

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

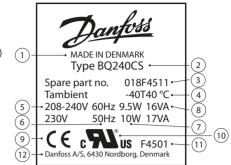
Technical data is printed directly on the coil:

- 1 Country of origin
- 2 Coil type 3 Spare part no. (code no.)
- 4 Ambient temperature

 $(-40T40 \, ^{\circ}\text{C} = \text{Ambient temperature range: } -40 \, ^{\circ}\text{C} \text{ to } 40 \, ^{\circ}\text{C})$

- (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

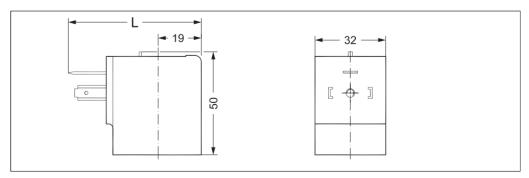
| | | Supply | | | Power cor | sumption | |
|--------|------------------|----------------|----------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BA024A | -40T40 | 24 | -15%, +10% | 50 | 8.5 | 17 | 042N7508 |
| BA048A | -40T40 | 48 | -15%, +10% | 50 | 9.5 | 18 | 042N7510 |
| BA115A | -40T40 | 115 | -15%, +10% | 50 | 9.0 | 18 | 042N7512 |
| BA230A | -40T40 | 220 – 230 | -15%, +6% | 50 | 12 | 22 | 042N7501 |
| BA240A | -40T40 | 240 | -15%, +10% | 50 | 10 | 20 | 042N7502 |
| BA400A | -40T40 | 380 – 400 | -15%, +6% | 50 | 12 | 22 | 042N7504 |
| BA024B | -40T40 | 24 | -15%, +10% | 60 | 9.5 | 19 | 042N7520 |
| BA115B | -40T40 | 115 | -15%, +10% | 60 | 12 | 23 | 042N7522 |
| BA220B | -40T40 | 220 | -15%, +10% | 60 | 11 | 21 | 042N7523 |
| BA012D | -40T40 | 12 | ±10% | DC | 14 | - | 042N7550 |
| BA024D | -40T40 | 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

| Туре | 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

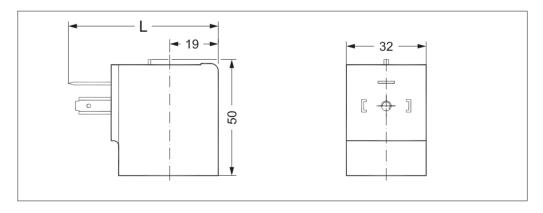
| | | Supply | | | Power cor | sumption | |
|--------|------------------|----------------|-------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BD024A | -40T40 | 24 | -15%, +10% | 50 | 15 | 29 | 042N7597 |
| BD230A | -40T40 | 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

| Туре | 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



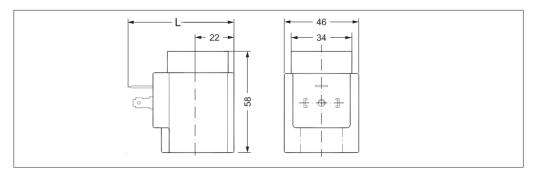
- Enclosure:
 - IP00 version with DIN 43650 A spade connectors
 - IP20 version with protective cap
 - IP65 version with mounted cable plug
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

| | | Supply | | | Power cor | sumption | |
|-----------|------------------|----------------|----------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BB024AS | -40T80 | 24 | -15%, +10% | 50 | 11 | 19 | 018F7358 |
| BB115AS | -40T80 | 115 | -15%, +10% | 50 | 11 | 19 | 018F7361 |
| BB230AS | -40T80 | 220 - 230 | -15%, +10% | 50 | 11 | 19 | 018F7351 |
| BB240AS | -40T80 | 240 | -15%, +10% | 50 | 11 | 19 | 018F7352 |
| DD 440.00 | 40750 | 380 - 400 | ±10% | 50 | 14 | 24 | 04057353 |
| BB440CS | -40T50 | 440 | ±10% | 60 | 15 | 24 | 018F7353 |
| BB024BS | -40T80 | 24 | -15%, +10% | 60 | 14 | 23 | 018F7365 |
| DD110CC | 40750 | 110 | ±10% | 50 | 15 | 28 | 01057360 |
| BB110CS | -40T50 | 110 | ±10% | 60 | 13 | 22 | 018F7360 |
| DD22066 | 40750 | 220 - 230 | ±10% | 50 | 16 | 31 | 04057363 |
| BB230CS | -40T50 | 220 - 230 | ±10% | 60 | 13 | 24 | 018F7363 |
| | | | | | | | • |
| BB012DS | -40T50 | 12 | ±10% | DC | 13 | - | 018F7396 |
| BB024DS | -40T50 | 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) |

| Туре | L without cable plug [mm] | L with protective cap [mm] | L with cable plug [mm] | Weight [kg] |
|------|---------------------------------|----------------------------------|------------------------------|----------------|
| ВВ | 62 | 77 | 85 | 0.24 |





BE, High performance coils



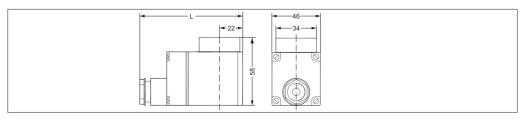
- Enclosure: IP67 for moist environments with terminal box
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

| | | Supply | | | Power cor | sumption | |
|-----------|------------------|----------------|-------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BE024AS | -40T80 | 24 | -15%, +10% | 50 | 12 | 21 | 018F6707 |
| BE048AS | -40T80 | 48 | -15%, +10% | 50 | 11 | 20 | 018F6709 |
| BE115AS | -40T80 | 115 | -15%, +10% | 50 | 11 | 19 | 018F6711 |
| BE230AS | -40T80 | 220 – 230 | -15%, +10% | 50 | 12 | 22 | 018F6701 |
| BE240AS | -40T80 | 240 | -15%, +10% | 50 | 11 | 19 | 018F6702 |
| DE 440.00 | 10750 | 380 – 400 | ±10% | 50 | 14 | 24 | 04056700 |
| BE440CS | -40T50 | 440 | ±10% | 60 | 15 | 24 | 018F6703 |
| BE024BS | -40T80 | 24 | -15%, +10% | 60 | 14 | 25 | 018F6715 |
| DE11500 | 40750 | 100 | ±10% | 50 | 11 | 19 | 04054740 |
| BE115CS | -40T50 | 115 | ±10% | 60 | 13 | 22 | 018F6710 |
| BE220BS | -40T80 | 220 | -15%, +10% | 60 | 13 | 23 | 018F6714 |
| DE11066 | -40T50 | 110 | ±10% | 50 | 15 | 28 | 04056770 |
| BE110CS | -40T50 | 110 | ±10% | 60 | 13 | 22 | 018F6730 |
| DESSOC | 10750 | 220 - 230 | ±10% | 50 | 17 | 31 | |
| BE230CS | -40T50 | 220 - 230 | ±10% | 60 | 14 | 24 | 018F6732 |
| BE012DS | -40T50 | 12 | ±10% | DC | 15 | - | 018F6756 |
| BE024DS | -40T50 | 24 | ±10% | DC | 13 | _ | 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 | | |

| Туре | 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

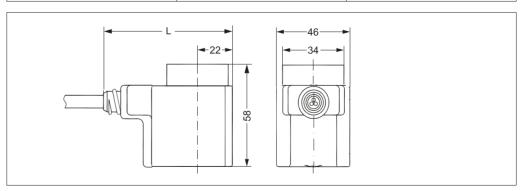
| | | Supply | | | Power cor | sumption | |
|----------|------------------|----------------|-------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BF230AS | -40T80 | 220 – 230 | -15%, +10% | 50 | 12 | 22 | 018F6251 |
| BF240AS | -40T80 | 240 | -15%, +10% | 50 | 11 | 19 | 018F6252 |
| DE 400CC | 40750 | 380 - 400 | ±10% | 50 | 14 | 24 | 01056353 |
| BF400CS | -40T50 | 440 | ±10% | 60 | 15 | 24 | 018F6253 |
| BF024AS | -40T80 | 24 | -15%, +10% | 50 | 12 | 21 | 018F6257 |
| BF115BS | -40T80 | 115 | -15%, +10% | 60 | 13 | 22 | 018F6260 |
| BF220BS | -40T80 | 220 | -15%, +10% | 60 | 14 | 23 | 018F6264 |
| BF024BS | -40T80 | 24 | -15%, +10% | 60 | 14 | 25 | 018F6265 |
| DE110CC | 40750 | 110 | ±10% | 50 | 15 | 29 | 01056300 |
| BF110CS | -40T50 | 110 | ±10% | 60 | 13 | 23 | 018F6280 |
| | 40750 | 220 – 230 | ±10% | 50 | 16 | 31 | 01056303 |
| BF230CS | -40T50 | 220 - 230 | ±10% | 60 | 14 | 24 | 018F6282 |

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

| Туре | 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

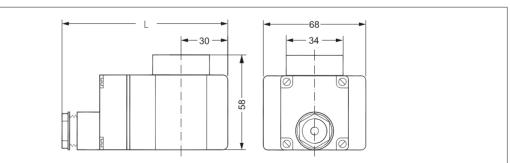
| | | Supply | | | Power consumption | | |
|---------|------------------|----------------|-------------------|-------------------|-------------------|------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BG024AS | -40T80 | 24 | -15%, +10% | 50 | 11 | 21 | 018F6807 |
| BG110AS | -40T80 | 110 | -15%, +10% | 50 | 13 | 25 | 018F6811 |
| BG230AS | -40T80 | 220 - 230 | -15%, +10% | 50 | 15 | 28 | 018F6801 |
| BG240AS | -40T80 | 240 | -15%, +10% | 50 | 13 | 25 | 018F6802 |
| BG400AS | -40T80 | 380 - 400 | -15%, +10% | 50 | 15 | 29 | 018F6803 |
| BG024BS | -40T80 | 24 | -15%, +10% | 60 | 14 | 25 | 018F6815 |
| BG110BS | -40T80 | 110 | -15%, +10% | 60 | 16 | 29 | 018F6813 |
| BG220BS | -40T80 | 220 | -15%, +10% | 60 | 16 | 29 | 018F6814 |
| BG012DS | -40T50 | 12 | ±10% | DC | 20 | - | 018F6856 |
| BG024DS | -40T50 | 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

| | L with terminal box | Weight |
|------|------------------------|--------|
| Туре | [mm] | [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

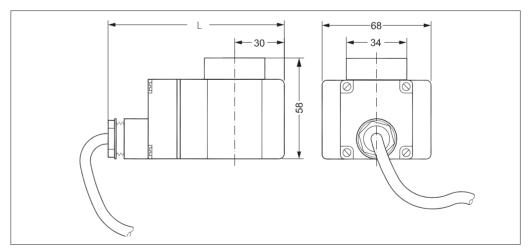
| | | Supply | | _ | Power cor | sumption | |
|----------|------------------|----------------|----------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BN230CS | -40T50 | 220 - 230 | ±10% | 50 | 22 | 24 | 01057201 |
| DINZOUCS | -40150 | 220 - 230 | ±10% | 60 | 22 | 24 | 018F7301 |

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

| Туре | L with 1m 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

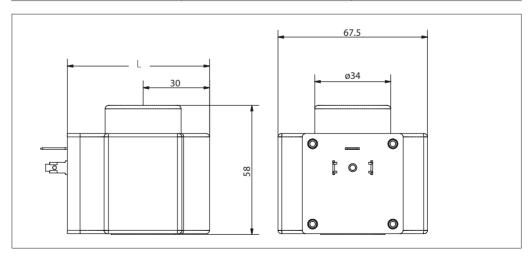
| | | Supply | | | Power cor | sumption | | |
|---------|------------------|----------------|----------------------|-------------------|-----------|----------|-----------------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Approval | Code no. |
| BN024DS | -40T50 | 24 | ±10% | DC | 20 | - | c FL °us | 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

| Туре | 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

| | | Supply | | | Power cor | sumption | |
|--------|------------------|----------------|----------------------|-------------------|-----------|----------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| BO024C | -40T60 | 24 | ±10% | 50 / 60 | 10 | 21 | 018Z6595 |
| BO110C | -40T60 | 110 | ±10% | 50 / 60 | 10 | 21 | 018Z6593 |
| BO230C | -40T60 | 230 | ±10% | 50 / 60 | 10 | 21 | 018Z6592 |
| BO240C | -40T60 | 240 | ±10% | 50 / 60 | 10 | 21 | 018Z6591 |
| BO024D | -40T60 | 24 | ±10% | DC | 10 | - | 018Z6596 |

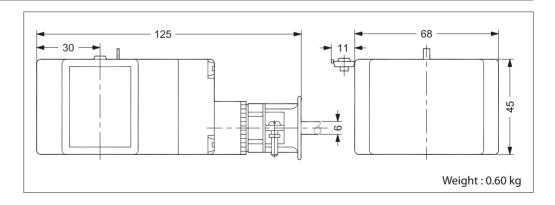
Technical data

| Insulation of coil windings | Class H according to IEC 85 |
|-----------------------------|--|
| Connection | 5 m 3 x 0.75 mm ² 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



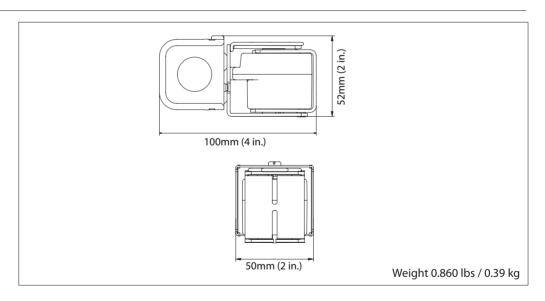
- Enclosure: IP30 / NEMA 2
- For UL listed valves (UL 429 and CSA)
- Ambient temperature: Up to 50 °C / 122 °F
- Media temperature: Up to 185 °C / 364 °F steam

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

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



© Danfoss | DCS (rja) | 2016.11 IC.PD.600.1A.02 | 12



BX, High performance coils Conduit hub



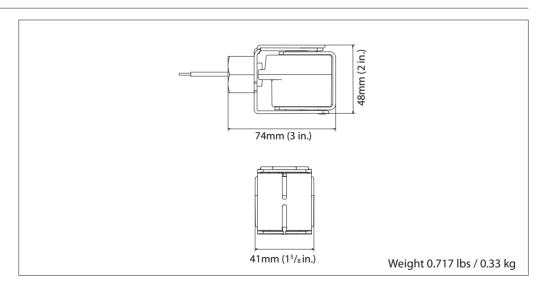
- Enclosure: IP54 / NEMA 4
- For UL listed valves (UL 429 and CSA)
- Ambient temperature: Up to 50 °C / 122 °F
- Media temperature: Up to 185 °C / 364 °F steam

| | | | Supply | | Power | Wire I | ength | |
|-------------|-----------|----------------------|----------------|-------------------|--------------------|--------|-------|----------|
| Valve type | Coil type | Voltage tolerance | voltage [V] | Frequency [Hz] | consumption [W] | [in.] | [cm] | Code no. |
| | BX024CS | ±10% | 24 | 50 / 60 | 14 | 18 | 46 | 018F4102 |
| | BX024CS | ±10% | 24 | 50 / 60 | 14 | 71 | 180 | 018F4103 |
| EV220B 6-50 | BX024CS | ±10% | 24 | 50 / 60 | 14 | 98 | 250 | 018F4104 |
| EV220B 6-30 | BX120CS | ±10% | | | | 18 | 46 | 018F4112 |
| EV215B | BX120CS | ±10% | 110 | 50 / 60 | 16 | 36 | 91 | 018F4113 |
| EV225B | BX120CS | ±10% | 120 | 60 | 15 | 71 | 180 | 018F4114 |
| EV250B | BX120CS | ±10% | | | | 98 | 250 | 018F4115 |
| | BX240CS | ±10% | 208 – 240 | 60 | 14 | 18 | 46 | 018F4122 |
| | BX240CS | ±10% | 230 | 50 | 17 | 98 | 250 | 018F4123 |

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 calves
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

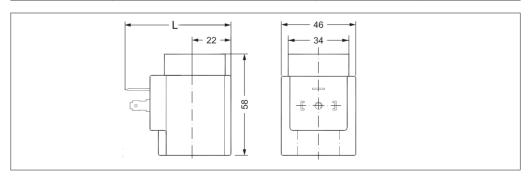
| | | Supply | | | Power con | sumption | | |
|----------------|------------------|----------------|----------------------|-------------------|-----------|-----------------|----------------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Approval | Code no. |
| DV024CC | 40750 | 24 | ±10% | 50 | 14 | 26 | c FM us | 01057655 |
| BYUZ4CS | BY024CS -40T50 | 24 | ±10% | 60 | 12 | 21 | C TABUS | 018F7655 |
| DV240CC | 40750 | 230 | ±10% | 50 | 16 | 32 | | 01057650 |
| BY240CS | ′240CS -40T50 | 208 - 240 | ±10% | 60 | 14 | 28 | c FL us | 018F7658 |
| DV120CC | 40750 | 110 | ±10% | 50 | 14 | 27 | - Nº | 01057663 |
| BY120CS -40T50 | 110 – 120 | ±10% | 60 | 14 | 27 | c FL °us | 018F7663 | |

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

| Туре | 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 callus
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

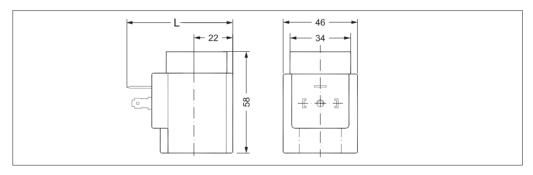
| | | Supply | | | Power con | sumption | | |
|----------------|------------------|----------------|----------------------|-------------------|-----------|-----------------|------------------|----------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Approval | Code no. |
| DO034CC | -40T40 | 24 | -15%, +10% | 50 | 10 | 17 | c FL °us | 01054517 |
| BQ024CS | -40140 | 24 | -15%, +10% | 60 | 9.0 | 16 | c 7744 us | 018F4517 |
| BQ120BS | -40T40 | 110/120 | -15%, +6% | 60 | 13.5 | 19 | c FL °us | 018F4519 |
| PO340CS | 40740 | 230 | -15%, +6% | 50 | 10 | 17 | | 018F4511 |
| BQ240CS -40T40 | 208/240 | -6%, +6% | 60 | 9.5 | 16 | c FU °us | 018F4511 | |

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

| Туре | 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



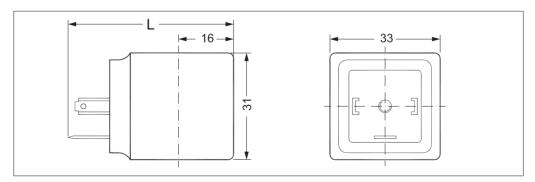
- Cable plug enclosure:
 - IP00 version with DIN 43650 A spade connectors
 - IP20 version with protective cap
 - IP65 version with cable plug
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

| | Supply | | | | Power cor | sumption | |
|----------|------------------|----------------|----------------------|-------------------|-----------|----------|-------------|
| Туре | Tambient [°C] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Code no. |
| AM024C | -40T50 | 24 | ±10% | 60 | 5.5 | 11 | 042N0842 |
| AIVIU24C | -40150 | 24 | ±10% | 50 | 7.5 | 14 | U42NU842 |
| AAA110C | 40750 | 110 | ±10% | 60 | 5.5 | 11 | 0.428100.45 |
| AM110C | -40T50 | 110 | ±10% | 50 | 7.5 | 14 | 042N0845 |
| AAA220C | 40750 | 230 | ±10% | 60 | 6.5 | 13 | 0.428100.40 |
| AM230C | -40T50 | 230 | ±10% | 50 | 9.5 | 18 | 042N0840 |
| AAA240C | 40750 | 240 | ±10% | 60 | 5.5 | 11 | 0.420100.44 |
| AM240C | -40T50 | 240 | ±10% | 50 | 7.5 | 15 | 042N0841 |
| AM012D | -40T50 | 12 | ±10% | DC | 8.5 | - | 042N0848 |
| AM024D | -40T50 | 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) |

| Туре | 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



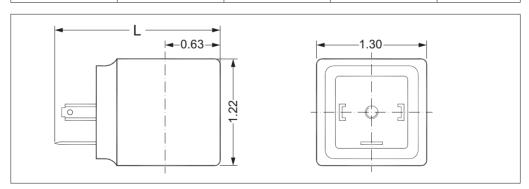
- Cable plug enclosure:
 - IP00 version with DIN 43650 A spade connectors
 - IP20 version with protective cap
 - IP65 version with cable plug
- For UL recognised valves calves
- Ambient temperature: Up to 50 °C / 122 °F
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU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

| | _ | Supply | | | Power cor | sumption | | |
|------------|-----------------------|----------------|----------------------|-------------------|-----------|----------|------------------|----------|
| Туре | Tambient [°C / °F] | voltage [V] | Voltage variation | Frequency [Hz] | [W] | [VA] | Approval | Code no. |
| A D 2 40 C | -40T50 / | 208 – 240 | ±10% | 60 | 5.5 | 11 | | 042N4101 |
| AP240C | -40T122 | 230 | ±10% | 50 | 7.5 | 15 | c FL °us | 042N4191 |
| AP120B | -40T50 / -40T122 | 110 – 120 | ±10% | 60 | 5.0 | 11 | c FW us | 042N4192 |
| AP024B | -40T50 / -40T122 | 24 | ±10% | 60 | 5.0 | 11 | c 911 °us | 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) |

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





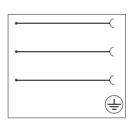
Cable plug



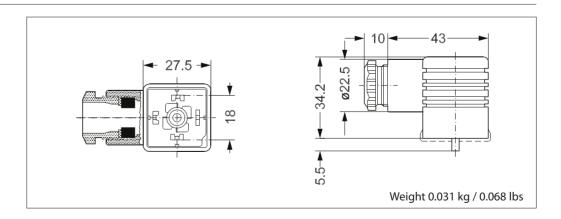
- Enclosure: Up to IP65
- For use with Danfoss coils type AL, AM, AS, AZ, BA, BB, BD, BN (Center boss), BQ, and BY
- AC / DC all voltages up to 250 V
- Approved in accordance with:
 - c**SU**°us
 - CSA
 - VDE

| 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



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





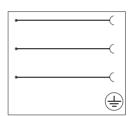
Cable plug



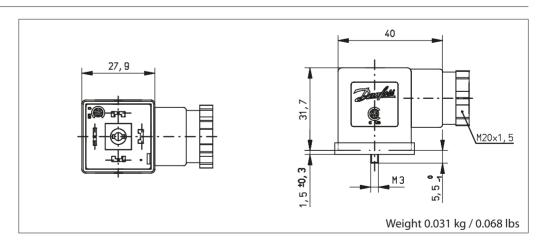
- Enclosure: Up to IP65
- For use with Danfoss coils type AL, AM, AS, AZ, BA, BB, BD, and BY
- AC / DC all voltages up to 250 V
- Approved in accordance with: CSA
- In accordance with:
 - RoHS 2011/65/EU
 - LVD 2014/35/EU

| 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 | 042N0178 |

Technical data



| Design | EN 175301-803 Form A | | | |
|------------------------|----------------------------|----------------------|--|--|
| Cable gland | PG 11 | 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 ² | | | |
| Ambient temperature | -25 – 80 °C / -13 – 176 °F | | | |
| | Contacts: | CuZn, Cu/Sn - plated | | |
| Materials | Terminal block: | PA 6 GF | | |
| Iviatellais | Profiled gasket: | NBR | | |
| | Housing: | PA 6 GF | | |





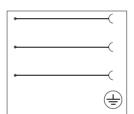
Industrial plug



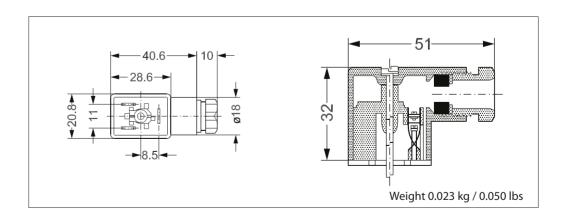
- Enclosure: Up to IP65
- For use with Danfoss coils type AB and AC
- AC / DC all voltages up to 250 V
- Approved in accordance with:
 - c**71**°us
 - CSA

| 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 | 042N0139 |

Technical data



| Туре | GM 209 J (Black) | | |
|-----------------------------|----------------------------|-------------------|--|
| Design | DIN 43650-B | | |
| Cable gland | PG 9 | | |
| Poles | 2 + PE | | |
| Max. voltage | 250 V AC / DC | | |
| Approvals | c % 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 ² | | |
| Ambient temperature | -30 – 90 °C / -22 – 194 °F | | |
| Contacts: CuSn (Tin plated) | | CuSn (Tin plated) | |
| Materials | Terminal block: | PA 6 GF | |
| iviateriais | Flat gasket: | NBR | |
| | Housing: | PA 6 GF | |





Cable plug (LED + Varistor)

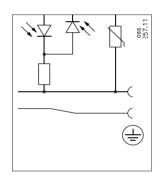


- Enclosure: Up to IP65
- For use with Danfoss coils type AM, AK, AL, AS, AZ, BA, BD, BB, and BY
- 24 V AC / DC and 230 V AC version
- DIN 18
- Approved in accordance with: CSA
- In accordance with:
 - RoHS 2011/65/EU
 - LVD 2014/35/EU

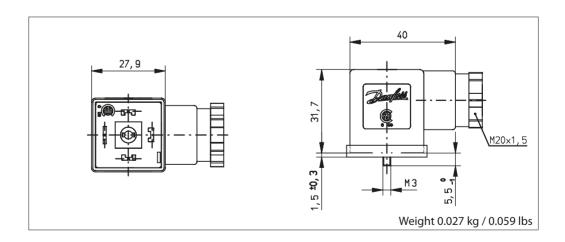
| Cable | Vol | tage | Voltage | | LED | Built-in VDR ¹) | |
|-----------|--------|--------|-----------|--------------------------------|--------|-----------------------------|----------|
| plug size | [V AC] | [V DC] | variation | Suitable for coil types | colour | resistor | Code no. |
| DIN 18 | 24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

¹⁾ 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 | $\leq 4 \text{m} \Omega$ | | |
| Protection against wrong polarity | Yes | | |
| Cable diameter | 6 – 8 mm and 8 – 10 mm | | |
| Wire cross section | Max. 1.5 mm ² | | |
| Ambient temperature | -25 - 60 °C / -13 - 140 °F | | |
| | Contacts: | CuZn, Cu/Sn-plated | |
| | Terminal block: | PA6 + 30% FG, black | |
| Materials | Flat gasket: | NBR LABS-free | |
| | Housing: | PA6 | |
| | Wire holder: | PA6.6 + 50% FG P7,5 black | |





Industrial plug (LED + Varistor)

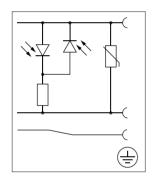


- Enclosure: Up to IP65
- For use with Danfoss coils type AB and AC
- 24 V AC
- Approved in accordance with: CSA
- In accordance with:
 - RoHS 2011/65/EU
 - LVD 2014/35/EU

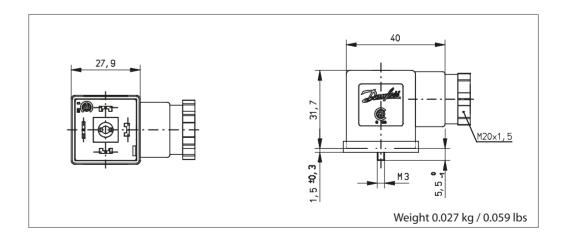
| Industrial | Volt | Voltage Suitable for Built-in | | Built-in VDR ¹) | | |
|------------|--------|-------------------------------|------------|-----------------------------|----------|----------|
| plug size | [V AC] | [V DC] | coil types | LED colour | resistor | Code no. |
| DIN 11 | 24 | 24 | AB,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

¹⁾ 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 | \leq 4m Ω | | |
| Protection against wrong polarity | Yes | | |
| Cable diameter | 5 – 6 mm and 6 – 9 mm | | |
| Wire cross section | Max. 1 mm ² | | |
| Ambient temperature | -25 - 60 °C / -13 - 140 °F | | |
| | Contacts: | CuZn, Cu/Sn-plated | |
| | Terminal block: | PA6 + 30% FG, black | |
| Materials | Flat gasket: | NBR LABS-fre | |
| | Housing: | PA6 | |
| | Wire holder: | PA6.6 + 50% FG P7,5 black | |



ENGINEERING TOMORROW



Universal electronic multi-timer Type ET 20 M



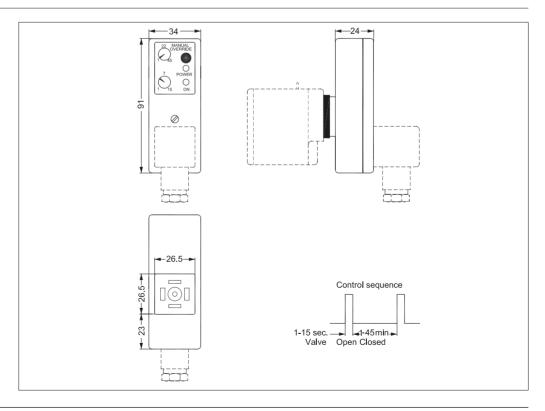
- Outside adjustments
- Light weight and small size
- External adjustable timing from 1 minute to 45 minutes with 1 to 15 seconds drain open
- One solid state timer fits all coil voltages from 24-240 V AC
- Light diodes for indication
- All in one unit
- Manual override (test button).

| Туре | Voltage [V] | Suitable for coil types | Code no. |
|--------|----------------|----------------------------|----------|
| BA024A | 24 – 240 | AL, AM, AS, AZ, BA, BD, BB | 042N0185 |

Technical data

| Туре | 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



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