

Instruction Manual MC 270

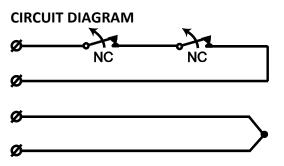


## **DESCRIPTION**

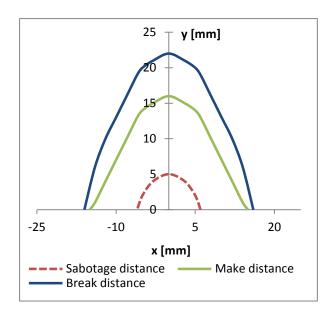
MC 270 is a versatile high security magnetic contact used in both alarm and security access control systems for protection of doors, gates and windows against unauthorized opening and against external magnetic field. A range of accessories makes the contact suitable for a variety of applications.

# **MOUNTING INSTRUCTIONS**

- Contact and magnet should be installed axially, corresponding to each other.
- Self-cutting and self-locking thread enables direct installation in φ 10 mm holes in wood and plastic.



### **DISTANCE DIAGRAM – WOOD**



# **TECHNICAL DATA**

Working environment	Wood Steel			
Sabotage distance	max. 5 mm	not recommended		
Make distance	typ. 16 mm	not recommended		
Break distance	typ. 22 mm	not recommended		
Contact type	form A (SPST)			
Switching voltage max.	48 V DC/AC			
Switching current max.	400 mA DC/peak AC			
Contact rating max.	10 W			
Cable	φ 3,4 mm, 4x0,182 mm <sup>2</sup>			
Environmental class (EN50130-5:2011)	IIIA			
Operating temperature range	-40°C to +70°C			
Operating humidity range	max. 95% r. h.			
Housing material	aluminum alloy			
Dimensions:				
Contact part	ф 11 x 36 mm			
Magnet part	φ 11 x 14 mm			
Security grade (EN50131-2-6:2008)	3			
Approvals	VdS class C - G 197063			

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#### **OPERATING PRINCIPLE**

MC 270 magnetic contact has two parts: the contact part with alarm and sabotage reed switches and the magnet part. In its neutral position the alarm 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 reduces the influence of the magnetic field on the reed switch until it opens and activates an alarm.

MC 270 has an extra sabotage reed switch to protect the contact from sabotage with an external magnet. When an external magnet is applied to the contact, the sabotage reed switch opens and activates an alarm. The sabotage switch can be also opened by the corresponding (friendly) magnet. The distance between the contact and the corresponding magnet, at which the sabotage reed switch opens is called sabotage distance.

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

#### INSTALLATION

Contact and magnet must be aligned axially in the frames and leaves of the monitored objects (windows, doors etc.). Offset will reduce the working distances and may result in faulty operation or lower security. The contact should be mounted in the stationary part of the monitored object (ex. door frame) and the magnet in the movable part (ex. door

leaf). Before mounting, holes must be drilled. The self-cutting and self-locking thread of the housing enables easy and reliable installation in  $\varphi$  10 mm holes in wood and plastic.

Twisting the contact housing counterclockwise 2-3 times before mounting will protect the cable from mechanical stress.

For sites where it is impossible to mount the contact directly, a range of accessories is available.

Only non-ferromagnetic screws may be used when mounting the contact using accessories.

For the most adequate distance for mounting, magnetic part should be placed close to the contact part to get Sabotage distance, then move away magnetic part to get minimum Make distance.

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

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

## **RESISTORS (OPTIONAL)**

MC 270 is available in two additional options with resistors of the chosen value: MC 270-R with one resistor parallel to the alarm switch and MC 270-2R with two resistors in 2EOL configuration.

#### **DISTANCE TABLE**

Contact A	Accessory	Distance on wood [mm]		
		Sabotage	Make	Break
MC 270	-	max 5	16	22
	MC 200-S11	max 5	16	22
	MC 200-S19	max 5	16	22
	MC 200-S21	max 5	16	22
	MC 200-S31	max 5	16	22

Mounting product on steel is not recommended.