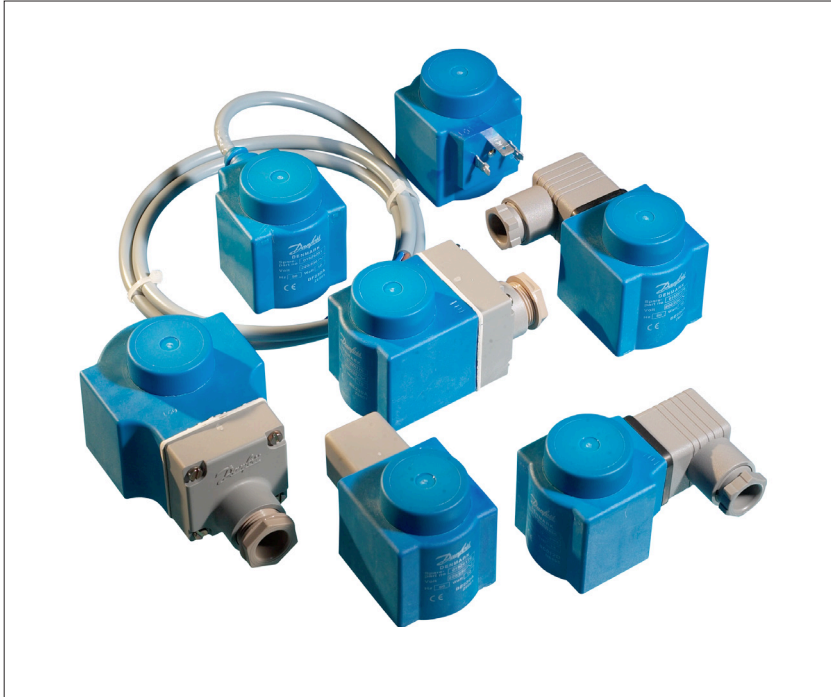


Data sheet

Solenoid coil

Types BB, BE, BF, BG, and BN



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.

Approvals

- Low Voltage Directive (LVD) 2006/95/EC
- EMC Directive 2004/108/EC

See further details under the required solenoid valve.

Technical data

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
Power consumption [W]	10	10	12	20	10	10	10	10	10	10	20
Frequency [Hz]	50 or 60	50 or 60	50 or 60	V DC	50 or 60	50 or 60	50 and 60	50 and 60	50 and 60	50 and 60	50 or 60
Enclosure	IP67	IP67	IP67	IP67	IP20	IP00	IP67	IP67	IP20	IP00	IP67
Pollution degree	4	4	4	4	3	3	4	4	3	3	3
Conductor area [mm ²]	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
Ambient temperature NC valve	-40 °C < t < +80 °C	-40 °C < t < +80 °C	-40 °C < t < +80 °C	-40 °C < t < +50 °C	-40 °C < t < +80 °C	-40 °C < t < +80 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C
Ambient temperature NO valve	-40 °C < t < +55 °C	-40 °C < t < +55 °C	-40 °C < t < +55 °C	-40 °C < t < +50 °C	-40 °C < t < +55 °C	-40 °C < t < +55 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C	-40 °C < t < +50 °C
Voltage variation	-15% to +10%	-15% to +10%	-15% to +10%	±10%	-15% to +10%	-15% to +10%	±10%	±10%	±10%	±10%	-15% to +10%
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

Approvals

See under the required solenoid valve.

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

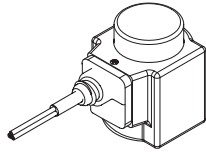
(to EN175301-803A)

Leads are connected in the socket. The socket is fitted with a Pg 11 screwed entry for 6 – 12 mm.

Data sheet | Solenoid coil, Types BB, BE, BF, BG, and BN

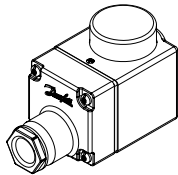
Ordering

Solenoid coil with 1m 3-core cable IP67

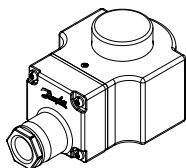


Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BF	EVR 2 to 40 (NC) EVR 6 to 22 (NO) EVRH 10 to 40 EVRC EVRA EVRAT EVRV/EVRST EVM (NC)	Holding: 10 W/ 21 VA Inrush: 44 VA	50	24	-	018F6257
			50	220/230	-	018F6251
			50	240	-	018F6252
			50	380/400	-	018F6253
			60	24	-	018F6265
			60	115	-	018F6260
			60	220	-	018F6264
			50/60	110	-	018F6280
			50/60	220/230	-	018F6282

Solenoid coil with terminal box IP67



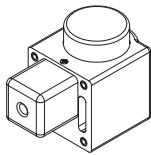
Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.		
BE	EVR 2 to 40 (NC) EVR 6 to 22 (NO) EVRH 10 to 40 EVRC EVRA EVRAT EVRV/EVRST EVM (NC)	Holding: 10 W/ 21 VA Inrush: 44 VA	50	12	-	018F6706		
			50	24	-	018F6707		
			50	42	-	018F6708		
			50	48	-	018F6709		
			50	115	-	018F6711		
			50	220/230	-	018F6701		
			50	240	-	018F6702		
			50	380/400	-	018F6703		
			50	420	-	018F6704		
			60	24	-	018F6715		
			60	115	-	018F6710		
			60	220	-	018F6714		
			60	240	-	018F6713		
			50/60	110	-	018F6730		
50/60	220/230	-	018F6732					
BG	EVR 3 to 40 EVRC EVRA EVRAT EVRV/EVRST EVM (NC/NO)	Holding: 12 W/ 26 VA Inrush: 64 VA	50	24	-	018F6807		
			50	48	-	018F6809		
			50	110	-	018F6811		
			50	220/230	-	018F6801		
			50	240	-	018F6802		
			50	380/400	-	018F6803		
			60	24	-	018F6815		
			60	110	-	018F6813		
			60	220	-	018F6814		
	EVR 2 to 15 (NC) EVR 25 to 40 (NC/NO) EVR 6 to 15 (NO) EVRC 10 to 15 EVRA 3 to 15 (NC) EVRA 25 to 40 (NC) EVRAT 10 to 15 (NC) EVRV/EVRST 3 to 15 EVM (NC/NO)	20 W	-	-	12	018F6856		
			-	-	24	018F6857		
			-	-	48	018F6859		
			-	-	110	018F6860		
			-	-	115	018F6861		
			-	-	220	018F6851		
			EVR 20 to 22 (NC/NO) EVRC 20 EVRA 20 EVRAT 20 EVRST 20	20 W	-	-	12	018F6886
					-	-	24	018F6887
					-	-	48	018F6889
-	-	110			018F6890			
-	-	220			018F6881			



See "Opening differential pressure" under "Technical data" for the valve concerned.
When replacing a coil with terminal box, it is sufficient to change the coil unit itself. Therefore, order coil with DIN plugs and protective cap.

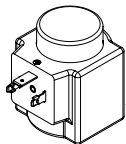
Data sheet | Solenoid coil, Types BB, BE, BF, BG, and BN
Ordering

Solenoid coil with DIN spade and protection cap IP20



Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BE	EVR 2 to 40 (NC) EVR 6 to 22 (NO) EVRH 10 to 40 EVRC EVRA EVRAT EVRS/EVRST EVM (NC)	Holding: 10 W/ 21 VA Inrush: 44 VA	50	24	–	018F6182
			50	220/230	–	018F6176
			50	240	–	018F6177
			50	420	–	018F6179
			60	115	–	018F6185
			60	220	–	018F6189
			50/60	110	–	018F6192
			50/60	220/230	–	018F6193

Solenoid coil with DIN spade*)



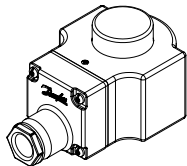
Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BB	EVR 2 to 40 (NC) EVR 6 to 22 (NO) EVRH 10 to 40 EVRC EVRA EVRAT EVRS/EVRST EVM (NC)	Holding: 10 W/ 21 VA Inrush: 44 VA	50	24	–	018F7358
			50	115	–	018F7361
			50	220/230	–	018F7351
			50	240	–	018F7352
			50/60	110	–	018F7360
			50/60	220/230	–	018F7363

See "Opening differential pressure" under "Technical data" for the valve concerned.

When replacing a coil with terminal box, it is sufficient to change the coil unit itself. Therefore, order coil with DIN plugs and protective cap.

*) Can only be used with DIN plug.

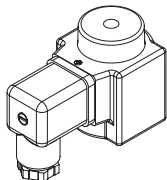
Special solenoid coil with terminal box IP67



Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BN	EVR 2 to 40 (NC) EVR 6 to 22 (NO) EVRH 4 to 40 EVRC/EVRA/EVRAT/ EVRS/EVRST/EVM (NC)	Holding: 20 W/ 45 VA Inrush: 65 VA	50	24	–	018F6901 ¹⁾
			60	24	–	018F6902 ¹⁾
			50	230	–	018F6905 ¹⁾

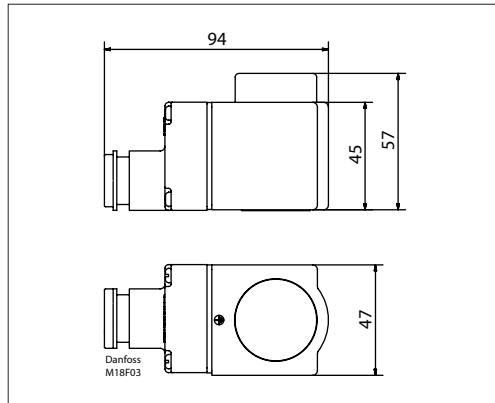
¹⁾ Recommended use for EVRH with high MOPD (38 bar).

Coil with DIN plug

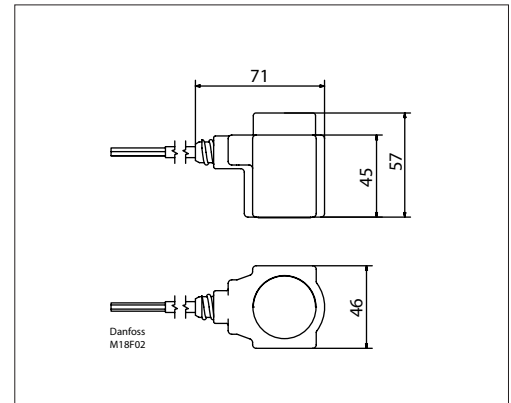


Terminal box	With built-in light emitting indicator diode for solenoid valves (only for AC)	018Z0089
DIN plug	Enclosure IP65, EN 175301-803A	042N0156

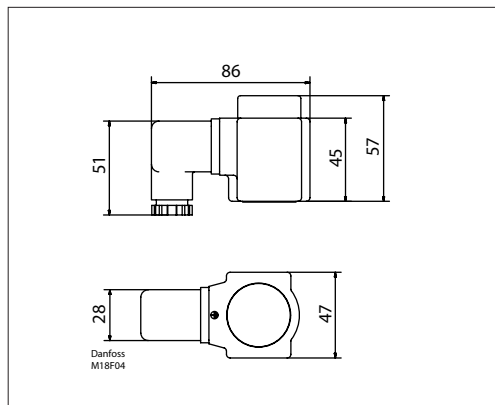
Dimension and weight



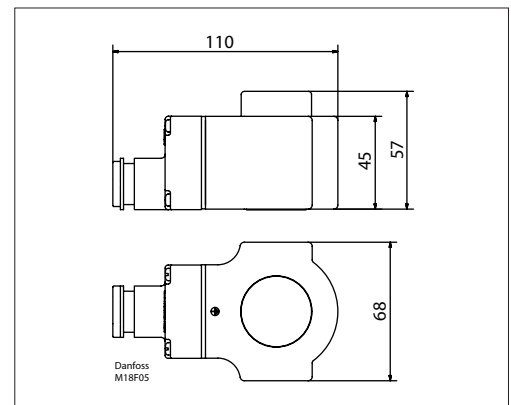
Terminal box 10 W
Weight 0.29 Kg



Cable 10 W
Weight 0.29 Kg



DIN socket 10 W
Weight 0.24 Kg



Terminal box 12 - 20 W
Weight 0.55 Kg