

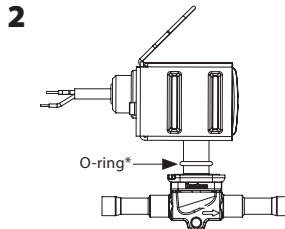
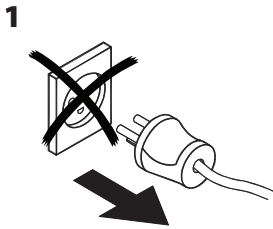
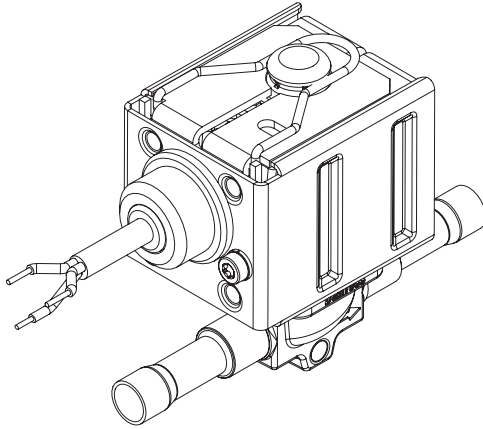
# Installation guide

## Solenoid coil for control in potentially explosive areas

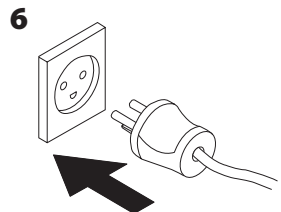
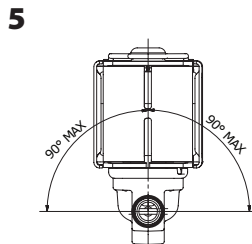
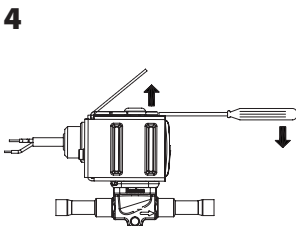
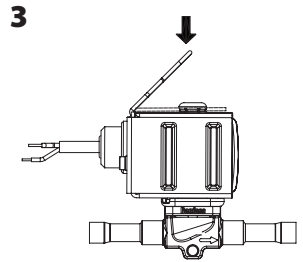
### Type 018F47xx series

018R9667

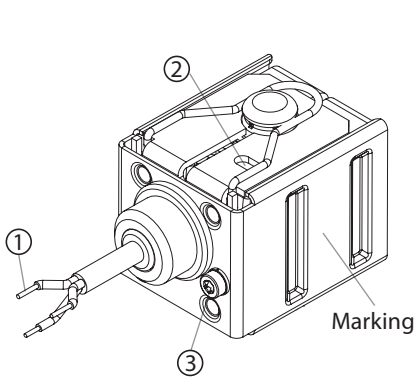
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\*Recommended to reduce vibrations.  
Not required for sealing.



1



② Date of manufacturing

XXXX  
 |———| Year  
 |———| Week

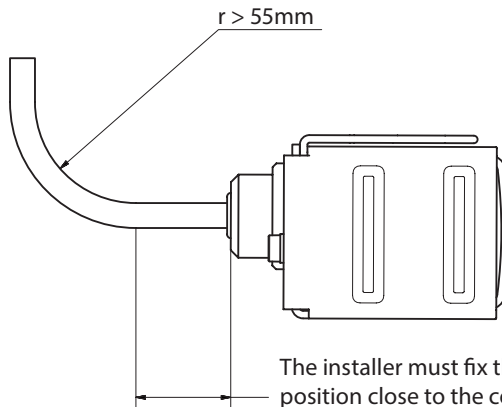
CE 0539 Ex II 2G  
 Ex mb IIC T4 Gb  
 DEMKO 14 ATEX 1314X  
 IECEx ULD14.0001X

**Danfoss**  
 Nordborgvej 81  
 DK-6430 Denmark  
 MADE IN DENMARK

Coil type 018F4703  
 -40 °C ≤ Tamb ≤ +45 °C IP65  
 110 V 50 Hz 0.14 A  
 120 V 60 Hz 0.13 A

⑤ ⑥ ⑦ ⑧

2



The installer must fix the cable in a position close to the coil to ensure that the first 20mm cannot be bent.

## ENGLISH

### 1 Identification

- ① Green/Yellow cord for earthing
- ② Week and date of manufacturing
- ③ External earth terminal
- ④ Code number
- ⑤ Voltage
- ⑥ Frequency
- ⑦ Current
- ⑧ Ambient temperature range
- ⑨ Country of manufacturing
- ⑩ IP degree
- ⑪ Approval/Certificate number

### Description and approval

Solenoid valve for control in potentially explosive area.

### Approval

EMC 2004/108/EF  
ROHs 2002/95/EC

ATEX 2014/34/EU  
Ex mb IIC T4 Gb  
DEMKO 14 ATEX 1314X  
IECEx ULD 14.0001X

### The coil may only be installed with following valve combinations

- EVR NC 2-40
- EVM NC and EVM NO
- EVR NO 2-40
- EV210B
- EVRH NC 10-40
- EV220B
- EVRH NO 10-40
- EV250B
- EVRA(T) 3-40
- EV251B
- EVRS(T) 3-20
- EV222B
- EVRF-EVRP-EVRB
- EV224B
- GPLX
- EV227B

### Application and specification

Nomi- nal vol- tage	Fre- quency	Nomi- nal current	Size of fuse ahead of coil	Ambient temperature [°C]	Media temperature [°C]	Permis- sible voltage varia- tion [%]	Code no.
[V]	[Hz]	[A]	[mA]				
24	DC	0.43	500	$-40 \leq T_{amb} \leq +45$	$-40 \leq T_{media} \leq +70$	-10 – +5	018F4705
110 120	50 60	0.14 0.13	250	$-40 \leq T_{amb} \leq +45$	$-40 \leq T_{media} \leq +70$	-10 – +6	018F4703
230 240	50 60	0.09 0.08	150	$-40 \leq T_{amb} \leq +45$	$-40 \leq T_{media} \leq +70$	-10 – +6	018F4704

Humidity	0% < RH < 100%	Polution degree	1+2+3 (EN60730-1)
Connection	3-core flexible cable 3 x 0.75mm <sup>2</sup>	Over voltage category	III (EN60730-1)
External earth core	Minimum area > 4mm <sup>2</sup>	Mode of operation	Type 1 action (EN60730-1)
Weight exclude valve	0.4 kg exclude cable	Type of control	Incorporated control (EN60730-1)
Protection degree	IP65 (IEC 60529)	Protection against electrical shock	Class I (EN60730-1)

### Safety instruction

All national safety regulations must be complied with in connection with installation, start-up and operation of Danfoss solenoid valve. Furthermore, the requirements of the declaration of conformity and national regulations for installation in explosion area. Disregarding such regulations involves a risk of serious personal injury or extensive material damage. Work in connection with the solenoid valve mentioned must be performed only by suitable qualified persons.

Basic safety and health requirements are fulfilled through compliance with:

- IEC60079-0, 6th Edition
- EN 60079-0: 2012 + A11: 2013
- IEC60079-18, 3rd Edition, EN60079-18: 2009

### Installation, operation and maintenance

- Protect the coil against external impact.
- Protect the coil against direct sunlight and other ultraviolet sources.
- Disconnect the power before dismantling the coil.
- Always install a fuse in front of the coil.  
DIN 41571-2  
Rated breaking capacity 1500 A  
Medium Time lag  
Minimum voltage 250 V for a.c. and 24 V for d.c.
- Install the coil and cable according to EN60079-14.
- The cable supplied with the solenoids must not be handled or flexed, and shall be protected against impact if the ambient temperature is below 0 °C.
- Installation and handling of the cable shall be done at temperature above 0 °C.
- The cable is only for fixed installation and the minimum bending diameter for fixed installation:  $r \geq 55\text{mm}$  (Ⓜ).

- The cable jacket material is PVC.
- The cable operating temperature range is -40 °C to + 90 °C.
- The product is provided with a yellow/green PE wire as well as an external earth terminal. These shall not be used simultaneously.

If the external earth connection is connected to earth or bonding system, the Y/G earth wire must be cut off, isolated and not connected. If the Y/G wire is connected to earth, the external earth terminal must be left without any connection. For the external earth terminal the size of the earth core shall be minimum 4mm<sup>2</sup> and the installer shall use a suitable method e.g. crimp terminal to ensure secureness of the external earth connection. The screw for external PE shall be mounted with 1.2Nm ±0.2. The external earth conductors shall be physically secured close to the coil connection to ensure that the conductors cannot be readily loosened or twisted.

- The end user must ensure the earthing of the coil is maintained.
- Non-detachable cords method Z repairing not allowed. If the coil failed, it must be replaced by a new coil.

### In case of problems please contact:

**Danfoss A/S**  
**DK-6430 Nordborg**  
**Denmark**