

# Rittal – The System.

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## CMC III Zahlencodeschloss CMC III Coded Lock



7030.220

**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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## Foreword

Dear Customer,

Thank you for choosing our CMC III coded lock (referred to hereafter as "coded lock")!

We wish you every success.

Yours,  
Rittal GmbH & Co. KG

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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

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## 1 Notes on documentation

### 1.1 CE labelling

Rittal GmbH & Co. KG hereby confirms that the CMC III coded lock 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 assembly and operating 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!**  
**Hazardous situation leading directly to death or serious injury if the instructions are not followed.**



**Warning!**  
**Hazardous situation which may lead directly to death or serious injury if the instructions are not followed.**



**Caution!**  
**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 Guide and Short User's Guide
- CMC III Processing Unit/CMC III Processing Unit Compact assembly and operating instructions
- CMC III CAN bus access assembly 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 coded lock.
- Please do not make any changes to the coded lock that are not described in this manual or in the associated manuals.
- The operational safety of the coded lock is only warranted in case of use as intended and according to the rules. 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 coded lock may only be opened for mounting purposes. 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 Functional description and components

#### 3.1.1 Function

The coded lock serves to release enclosure or room doors when an access code is input. The access code is checked in the connected CMC III Processing Unit and the corresponding door release is initiated where applicable. The coded lock has an identification that allows it to be detected automatically by the CMC III CAN bus access.



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 CMC III coded lock consists of a compact plastic housing finished to RAL 7035. Control keys (0-9, C, Enter) are set into the front in RAL 7024.

### 3.2 Proper use, foreseeable misuse

The CMC III coded lock serves exclusively to release doors when an access code is input. It may only be used together with the CMC III Processing Unit and CAN bus access. Any other use is not permitted.

The unit is state of the art and built according to recognised safety regulations. Nevertheless, incorrect use may result in damage to or faults with the system and other material assets.

Consequently, the unit must only be used properly and in a technically sound condition! Any malfunctions which impair safety should be rectified immediately! Follow the operating instructions!

The intended use also includes the observance of the documentation provided and fulfilling the inspection and maintenance conditions.

Rittal GmbH & Co. KG is not liable for any damage which may result from failure to comply with the documentation provided. The same applies to failure to comply with the valid documentation for the accessories used.

Inappropriate use may result in danger. Inappropriate use includes:

- Use of impermissible tools.
- Improper operation.
- Improper rectification of malfunctions.

- Use of accessories not approved by Rittal GmbH & Co. KG.

### 3.3 Scope of supply

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

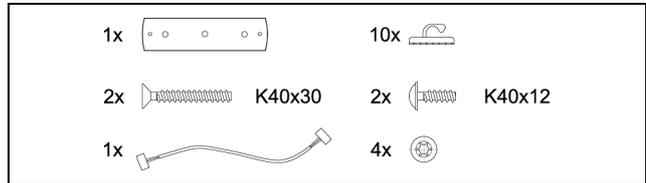


Fig. 1: Accessories provided

## 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. They consist of the following materials:

Polyethylene film (PE film), cardboard.

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



Note:

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

- Remove the unit from the packaging.

## 5 Installation

### 5.1 Safety instructions

- Please observe the valid regulations for installation in the country in which the coded lock is installed and operated, and the national regulations for accident prevention. Please also observe any internal company 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 coded lock 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 unit functions correctly, 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 coded lock:

1. Installation on a TS glazed door
2. Installation on a TS sheet steel door

#### 5.3.1 Installation note

- Cover the area around where holes are to be drilled before drilling in order to prevent damage and scratches.

#### 5.3.2 Installation on a TS glazed door

The compensating panel provided is used for installation on the frame of a TS glazed door.

- Drill suitably sized holes at the required part of the frame of the TS glazed door (fig. 2).
- Use a 90° countersink to deburr the holes for cable entry.
- Clean away any splinters at the point where the coded lock is to be attached.
- Attach the compensating panel for the TS glazed door incl. coded lock to the prepared location using the flat-headed screws provided.

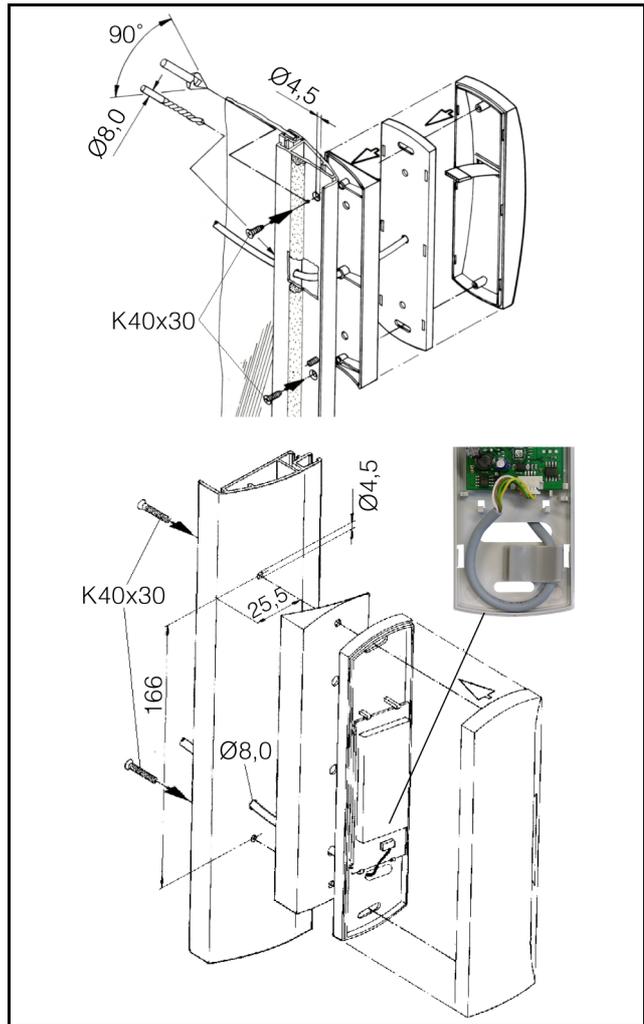


Fig. 2: TS glazed door installation

#### 5.3.3 Installation on a TS sheet steel door

The coded lock is mounted directly on the frame for a TS sheet steel door.

- Drill suitably sized holes at the required part of the frame of the TS sheet steel door (fig. 3).
- Use a 90° countersink to deburr the holes for cable entry.
- Attach the coded lock to the prepared location using the pan-head screws provided.

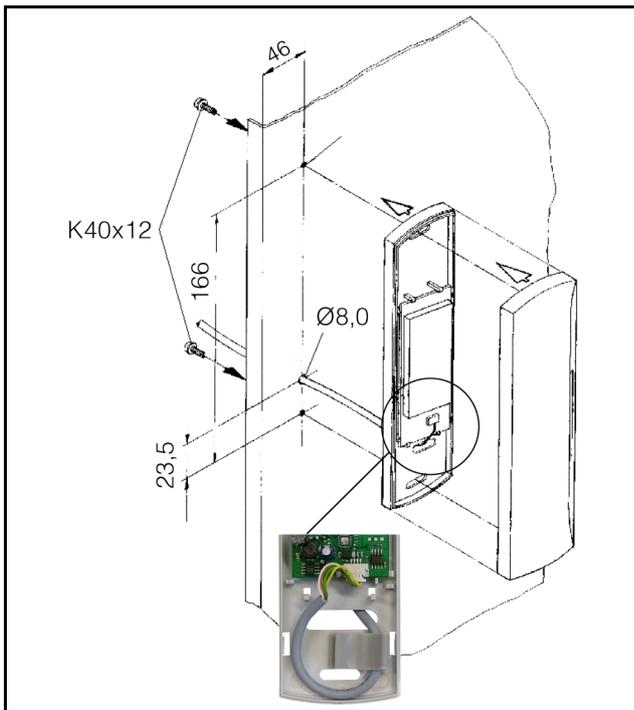


Fig. 3: TS sheet steel door installation

#### 5.4 Connecting the coded lock

The CAN bus access supplies the coded lock with the necessary operating voltage via the connection cable. A separate power supply unit does not need to be connected.

- First disconnect the CAN bus from the CAN bus access.
- Fit the associated handle to the door to be monitored.
- Connect this handle via the connection cable to the CAN bus access.
- Connect the coded lock via the connection cable to the CAN bus access.
- Connect the CAN bus to the CAN bus access again.

## 6 Operation

### 6.1 Activating the coded lock

After connecting the coded lock to a CAN bus access using the connection cable, the coded lock starts automatically (see section 5.4 "Connecting the coded lock"). Separate activation is not required.

### 6.2 Operating and display elements

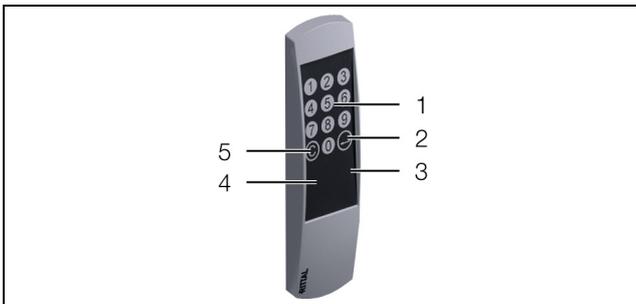


Fig. 4: Front of the coded lock

#### Legend

- 1 Number keys 0-9
- 2 "Enter" key
- 3 Red LED
- 4 Green LED
- 5 "C" key

### 6.3 LED displays

Two LEDs for the status display are integrated into the front of the coded lock (fig. 4, item 3 and item 4).

Colour	Status
Green	If the connection is correct, continuously flashes every 5-10 seconds. If an authorised access code combination is entered, the LED lights up continuously for approx. 3 seconds.
Red	If an unauthorised access code combination is entered, the LED lights up continuously for approx. 3 seconds.

Tab. 1: LED flashing codes

### 6.4 Operating the CMC III Processing Unit from the website

After logging on to the CMC III Processing Unit, the web interface for operating the device is displayed.

#### 6.4.1 Configuration tab

Access authorisation settings can be made in the "Security" group frame in the **Configuration** tab.

- First select the "Processing Unit" node in the navigation area.
- Select the **Configuration** tab in the configuration area.

Regardless of the next work steps:

- In the **Security** group frame, click on the **Access Configuration** button.

The "Access Configurations" dialogue opens.

To add a new access code:

- Below the list of access codes/transponder cards that have already been added in the "Access Configurations" dialogue, click on the **Add** button.

To configure an access code:

- Select the line with the required entry to change the configurations stored for this.

- Click the **Edit** button.

The "Access Configuration" dialogue opens.

Parameter	Explanation
Type	Configuration of an access. The "Keycode" entry must be selected here.
Code	Enter the required access code.
User	Selection of the user authorised for the access. The user must have been created in advance.
Information	Specific additional information for the access. This text is also added for the user in the CMC III Processing Unit logfile.

Tab. 2: "Access Configuration" dialogue

All connected access modules are displayed in tabular form.

Parameter	Explanation
Use	Enable or disable individual access modules.
Device Name	Specific description of the CAN bus access or (virtual) access controller to which the access module to be switched is connected.
Serial Number	Serial number of the CAN bus access or (virtual) access controller to which the access module to be switched is connected.

Tab. 3: "Devices" table



#### Note:

A user must be assigned to the access code. Otherwise, access isn't possible even with the appropriate access code.

To delete an access authorisation via access code:

- Select the line with the required entry you wish to delete.

- If necessary, select another entry by keeping the shift key pressed. All lines from the first entry selected to the last entry selected (inclusive) are selected.
- If necessary, select further entries by keeping the "Ctrl" key pressed. These lines are added individually to the selection.
- Click the **Delete** button.  
The access authorisation is immediately deleted without a confirmation prompt.

#### 6.4.2 Observation tab

The description of the coded lock is added and the current status of the coded lock can be viewed in the **Observation** tab.



Note:

As the coded lock does not have a separate entry in the left tree structure, all information on this point can be found in the CMC III CAN bus access operating instructions.

### 6.5 Manual changes to the "access.cmc3" file

Alternatively, the access authorisation settings can also be made directly in the "access.cmc3" file. This file is automatically created in the "upload" directory of the CMC III Processing Unit when an access code is first input on the coded lock or a transponder card is first held in front of the transponder reader.



Note:

If the "access.cmc3" file is removed from the folder, access is only then possible using the three predefined access codes "1001", "1002" and "1003". All other access authorisations have to initially be added again to a newly created file.

#### 6.5.1 Downloading the file



Note:

The following descriptions assume that you establish an (S)FTP connection using the "FileZilla" program. If another program is used, the file may have to be downloaded and uploaded in a different way.

- First establish an FTP or SFTP connection to the CMC III Processing Unit from a PC (see the assembly and operating instructions for the CMC III Processing Unit).
- In the left-hand subwindow (PC), switch to the folder where you wish to locally save the "access.cmc3" file.
- Switch to the "upload" folder in the right-hand subwindow (CMC III PU).
- Right-click the "access.cmc3" file and select the "Download" action.

- Disconnect the (S)FTP connection between the PC and CMC III PU.

If there is no "access.cmc3" file in the "upload" directory, this has to be created first.

- When using a coded lock: Input any sequence of numbers on the coded lock and confirm using the "Enter" key. The file is now generated in the "upload" folder.
- When using a transponder reader: Hold any transponder card in front of the reader unit. The file is now generated in the "upload" folder.
- Establish an (S)FTP connection between the PC and CMC III PU again and download the file.
- Disconnect the (S)FTP connection between the PC and CMC III PU again.

#### 6.5.2 Editing the file

The file can now be edited using a text editor. Rittal recommends using "Notepad++" for this instead of the standard "Notepad" editor installed under Windows. This is available online as freeware.

```

1 #----- Access-File CMC-III -----
2 # Name      : Name of the Unit
3 # Location  : Location of the Unit
4 # Contact   : Contact Person
5 # IPv4-Address : 192.168.10.190
6 # IPv4-Address 1 :
7 # IPv4-Address 2 :
8 # IPv6-Addr. Auto :
9 # IPv6-Addr. Local: fe80::2d0:93ff:fe25:f07b
10
11 Key:1001; User:: Information:: Handle:
12 Key:1002; User:: Information:: Handle:
13 Key:1003; User:: Information:: Handle:
14 Crd:: User:: Handle:
15

```

Fig. 5: "access.cmc3" file in Notepad++

The file is structured as follows:

- Lines starting with a "#" are comment lines. These contain basic information on the CMC III Processing Unit.
- The following lines contain the authorised access codes if a coded lock is used or the authorised card numbers of the transponder cards if a transponder reader is used.

The individual lines contain the following entries:

Parameter	Explanation
Key	Access code containing up to eight digits for a coded lock for authorised access.
Crd	Card number of a transponder card for authorised access.
User	User to be entered in the CMC III Processing Unit logfile when the coded lock is opened with the associated access code or on opening with the associated transponder card. This user has to exist in the CMC III PU.

Tab. 4: Entries in the "access.cmc3" file

# 6 Operation

Parameter	Explanation
Information	Specific additional information for the access. This text is also added for the user in the CMC III Processing Unit logfile.
Handle	Handle to be opened with the associated access code or transponder card. Several comma-delimited entries for different handles can also be added here.

Tab. 4: Entries in the "access.cmc3" file



**Note:**

Each line contains the parameter "Key" or "Crd" depending on whether the line applies to a coded lock or transponder reader.

The entries are explained in detail using the following example configuration.

```
1 #----- Access-File CMC-III -----
2 # Name : Name of the Unit
3 # Location : Location of the Unit
4 # Contact : Contact Person
5 # IPv4-Address : 192.168.10.190
6 # IPv6-Address 1 :
7 # IPv6-Address 2 :
8 # IPv6-Addr. Auto :
9 # IPv6-Addr. Local: fe80::2d0:93ff:fe25:f07b
10
11 Key:1234; User:cmc; Information:Info 1; Handle: 87199578
12 Key:123456; User:Rittal; Information:Info 2; Handle:67194027
13 Key:12345678; User:admin; Information:Info 3; Handle: 87199578,67194027
14 Crd;; User;; Handle:
15 Crd:00000003A74F9D5; User:cmc; Information:Info 4; Handle: 87199578
16 Crd:00000005D9DC97E; User:Rittal; Information:Info 5; Handle:67194027
17 Crd:00000001F82AC50; User:admin; Information:Info 6; Handle: 87199578,67194027
```

Fig. 6: Example configuration

- Handle 1 is opened using access code "1234" (line 11 in the editor window). User "cmc" and the information "Info 1" are entered in the CMC III PU logfile.
- Handle 2 is opened using access code "123456" (line 12). User "Rittal" and the information "Info 2" are entered in the CMC III PU logfile.
- Both handles are opened using access code "12345678" (line 13). User "admin" and the information "Info 3" are entered in the CMC III PU logfile.

In lines 15 to 17, a transponder card has also been assigned to each of the users. These transponder cards open the same handles as the access codes above. The respective users and associated information are entered in the CMC III PU logfile.

Under certain circumstances, several reader units (coded locks or transponder readers) are connected to one CMC III PU via CAN bus access units. The same doors are always opened in this instance as well, regardless of the coded lock or transponder reader via which the input takes place.

### 6.5.3 Uploading the file

Once all entries have been made in the "access.cmc3" file, this file has to be stored in the "upload" directory on the CMC III Processing Unit again.

- Establish an FTP or SFTP connection to the CMC III Processing Unit from a PC again.
- Switch to the "upload" folder in the right-hand subwindow (CMC III PU).
- In the left-hand subwindow (PC), switch to the folder where you have stored the revised version of the "access.cmc3" file.
- Right-click the "access.cmc3" file and select the "Upload" action.
- If the file cannot be uploaded this way, first delete the existing "access.cmc3" file from the "upload" directory and then upload the file from the PC again.
- Finally, disconnect the (S)FTP connection between the PC and CMC III PU.

The access authorisations have now been updated.

## **7 Storage and disposal**

### **7.1 Storage**

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

### **7.2 Disposal**

Since the coded lock 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

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## 8 Technical specifications

Technical specifications		CMC III coded lock
Model no.		7030.220
W x H x D (mm)		50 x 190 x 25
Operating temperature range		0°C...+55°C
Storage temperature		-45°C...+85°C
Operating humidity range		5%...95% relative humidity, non-condensing
Numerical code		00000000 to 99999999 (variable)
Keys		0-9, C, Enter
Connection cable (m)		3
Protection category		IP 30 to IEC 60 529
Inputs and outputs	Interface for CAN bus access	1 x
Operation/signals	LED display	Green/Red

Tab. 5: Technical specifications

### **9 Customer service addresses**

For technical queries, please contact:

Tel.: +49(0)2772 505-9052

E-mail: [info@rittal.de](mailto:info@rittal.de)

Homepage: [www.rittal.com](http://www.rittal.com)

For complaints or service requests, please contact:

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E-mail: [service@rittal.de](mailto:service@rittal.de)

# Rittal – The System.

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