Magnetic Contact
Surface mounting

Instruction Manual MC 446



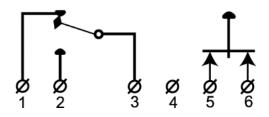
## **DESCRIPTION**

MC 446 is a versatile magnetic contact used in both alarm and security access control systems for protection of doors, gates and windows against unauthorized opening.

### **MOUNTING INSTRUCTIONS**

- Contact and magnet should be installed in parallel, corresponding to each other. Offset will reduce the working distances and may result in faulty operation or lower security.
- Spacers must be used for installation on ferromagnetic surfaces.

## **CIRCUIT DIAGRAM**



# **TECHNICAL DATA**

Warling anvironment	Mand	Ctool	
Working environment	Wood	Steel	
Make distance	Typ. 26 mm +/– 40 %	Typ. 14 mm +/– 40 % <sup>a)</sup>	
Break distance	Typ. 33 mm +/– 40 %	Typ. 18 mm +/- 40 % <sup>a)</sup>	
Contact type	form C, SPDT		
Switching voltage max.	48 V DC/AC	48 V DC/AC	
Switching current max.	250 mA DC / 180 mA AC	250 mA DC / 180 mA AC	
Contact rating max.	5 W		
Environmental class (EN50130-5:2011)	II		
Operating temperature range	-40°C to +70°C	-40°C to +70°C	
Operating humidity	max. 95% RH	max. 95% RH	
Housing material	plastic ABS		
Dimensions:			
Contact part	65 x 20 x 15 mm	65 x 20 x 15 mm	
Magnet part	65 x 16 x 15 mm	65 x 16 x 15 mm	
Security grade (EN50131-2-6:2008)	2		
	EN-ST-000099, SBSC 9-212,	EN-ST-000099, SBSC 9-212, F&P 10.212-13318,	
Approvals	FG MKT-1017/09, INCERT B-	FG MKT-1017/09, INCERT B-582-1002	

a) — Mounting on steel/ferromagnetic surfaces: Use additional spacers MC 400-3 and MC 400-4 under both contact- and magnet parts, then carefully check the distances

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### **OPERATING PRINCIPLE**

MC 446 magnetic contact has two parts: the contact part with a reed switch and the magnet part. In its neutral position the reed switch remains closed under the force of the magnetic field. Opening the monitored object increases the distance between the reed switch and the magnet. This causes a change in position of the reed switch and as a result – a path of the signal.

#### **INSTALLATION**

Contact and magnet should be installed in parallel, corresponding to each other. Offset will reduce the working distances and may result in faulty operation or lower security. Arrows on the contact and magnet inner housings must point to each other. The contact should be mounted on the stationary part of the monitored object (ex. door frame) and the magnet on the movable part (ex. door leaf).

Magnetic contacts should not be installed in the vicinity of strong magnetic fields.

Spacers enable installation of the contact on ferromagnetic surfaces. Brackets can be used to mount the contact parts away from a ferromagnetic surface or to solve problems with aligning the contact with the magnet. Contact and/or magnet should be screwed to the oval slots in the brackets and adjusted to a suitable position.

Only non-ferromagnetic screws may be used for mounting the contact.

After the installation, use an ohmmeter to check the electrical connections and test the operation of the magnetic contact.

Warning: applying excessive force to the housing of the contact may damage the glass body of the reed switches inside.

Warning: appropriate accessories must be used for installation in ferromagnetic environment.