80	24	-15%, 10%	50	11	19	018F7358
BB115AS	-40 – 80	115	-15%, 10%	50	11	19	018F7361
BB230AS	-40 – 80	220 – 230	-15%, 10%	50	11	19	018F7351
BB240AS	-40 – 80	240	-15%, 10%	50	11	19	018F7352
BB440CS	-40 – 50	380 – 400	-15%, 10%	50	14	24	018F7353
		440	-15%, 10%	60	15	24	
BB024BS	-40 – 80	24	-15%, 10%	60	14	23	018F7365
BB110CS	-40 – 50	110	±10%	50	15	28	018F7360
		110	±10%	60	13	22	
BB230CS	-40 – 50	220 – 230	±10%	50	16	31	018F7363
		220 – 230	±10%	60	13	24	
BB012DS	-40 – 50	12	±10%	DC	14	–	018F7396
BB024DS	-40 – 50	24	±10%	DC	16	–	018F7397

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP00 with spade connector, IP20 with protective cap, IP65 with cable plug
Duty rating	Continuous
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with protective cap [mm]	L with cable plug [mm]	Weight [kg]
BB	62	77	85	0.24



**BE, High performance coils**



- Enclosure: IP67 for moist environments with terminal box
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

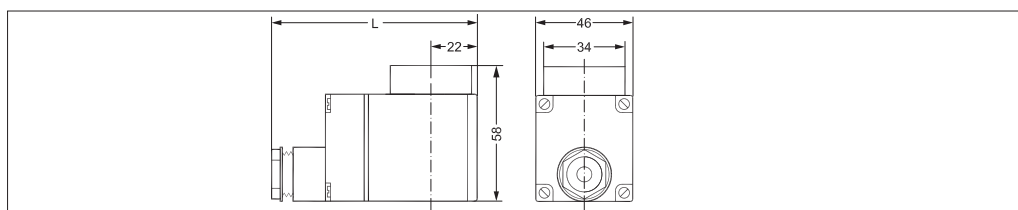
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BE024AS	-40 – 80	24	-15%, 10%	50	12	21	018F6707
BE048AS	-40 – 80	48	-15%, 10%	50	11	20	018F6709
BE115AS	-40 – 80	115	-15%, 10%	50	11	19	018F6711
BE230AS	-40 – 80	220 – 230	-15%, 10%	50	12	22	018F6701
BE240AS	-40 – 80	240	-15%, 10%	50	11	19	018F6702
BE440CS	-40 – 80	380 – 400	-15%, 10%	50	13	23	018F6703
		440	-15%, 10%	60	14	24	
BE024BS	-40 – 80	24	-15%, 10%	60	14	25	018F6715
BE115CS	-40 – 80	100	-15%, 10%	50	11	19	018F6710
		115	-15%, 10%	60	13	22	
BE220BS	-40 – 80	220	-15%, 10%	60	13	23	018F6714
BE110CS	-40 – 50	110	±10%	50	15	28	018F6730
	-40 – 50	110	±10%	60	13	22	
BE230CS	-40 – 50	220 – 230	±10%	50	17	31	018F6732
		220 – 230	±10%	60	14	24	
BE012DS	-40 – 50	12	±10%	DC	15	–	018F6756
BE024DS	-40 – 50	24	±10%	DC	16	–	018F6757

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box
Enclosure, IEC 529	IP67
Duty rating	Continuous
Plug type	Terminal box

**Dimensions and weight**

Type	L with terminal box [mm]	L with 1m cable [mm]	Weight [kg]
BE	94	65	0.30



**BF, High performance coils**



- Enclosure: IP67 for moist environments with molded-in cable
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

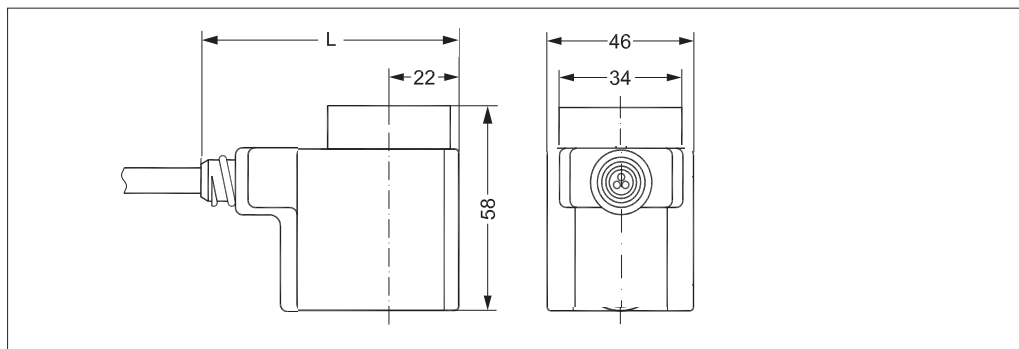
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BF230AS	-40 – 80	220 – 230	-15%, 10%	50	12	22	018F6251
BF240AS	-40 – 80	240	-15%, 10%	50	11	19	018F6252
BF440CS	-40 – 80	380 – 400	-15%, 10%	50	14	24	018F6253
		440	-15%, 10%	60	15	24	
BF024AS	-40 – 80	24	-15%, 10%	50	12	20	018F6257
BF115CS	-40 – 80	100	-15%, 10%	50	11	19	018F6260
		115	-15%, 10%	60	13	22	
BF220BS	-40 – 80	220	-15%, 10%	60	14	23	018F6264
BF024BS	-40 – 80	24	-15%, 10%	60	14	25	018F6265
BF110CS	-40 – 50	110	±10%	50	15	29	018F6280
		110	±10%	60	13	23	
BF230CS	-40 – 50	220 – 230	±10%	50	16	31	018F6282
		220 – 230	±10%	60	14	24	

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	1 m 3-core flying lead
Enclosure, IEC 529	IP67
Duty rating	Continuous

**Dimensions and weight**

Type	L with 1m cable [mm]	Weight [kg]
BF	67	0.30



**BG, High performance coils**



- Enclosure: IP67 for moist environments with terminal box
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

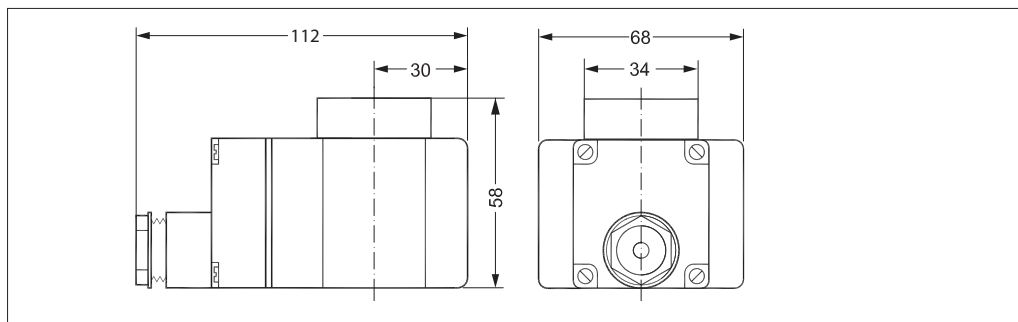
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BG024AS	-40 – 80	24	-15%, 10%	50	11	21	018F6807
BG110AS	-40 – 80	110	-15%, 10%	50	13	25	018F6811
BG230AS	-40 – 80	220 – 230	-15%, 10%	50	15	28	018F6801
BG240AS	-40 – 80	240	-15%, 10%	50	13	25	018F6802
BG400AS	-40 – 80	380 – 400	-15%, 10%	50	15	29	018F6803
BG024BS	-40 – 80	24	-15%, 10%	60	15	29	018F6815
BG110BS	-40 – 80	110	-15%, 10%	60	16	29	018F6813
BG220BS	-40 – 80	220	-15%, 10%	60	16	29	018F6814
BG012DS	-40 – 50	12	±10%	DC	20	-	018F6856
BG024DS	-40 – 50	24	±10%	DC	16	-	018F6857

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box
Enclosure, IEC 529	IP67
Duty rating	Continuous
Plug type	Terminal box

**Dimensions and weight**

Type	L with terminal box [mm]	Weight [kg]
BG	112	0.50





**BN, High performance coils**  
**Hum-free**



- Hum-free
- Enclosure:  
IP67 for moist environments with flying lead
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

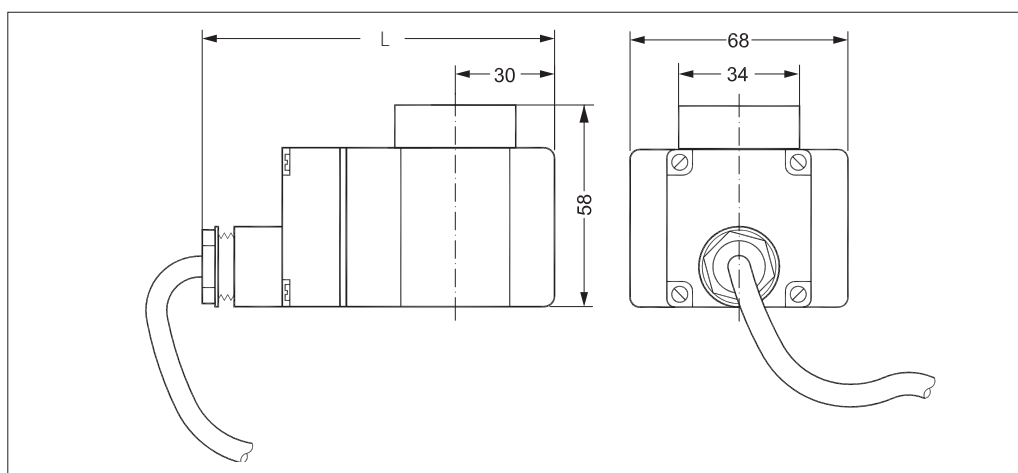
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BN230CS	-40 – 50	220 – 230	±10%	50	22	24	018F7301
		220 – 230	±10%	60	22	24	

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	1 m 3-core flying lead
Enclosure, IEC 529	IP67
Duty rating	Continuous

**Dimensions and weight**

Type	L with 1 m cable [mm]	Weight [kg]
BN	112	0.60



**BN, High performance coils  
Center boss**



- Enclosure:
  - Center boss for mounting IP65 cable plug in accordance with DIN43650 form A (042N0156)
  - IP67 for moist environments with terminal box
- Used with EV215B, EV225B, and EV245B up to 160 °C low pressure steam and max. ambient temperature 40 °C (see additional information in the respective solenoid valve data sheets)
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8
- Mounted with the solenoid valves EV210B, EV220B, EV215B and EV225B, the assembly is UL recognized

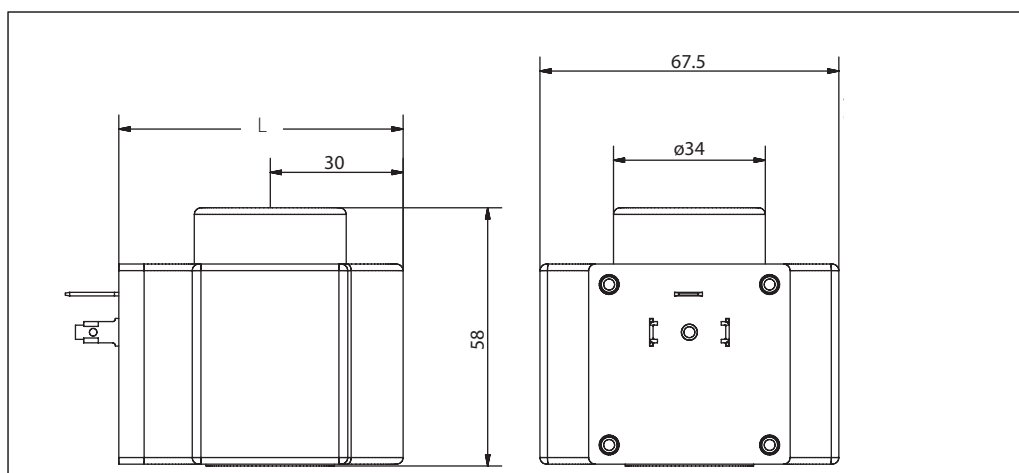
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Approval	Code no.
					[W]	[VA]		
BN024DS	-40 – 50	24	±10%	DC	20	–		018F6968

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Cable plug in accordance with DIN43650 form A or terminal box
Enclosure, IEC 529	IP65, IP67
Duty rating	Continuous

**Dimensions and weight**

Type	L [mm]	Weight [kg]
BN	64	0.47



**BO, High performance coils**



- ATEX Zone 1
- Enclosure: IP67 seal kit for moist environment included
- Approved in accordance with
  - ATEX 2014/34/EU
  - Ex mb IIC T4 Gb
  - ITS 09 ATEX 16835X
- Media temperature: Up to 90 °C

Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
BO024C	-40 – 60	24	±10%	50 / 60	10	21	018Z6595
BO110C	-40 – 60	110	±10%	50 / 60	10	21	018Z6593
BO230C	-40 – 60	230	±10%	50 / 60	10	21	018Z6592
BO240C	-40 – 60	240	±10%	50 / 60	10	21	018Z6591
BO024D	-40 – 60	24	±10%	DC	10	–	018Z6596

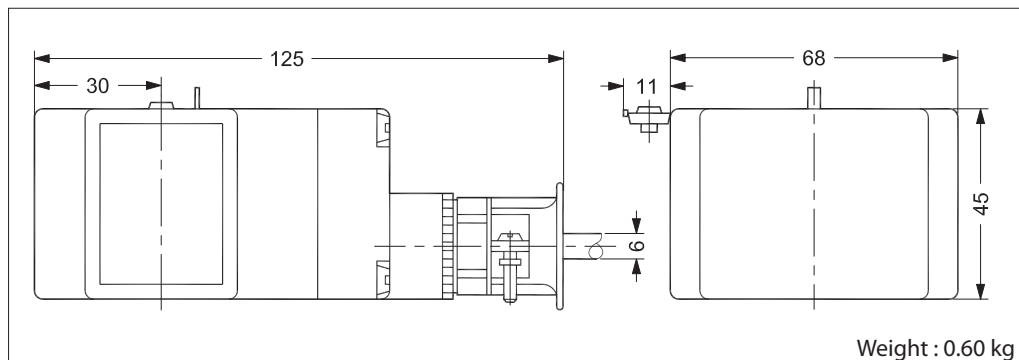
**Technical data**

Insulation of coil windings	Class H according to IEC 85
Connection	5 m 3 x 0.75 mm <sup>2</sup> flexible cord
Enclosure, IEC 529	IP67 including seal kit
Media temperature	-40 °C – 90 °C
Duty rating	Continuous
Humidity	0 – 100%
Pollution degree	3 (EN60730-1)
Impulse withstand voltage	2.5 kV (EN60730-1)

**Accessory**

Description	Application	Code no.
Seal kit (included as standard)	Wet environment (pollution degree 3)	018Z0090

**Dimensions and weight**



**BJ, High performance coils  
Junction box**



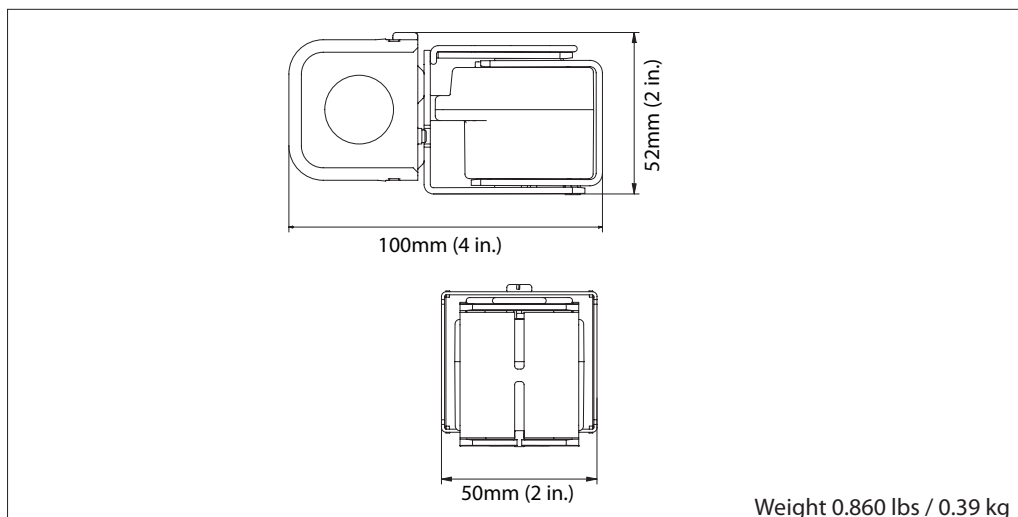
- Enclosure: IP30 / NEMA 2
- For UL listed valves (UL 429 and CSA)
- Ambient temperature: Up to 50 °C / 122 °F
- Media temperature: Up to 185 °C / 364 °F steam

Valve type	Coil type	Voltage tolerance	Supply voltage [V]	Frequency [Hz]	Power consumption [W]	Wire length		Code no.
						[in.]	[cm]	
EV220B 6-50	BJ024CS	±10%	24	50 / 60	14	7	18	<b>018F4100</b>
EV210B EV215B	BJ120CS	±10%	110	50 / 60	16	7	18	<b>018F4110</b>
EV225B EV250B			120	60	15			
	BJ240CS	±10%	208 – 240	60	14	7	18	<b>018F4120</b>
			230	50	17			

**Technical data**

Design	In accordance with UL 429
Power consumption, cut in	49 VA
Insulation of coil windings	Class H according to IEC 85
Connection	Junction box
Enclosure, IEC 529	Junction box NEMA 2 ~ IP12 – 30
Ambient temperature	-40 – 50 °C / -40 – 122 °F

**Dimensions and weight**



**BX, High performance coils  
Conduit hub**



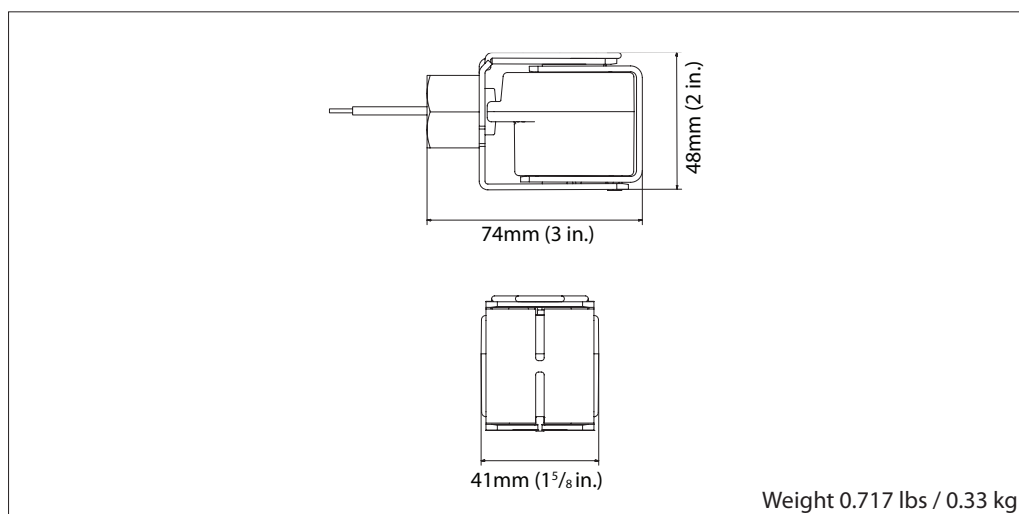
- Enclosure: IP54 / NEMA 4
- For UL listed valves (UL 429 and CSA)
- Ambient temperature: Up to 50 °C / 122 °F
- Media temperature: Up to 185 °C / 364 °F steam

Valve type	Coil type	Voltage tolerance	Supply voltage [V]	Frequency [Hz]	Power consumption [W]	Wire length		Code no.
						[in.]	[cm]	
EV220B 6-50 EV210B EV215B EV225B EV250B	BX024CS	±10%	24	50 / 60	14	18	46	<b>018F4102</b>
	BX024CS	±10%	24	50 / 60	14	71	180	<b>018F4103</b>
	BX024CS	±10%	24	50 / 60	14	98	250	<b>018F4104</b>
	BX120CS	±10%	110 120	50 / 60 60	16 15	18	46	<b>018F4112</b>
	BX120CS	±10%				36	91	<b>018F4113</b>
	BX120CS	±10%				71	180	<b>018F4114</b>
	BX120CS	±10%				98	250	<b>018F4115</b>
	BX240CS	±10%	208 – 240	60	14	18	46	<b>018F4122</b>
BX240CS	±10%	230	50	17	98	250	<b>018F4123</b>	

**Technical data**

Design	In accordance with UL 429
Power consumption, cut in	49 VA
Insulation of coil windings	Class H according to IEC 85
Connection	Conduit hub
Enclosure, IEC 529	Conduit hub NEMA 4 ~ IP54
Ambient temperature	-40 – 50 °C / -40 – 122 °F

**Dimensions and weight**



**BY, High performance coils**



- Enclosure:  
Up to IP65 / NEMA 4
- For UL recognised valves
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

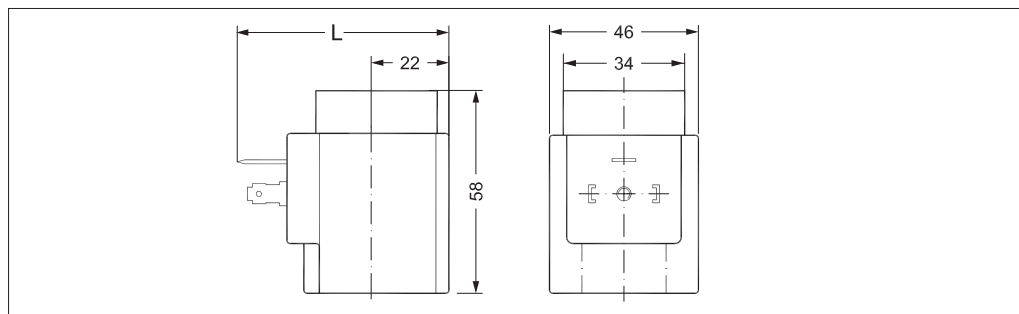
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Approval	Code no.
					[W]	[VA]		
BY024CS	-40 – 50	24	±10%	50	14	26		018F7655
		24	±10%	60	12	21		
BY240CS	-40 – 50	230	±10%	50	16	32		018F7658
		208 – 240	±10%	60	14	28		
BY120CS	-40 – 50	110	±10%	50	14	27		018F7663
		110 – 120	±10%	60	14	27		

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	Up to IP65 / NEMA 4
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with protective cap [mm]	L with cable plug [mm]	Weight [kg]
BY	62	77	85	0.24



**BQ, High performance coils**



- Enclosure:  
Up to IP65 / NEMA 4
- Max. media temperature:  
185 °C steam
- For UL recognised valves
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

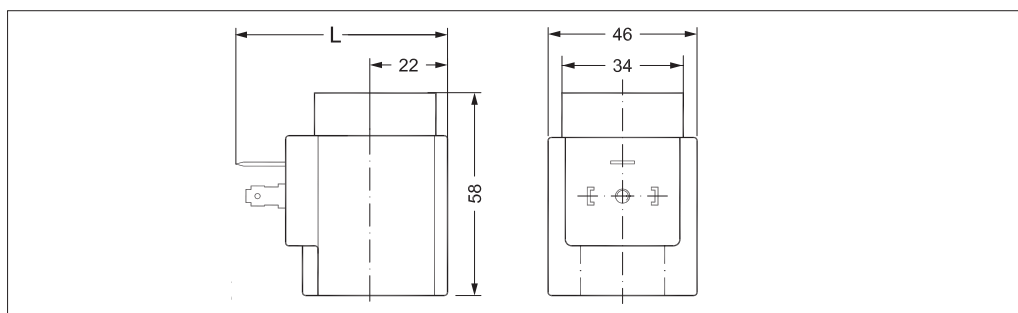
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Approval	Code no.
					[W]	[VA]		
BQ024CS	-40 – 40	24	-15%, 10%	50	10	17		018F4517
		24	-15%, 10%	60	9.0	16		
BQ120BS	-40 – 40	110 / 120	-15%, 6%	60	13.5	19		018F4519
BQ240CS	-40 – 40	230	-15%, 6%	50	10	17		018F4511
		208 / 240	-6%, 6%	60	9.5	16		

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	Up to IP65 / NEMA 4
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with protective cap [mm]	L with cable plug [mm]	Weight [kg]
BQ	62	77	85	0.24



**AM coil**



- Cable plug enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with cable plug
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

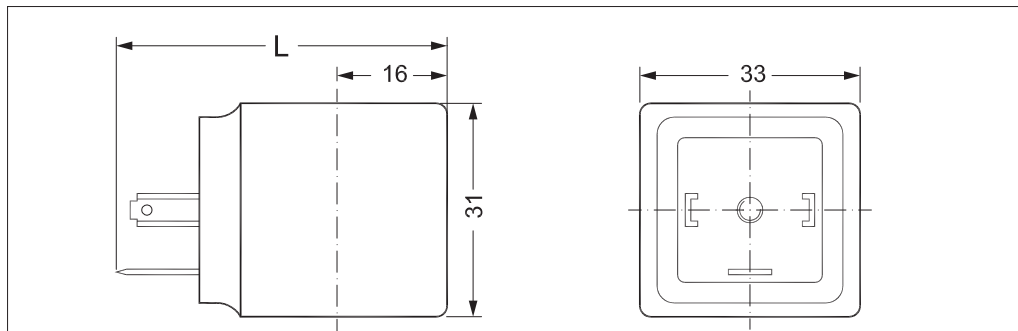
Type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
					[W]	[VA]	
AM024C	-40 – 50	24	±10%	60	5.5	11	042N0842
		24	±10%	50	7.5	14	
AM110C	-40 – 50	110	±10%	60	5.5	11	042N0845
		110	±10%	50	7.5	14	
AM230C	-40 – 50	230	±10%	60	6.5	13	042N0840
		230	±10%	50	9.5	18	
AM240C	-40 – 50	240	±10%	60	5.5	11	042N0841
		240	±10%	50	7.5	15	
AM012D	-40 – 50	12	±10%	DC	8.5	–	042N0848
AM024D	-40 – 50	24	±10%	DC	9.0	–	042N0843

**Technical data**

Design	In accordance with VDE 0580
Power consumption, cut in	22.5 VA AC coils only
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP00 with spade connector, IP65 with cable plug
Duty rating	Continuous
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [mm]	L with cable plug [mm]	L with protective cap [mm]	Weight [kg]
AM	48	72	64	0.10





**AP, Compact UL recognised coils**



- Cable plug enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with cable plug
- For UL recognised valves
- Ambient temperature: Up to 50 °C / 122 °F
- In accordance with:
  - RoHS Directive 2011/65/EU
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8

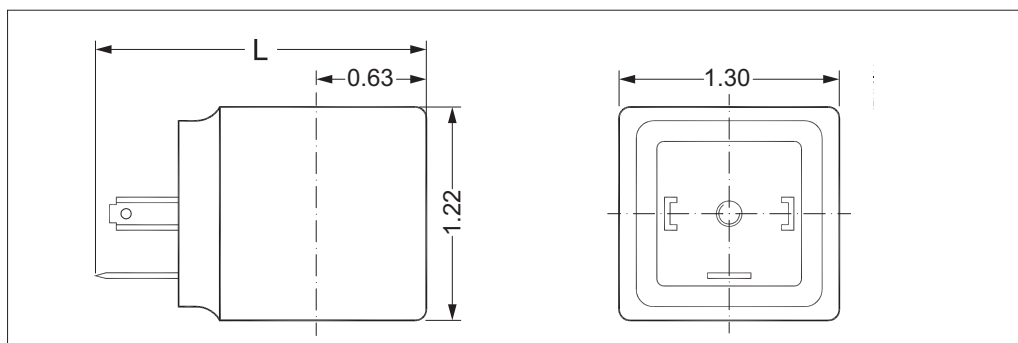
Type	Tambient [°C / °F]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Approval	Code no.
					[W]	[VA]		
AP240C	-40 – 50 / -40 – 122	208 – 240	±10%	60	5.5	11		042N4191
		230	±10%	50	7.5	15		
AP120B	-40 – 50 / -40 – 122	110 – 120	±10%	60	5.0	11		042N4192
AP024B	-40 – 50 / -40 – 122	24	±10%	60	5.0	11		042N4193

**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	IP00 with spade connector, IP65 / NEMA 2 with cable plug
Duty rating	Continuous
Plug type	Cable plug (042N0156)

**Dimensions and weight**

Type	L without cable plug [in]	L with cable plug [in]	L with protective cap [in]	Weight [kg / lbs]
AP	1.89	2.83	2.52	0.10 / 0.22



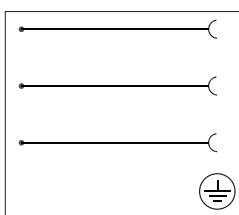
Cable plug



- Enclosure: Up to IP65
- For use with Danfoss coils type AL, AM, AS, AZ, BA, BB, BD, BN (Center boss), BQ, and BY
- AC / DC all voltages up to 250 V
- Approved in accordance with:
  - cULus
  - CSA
  - VDE

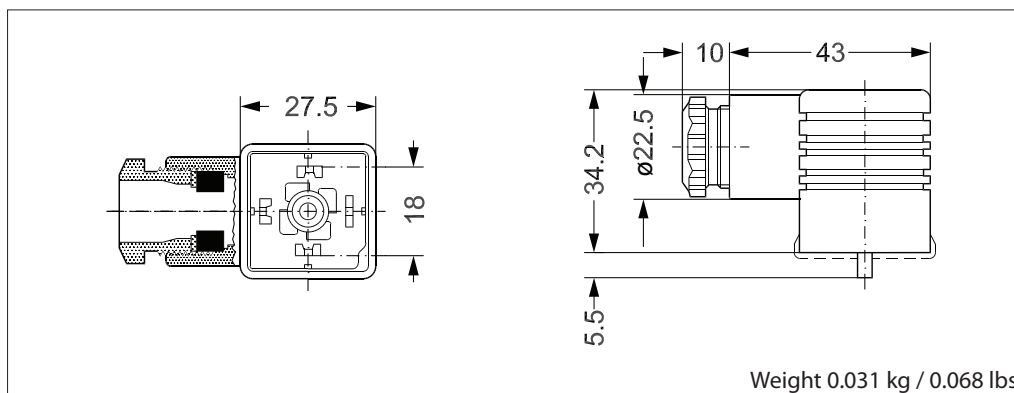
Cable plug size	Description	Suitable for coil types	Code no.
DIN 18	Cable plug according to DIN 43650-A PG 11	AL, AM, AS, AZ, BA, BB, BD, BN (Center boss), BQ, BY	042N0156

Technical data



Type	GDM 2011 J (Grey)	
Design	DIN 43650-A	
Cable gland	PG 11	
Poles	2 + PE	
Max. voltage	250 V AC / DC	
Approvals	cULus CSA, VDE	
Enclosure	IP65 (IEC 60529)	
Max. operating current	16 A	
Contact resistance	< 10m Ω	
Cable diameter	Ø4.5 – 11 mm	
Wire cross section	Max. 1.5 mm <sup>2</sup>	
Ambient temperature	-30 – 90 °C / -22 – 194 °F	
Materials	Contacts:	CuSn (Tin plated)
	Terminal block:	PA 6 GF
	Profiled gasket:	NBR
	Housing:	PA 6 GF

Dimensions and weight



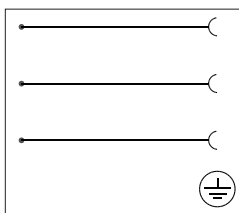
**Cable plug**



- Enclosure:  
Up to IP65
- For use with Danfoss coils type AL, AM, AS, AZ, BA, BB, BD, and BY
- AC / DC all voltages up to 250 V
- Approved in accordance with:  
CSA
- In accordance with:  
- RoHS 2011/65/EU  
- LVD 2014/35/EU

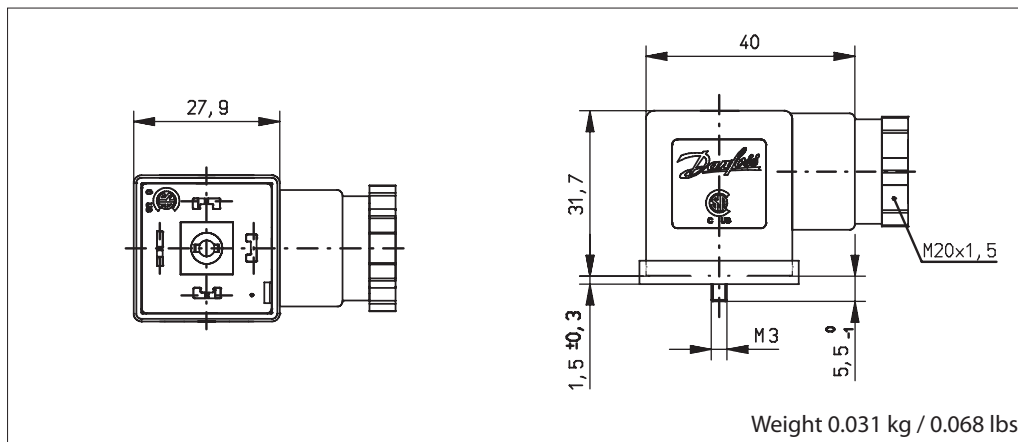
Cable plug size	Description	Suitable for coil types	Code no.
DIN 18	Cable plug with form A	AL, AM, AS, AZ, BA, BB, BD, BY	<b>042N0178</b>

**Technical data**



Design	EN 175301-803 Form A	
Cable gland	PG 11	
Poles	2 + PE	
Max. voltage	250 V AC / DC	
Approvals	CSA	
Enclosure	IP65	
Max. operating current	16 A	
Contact resistance	< 4m Ω	
Cable diameter	Ø6 – 8 / 8 – 10 mm	
Wire cross section	Max. 1.5 mm <sup>2</sup>	
Ambient temperature	-25 – 80 °C / -13 – 176 °F	
Materials	Contacts:	CuZn, Cu/Sn - plated
	Terminal block:	PA 6 GF
	Profiled gasket:	NBR
	Housing:	PA 6 GF

**Dimensions and weight**



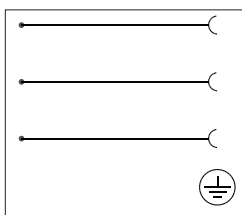
**Industrial plug**



- Enclosure:  
Up to IP65
- For use with Danfoss coils type AB and AC
- AC / DC all voltages up to 250 V
- Approved in accordance with:
  - c us
  - CSA

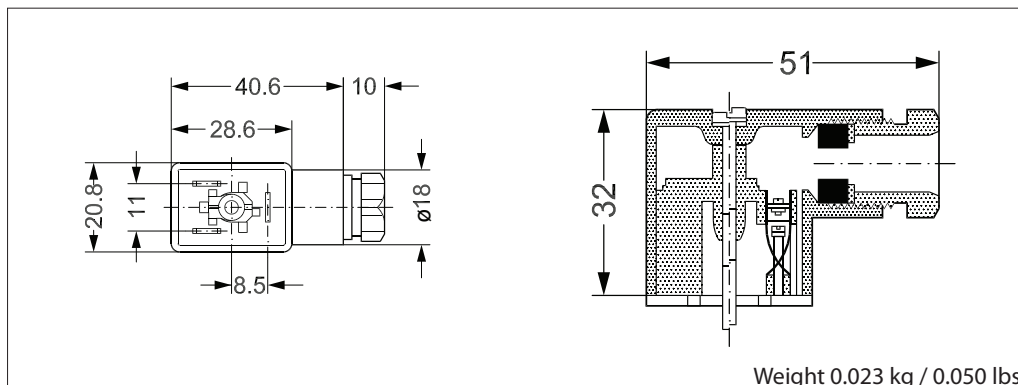
Industrial plug size	Description	Suitable for coil types	Code no.
DIN 11	Cable plug for 6.3 x 0.8 mm spade connectors	AB, AC	<b>042N0139</b>

**Technical data**



Type	GM 209 J (Black)	
Design	DIN 43650-B	
Cable gland	PG 9	
Poles	2 + PE	
Max. voltage	250 V AC / DC	
Approvals	CSA	
Enclosure	IP65 (IEC 60529)	
Max. operating current	16 A	
Contact resistance	< 10m Ω	
Cable diameter	Ø4.5 – 7 mm	
Wire cross section	Max. 1.5 mm <sup>2</sup>	
Ambient temperature	-30 – 90 °C / -22 – 194 °F	
Materials	Contacts:	CuSn (Tin plated)
	Terminal block:	PA 6 GF
	Flat gasket:	NBR
	Housing:	PA 6 GF

**Dimensions and weight**



**Cable plug (LED + Varistor)**

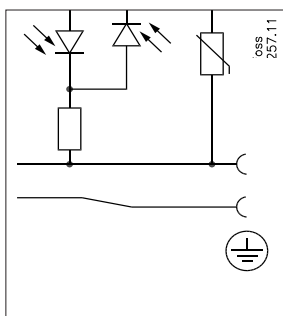


- Enclosure:  
Up to IP65
- For use with Danfoss coils type AM, AK, AL, AS, AZ, BA, BD, BB, and BY
- 24 V AC / DC and 230 V AC version
- DIN 18
- Approved in accordance with:  
CSA
- In accordance with:  
- RoHS 2011/65/EU  
- LVD 2014/35/EU

Cable plug size	Voltage		Voltage variation	Suitable for coil types	LED colour	Built-in VDR <sup>1)</sup> resistor	Code no.
	[V AC]	[V DC]					
DIN 18	24	24	±10%	AM, AL, AS, AZ, BA, BB, BD, BY	Red	Yes	<b>042N0263</b>
DIN 18	230	–	±10%	AM, AL, AS, AZ, BA, BB, BD, BY	Red	Yes	<b>042N0265</b>

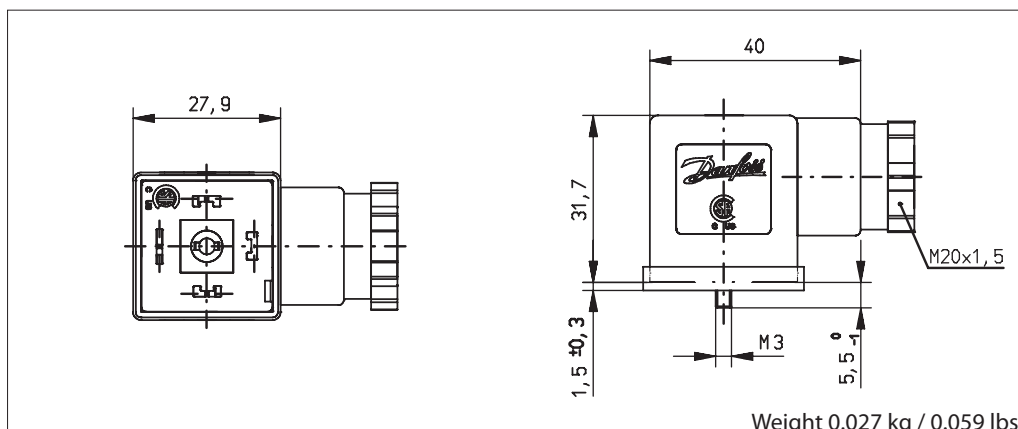
<sup>1)</sup> Protects against voltage peaks

**Technical data**



Design	EN 175301-803 A	
Power consumption	Max. 5 mA	
Approval	CSA	
Enclosure	IP65 (IEC 60529)	
Max. operating current	1.5 A clamping contact	
Contact resistance	≤ 4m Ω	
Protection against wrong polarity	Yes	
Cable diameter	6 – 8 mm and 8 – 10 mm	
Wire cross section	Max. 1.5 mm <sup>2</sup>	
Ambient temperature	-25 – 60 °C / -13 – 140 °F	
Materials	Contacts:	CuZn, Cu/Sn-plated
	Terminal block:	PA6 + 30% FG, black
	Flat gasket:	NBR LABS-free
	Housing:	PA6
	Wire holder:	PA6.6 + 50% FG P7,5, black

**Dimensions and weight**



**Industrial plug (LED + Varistor)**

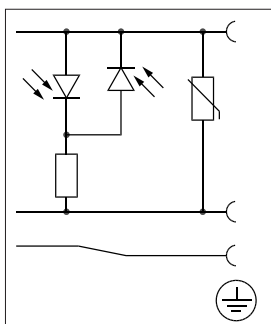


- Enclosure:  
Up to IP65
- For use with Danfoss coils type AB and AC
- 24 V AC
- Approved in accordance with:  
CSA
- In accordance with:  
- RoHS 2011/65/EU  
- LVD 2014/35/EU

Industrial plug size	Voltage		Suitable for coil types	LED colour	Built-in VDR <sup>1)</sup> resistor	Code no.
	[V AC]	[V DC]				
DIN 11	24	24	AB, AC	Red	Yes	<b>042N0267</b>

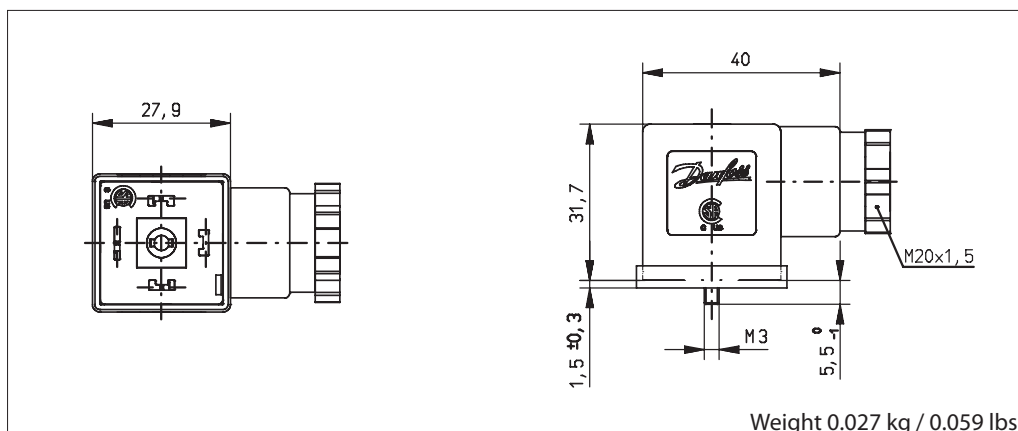
<sup>1)</sup> Protects against voltage peaks

**Technical data**



Design	Industrial form	
Supply voltage variation	±10%	
Power consumption	Max. 5 mA	
Approval	CSA	
Enclosure	IP65 (IEC 60529)	
Max. operating current	1.5 A clamping contact	
Contact resistance	≤ 4m Ω	
Protection against wrong polarity	Yes	
Cable diameter	5 – 6 mm and 6 – 9 mm	
Wire cross section	Max. 1 mm <sup>2</sup>	
Ambient temperature	-25 – 60 °C / -13 – 140 °F	
Materials	Contacts:	CuZn, Cu/Sn-plated
	Terminal block:	PA6 + 30% FG, black
	Flat gasket:	NBR LABS-fre
	Housing:	PA6
	Wire holder:	PA6.6 + 50% FG P7,5 black

**Dimensions and weight**



**Universal electronic multi-timer Type ET 20 M**



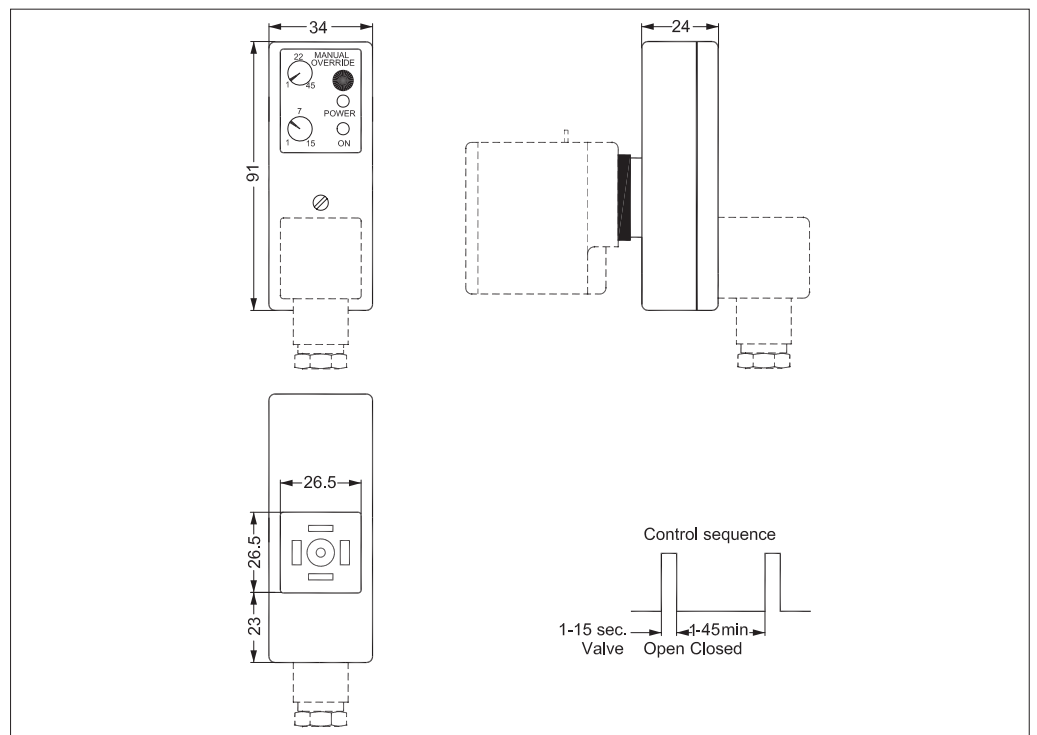
- Outside adjustments
- Light weight and small size
- External adjustable timing from 1 minute to 45 minutes with 1 to 15 seconds drain open
- One solid state timer fits all coil voltages from 24 – 240 V AC
- Light diodes for indication
- All in one unit
- Manual override (test button).

Type	Voltage [V]	Suitable for coil types	Code no.
BA024A	24 – 240	AL, AM, AS, AZ, BA, BD, BB	<b>042N0185</b>

**Technical data**

Type	ET 20 M
Voltage	24 – 240 V AC / 50 – 60 Hz
Power rating	Max. 20 W
Enclosure	IP00, IP65 with cable plug
Electrical connection	DIN connector (DIN 43650-A)
Ambient operating temperature range	-10 – 50 °C
Function	Start with pulse
Interval timer	0 – 45 min.
“On” timer	0 – 15 sec.

**Dimensions and weight**



Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.