



- Gold-plated switching contacts with a coating of ruthenium for extremely long service life (more than 20 million operating cycles)
- High long-term stability
- Connection via screw terminals
- Maintenance-free and easy to install

### Applications

Magnetic contacts of the MK400 Series are used in alarm signalling systems and access control systems for monitoring doors, gates and windows against any unauthorized opening. For installations where biased (interfering-field proof) contacts are a requirement, appropriate magnetic contacts of the MK400 Series are available.

### Operation

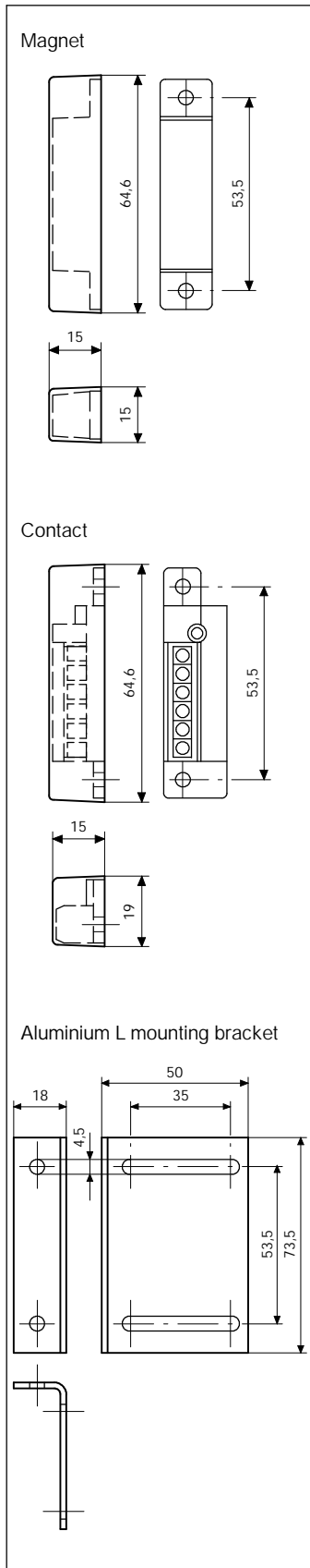
The magnetic contact is made up of two units, the reed contact and a permanent magnet. The reed contact unit and the magnet are mounted on the fixed and the movable part of the object to be protected, at a defined distance from each other. The field of force of the permanent magnet serves to keep the reed contact closed. Any increase in the distance between the reed contact and the magnet will cause the effect of the magnetic field of force at the reed contact to reduce and as a result, the reed contact will open and break the electric circuit for signal analysis. The reed contacts of the MK400 Series are gold-plated and feature a ruthenium coating. This coating enables also very low currents to be safely and reliably switched. The permanent magnet is made up of a special "Alnico V" (aluminum-nickel-cobalt) alloy which serves to ensure excellent long-term stability of the magnetic field of force. The interfering-field proof magnetic contacts of the MK400 Series feature a changeover contact

which is biased by an internal permanent magnet. Whenever an additional external magnetic field of force is brought up towards the contact, the field of force of the internal magnet will be weakened, and the contact will change over.

### Installation

The installation position must be selected that the air gap does not allow any tampering. The magnetic contacts of the MK400 Series are designed for installation on wooden or plastic frames of the objects to be protected. When the contacts are to be mounted on metal frames, spacers (accessories) must be fitted. The reed contact unit is installed on the fixed part and the magnet unit on the movable part of the object to be protected. Wiring of the contact unit is made via the screw terminals which are easily accessible from above. Should a shorter monitoring distance or a different mode of installation required, the individual accessories may be used in any combination, depending on the application.

## Dimensions



## Technical data

	MK440	MK446	MK470	MK472
Reed contact configuration	NC	SPDT	NC	SPDT
- Contact rating	200V <sub>DC</sub> /0.5A	200V <sub>DC</sub> /0.5A	200V <sub>DC</sub> /0.5A	200V <sub>DC</sub> /0.5A
Biased contact	No	No	Yes	Yes
Tamper contact	No	Yes	Yes	Yes
Operating distance upon approach				
- on non-magnetic mounting support	<20mm	<18mm	<18mm	<18mm
- on magnetic mounting support	<10mm	<10mm	<10mm	<10mm
Operating distance upon withdrawal				
- on non-magnetic mounting support	<20mm	<20mm	<20mm	<20mm
- on magnetic mounting support	<10mm	<10mm	<10mm	<10mm
Ambient conditions				
- Operating temperature			-40...+70°C	
- Storage temperature			-40...+70°C	
- Humidity (DIN category)			F (≤95% rel.)	
- Shock resistance			100g / 11ms / 0.5Hz	
- Vibration resistance			20g / 10...5000Hz	
- Reed contact material			Ruthenium on gold	
- Reed contact service life			>20 million operating cycles	
Housing	ABS plastic	ABS plastic	ABS plastic	ABS plastic
- IEC protection category	IP52	IP52	IP52	IP52

## Ordering data

Model	Part No.	Description	Weight
MK440	472 573	Magnetic contact, white, and magnet	0.040kg
MK440B	499 640	Magnetic contact, brown, and magnet	0.040kg
MK446	487 306	Magnetic changeover contact, white, and magnet	0.040kg
MK446B	506 779	Magnetic changeover contact, brown, and magnet	0.040kg
MK470	472 586	Biased magnetic contact, white, and magnet	0.040kg
MK470B	499 653	Biased magnetic contact, brown, and magnet	0.040kg
MK472	472 599	Biased magnetic changeover contact, white, and magnet	0.040kg
MK472B	499 666	Biased magnetic changeover contact, brown, and magnet	0.040kg
MK400-1	477 109	Aluminium L mounting bracket	0.025kg
MK400-2	477 112	Extra strong magnet	0.040kg
MK400-3	477 125	Spacer (contact)	0.001kg
MK400-4	477 138	Spacer (magnet)	0.001kg

## Installation examples

