

Mechanical protection are a key requirement when it comes to effective burglary protection. They slow down or prevent a burglary and result in increased noise during the act. In contrast, electronic protective devices such as burglar alarm systems do not prevent burglaries, instead they simply raise the alarm.

Product description

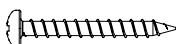
mTRONIC is a battery-powered reed contact concealed in the window with radio connection. A magnet (contact sensor) which is fixed to the sash or secured to a moveable hardware drive track triggers the mTRONIC reed contact. This enables opening monitoring (fixed contact sensor) or locking monitoring (moveable contact sensor) on windows, sliding doors and balcony/patio doors. The Multisensor is also fitted with an external field detection from Version HW 2.1 / FW 2.1. This reacts with an alarm signal to manipulation with strong magnets from inside and outside. mTRONIC is suitable for timber and PVC profiles. For PVC profiles, packers are enclosed in various thicknesses.

Scope of supply

- 1 x mTRONIC multi sensor
- 1 x CR 1632 battery
- 4 x Packers for PVC profiles
- 1 x Installation and operating instructions

Also in individual packaging:
1 x Magnet (contact sensor)
2 x Screws

Screws needed



Pan-head self tapping screw
ø 3.5 x 32 mm ISO 7049 made of stainless steel

Optional item for window manufacturers

- 206190 = Standard corner element with contact sensor
- 228493 = Vertical corner element with contact sensor
- 201755 = Faceplate extension 140 with contact sensor
- 228503 = Contact sensor cam short ø 10 x 13.4 mm
- 228504 = Contact sensor cam long ø 10 x 17.7 mm
- 200906 = Adapter with MM contact sensor
- 57425 = Adapter with MT/MM contact sensor
- 229396 = Drilling jig for multi sensor

Technical specifications

Material	Polycarbonate (PC)
Colour	RAL 7035 light grey
Mounting method	Screw fixing 2 x
Ambient temperature	-20 °C to +60 °C
Degree of protection	IP 54
Switching distance	Air gap 10 - 14 mm
Wireless protocol	EnOcean, unidirectional 868 Mhz
Service life of the battery	3 to 5 years
Wireless range	acc. EnOcean standard (www.enocean.com)

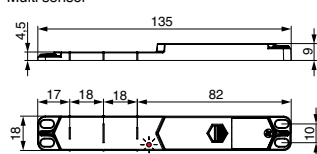
Compatibility with Gateways

See Homepage

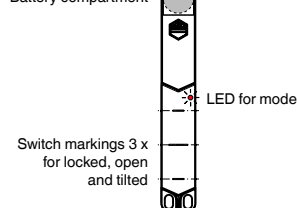
www.maco.eu/mtronic



Multi sensor

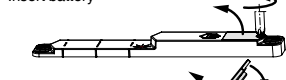


Battery compartment

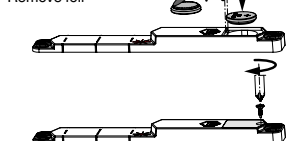


COMMISSIONING the multi sensor

Insert battery

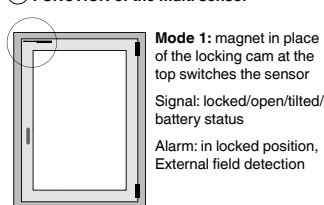


Remove foil

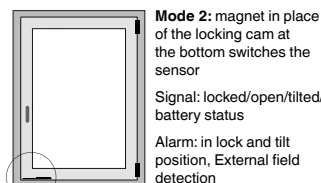
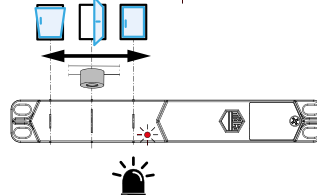


Note: when changing the battery, the mode (operating mode) is retained. Mode 1 is pre-set on delivery.

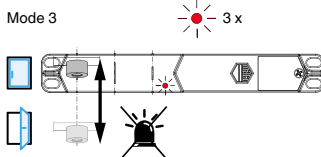
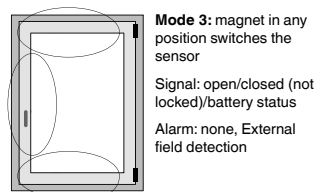
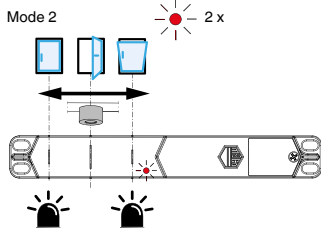
FUNCTION of the multi sensor



Mode 1



A run-up block is required horizontally at the bottom to protect the sensor.



Intelligent burglary detection only in mode 1 and 2 (locking monitoring). The intelligent burglary detection only functions flawlessly if the sliding of the cam is prevented by the self-locking drive gear or locking handle.



ATTENTION!
If operated too slowly (under 2 seconds) may cause a false alarm!

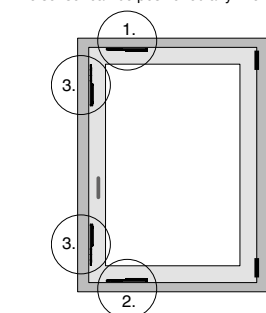


Each set mode involves a specific installation position for the multi sensor (see illustration under (B2)!

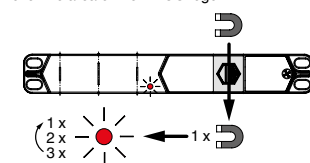
(B2) MOUNTING ORIENTATION of the multi sensor

Mode 1 + 2 (locking monitoring)
The sensor battery compartment always points towards the hinge-side of the window.

Mode 3 (opening monitoring)
The sensor can be positioned anywhere.



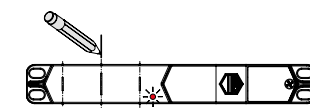
Set function mode. To do so, move the magnet over the area of the MACO logo.



When changing mode, the multi sensor sends a teach-in signal to the gateway, i.e. the sensor is identified as available and is shown on the visualisation (app) (also see the description of the gateway manufacturer). See also Point 1 in Questions and Answers!

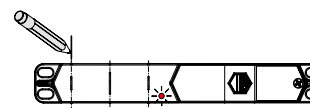
(C1) POSITIONING for function locking monitoring

- Move the handle into the turning position
- Transfer the centre position of the magnet (the cam) to the frame
- Bring the centre switching position of the sensor in line with the frame marking (note position - see (B2)!)!

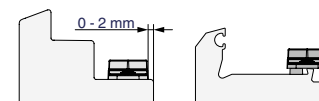


(C2) POSITIONING for opening monitoring function

- Attach magnet to sash in the centre of the Eurogroove (see installation of contact sensor)
- Transfer the centre position of the magnet to the frame
- Bring the outer switching position of the sensor in line with the frame marking



- Determine position in frame

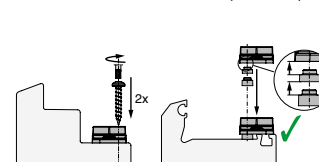


(D1) Fixing the multi sensor in

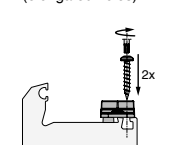
timber

PVC

determine which packer(s) are required. Packers are stackable (2 to 5 mm)



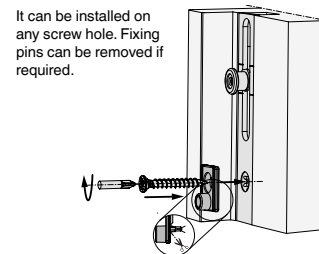
If required, fit packer on sensor (elongated holes)



For window manufacturers we recommend the use of drilling jig item no. 229396.

(E) INSTALLING the contact sensor

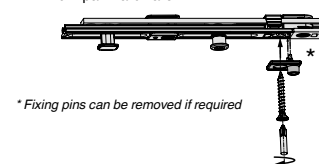
It can be installed on any screw hole. Fixing pins can be removed if required.



NOTES FOR WINDOW MANUFACTURERS (Retrofitting a contact sensor)

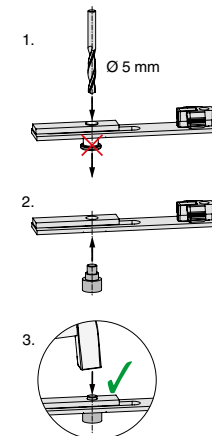
INSTALLING an adapter with contact sensor

Opening monitoring with multi-part hardware



* Fixing pins can be removed if required

RETROFITTING a contact sensor cam



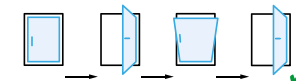
QUESTIONS and ANSWERS

LED blinks 5 times quickly

In Mode 1 or 2, an alarm is triggered when detecting sabotage and thus the mode cannot be changed once set.

LOCK RESET

- Sensor must be installed with the correct mode set (1 or 2)
- Close and lock the window
- Open the window
- Tilt the window
- Open the window



LED does not flash when setting the mode

- Check the battery polarity
- Check the battery voltage
- Incorrect direction of movement of the magnets

Radio signal not detected by gateway

Set the sensor mode again in the immediate vicinity of the gateway (if the sensor is now detected, the wireless range of the sensor must be increased with a repeater).

Windows statuses are not correctly displayed

- Check the mounting orientation (mode!)
- Check the mounting position (opening/locking monitoring)
- Check the position of the sensor in the rebate (2 to 3 mm offset from the edge of the frame)

Disposal must comply with local regulations and/or laws.



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