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CMC III Vandalismussensor
CMC III Vandalism Sensor



7030.130

Montage-, Installations- und Bedienungsanleitung
Assembly and operating instructions

ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Foreword

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Dear Customer,

Thank you for choosing our CMC III vandalism sensor (referred to hereafter as "vandalism sensor")!

We wish you every success.

Yours

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We are always happy to answer any technical questions regarding our entire range of products.

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1 Notes on documentation

1.1 CE labelling

Rittal GmbH & Co. KG hereby confirms that the CMC III vandalism sensor is compliant with the EC EMC Directive 2004/108/EC. An appropriate declaration of conformity has been prepared. It can be provided on request.



1.2 Storing the documents

The operating, installation and maintenance instructions as well as all applicable documents are an integral part of the product. They must be passed to those persons who are engaged with the unit and must always be available and on hand for the operating and maintenance personnel.

1.3 Symbols used in these operating instructions

The following symbols are used in this documentation:



Danger!

A dangerous situation in which failure to comply with the instructions causes death or severe injury.



Warning!

A hazardous situation which may lead to death or serious injury if the instructions are not followed.



Caution!

A hazardous situation which may lead to (minor) injuries if the instructions are not followed.



Note:

Identification of situations that can lead to material damage.

- This symbol indicates an "action point" and shows that you should perform an operation or procedure.

1.4 Associated documents

- Installation and Short User's Guide
- CMC III Processing Unit/CMC III Processing Unit Compact assembly, installation and operating instructions

2 Safety instructions

2.1 General safety instructions

Please observe the subsequent general safety instructions for the installation and operation of the system:

- Use only original Rittal products or products recommended by Rittal in conjunction with the vandalism sensor.
- Please do not make any changes to the vandalism sensor that are not described in this manual or in the associated manuals.
- The operational safety of the vandalism sensor is guaranteed only for its approved use. The technical specifications and limit values stated must not be exceeded under any circumstances. In particular, this applies to the specified ambient temperature range and IP degree of protection.
- The vandalism sensor may not be opened. The unit does not contain any parts that need servicing.
- Operating the system in direct contact with water, aggressive materials or inflammable gases and vapours is prohibited.
- Other than these general safety instructions ensure you also observe the specific safety instructions when the tasks described in the following chapters are performed.

2.2 Service and technical staff

- The mounting, installation, commissioning, maintenance and repair of this unit may only be performed by qualified mechanical and electro-technical trained personnel.
- Only properly instructed personnel may work on a unit while in operation.

3 Product description

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3 Product description

3.1 Function description and components

3.1.1 Function

The vandalism sensor registers jolts in the X, Y and Z axis directions on the server enclosure. It provides these to the connected CMC III Processing Unit. The vandalism sensor has an identification that allows it to be detected automatically by the CMC III Processing Unit.



Note:

In the following text the designation "CMC III Processing Unit" refers to both the "CMC III Processing Unit" and also the "CMC III Processing Unit Compact". All of the text passages which only apply for one of the two variants are labelled accordingly.

3.1.2 Components

The device consists of a compact plastic housing in RAL 7035 with a ventilated front in RAL 9005.

3.2 Proper use, foreseeable misuse

The vandalism sensor serves exclusively to monitor enclosures and server enclosures. It may only be used together with the CMC III Processing Unit. Any other use is not permitted.

3.3 Scope of supply

- CMC III vandalism sensor
- Accessories provided (fig. 1)
- Installation and Short User's Guide

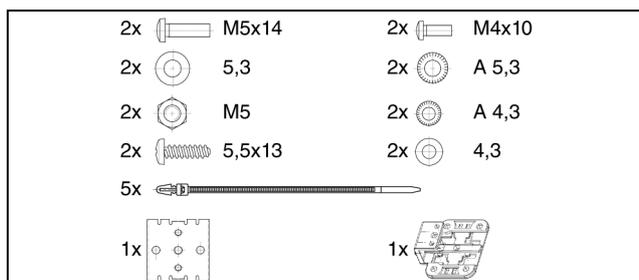


Fig. 1: Accessories provided

4 Transport and handling

4.1 Transport

The unit is delivered in a carton.

4.2 Unpacking

- Remove the unit's packaging materials.



Note:

After unpacking, the packaging materials must be disposed of in an environmentally friendly way. It consists of the following materials:

Polyethylene film (PE film), cardboard.

- Check the unit for any damage that occurred during transport.



Note:

Damage and other faults, e.g. incomplete delivery, should immediately be reported to the shipping company and to Rittal GmbH & Co. KG in writing.

- Remove the unit from the PE film.
- Remove the protective film from the front cover of the device.

5 Installation

5.1 Safety instructions

- Please observe the valid regulations for installation in the country in which the vandalism sensor is installed and operated, and the national regulations for accident prevention. Please also observe any company-internal regulations, such as work, operating and safety regulations.
- The technical specifications and limit values stated must not be exceeded under any circumstances. In particular, this applies to the specified ambient temperature range and IP degree of protection.
- If a higher IP protection class is required for a special application, the vandalism sensor must be installed in an appropriate housing or in an appropriate enclosure with the required IP degree of protection.

5.2 Siting location requirements

To ensure the correct function of the unit, the conditions for the installation site of the unit specified in section 8 "Technical specifications" must be observed.

Electromagnetic interference

- Interfering electrical installations (high frequency) should be avoided.

5.3 Installation procedure

There are two general options for installing the vandalism sensor:

1. Installation on the frame of the enclosure or IT enclosure using the bracket included.
2. Installation on a top-hat rail using the bracket included along with a spring clip.

5.3.1 Installation notes

- The vandalism sensor must be positioned so that it is ventilated with an adequate amount of air and the ventilation slots are not covered.
- Ensure that the vandalism sensor is firmly connected to the enclosure and thus cannot generate a false alarm as a result of vibrations.

5.3.2 Installation with the mounting bracket provided

It can be mounted on the frame of the IT enclosure using the bracket included in the scope of delivery.

- Place the vandalism sensor on the bracket from above.

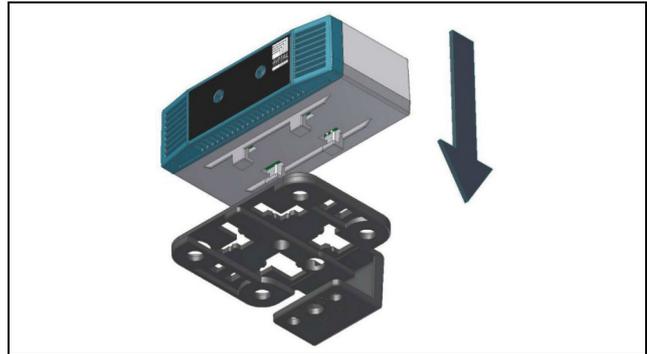


Fig. 2: Attaching the sensor to the bracket

- Move the sensor sideways slightly on the bracket, so that it latches into place.

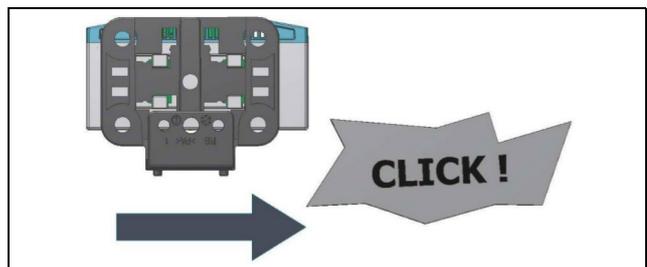


Fig. 3: Latching the sensor into place on the bracket

- Mount the bracket and the vandalism sensor in the desired position in the enclosure or the IT enclosure using the screw included in the scope of delivery.

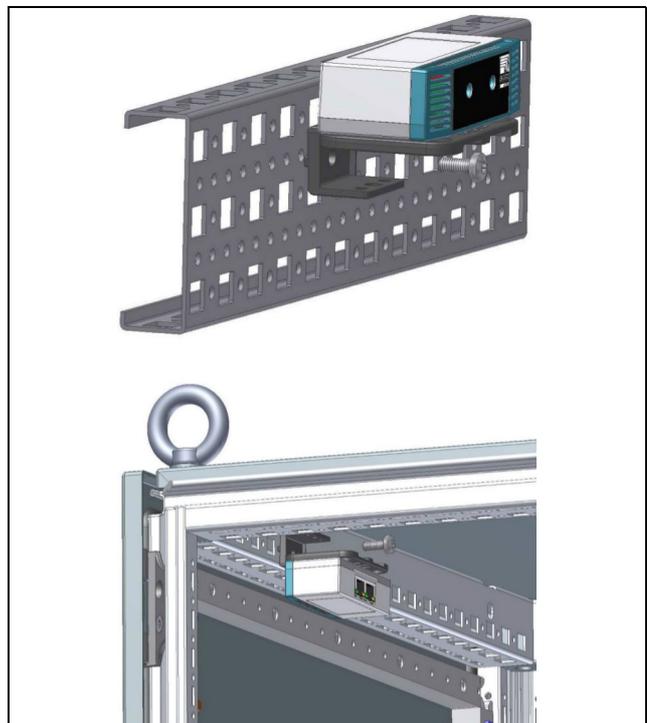


Fig. 4: Mounting the sensor in the enclosure or IT enclosure

5.3.3 Installation on a top-hat rail

The sensor can also be mounted on a top-hat rail using the bracket along with the spring clip included in the scope of delivery.

- First screw the bracket onto the spring clip provided for installation on a top-hat rail.

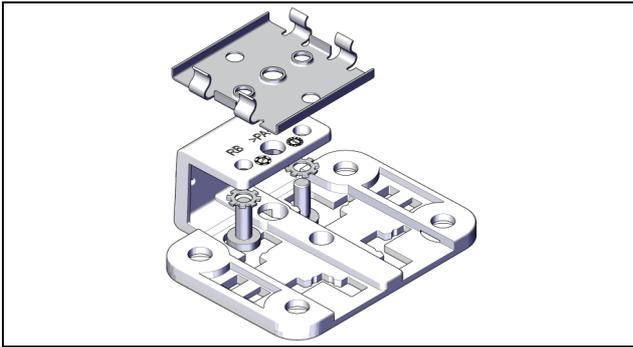


Fig. 5: Fastening the bracket to the spring clip

- Then place the vandalism sensor on the bracket (fig. 2) and latch it in place (fig. 3).
- Latch the spring clip into place at the desired position on the top-hat rail.

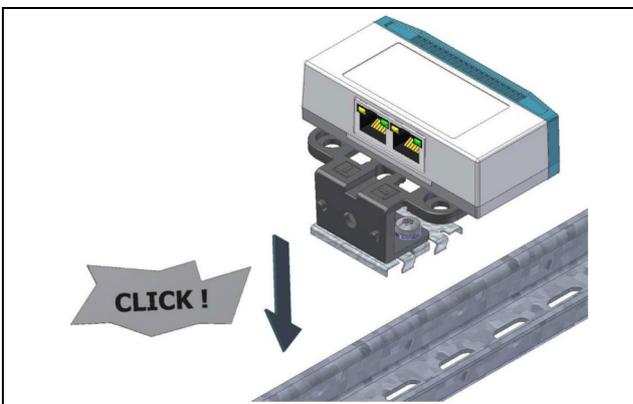


Fig. 6: Fastening the spring clip to the top-hat rail

5.4 Connecting the sensor

The CAN bus connection supplies the vandalism sensor with the necessary operating voltage. A separate power supply unit does not need to be connected.

- Use a CAN bus connection cable to connect the vandalism sensor to a CAN bus interface on the CMC III Processing Unit or the neighbouring component on the CAN bus (fig. 7, item 2).

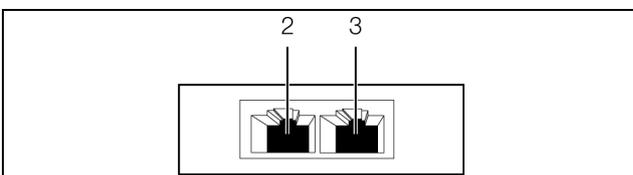


Fig. 7: Rear of the vandalism sensor

Key

- 1 CAN bus connection, 24 V
- 2 CAN bus connection, 24 V

The following CAN bus connection cables from the CMC III accessories can be used:

- 7030.090 (length 0.5 m)
- 7030.091 (length 1 m)
- 7030.092 (length 1.5 m)
- 7030.093 (length 2 m)

- 7030.480 (length 3 m)
- 7030.490 (length 4 m)
- 7030.094 (length 5 m)
- 7030.095 (length 10 m)

The software is updated, if necessary, after being connected. The status LED of the vandalism sensor glows blue throughout the entire update process and also flashes purple while the sensor itself receives an update. In addition, the status LED of the CMC III Processing Unit flashes white and a corresponding message appears on the website.



Note:

No settings can be modified as long as the update process is running.

The update of the sensor is complete when the following conditions have been fulfilled:

1. The LEDs on the CAN bus connection of the sensor light green.
2. The multi-LED of the sensor behind the front panel flashes blue and green, yellow or red, depending on the condition of the sensor.

Further components are connected as a daisy chain.

- If necessary, connect another component (e.g. another sensor type) to the second, free CAN bus interface of the vandalism sensor (fig. 7, item 3).

Status change display:

- The two green and the two red CAN bus LEDs on the CAN bus connection flash.
- The multi-LED of the Processing Unit flashes continually in the sequence green – orange – red.
- The multi-LED of the vandalism sensor flashes blue continuously.
- Press the "C" key on the CMC III Processing Unit (an initial audio signal will sound) and keep it pressed for approx. 3 seconds until a second audio signal is heard.



Note:

See section 6.3.1 "Multi-LED displays" for a list of all of the multi-LED displays.

6.4.2 gValues

Acceleration settings are configured on the "gValues" level.

| Parameter | Explanation |
|-----------------|--|
| DescName | Specific description of the acceleration measured. |
| SetPtHigh-Alarm | Upper limit acceleration for which an alarm message is issued when exceeded. |

Tab. 5: Settings in the "gValues" level

The following parameters are also displayed for the vandalism sensor:

| Parameter | Explanation |
|-----------|---|
| Value_X | Currently measured acceleration in the X direction. |
| Value_Y | Currently measured acceleration in the Y direction. |
| Value_Z | Currently measured acceleration in the Z direction. |
| Status | Current status of the sensor. |

Tab. 6: Displays in the "gValues" level



Note:

If the value "0" is entered for all limit value at the "gValues" level, the status of the sensor is always "OK".

7 Storage and disposal

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7 Storage and disposal

7.1 Storage

If the device is not used for a long period, Rittal recommends that it is disconnected from the mains power supply and protected from damp and dust.

7.2 Disposal

Since the vandalism sensor consists mainly of the "housing" and "circuit board" parts, the device must be passed on to the electronic waste recycling system for disposal.

8 Technical specifications

| Technical specifications | | CMC III vandalism sensor |
|-----------------------------|-----------------|--|
| Model no. | | 7030.130 |
| W x H x D (mm) | | 80 x 28 x 40 |
| Operating temperature range | | 0°C...+55°C |
| Storage temperature | | -45°C...+85°C |
| Operating humidity range | | 5%...95% relative humidity, non-condensing |
| Monitoring | | X, Y and Z axis |
| Measurement range | | -7 g...+7 g |
| Measurement precision | | ±0.5 g |
| Resolution | | 0.1 g |
| Protection category | | IP 30 to IEC 60 529 |
| Inputs and outputs | CAN bus (RJ 45) | 2 x |
| Operation/signals | LED display | OK / alarm / network status |

Tab. 7: Technical specifications

9 Customer service addresses

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9 Customer service addresses

For technical queries, please contact:

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