Rittal – The System.

Faster – better – everywhere.

CMC III ISDN-Unit
CMC III ISDN unit

7030.580

Montage-, Installations- und Bedienungsanleitung
Assembly and operating instructions

EN

Preface

Dear Customer!

Thank you for choosing our CMC III ISDN unit (referred to hereafter as "ISDN unit")!

We wish you every success.

Yours
Rittal GmbH & Co. KG

Rittal GmbH & Co. KG
Auf dem Stützelberg

35745 Herborn
Germany

Tel.: +49(0)2772 505-0
Fax: +49(0)2772 505-2319

E-mail: info@rittal.com
www.rittal.com
www.rittal.de

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

EN

Contents

1 Notes on documentation 4
1.1 CE labelling 4
1.2 Storing the documents 4
1.3 Symbols used in these operating instructions 4
1.4 Other applicable documents 4
1.5 Area of validity 4

2 Safety instructions 5
2.1 General safety instructions 5
2.2 Operating and technical staff 5

3 Product description 6
3.1 Functional description and components 6
3.1.1 Function 6
3.1.2 Components 6
3.2 Proper use, foreseeable misuse 6
3.3 Scope of supply 6

4 Transport and handling 7
4.1 Transport 7
4.2 Unpacking 7

5 Installation 8
5.1 Safety instructions 8
5.2 Siting location requirements 8
5.3 Installation procedure 8
5.3.1 Notes on assembly 8
5.3.2 Installation using the mounting clips provided 8
5.3.3 Installation with the CMC III mounting unit 9
5.3.4 Installation on a top-hat rail 10
5.4 Basic settings 10
5.5 Connecting the ISDN unit 10

6 Operation 11
6.1 Activating the ISDN unit 11
6.2 Operating and display elements 11
6.3 LED displays 11
6.3.1 Multi-LED displays 11
6.4 Operating via the CMC III Processing Unit website 11
6.4.1 Check the status of the ISDN unit 11
6.4.2 SMS Configuration 12
6.4.3 SMS receivers 13

7 Storage and disposal 14
7.1 Storage 14
7.2 Disposal 14

8 Technical specifications 15

9 Customer service addresses 16

EN

1 Notes on documentation

1.1 CE labelling

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

CE

1.2 Storing the documents

The assembly and operating instructions as well as all other 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 hazardous situation in which failure to comply with the instructions causes death or severe injury.

Warning!
A hazardous situation which may lead directly 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 Other applicable documents

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

1.5 Area of validity

This guide applies to software version V3.15.00.
This documentation shows the English screenshots. The descriptions of individual parameters on the CMC III PU website likewise use English terminology. Depending on the set language, the displays on the CMC III PU website may be different (see assembly and operating instructions for the CMC III Processing Unit).

EN

2 Safety instructions

2.1 General safety instructions

Please observe the following 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 ISDN unit.
– Please do not make any changes to the ISDN unit that are not described in this manual or in the associated manuals.
– The operational safety of the ISDN unit is only warranted if used properly for the intended purpose. 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 protection category.
– The ISDN unit must not be opened. It 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 carrying out the tasks described in the following chapters.

2.2 Operating and technical staff

– The mounting, installation, commissioning, maintenance and repair of this unit must only be performed by qualified, trained personnel.
– Only properly instructed personnel may work on the unit while in operation.

EN

3 Product description

3.1 Functional description and components

3.1.1 Function

Text messages may be sent via the ISDN unit in the event of a status change in the CMC III Processing Unit or a connected sensor. However, this will require a suitable ISDN connection at the customer's premises. Use of the ISDN unit is particularly recommended in areas where there is no mobile phone network with adequate signal strength available.

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 text passages which only apply to one of these 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 CMC III ISDN unit is only to be used for sending text messages in the event of a status change in the CMC III Processing Unit or a connected sensor. It must only be used together with the CMC III PU. Any other use is not permitted.

The unit is state of the art and built according to recognised safety regulations. Nevertheless, improper use can pose a threat to the life and limb of the user or third parties, or result in possible damage to the system and other property.

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!

Proper use also includes the observance of the documentation provided and compliance with 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 any accessories used.

Inappropriate use may be dangerous. 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 ISDN unit
– Accessories supplied loose (fig. 1)
– Installation Guide and Short User's Guide

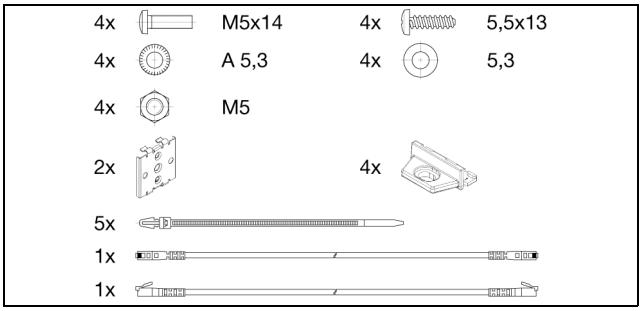

Fig. 1: Accessories supplied loose

EN

4 Transport and handling

4.1 Transport

The unit is delivered in a cardboard box.

4.2 Unpacking

- Remove the packaging materials from the unit.

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

EN

5 Installation

5.1 Safety instructions

- Please observe the valid regulations for installation in the country in which the ISDN unit 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 protection category.
- If a higher IP protection category is required for a special application, the ISDN unit must be installed in an appropriate housing or in an appropriate enclosure with the required IP protection category.

5.2 Siting location requirements

To ensure proper functioning 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

Generally speaking, there are three ways of installing the ISDN unit in an IT enclosure:

1. Installation using the mounting clips provided, possibly also with spring clips for top-hat rail installation.
2. Installation with the CMC III mounting unit (7030.071).
3. Installation with the CMC III mounting unit, 1 U (7030.070).

5.3.1 Notes on assembly

- Never secure the ISDN unit using the mounting clips provided on only one side of the device! This would cause undesirable vibrations in the device during operation.

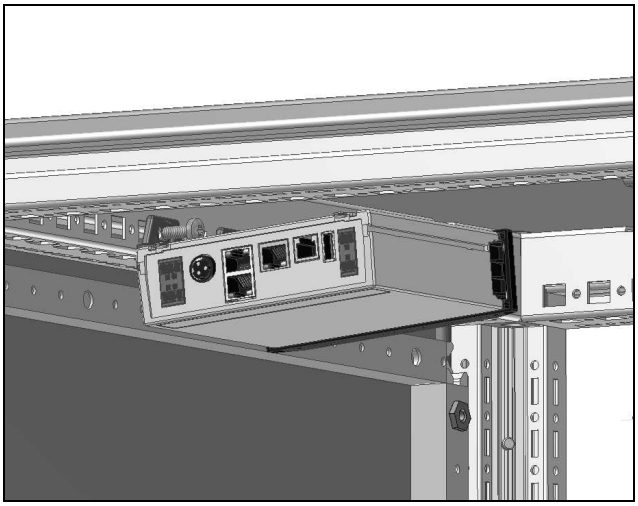

Fig. 2: Incorrect installation in the enclosure

- The ISDN unit must be positioned so that it is ventilated with an adequate amount of air and the ventilation slots are not covered.

5.3.2 Installation using the mounting clips provided

Installation using the mounting clips provided in the scope of supply is best done on a mounting plate or on a top-hat rail using the spring clips provided (see section 5.3.4 "Installation on a top-hat rail").

- Slide two mounting clips onto each of the side guide rails of the ISDN unit.

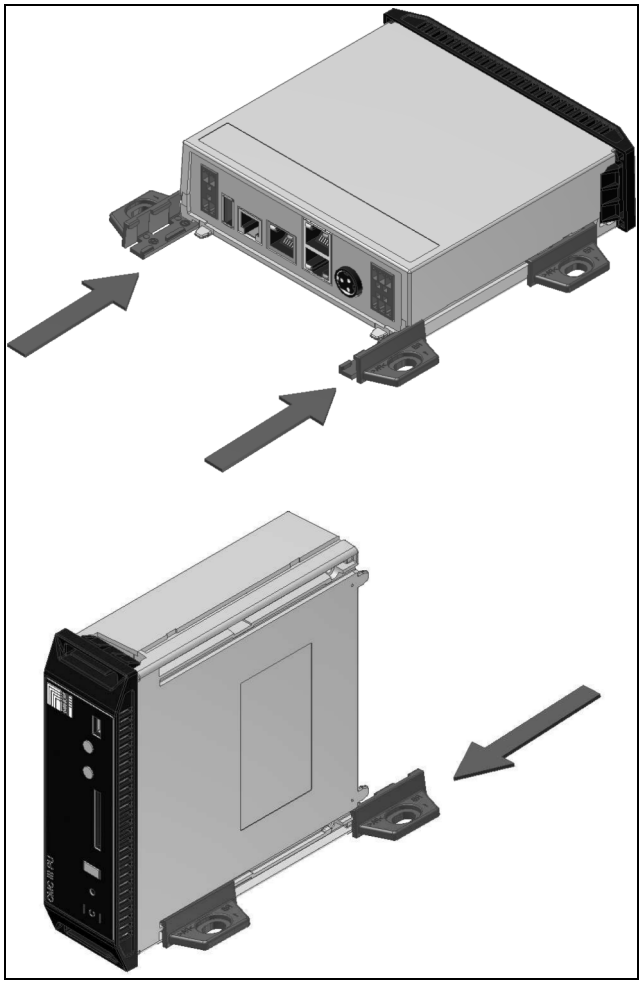

Fig. 3: Sliding on the mounting clips

- Secure the ISDN unit using the screws provided in the scope of supply, e.g. on a mounting plate in the IT enclosure.

5.3.3 Installation with the CMC III mounting unit

The CMC III mounting unit is available in two variants:

– For installing the ISDN unit on the enclosure frame or on a mounting plate (7030.071).
– As a 482.6 mm (19") variant (1 U) to accommodate the ISDN unit and two additional devices (7030.070).

The procedure for installing the ISDN unit in both mounting units is identical:

- Slide the ISDN unit as far as possible into the mounting unit until it latches into place.

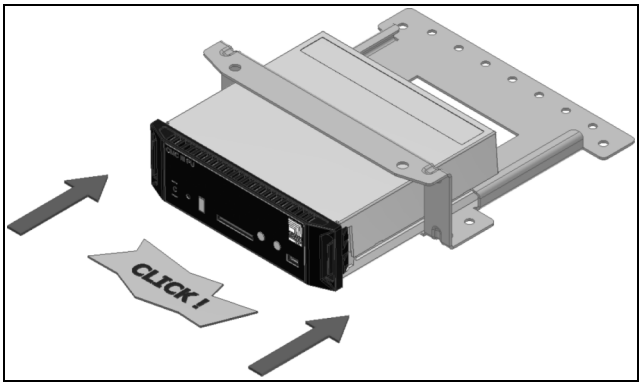

Fig. 4: Slide the ISDN unit into the mounting unit

- Fasten the mounting unit (7030.071) to the enclosure frame or to a mounting plate using the screws provided.

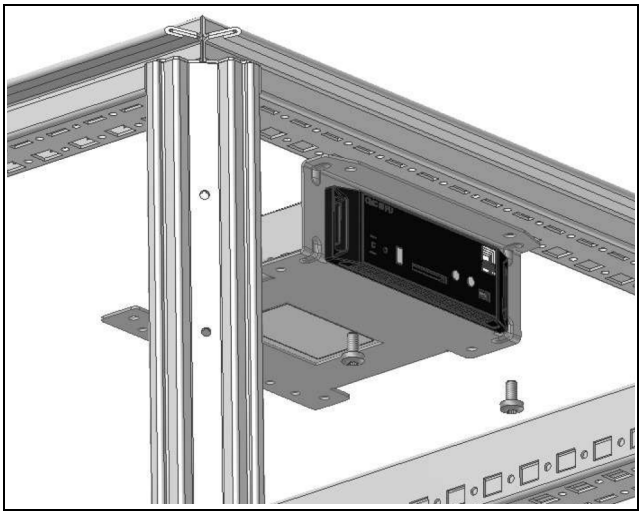

Fig. 5: Fastening the mounting unit to the enclosure frame

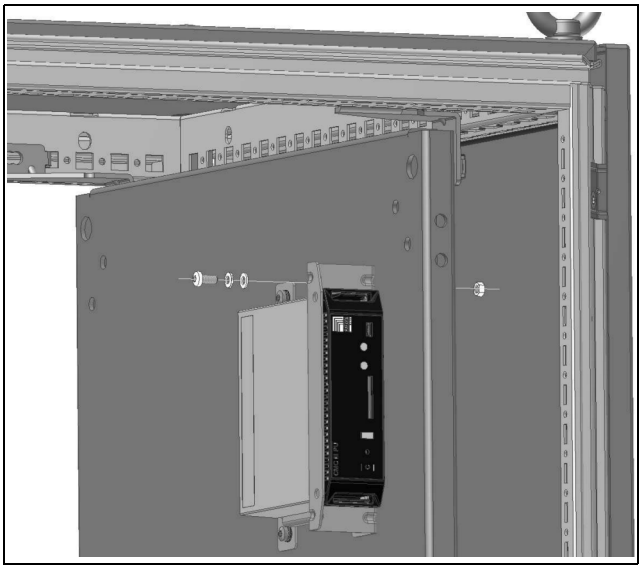

Fig. 6: Fastening the mounting unit to a mounting plate

- Fasten the mounting unit (7030.070) in a free rack-mounting point (1 U) in the IT enclosure using the screws provided.

EN

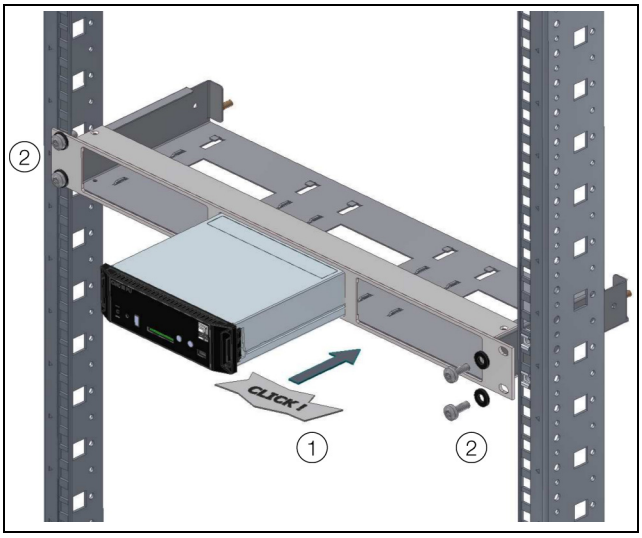

Fig. 7: Fastening the mounting unit in a rack-mounting point

5.3.4 Installation on a top-hat rail

The unit is mounted on a top-hat rail using the mounting clips and spring clips provided.

- Slide a mounting clip onto each of the side guide rails of the ISDN unit (left and right).
- Screw a spring clip for top-hat rail installation onto each of the mounting clips.
- Place the ISDN unit with the spring clips on the top-hat rail.

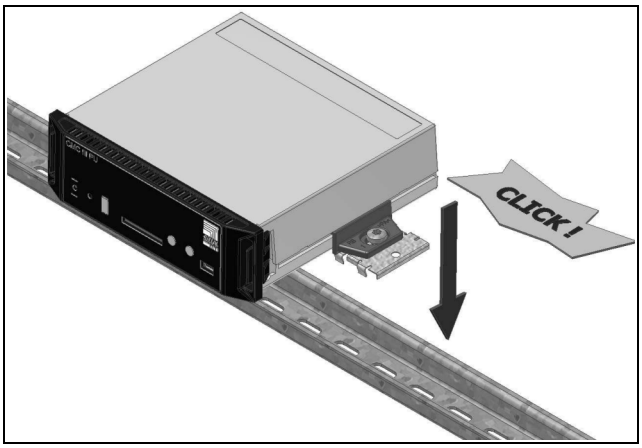

Fig. 8: Installing the ISDN unit on a top-hat rail

5.4 Basic settings

The following settings must be made via the CMC III PU website **before** connecting the ISDN unit.

- In the browser, enter the IP address of the CMC III PU in the network. The login dialog for logging in to the device will be displayed.
- Log in with the username **admin** and the password **admin**.
- In the left-hand section of the overview window (navigation area), click on the **Processing Unit** entry, and in the right-hand section (configuration area), click on the **Configuration** tab.
- In the group box **Network,** click on the **SMS** button.
- In the **SMS Configuration** window, in the group box **Service Parameters,** enter the MSN number of the ISDN connection in the **ISDN MSN** field. The number must be entered in the following format: +49/2772/123456.
- If you have connected the ISDN unit to a telephone system, please also enter the dialout number in the **ISDN Pre-Dial Number** field (in the same group box).
- A text message must be sent once to register with the network operator. In the same group box, enter the required information in the **ISDN Command** field. For example, Deutsche Telekom D1: 8888 ANMELD.
- Click on the **Save** button to change your settings.

5.5 Connecting the ISDN unit

The ISDN unit is supplied with the necessary operating voltage via the RJ 12 connection. There is no need to connect a separate power supply unit.

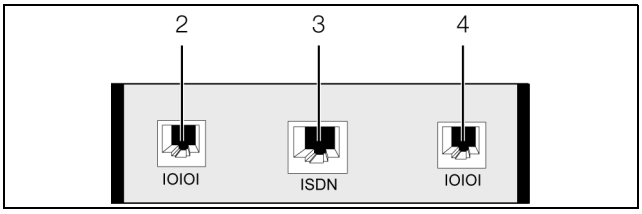

Fig. 9: Rear of the ISDN unit

Key

2 Connection of the CMC III Processing Unit RJ 12/ RS 232, 24 V ⎓, 500 mA (alternative to item 4)
3 RJ 45 ISDN jack
4 Connection of the CMC III Processing Unit RJ 12/ RS 232, 24 V ⎓, 500 mA (alternative to item 2)

- Connect the ISDN unit to the building's ISDN connection using an RJ 45 connection cable (fig. 9, item 3).
- Connect the ISDN unit to the CMC III Processing Unit using an RJ 12 connection cable (fig. 9, item 2 or item 4).

EN

6 Operation

6.1 Activating the ISDN unit

After connecting the ISDN unit to the CMC III Processing Unit using an RJ 12 connection cable, the ISDN unit will activate automatically (see section 5.5 "Connecting the ISDN unit"). Separate activation is not required.

6.2 Operating and display elements

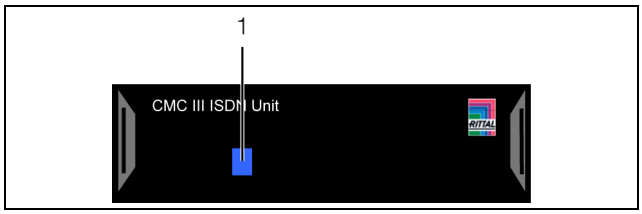

Fig. 10: Front of the ISDN unit

Key

1 Multi-LED for status display

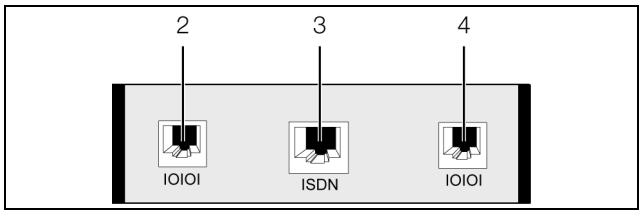

Fig. 11: Rear of the ISDN unit

Key

2 Connection of the CMC III Processing Unit RJ 12/ RS 232, 24 V ⎓, 500 mA (alternative to item 4)

3 RJ 45 ISDN jack

4 Connection of the CMC III Processing Unit RJ 12/ RS 232, 24 V ⎓, 500 mA (alternative to item 2)

6.3 LED displays

A multi-LED for status display is integrated into the front of the ISDN unit (fig. 10, item 1).

6.3.1 Multi-LED displays

The status of the ISDN unit can be read on the multi-LED.

Continuous light

Colour	Status
Green	A dialup connection has been established.
Orange	A text message is being transmitted.
Red	Initialisation error.

Tab. 1: Multi-LED continuous light

Flashing codes

Colour	Rhythm (on/off) [s]	Status
Blue	0.1 / 4.9	The ISDN output is operational.
Blue	0.5 / 0.5	No connection to the switching centre; the ISDN cable is not operational.
Red	0.5 / 0.5	Unknown operating status

Tab. 2: Multi-LED flashing codes

6.4 Operating via the CMC III Processing Unit website

Once installation is complete, you can check the status of the ISDN unit on the CMC III Processing Unit website and configure the receivers for text messages.

6.4.1 Check the status of the ISDN unit

- Select the "CMCIII-PU" entry in the navigation area.
- Select the **Observation** tab in the configuration area.
- One after another, expand the "CMCIII-PU", "System" and "V24 Unit" (V24 Port) entries by clicking on the "plus" symbol in front of the entry.

General settings for a connected ISDN unit may be made here.

Parameter	Explanation
DescName	Specific description of the connected unit.

Tab. 3: Settings in the "V24 Unit (V24 Port)" sub-level

The following parameters are also displayed for the ISDN unit:

Parameter	Explanation
Message	Current status of the unit. One of the messages below is displayed here, depending on the status of the unit.
Signal	Current signal strength.
Status	Current status of the unit ("OK" or "n.a." if no unit is connected). When these variables are changed (removal of a connected unit), a task can be used to send an appropriate message (e.g. by e-mail, text message or SNMP).

Tab. 4: Displays in the "V24 Unit (V24 Port)" sub-level

The "Message" parameter in the "V24 Unit (V24 Port)" sub-level may have the following values:

Parameter	Explanation
No SMS unit found.	No unit connected.

Tab. 5: Status in the "V24 Unit (V24 Port)" sub-level

EN

Parameter	Explanation
ISDN unit found.	ISDN unit connected, unit is registering in the network.
ISDN unit o.k.	ISDN unit ready.
Sending SMS	Text message is being sent.
Receive SMS	Text message is being received.
SMS unit timeout	SMS unit timeout, no connection possible.
ISDN no Line	ISDN not connected.

Tab. 5: Status in the "V24 Unit (V24 Port)" sub-level

6.4.2 SMS Configuration

The "SMS Configuration" dialog is used to make the basic settings for sending SMS messages.

Parameter	Explanation
ISDN MSN	Set the MSN number of the ISDN connection. The number must be entered in the following format: +49/2772/123456
ISDN Pre-Dial Number	Telephone number to obtain an outside line. This is necessary when the ISDN unit is connected to a telephone system.
ISDN Command	A text message must be sent once to register with the network operator. For example, Deutsche Telekom D1: "8888 ANMELD"

Tab. 6: Service Parameters group box

All receivers of SMS messages are entered and generally enabled for sending in the **Known Receivers** group box.

Note:
- All text message receivers that are not enabled in this group box ("Use" column) cannot receive text messages, even if activated in the Alarm Configuration.
- All text message receivers that are activated in this group box must additionally be activated in the Alarm Configuration (see section 6.4.3 "SMS receivers").

Parameter	Explanation
Send device messages	Setting as to whether status changes such as "Lost", "Detected", "Changed" etc. should be sent as text messages. "Disable": No text message sent in case of status changes. "Alarms Only": Text messages only sent for critical changes "Detected" and "Lost". "All": Text messages sent for all status changes.
Phone Number	A maximum of 16 telephone numbers as possible receivers of text messages from the CMC III PU. Please observe the required input format.
Use	Enable or disable individual receivers.
Forward Trap Senders	IP addresses or names of trap senders whose traps are likewise to be forwarded to the respective receivers of text messages. Addresses and names previously entered in the group box **Allowed Trap Senders** can be selected from the drop-down list. By clicking the "Ctrl" button, multiple trap senders may be selected and then listed, separated by commas.

Tab. 7: Known Receivers group box

Note:
Selecting the entry "All" in the "Send device message" field may incur high costs, because a separate text message is sent for **every** status change.

A CMC III PU may receive traps from other CMC III PUs and then forward them as text messages via the connected ISDN unit. The advantage of this is that there is no need for an ISDN unit or GSM unit on every CMC III PU for sending text messages. The traps to be forwarded are then specified in the group box **Allowed Trap Senders**.

Parameter	Explanation
Host	Up to 5 IP addresses or host names of CMC III PUs whose traps are to be forwarded.

Tab. 8: Allowed Trap Senders group box

Additionally, the SNMP configuration of the CMC III PU whose traps are to be forwarded must be amended (see assembly and operating instructions for the CMC III Processing Unit).

Note:
The status of the ISDN unit can be obtained from the website in the "V24 Unit (V24 Port)" sub-level (see section 6.4.1 "Check the status of the ISDN unit") or via Telnet/SSH/USB on the "Info Page".

6.4.3 SMS receivers

Note:
Further information on the general alarm configuration may be found in the CMC III Processing Unit/CMC III Processing Unit Compact assembly, installation and operating instructions

All sensors and units that are connected to the CMC III PU are listed in the navigation area under "Real Device". After selecting a device, the alarm notification for various variables of the corresponding device may be configured on the **Configuration** tab.

- In the navigation area, select the sensor or unit whose alarm notification you wish to configure.
- Select the **Configuration** tab in the right-hand area of the screen page.
- Click on the "Alarm Configuration" symbol.
  The "Alarm Configuration" dialog will open.
- In the list, click on the line of the sensor whose alarm configuration you wish to configure.
- Click the **Edit** button.
  The "Alarm Configuration" dialog will open.

You can make settings in the **SMS Receivers** group box to specify which receivers should be sent a text message.

All receivers that have been created correctly will be displayed here (see section 6.4.2 "SMS Configuration"). These receivers are **deactivated** by default.

Parameter	Explanation
SMS Phone Number	Telephone numbers created in the CMC III PU configuration.
Use	Enable or disable the associated receiver.

Tab. 9: SMS Receivers group box

Note:
If an SMS receiver was generally disabled previously, it may be enabled for individual alarm messages, but text messages are still not sent to this receiver (see section 6.4.2 "SMS Configuration").

EN

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

EN

8 Technical specifications

Technical specifications		CMC III ISDN unit
Model No.		7030.580
W x H x D (mm)		138 x 40 x 132
Operating temperature range		0°C…+55°C
Storage temperature		-45°C…+85°C
Operating humidity range		5%...95% relative humidity, non-condensing
Protection category		IP 30 to IEC 60 529
Inputs	RJ 12	2 x
	RJ 45	ISDN connection: DSS1 (Euro ISDN), multi-point interface

Tab. 10: Technical specifications

EN

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

Rittal – The System.

Faster – better – everywhere.

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

02.2015 / ID no. A 050999 00 IT

RITTAL GmbH & Co. KG
Postfach 1662 · D-35726 Herborn
Phone +49(0)2772 505-0 · Fax +49(0)2772 505-2319
E-mail: info@rittal.de · www.rittal.com