ALARMTECH

MC 275

Magnetic Contact

Recessed mounting

Datasheet and Instruction Manual

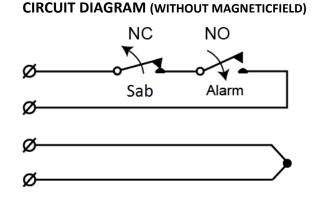
Detectors



DESCRIPTION

MC 275 is a versatile high security magnetic contact used in both alarm and industrial control systems for protection of doors, gates and windows against unauthorized opening. It has an extra reed to protect from external magnetic field. The construction of the contact enables a fixed cable and rotation of contact during mounting, thus protecting the cable from mechanical stress. A range of accessories makes the contact suitable for a variety of applications.

MC 275 is certified to VdS Class C and EN 50131-2-6:2008 Grade 3, Class IIIA.



DISTANCE TABLE

	Distance in	Tolerance in	
	mm	mm	
Make	15	+/- 3	
Break	16	+/- 3	
Sabotage	5	Max	

MOUNTING INSTRUCTIONS

- Drill a hole for contact and magnet of 9-10mm in diameter
- Contact and magnet should be installed axially, opposite to each other.
- Self-cutting and self-locking thread enables direct installation in ϕ 10 mm holes in wood and plastic

TECHNICAL DATA

Working environment	Wood	Steel	
Sabotage distance	max. 5 mm	not recommended	
Make distance	typ. 15 mm +/– 3 mm	- 3 mm not recommended	
Break distance	typ. 16 mm +/– 3 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		
Estimated life expectancy	>20 million switching operations at 10 V/4 mA		
Cable	Standard 2m, 6m and 10m length. ϕ 3,4 mm, 4x0,182 mm ²		
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	φ 11 x 36 mm		
Magnet part	φ 11 x 22 mm		
Security grade (EN50131-2-6:2008)	Grade 3, Class IIIA		
Approvals	VdS G 115008 Class C, SBSC, F&	P, FG	

OPERATING PRINCIPLE

MC 275 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 275 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 φ 10 mm holes in wood and plastic.

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, and 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 and also to weakening the magnetic field.

CABLE LENGTH AND RESISTORS (OPTIONAL)

MC 275 is available with different cable length as standard 2m, 6m, and 10m and in two additional options with resistors of any chosen value: MC 275-R with one resistor parallel to the alarm switch and MC 275-2R with two resistors in 2EOL configuration.

ORDERING INFORMATION

With	Used in	Distance of	Distance on wood [mm]		
Contact	Accessory	Sabotage	Make	Break	
MC 275	-	max 5	15	16	
	MC 200-S11	max 5	15	16	
	MC 200-S19	max 5	15	16	
	MC 200-S21	max 5	15	16	
	MC 200-S31	max 5	15	16	