

Rittal – The System.

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CMC III online comfort handle VX



DK 7030.610

DK 7030.611

Assembly and operating instructions

ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Foreword

EN

Foreword

Dear Customer,

Thank you for choosing our CMC III online comfort handle VX (referred to hereafter as "comfort handle")!
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 online comfort handle VX is compliant with the EC EMC Directive 2014/30/EC. An appropriate declaration of conformity has been prepared. It can be provided on request.



Note:
Additional compatible base systems can be found on the internet at www.rittal.com. The term "base systems" is used in these instructions as placeholder for the various systems.

– CMC III Access Control assembly and operating instructions

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

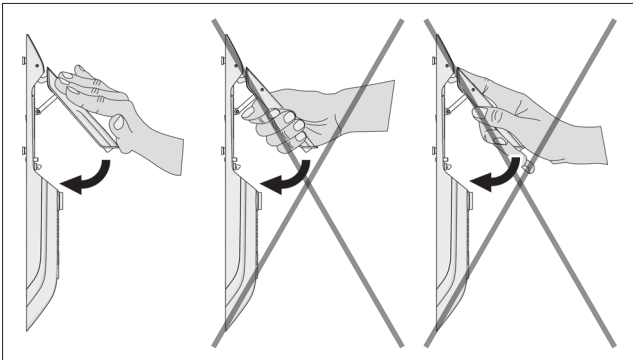
- Installation and Short User Guide
- Assembly and operating instructions for compatible base systems, e.g. CMC III Processing Unit

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 comfort handle.
- Please do not make any changes to the comfort handle that are not described in this manual or in the associated manuals.
- The operational safety of the comfort handle 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 comfort handle housing must 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.
- When closing the handle, take care not to insert your finger between the handle lever and the comfort handle housing, as it could become trapped.



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 comfort handle functions as a door latch, handle lever monitor and visual LED status display. A 40 mm semi-cylinder to DIN 18 252 serves as the master key. This can be used to open the handle in an emergency. If the lever handle is closed, the latch mechanism integrated into the comfort handle locks automatically. The handle can be incorporated into the CMC III system. This requires a CMC III Access Control (DK 7030.202) which is attached near the door in conjunction with a base system. An example of a base system might be a CMC III Processing Unit (DK 7030.000), a CMC III Processing Unit Compact (DK 7030.010), a Rittal IoT Interface (SK 3124.300) and a Rittal PDU (DK 7979.xxx, except PDU basic). In such cases, the handle can be released via the base system or using additional optional systems such as a coded lock (DK 7030.222/.223) or transponder reader (DK 7030.232/.233). The comfort handle has an identifier enabling it to be detected automatically by the base system.

Alternatively, the opening of the comfort handle can also be controlled via an external controller. In such cases, the external controller provides both the supply voltage and the signal for opening the lever handle via the PLC interface.



Note:

In the following text, the designation "CMC III Processing Unit" refers to the "CMC III Processing Unit" variants and also to the base systems. All text passages that apply only to a specific variant are identified accordingly.

3.1.2 Components

The CMC III online comfort handle VX consists of a compact plastic housing in RAL 9005 or RAL 7035. The handle lever, a switch, the master key (profile half-cylinder) where applicable, and the multi-LED (ring) are located on the front.

3.2 Proper use, foreseeable misuse

The CMC III online comfort handle VX is only used for locking the door and monitoring the lever handle. It may only be used in conjunction with a base system and, where applicable, the Access Control (DK 7030.2020) or alternatively with activation via the PLC interface. 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 the non-observance of the valid documentation for any deployed accessories and the base systems.

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 online comfort handle VX
- Accessories provided (fig. 1)
- Installation Guide and Short User Guide

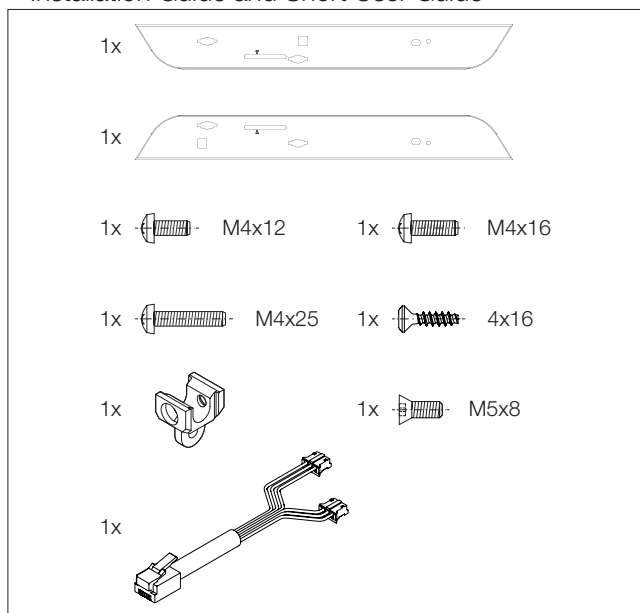


Fig. 1: Accessories provided

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.

- Remove the unit from the PE film.

5 Installation

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5 Installation

5.1 Safety instructions

- Please observe the valid regulations for installation in the country in which the comfort handle 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 transponder reader 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 of lock insert

A lock insert no. 3524 E or 40 mm profile half-cylinder to DIN 18 252 may be used in the comfort handle as an alternative access option for the enclosure. This allows the handle to be opened manually and independently of the electrical activation.

- Fit the lock insert or profile half-cylinder in the holder included with the supply of the comfort handle (fig. 2, $M_A = 2 + 1 \text{ Nm}$).

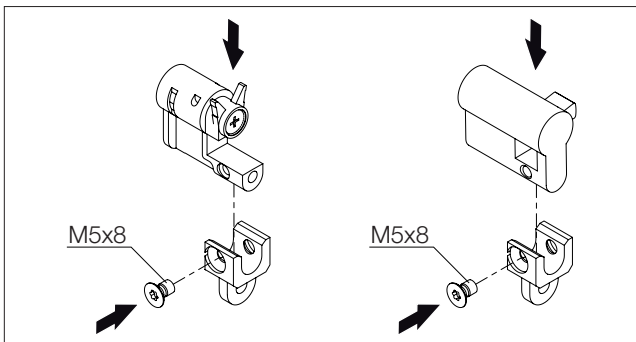


Fig. 2: Fit the lock insert (left) or profile half-cylinder (right) in the holder

- Then mount the recess with the lock insert or profile half-cylinder in the comfort handle (fig. 3, $M_A = 2 + 1 \text{ Nm}$).

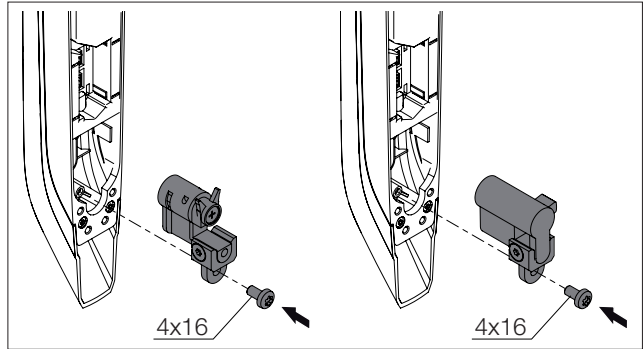


Fig. 3: Mount the holder with the lock insert (left) or profile half-cylinder (right) in the comfort handle

5.4 Installation procedure

There are generally several options for installing the comfort handle:

- Installation on a VX and VX IT sheet steel door
- Installation on a VX glazed door
- Installation on a VX IT glazed door or VX IT vented door

5.4.1 Installation notes

- Cover the area around where holes are to be drilled before drilling in order to prevent damage and scratches.
- Connect the connection cables to the comfort handle so that the connector with the long cables is in the bottom jack and the connector with the short cables is in the top jack (see fig. 4).

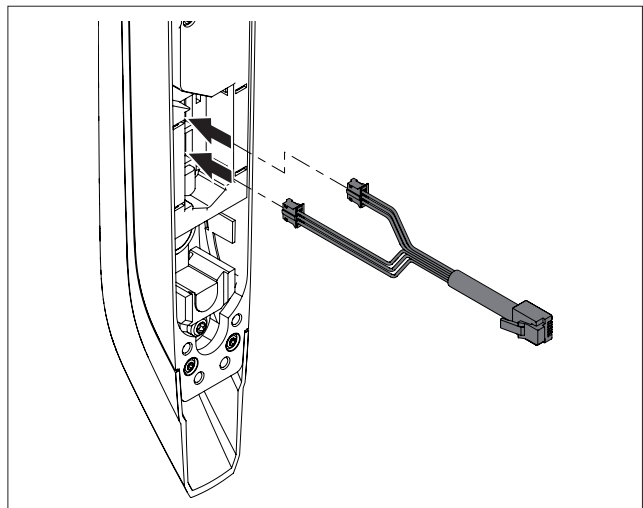


Fig. 4: Connecting the cable to the comfort handle

5.4.2 Installation on a VX and VX IT sheet steel door

The installation is performed directly on the frame of a VX and VX IT sheet steel door.

- Drill suitably sized holes in the required position in the sheet steel door, depending on the position of the hinge (fig. 5).

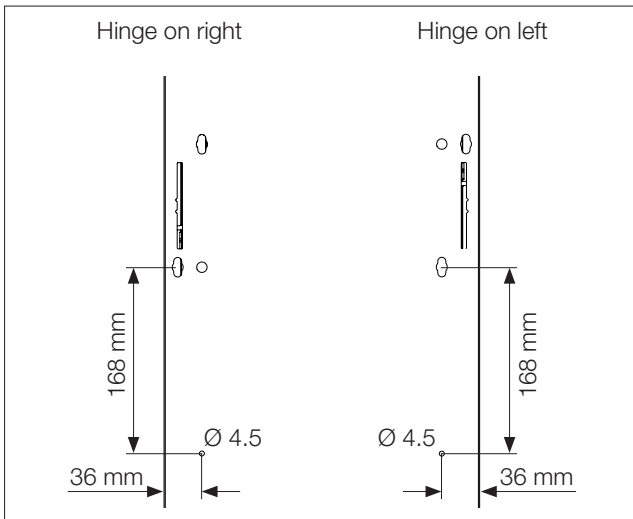


Fig. 5: Drilling the holes

- Debur all drilled holes with a 90° countersink.
- Remove any swarf from the attachment point of the comfort handle.
- Pass the cable through the opening in the sheet steel door, depending on the position of the hinge (fig. 6).

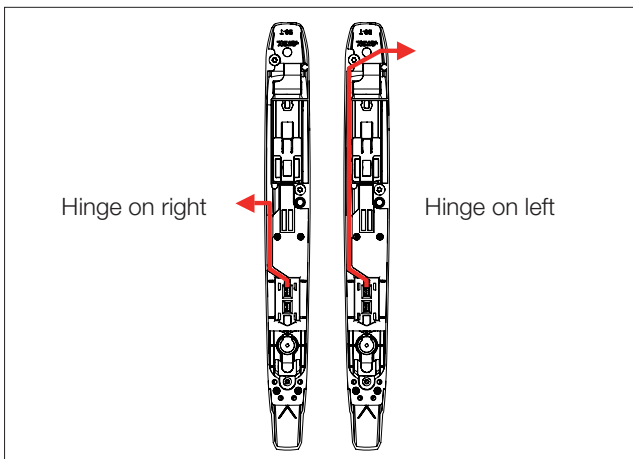


Fig. 6: Inserting the cable

- Attach the handle to the sheet steel door (fig. 7).

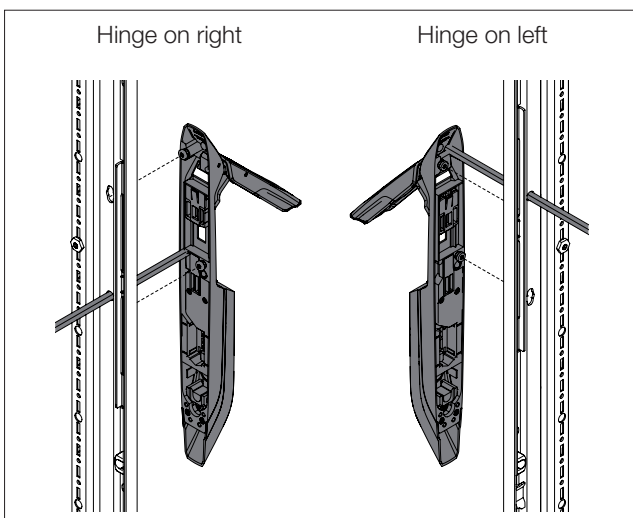


Fig. 7: Attaching the handle

- Push the handle upwards and lock it (fig. 8).

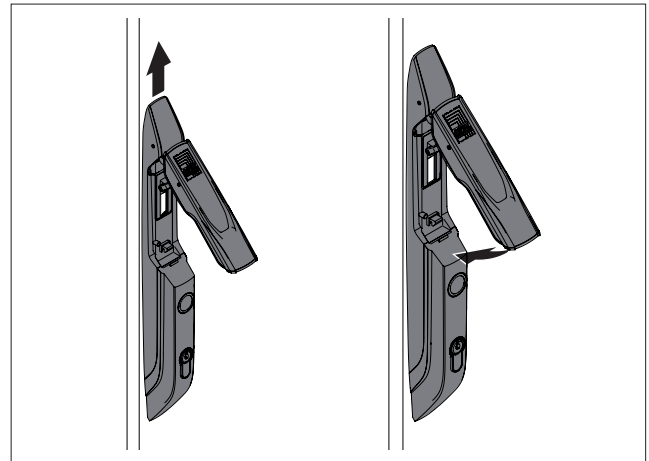


Fig. 8: Locking the handle (right-hand hinge / left-hand hinge accordingly)

- Screw the comfort handle to the sheet steel door, depending on the position of the hinge (fig. 9 or fig. 10, $M_A = 1.5 \pm 1 \text{ Nm}$).

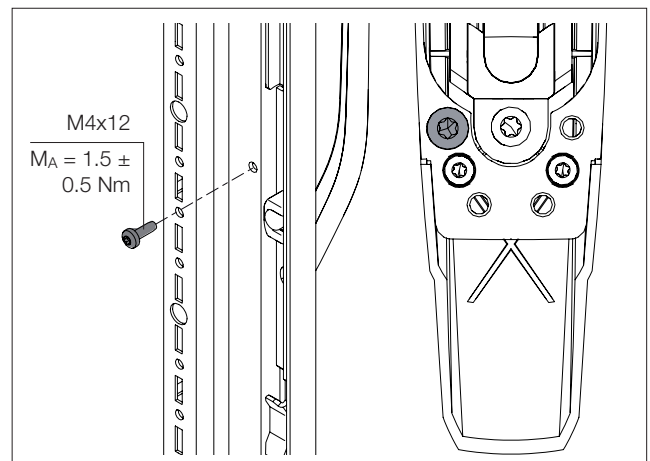


Fig. 9: Screw-fastening the comfort handle (hinge on right)

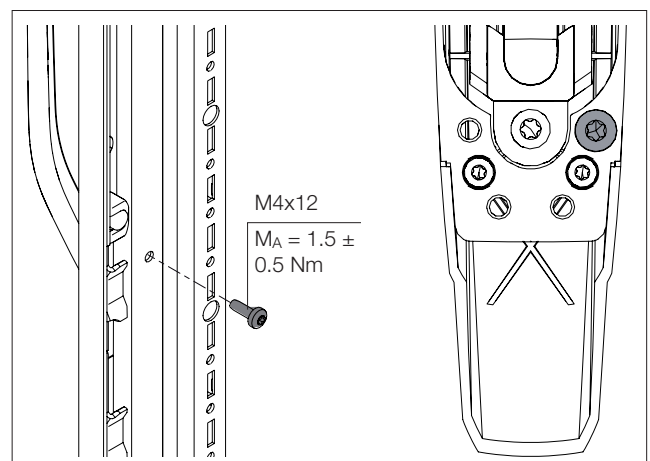


Fig. 10: Screw-fastening the comfort handle (hinge on left)

5.4.3 Installation on a VX glazed door

The installation is performed directly on the frame of a VX glazed door.

- Drill appropriately sized holes in the required position in the VX glazed door (fig. 11).

5 Installation

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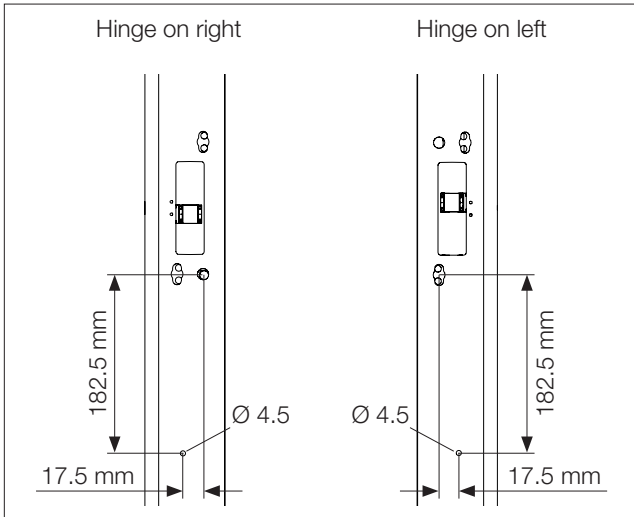


Fig. 11: Drilling the holes

- Debur all drilled holes with a 90° countersink.
- Remove any swarf from the attachment point of the comfort handle.
- Pass the cable through the opening in the VX glazed door, depending on the position of the hinge (fig. 12).

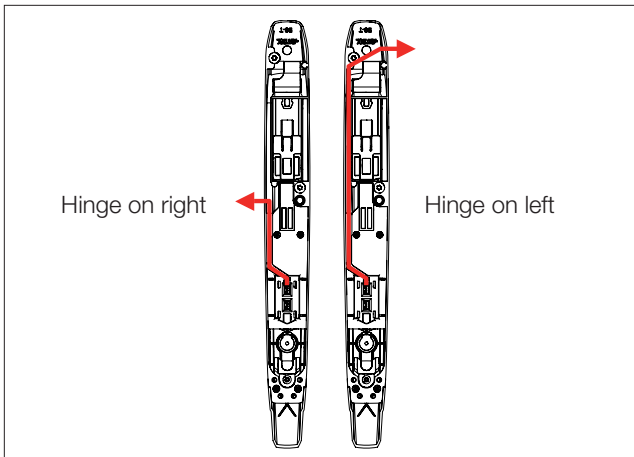


Fig. 12: Inserting the cable

- Attach the handle to the VX glazed door (fig. 13).

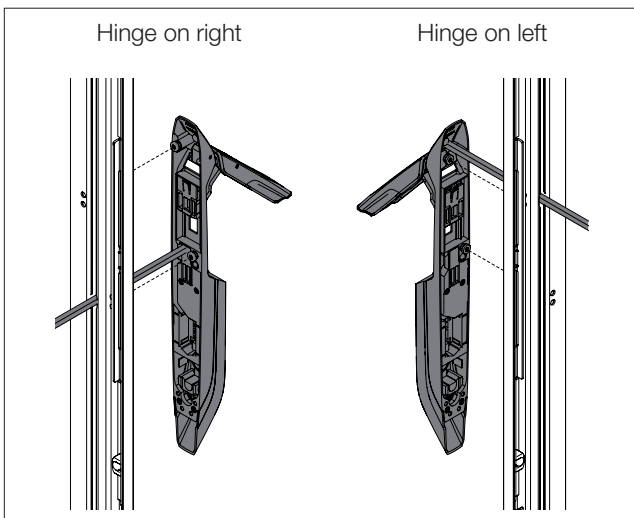


Fig. 13: Attaching the handle

- Push the handle upwards and lock it (fig. 14).

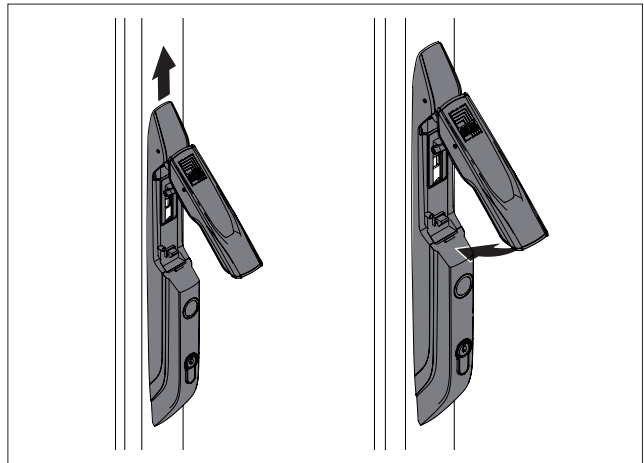


Fig. 14: Locking the handle (right-hand hinge / left-hand hinge accordingly)

- Screw the comfort handle to the VX glazed door, depending on the position of the hinge (fig. 15 or fig. 16, $M_A = 1.5 \pm 1 \text{ Nm}$).

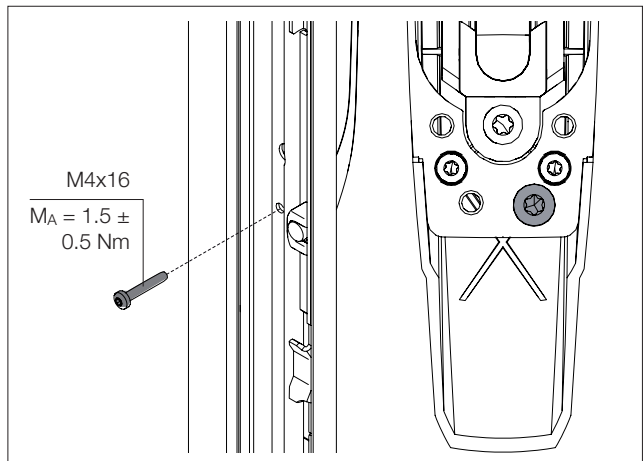


Fig. 15: Screw-fastening the comfort handle (hinge on right)

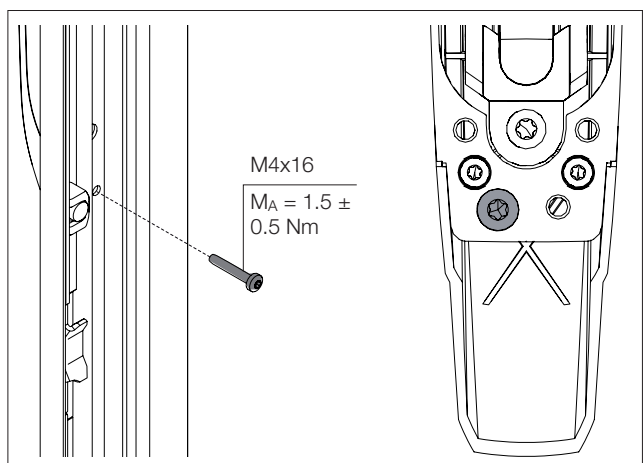


Fig. 16: Screw-fastening the comfort handle (hinge on left)

5.4.4 Installation on a VX IT glazed door or VX IT vented door

The installation on the frame of a VX IT glazed door or VX IT vented door is performed with the provided compensating panel.

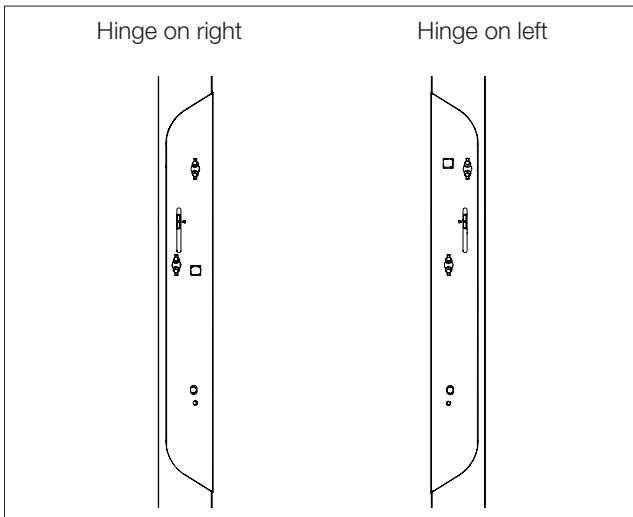


Fig. 17: Compensating panel

- Drill appropriately sized holes in the required position in the frame of the VX IT glazed door (fig. 18).

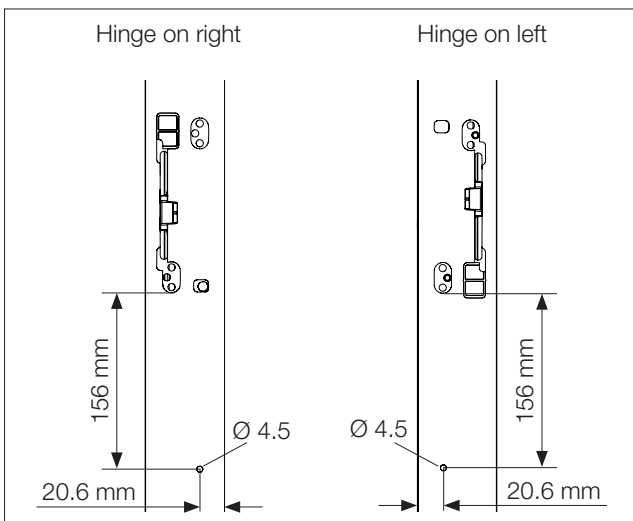


Fig. 18: Drilling the holes

- Debur all drilled holes with a 90° countersink.
- Remove any swarf from the attachment point of the comfort handle.
- Pass the cable through the opening in the designer compensating panel depending on the door hinge (fig. 19)

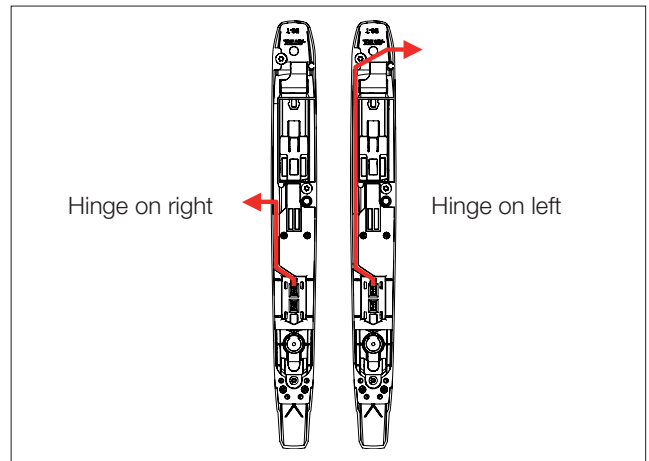


Fig. 19: Inserting the cable

- Attach the handle to the designer compensating panel (fig. 20).

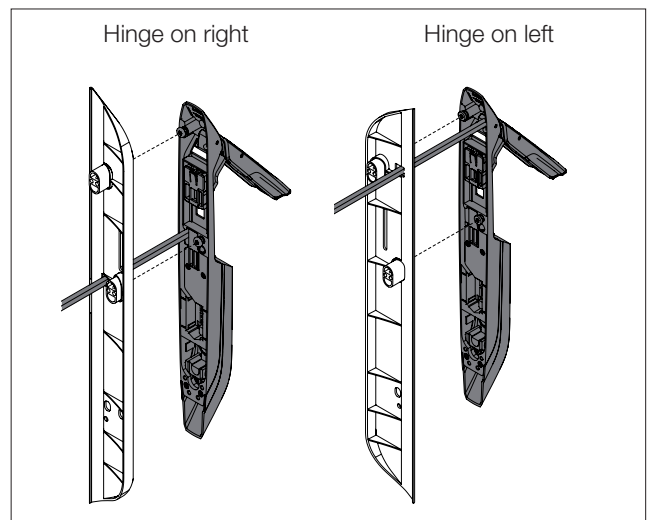


Fig. 20: Attaching the handle to the designer compensating panel

- Push the handle upwards and lock it (fig. 21).

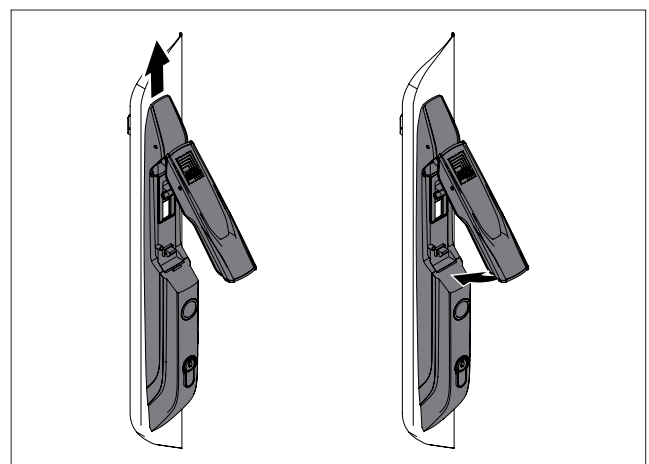


Fig. 21: Locking the handle (right-hand hinge / left-hand hinge accordingly)

- Screw the designer compensating panel including comfort handle to the VX IT glazed door, depending on the position of the hinge (fig. 22 or fig. 23, $M_A = 1.5 \pm 1 \text{ Nm}$).

5 Installation

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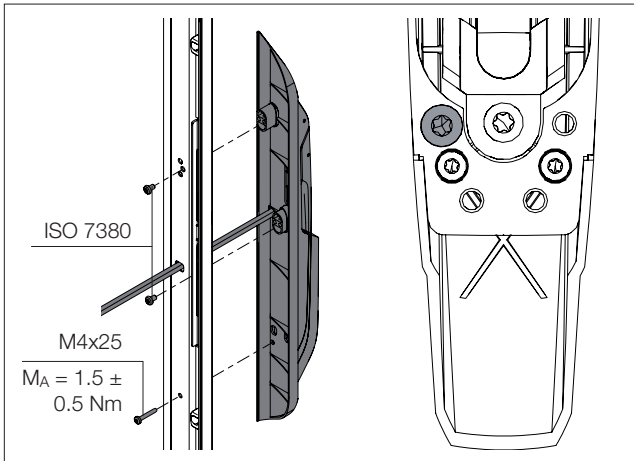


Fig. 22: Screw-fastening the designer compensating panel including comfort handle (hinge on right)

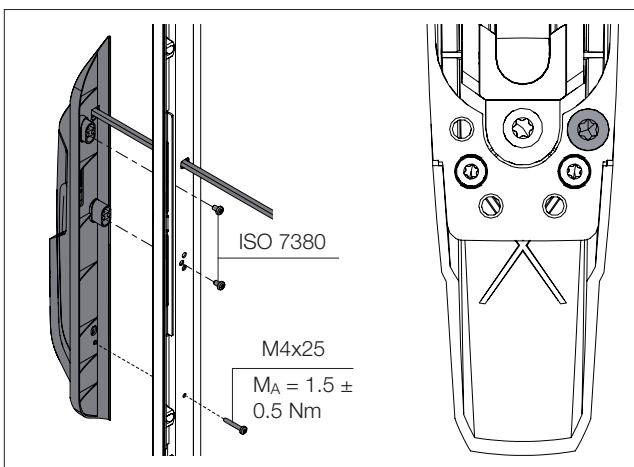


Fig. 23: Screw-fastening the designer compensating panel including comfort handle (hinge on left)

5.5 Connecting the comfort handle

5.5.1 Connection to Access Control

The Access Control supplies the comfort handle 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 Access Control.
- Fit the handle to the door to be monitored (see section 5.4 "Installation procedure").
- Connect the handle via the connection cable to the Access Control.
- Connect a reader unit to the Access Control with the connection cable.
- Connect the CAN bus to the Access Control again.

5.5.2 Connection to external controller

Opening the comfort handle may alternatively be controlled without an Access Control, connected coded lock or transponder reader. In such cases, the required voltage supply and the signal for opening the handle lever must be provided by the external controller via the PLC interface.

- For this purpose, please note the pin assignment of the RJ12 connector on the comfort handle connection cable.

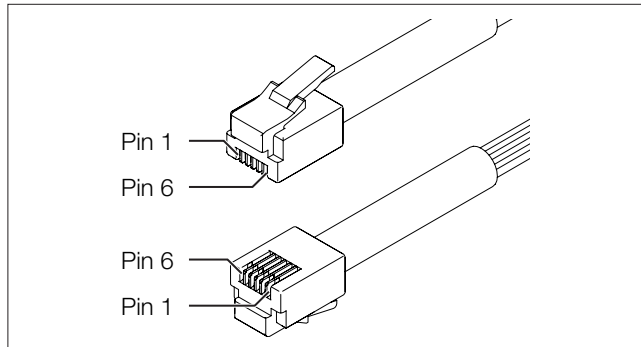


Fig. 24: Connection pins on the RJ12 connector

- Pin 1: +24 V (supply voltage)
- Pin 2: GND
- Pin 3: RS485 A
- Pin 4: RS485 B
- Pin 5: Control signal for door latch (input)
- Pin 6: Acknowledgement from handle lever (signal output)

- Please also note the following:
 - Pins 3 and 4 are not used for activation via the PLC interface.
 - The 24 V DC control signal is needed to activate and open the handle lever.
 - The feedback signal "Gnd" on pin 6 means that the handle lever is closed. The maximum current capacity is 100 mA.

6 Operation

6.1 Activating the comfort handle

After connecting the comfort handle to the Access Control or external controller with the connection cable, the comfort handle is automatically active (see section 5.5 "Connecting the comfort handle"). Separate activation is not required.

6.2 Operating and display elements

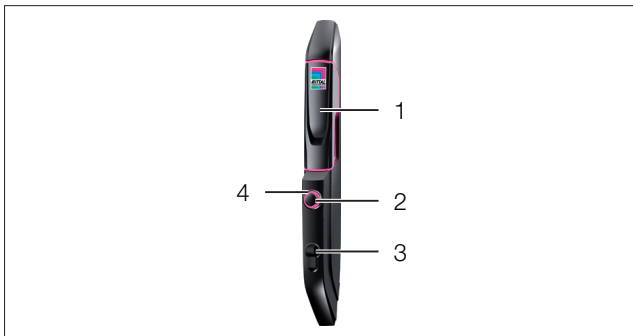


Fig. 25: Front of the comfort handle

Legend

- 1 Handle lever
- 2 Switch
- 3 Master key (profile half-cylinder)
- 4 Multi-LED (ring)

6.3 Opening and closing the door

Opening the door and comfort handle

- Once enabled: Press the switch on the front of the handle to open the handle lever.

The door can then be swung open.

Closing the door and comfort handle

- Close the door completely.
- Press the handle lever fully downwards until it latches home.

6.4 LED displays

A multi-LED for the status display is integrated at the front of the comfort handle (fig. 25, item 4). "Access" mode is activated as standard for the multi-LED.

Colour	Status
Blue (continuous light)	Handle lever and door closed.
Green (continuous light)	Handle lever enabled.
Yellow (continuous light)	Handle lever and/or door open.

Tab. 1: Multi-LED displays

6.5 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.

6.5.1 Monitoring tab

The description of the comfort handle is added and the current status of the comfort handle can be viewed in the **Monitoring** tab.



Note:

As the comfort handle does not have a separate entry in the left tree structure, all information on this point can be found in the CMC III Access Control operating instructions (DK 7030.202).

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 be disconnected from the mains power supply and protected from damp and dust.

7.2 Disposal

Since the comfort handle 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 online comfort handle VX
Model no.	DK 7030.610/DK 7030.611
W x H x D (mm)	41 x 386 x 42, door-mounted
Rated voltage	24 V DC
Rated current	max. 100 mA
Operating temperature range	+5 °C...+55 °C
Operating humidity range	5 %...70 % relative humidity, non-condensing
Protection category	IP 30 to IEC 60 529
Connection cable	2.9 m with RJ12 connector
Operation/signals	1 x Multi-LED

Tab. 2: Technical specifications

9 Customer service addresses

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9 Customer service addresses

For technical queries, please contact:

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

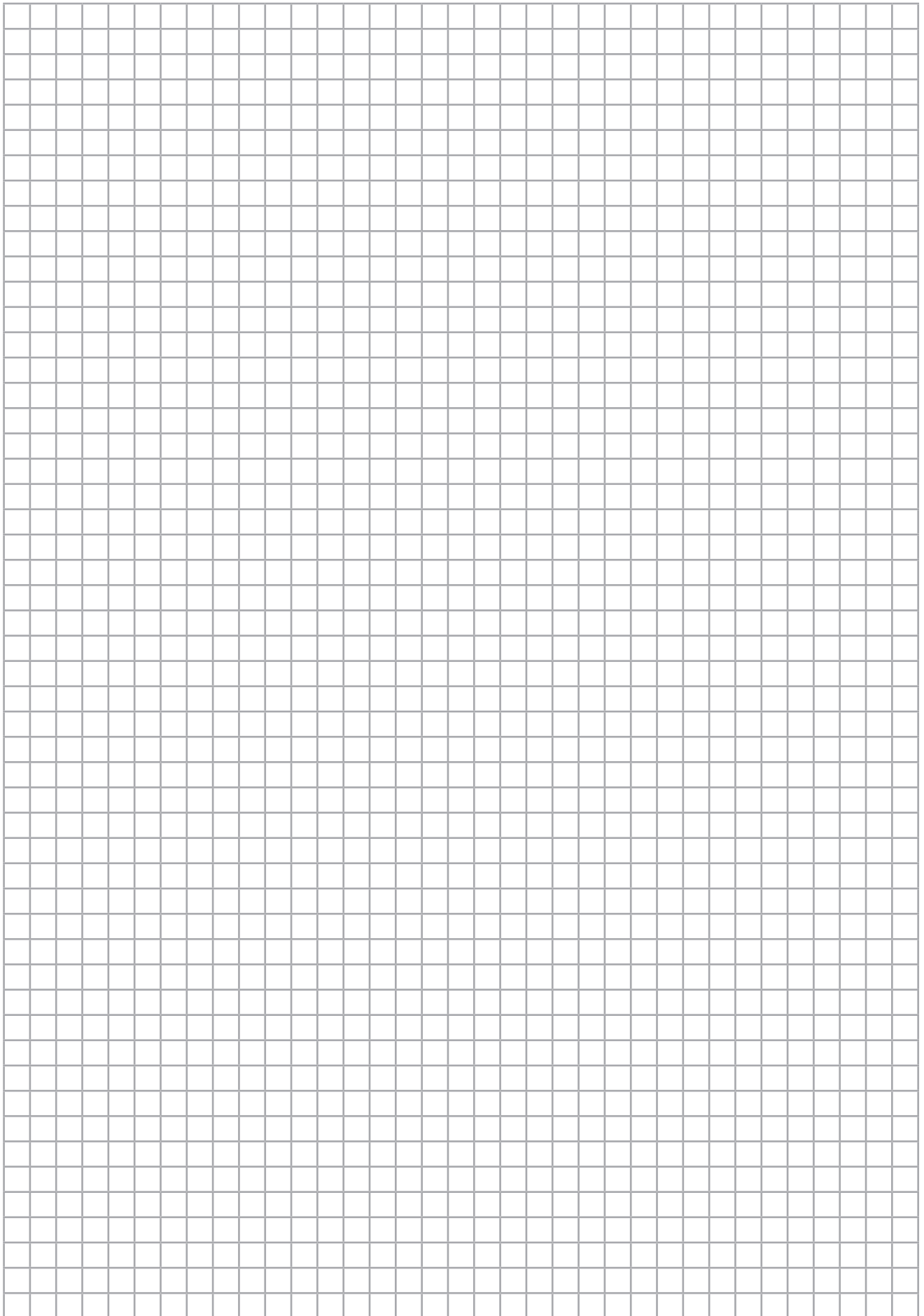
E-mail: info@rittal.de

Homepage: www.rittal.com

For complaints or service requests, please contact:

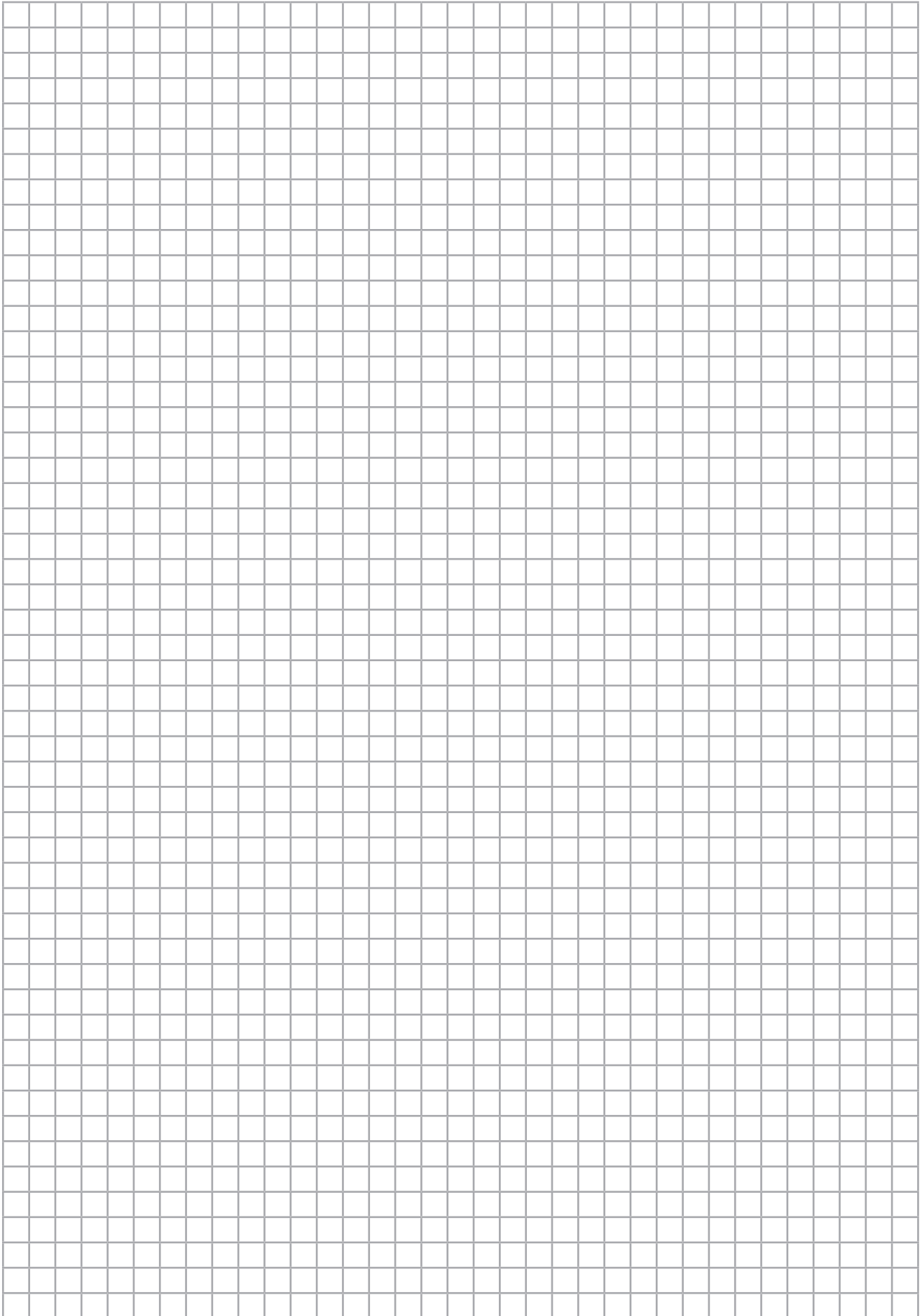
Tel.: +49(0)2772 505-1855

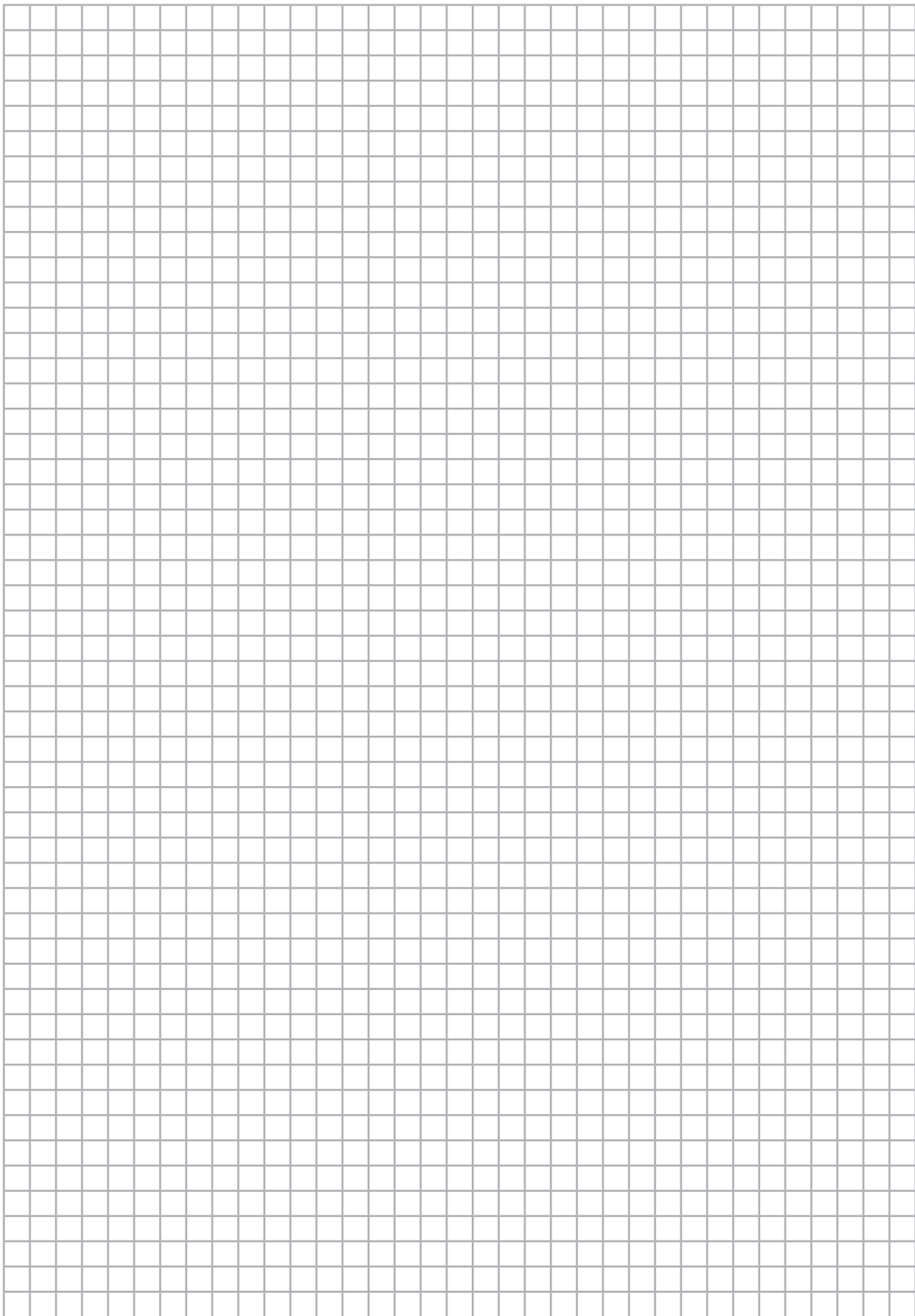
E-mail: service@rittal.de



Notes

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ENCLOSURES

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