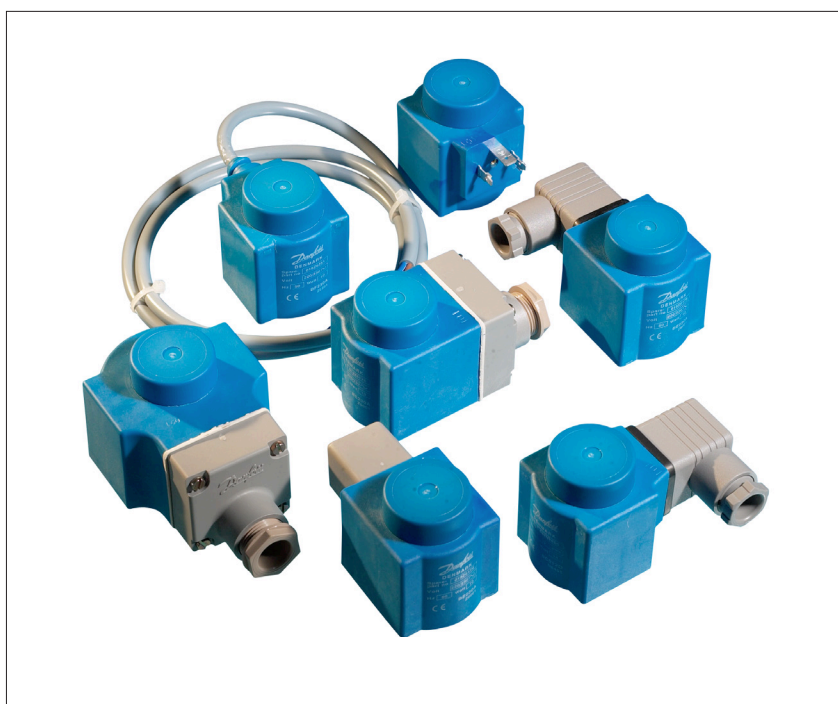


Data sheet

## 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
											
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
Polution degree	4	4	4	4	3	3	4	4	3	3	3
Conductor area [mm <sup>2</sup> ]	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 &lt; Altitude &lt; 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 mm<sup>2</sup>).

**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 mm<sup>2</sup>.

**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 mm<sup>2</sup>. Use of the protective cap supplied will prevent inadvertent contact with live parts.

**DIN socket**

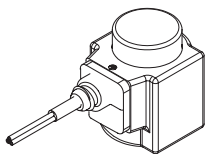
(to EN175301-803A)

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**

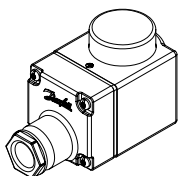
**Ordering**

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 – EVR 40 (NC) EVR 6 – EVR 22 (NO) EVRH 10 – EVR 40 EVRC EVRA EVRAT EVRS / EVRST EVM (NC)	Holding: 10 W / 21 VA Inrush: 44 VA	50	24	–	<b>018F6257</b>
			50	220/230	–	<b>018F6251</b>
			50	240	–	<b>018F6252</b>
			50	380/400	–	<b>018F6253</b>
			60	24	–	<b>018F6265</b>
			60	115	–	<b>018F6260</b>
			60	220	–	<b>018F6264</b>
			50/60	110	–	<b>018F6280</b>
			50/60	220/230	–	<b>018F6282</b>

Solenoid coil with terminal box IP67



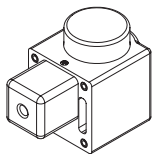
Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.	
BE	EVR 2 – EVR 40 (NC) EVR 6 – EVR 22 (NO) EVRH 10 – EVRH 40 EVRC EVRA EVRAT EVRS / EVRST EVM (NC)	Holding: 10 W / 21 VA Inrush: 44 VA	50	12	–	<b>018F6706</b>	
			50	24	–	<b>018F6707</b>	
			50	42	–	<b>018F6708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

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**

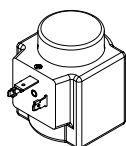
**Ordering**

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 – EVR 40 (NC) EVR 6 – EVR 22 (NO) EVRH 10 – EVRH 40 EVRC EVRA EVRAT EVRST/EVRS EVM (NC)	Holding: 10 W / 21 VA Inrush: 44 VA	50	24	–	<b>018F6182</b>
			50	220 / 230	–	<b>018F6176</b>
			50	240	–	<b>018F6177</b>
			50	420	–	<b>018F6179</b>
			60	115	–	<b>018F6185</b>
			60	220	–	<b>018F6189</b>
			50 / 60	110	–	<b>018F6192</b>
			50 / 60	220 / 230	–	<b>018F6193</b>

Solenoid coil with DIN spade\*)



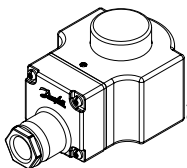
Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BB	EVR 2 – EVR 40 (NC) EVR 6 – EVR 22 (NO) EVRH 10 – EVRH 40 EVRC EVRA EVRAT EVRST/EVRS EVM (NC)	Holding: 10 W / 21 VA Inrush: 44 VA	50	24	–	<b>018F7358</b>
			50	115	–	<b>018F7361</b>
			50	220 / 230	–	<b>018F7351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

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.

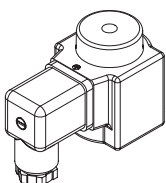
Special solenoid coil with terminal box IP67



Coil type	Valve type	Power consumption	Frequency [Hz]	Voltage [V] AC	Voltage [V] DC	Code no.
BN	EVR 2 – EVR 40 (NC) EVR 6 – EVR 22 (NO) EVRH 4 – EVRH 40 EVRC/EVRA/EVRAT/ EVRST/EVRS/EVM (NC)	Holding: 20 W / 45 VA Inrush: 65 VA	50	24	–	<b>018F6903 <sup>1)</sup></b>
			60	24	–	<b>018F6906 <sup>1)</sup></b>
			50	230	–	<b>018F6905 <sup>1)</sup></b>

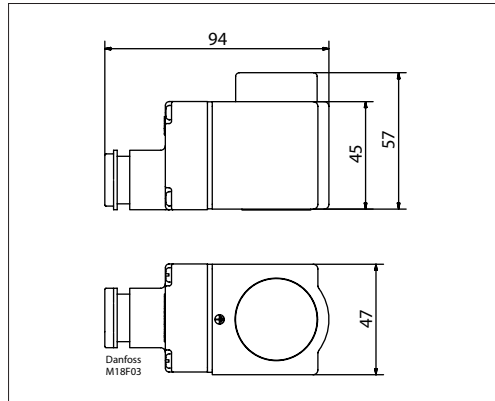
<sup>1)</sup> Recommended use for EVRH with high MOPD (38 bar).

Coil with DIN plug

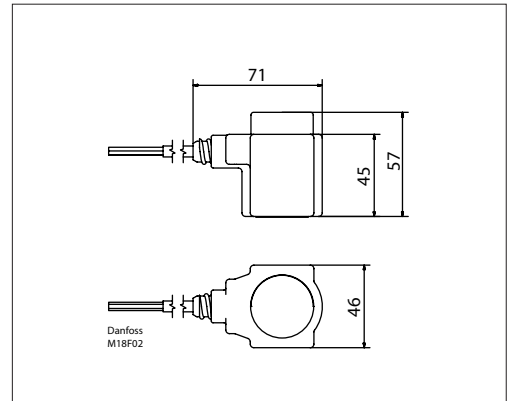


<b>Terminal box</b>	With built-in light emitting indicator diode for solenoid valves (only for AC)	<b>018Z0089</b>
<b>DIN plug</b>	Enclosure IP65, EN 175301-803A	<b>042N0156</b>

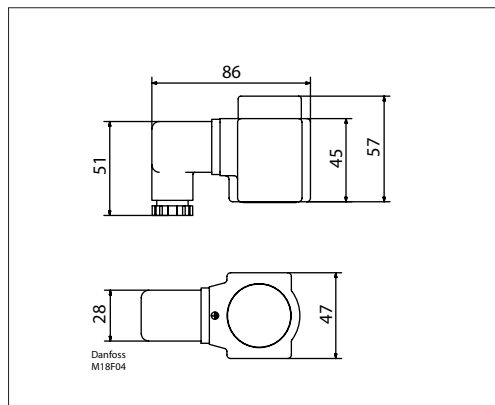
**Dimension and weight**



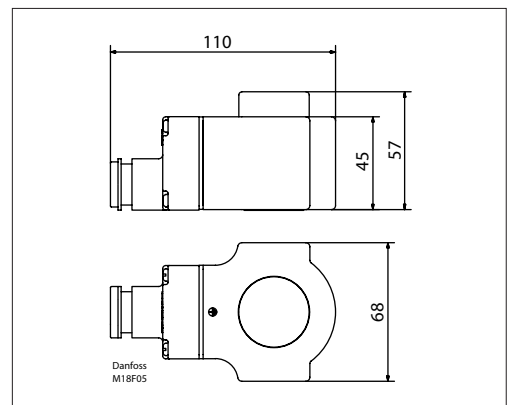
**Terminal box 10 W**  
Weight 0.29 Kg



**Cable 10 W**  
Weight 0.29 Kg



**DIN socket 10 W**  
Weight 0.24 Kg



**Terminal box 12 - 20 W**  
Weight 0.55 Kg