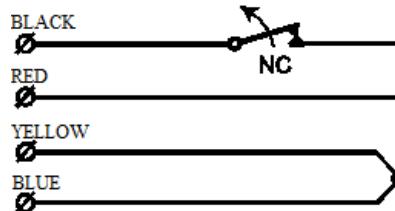


Instruction Manual
MC 240-LSZH

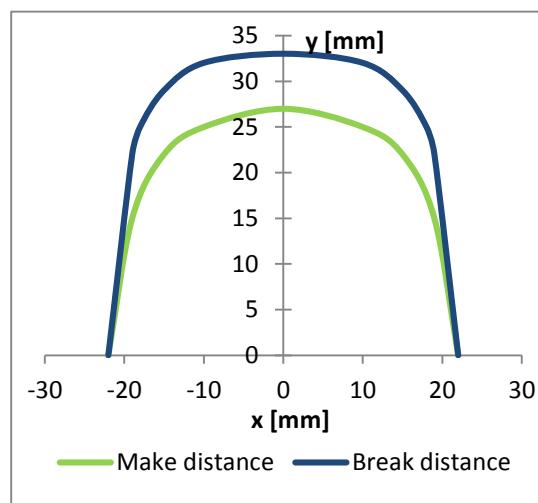
CIRCUIT DIAGRAM – COLOUR CABLES

DESCRIPTION

MC 240-LSZH is a versatile magnetic contact with a low-smoke-zero-halogen cable (LSZH), used in both alarm and security access control systems for protection of doors, gates and windows against unauthorized opening. A wide range of accessories enables the contact to be recessed- or surface-mounted on a variety of surfaces, including ferromagnetic materials. MC 240-LSZH belongs to MC 240 magnetic contacts family, but with a SZH cable, for limiting toxic gas/acid if exposed to flames/combustion.

MC 240 is certified according to EN 50131-2-6:2008.

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.
- Appropriate accessory must be used for installation in ferromagnetic environment.

DISTANCE DIAGRAM - WOOD

TECHNICAL DATA

Working environment	Wood	Steel
Make distance	typ. 27 mm +/- 40 %	see distance table
Break distance	typ. 33 mm +/- 40 %	see distance table
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	ϕ 3,4 mm, 4x0,182 mm ² - Halogen free (SZH) [certified according EN 50363-8:2005+A1:2011]	
Cable Length	L – 6 & 10 m [as standard]	
Cable Insulation colors	Red, Black, Blue, Yellow	
Environmental class (EN50130-5:2011)	IIIA	
Operating temperature range	-40°C to +55°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 36 mm	
Security grade (EN50131-2-6:2008)	2	
Approvals	ITR 4/2013; SBSC Nr. 9-196; VDS G1935 [acc. DIN EN 50131-2-6:2009]	

OPERATING PRINCIPLE

MC 240-LSZH 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 reduces the influence of the magnetic field on the reed switch until it opens and activates an alarm.

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

INSTALLATION

Detailed installation instructions can be found in MC 240 Installer Manual.

Contact and magnet should be aligned axially in the frames and leaves of the monitored objects (windows, doors etc.). Offset will reduce the working distances. 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.

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 variety of accessories is available.

Accessories with a strong magnet provide a bigger working distance for more demanding applications and maintain the parameters of the magnetic contact when mounted in ferromagnetic environment.

Accessories for surface mounted applications provide installation solutions for sites where recessed mounting is not suitable.

Heavy duty accessories protect the MC 240-LSZH from mechanical damage and provide a large operating distance enabling the magnetic contact to be installed on garage doors, industrial gates etc.

Aluminium 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.

The working distances of the magnetic contact will be decreased in the proximity of ferromagnetic surfaces. The closer the contact/magnet is installed to the ferromagnetic surface, the lower the working distances

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

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.

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

RESISTORS (OPTIONAL)

MC 240-LSZH is available in two additional options with resistors of the chosen value: MC 240-R-LSZH with one resistor parallel to the alarm switch and MC 240-2R-LSZH with two resistors in 2EOL configuration.

DISTANCE TABLE

Contact	Accessory	Distance on wood [mm]		Distance on steel [mm]	
		Make	Break	Make	Break
MC 240-LSZH	-	27	33	X	X
	MC 200-S3	24	29	14 ^{a)}	17 ^{a)}
	MC 200-S11	27	33	X	X
	MC 200-S12	38	44	19	22
	MC 200-S21	27	33	X	X
	MC 200-S22	38	44	24	29
	MC 200-S31	27	33	X	X
	MC 200-S32	38	44	19	22
	MC 200-4, MC 200-5	51	59	X	X
	MC 200-4, MC 200-8	51	59	36 ^{b)}	42 ^{b)}
	MC 200-6, MC 200-5	51	59	35 ^{c)}	40 ^{c)}
	MC 200-6, MC 200-8	51	59	35 ^{c)}	40 ^{c)}
	MC 200-7, MC 200-8	51	59	36	42

X – not recommended; ^{a)} measured with MC 400-4 spacers (included in the MC 200-S3 set); ^{b)} measured with contact part installed 15 mm above the ferromagnetic surface (e. g. using MC L/MC Z accessory); ^{c)} contact part mounted on non-ferromagnetic surface

We reserve the right to changes without notice.