

## Explosion-proof magnetic body according to ATEX – IECEx



**1/4**  
Product group

**F MM E**

### Function

- Magnetic body to be mounted on the suitable tube
- For ON/OFF and proportional solenoids
- Combination with hydraulic tubes, tubes for linear solenoids and locking devices
- High power density
- High corrosion protection

### Construction

- Electrical connection via robust terminal made of metal
- Construction size: 35mm, 45mm, 60mm
- Protection class according to DIN VDE 0470/DIN EN 60529 when properly installed: IP 65
- Integrated circuit with TVS diode
- Explosion protection:  II 2G Ex eb mb IIC T6 / T4 Gb  
 II 2D Ex tb IIIC T80°C / T130°C Db

### Application examples

- Hydraulic and mechanical applications in explosive atmospheres (Gas: Zone 1 resp. EPL Gb, Dust: Zone 21 resp. EPL Db) e.g. in chemical companies, Refineries and refueling facilities

### Options and accessories

- Protection class IP 67
- Versions with thread for cable glands provided by the customer
- Alternative cable glands
- AC version with bridge rectifier

### Standards and approvals

- Quality management to ISO 9001, DIN EN ISO/IEC 80079-34
- ATEX, IECEx



Fig. 1: Type F MM E 035 K01 A01

## Technical Data

The table below shows the respective possible limits and variants for the stated values.

For determination of the suitable coil for your application, we ask you to please inform us about your operating conditions, if possible within the limits stated below.

F M M E ... K01 A01	035	045	060
Operating mode	S1 (100 %)		
Temperature classes / Max. surface temperature	T4 / T130°C T6 / T80°C		
Ambient temperatures $T_a^{1)}$ (°C)	-30 ... +40 -30 ... +50 -30 ... +60 Extended ambient temperature range: -40....+80 on request		
Rated voltage DC $U_N$ (V)	5 ... 230 (+/- 10%)		
Assembly	without valve part alternatively on hydraulic valve made of iron or of material with the same or better thermal conductivity		
Min. dimension hydraulic valve (mm <sup>3</sup> ) (for assembly with valve)	46x76x66		67x67x82 + 105x32x116

Table 1: Technical data

<sup>1)</sup> The ambient temperature resp. reference temperature must not be exceeded by a heat input by an operating medium (e.g. oil).

### Rated voltage / Rated current

The preferred value for rated voltage is 24V for DC and 230V for AC. Adaptations of the windings are possible in the ranges specified in table 1.

For the use of the coil on a proportional solenoid the rated current will become relevant instead of the rated voltage.

Standard values for voltage and operating mode: 24 V, S1 (100%).

### Protection class, protective conductor connection


The devices correspond to protection class I.

Due to their construction devies with renewable solenoid body do not have a continuous proper protective conductor connection between the protective conductor connector of the solenoid body and the tube.

A proper protective conductor connection of the tube resp. of the connected valve is to be ensured by the user.

**Information and remarks concerning European directives** can be taken from the correspondent information sheet which is available under *Produktinfo.Magnet-Schultz.com*.

**Please note the respective operating manual delivered with each device. An EC conformity declaration of the manufacturer is attached to every delivery one time.**

**Please make sure that the described devices are suitable for your application. Supplementary information concerning its proper installation can be taken also from the  –Technical Explanation, the effective DIN VDE0580 as well as the relevant specifications.**

This part list is a document for technically qualified personnel.

The present publication is for informational purposes only and shall not be construed as mandatory illustration of the products unless otherwise confirmed expressively.

## Dimensional drawing

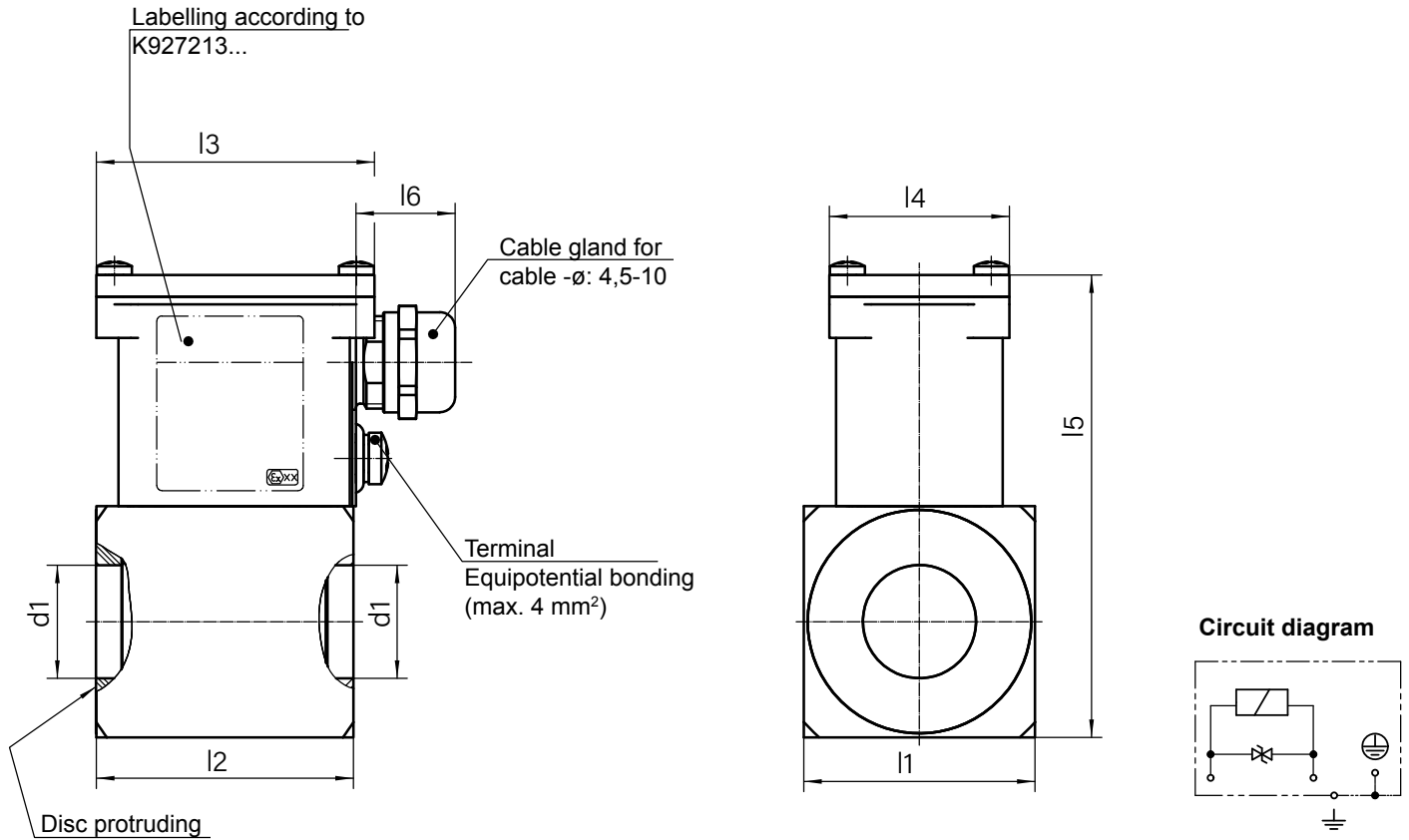


Fig. 2: Type F MME ... K01 A01

Size	035	045	060
	Dimensions in mm		
d1	Ø 19	Ø 22 *	Ø 31
l1	□35	□45	□60
l2	50	50	72
l3	54	54	54
l4	35	35	35
l5	80	90	105
l6	max.22.5	max.22.5	max.22.5

\* Variants with ø19 mm and ø23 mm on request

Table 2

## Type code

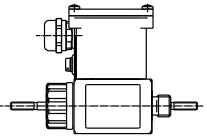
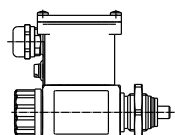
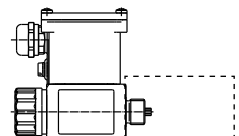
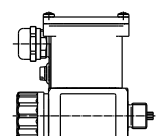

						Designation		
						F MM E ... K01 A01		
Possible combinations with tube		Ambient temperature range	Rated voltage	Heat dissipation via the valve part	Temperature class	035	045	060
						Material no.		
Linear solenoid		-30°C ... +40°C	24 V DC	No	T4	927213-001	927214-001	927215-001
Shotbolt Lock Unit								
ON/OFF solenoid for hydraulic applications		-30°C ... +50°C		Yes		927213 002	927214 002	927215 002
Proportional solenoid for hydraulic applications				927213 003		927214 003	927215 003	
ON/OFF solenoid for hydraulic applications				927213 004		927214 004	927215 004	
Proportional solenoid for hydraulic applications				927213 005		927214 005	927215 005	

Table 3

## Example

Type	F MM E 035 K01 A01
Material no.	927213 002
Voltage	== 24 V DC
Ambient temperature	-30°C ... +50°C
Temperature class	T4
Heat dissipation	via the valve part

## Specials designs

Please do not hesitate to ask for our assistance with the solution of your application-oriented task. In order to find rapidly a reliable solution we need complete details about your application conditions. The details should be specified as precisely as possible in accordance with the relevant -Technical Explanations.

If necessary, please request the support of our corresponding technical office.