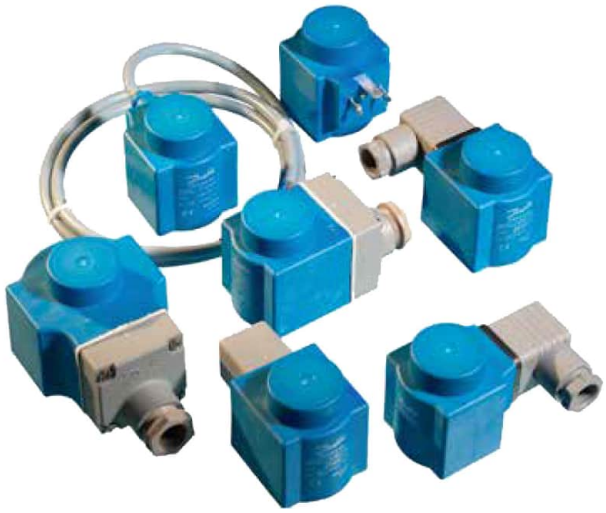
ENGINEERING TOMORROW

Data Sheet

Solenoid coil
Type **BB, BE, BF, BG** and **BN**

The Clip-on coils are available for the entire range of Danfoss solenoid valves



The coils are specially designed to operate in the aggressive environment of high humidity and temperature fluctuations that you find in most refrigeration systems.

The Clip-on fastening system ensures a faultless installation and makes the coils easy to mount and dismount. A Danfoss Clip-on coil can be mounted without any tools at all, and it is simple to dismount the coil by means of a screwdriver.

The Clip-on coils are available for the entire range of Danfoss solenoid valves for refrigeration, freezing and air conditioning purposes.

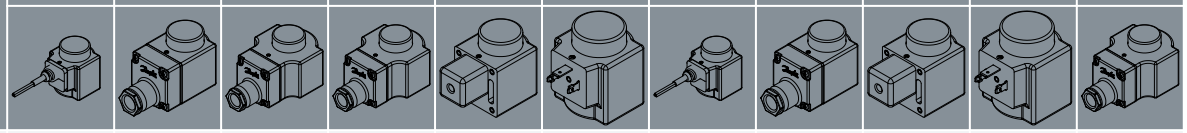
Features

- Encapsulated coils with long operating life, even under extreme conditions.
- Standard coils for AC or DC.
- Standard coils available with 3-core cable, terminal box or DIN plugs.
- Standard coils from 12 V to 420 V, 50, 60 or 50/60 Hz.
- Standard coils dimensioned for max. opening differential pressure (MOPD) of up to 38 bar.
- Coils can be fitted without the use of tools.

Product specification

Technical data

Table 1: Solenoid coil type

Data	Solenoid coil type										
	1m 3-core cable	Terminal box			DIN spade and protection cap	DIN spade	1m 3-core cable	Terminal box	DIN spade and protection cap	DIN spade	Terminal box IP67
	BF	BE	BG	BG	BE	BB	BF	BE	BE	BB	BN
											
Enclosure	IP67	IP67	IP67	IP67	IP20	IP00	IP67	IP67	IP20	IP00	IP67
Polution degree	4	4	4	4	3	3	4	4	3	3	3
Conductor area [mm²]	0.75	0.75 - 1.5	0.75 - 1.5	0.75 - 1.5	0.75 - 1.5	0.75 - 1.5	0.75	0.75 - 1.5	0.75 - 1.5	0.75 - 1.5	0.75 - 1.5
Cable size [mm]	Ø6.6	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.6	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.0 - Ø11	Ø6.0 - Ø11
Rated impulse voltage [kV], if altitude < 4000 m	4	4	4	4	4	4	4	4	4	4	4
Humidity [R.H.]	0 – 100%	0 – 100%	0 – 100%	0 – 100%	0 – 97% non-condensation condition	0 – 97% non-condensation condition	0 – 100%	0 – 100%	0 – 97% non-condensation condition	0 – 97% non-condensation condition	0 – 100%
Type of control	1	1	1	1	1	1	1	1	1	1	1
Safety classification	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class I
Max. altitude above sea level [m]	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000

NOTE:
For DIN plug, impulse withstand voltage is 3.1 kV for 2000 m < Altitude < 4000 m

Connection

3-core cable
The external thread in the screwed cable entry suits flexible steel hose or corresponding cable protection (3 x 0.75 mm²).

Terminal box
Leads are connected to terminal screws in the terminal box. The box is fitted with a Pg 13.5 screwed entry for 6 - 14 mm cable. Max. lead cross section: 2.5 mm².

DIN plugs
The three pins on the coil can be fitted with spade tabs, 6.3 mm wide (to EN175301-803A). The two current carrying pins can also be fitted with spade tabs, 4.8 mm wide. Max. lead cross section: 1.5 mm². Use of the protective cap supplied will prevent inadvertent contact with live parts.

DIN socket
(to EN175301-803A) Leads are connected in the socket. The socket is fitted with a Pg 11 screwed entry for 6 - 12 mm.

Dimension and weight

Figure 1: Terminal box 10 W , Weight 0.29 Kg

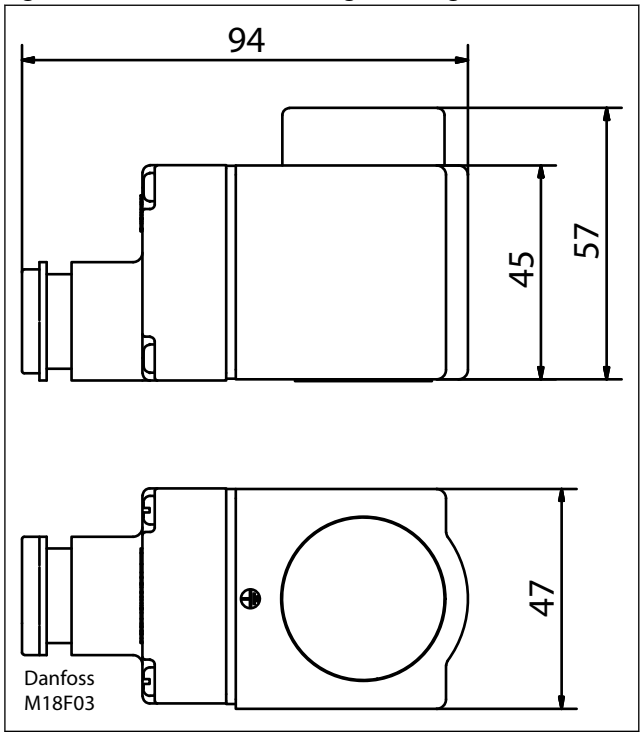


Figure 2: Cable 10 W , Weight 0.29 Kg

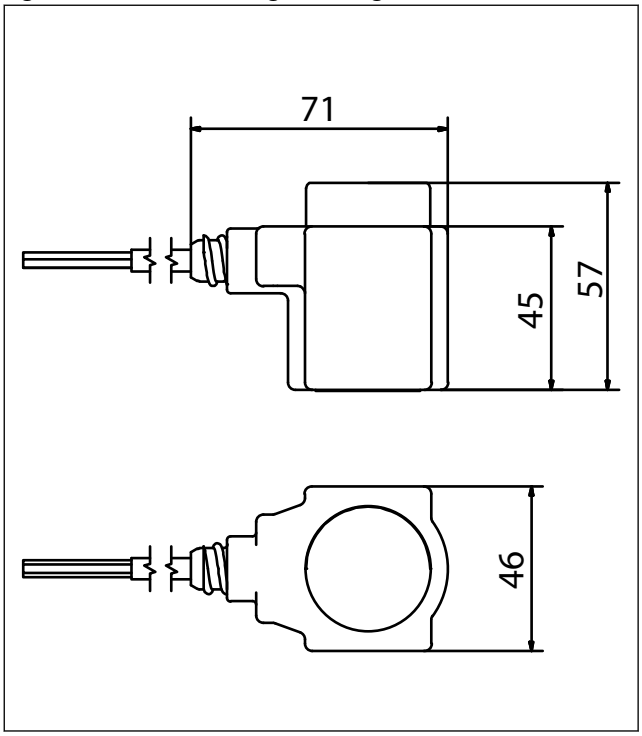


Figure 3: DIN socket 10 W , Weight 0.24 Kg

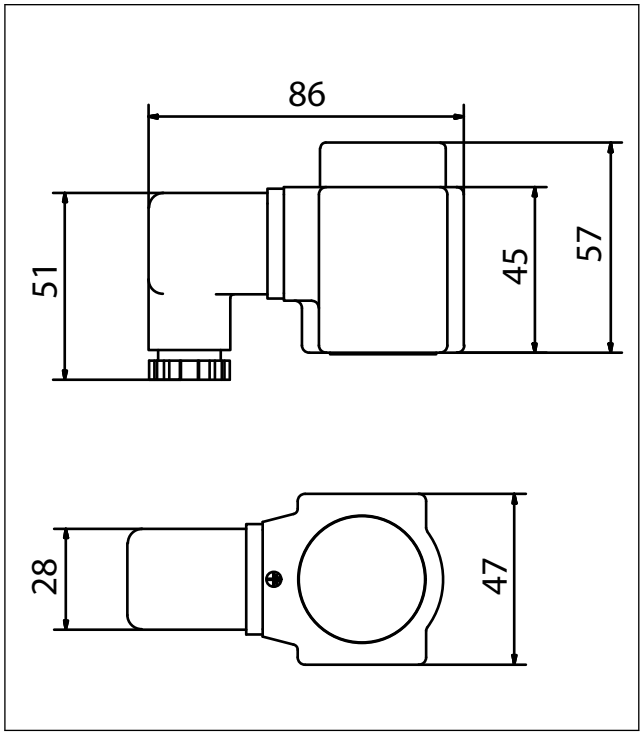


Figure 4: Terminal box 12 - 20 W , Weight 0.55 Kg

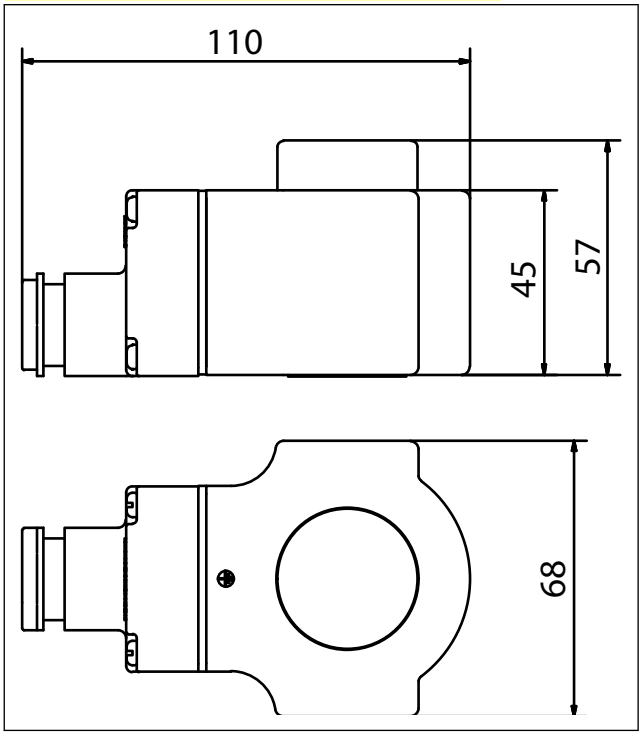


Figure 7: BG solenoid coil with terminal box IP67

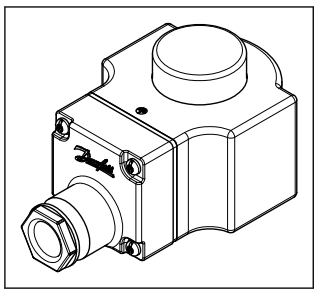


Table 4: Ordering for BG solenoid coil with terminal box IP67

Type	Valve type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
						[W]	[VA]	
BG024AS	EVR 3 – EVR 40 EVRC EVRA EVRAT EVRS/EVRST EVM (NC/NO)	-40T80	24	-15%, +10%	50	11	21	018F6807
BG048AS		-40T80	48	-15%, +10%	50	12	26	018F6809
BG110AS		-40T80	110	-15%, +10%	50	13	25	018F6811
BG230AS		-40T80	230	-15%, +10%	50	15	28	018F6801
		-40T80	220	-15%, +10%	50	13	25	
BG240AS		-40T80	240	-15%, +10%	50	13	25	018F6802
BG400AS		-40T80	380 / 400	-15%, +10%	50	12	26	018F6803
BG024BS		-40T80	24	-15%, +10%	60	12	26	018F6815
BG110BS		-40T80	110	-15%, +10%	60	16	29	018F6813
BG220BS		-40T80	220	-15%, +10%	60	16	29	018F6814

Type	Valve type	Tambient [°C]	Supply voltage [V]	Voltage variation	Frequency [Hz]	Power consumption		Code no.
						[W]	[VA]	
BG012DS	EVR 2 – 8 EVR 25 – 40 EVRA 3 – EVRA 15 (NC) EVRA 25 – EVRA 40 (NC) EVRAT 10 – EVRAT 15 (NC) EVRS/EVRST 3 – EVRS/EVRST 15 EVM (NC/NO)	-40T50	12	±10%	DC	20	–	018F6856
BG024DS		-40T50	24	±10%	DC	20	–	018F6857
BG048DS		-40T50	48	±10%	DC	20	–	018F6859
BG110DS		-40T50	110	±10%	DC	16	–	018F6860
BG115DS		-40T50	115	±10%	DC	19	–	018F6861
BG220DS		-40T50	220	±10%	DC	20	–	018F6851
BG012DS	EVR 10 – 22 EVRC 15 – 20 EVRC 20 EVRA 20 EVRAT 20 EVRST 20	-40T50	12	±10%	DC	20	–	018F6886
BG024DS		-40T50	24	±10%	DC	20	–	018F6887
BG048DS		-40T50	48	±10%	DC	20	–	018F6889
BG110DS		-40T50	110	±10%	DC	20	–	018F6890
BG220DS		-40T50	220	±10%	DC	20	–	018F6881