

# IT monitoring

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## Your benefits

- A better overview of your IT infrastructure
- Enhanced security
- Automated processes
- Exceptional cost efficiency
- High energy savings
- Simple project management
- Fast installation
- Flexible, individual solutions with standard products from Rittal
- High standard of quality with coordinated standard products

## Sample applications

- 1 CMC III, see page 449
- 2 Liquid Cooling Package LCP, see page 428
- 3 Monitor/keyboard unit, see page 461
- 4 Electric comfort handle TS 8, see page 564

# CMC III – Monitoring system

Computer Multi Control (CMC) is an alarm system for network and server enclosures, cases, containers and rooms.

- It monitors temperatures, humidity, access, smoke, energy and many other physical ambient parameters.
- It is a modular system that can be flexibly adapted to meet the customer's specific monitoring requirements.
- User benefits plus exceptional savings are achieved, thanks to monitoring via the network and the automation of security processes.

Further information can be found at: [www.rittal.com](http://www.rittal.com)

## 1 CMC III Processing Unit



2

3

12



4

7



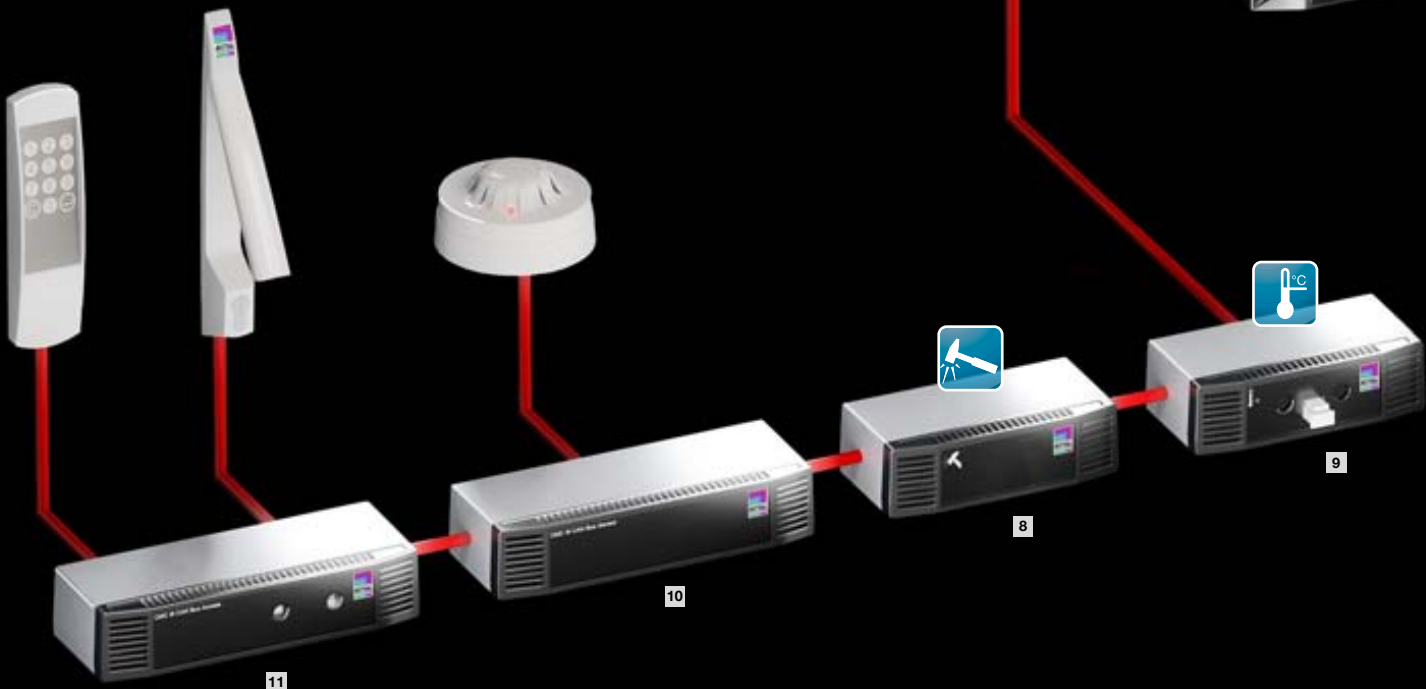
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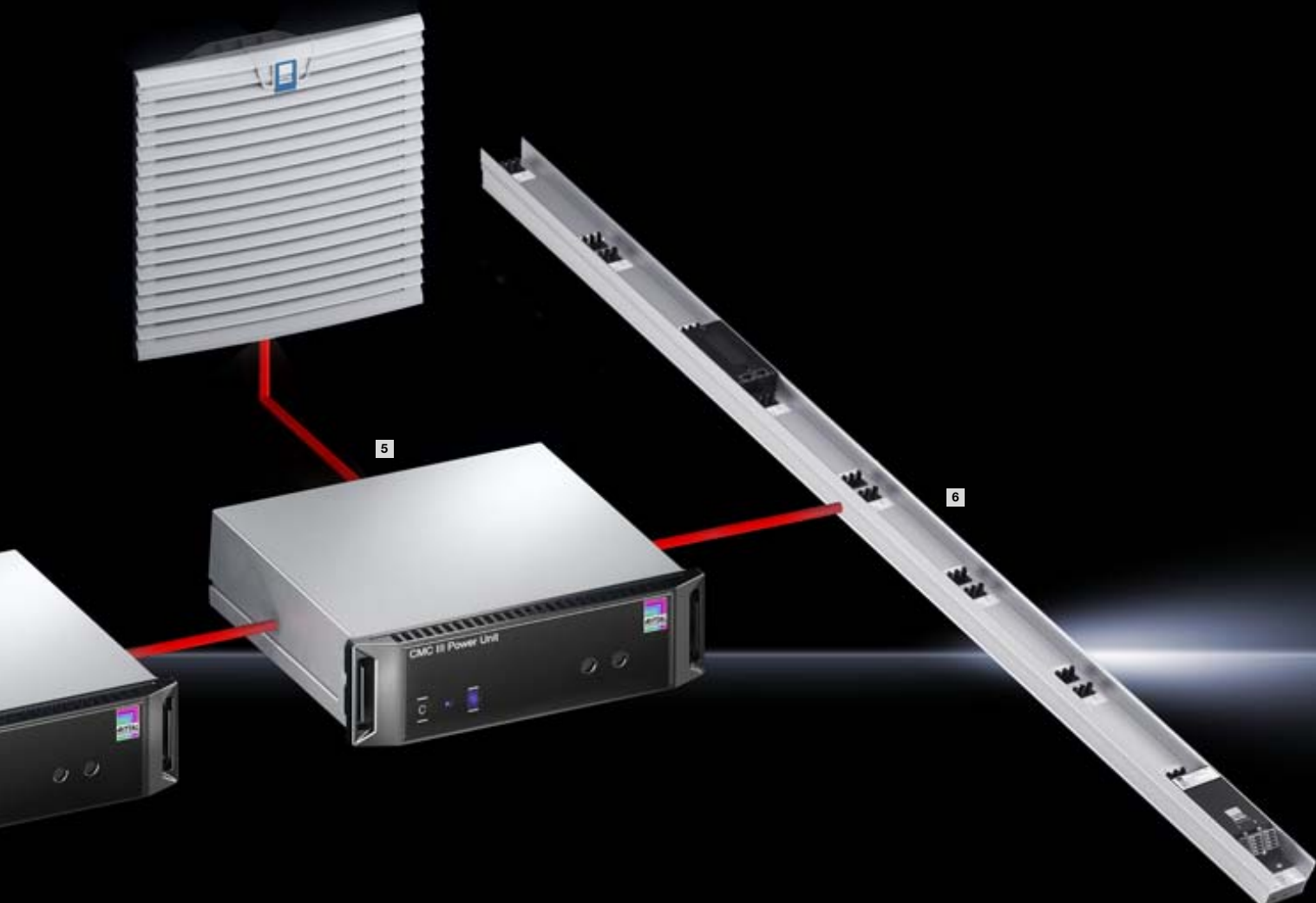


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11





- 1 CMC III Processing Unit**, see page 449
- 2** Power supply
- 3** Redundant power supply
- 4** CMC III I/O unit
- 5** CMC III power unit
- 6** CMC III PSM measuring bar for direct connection
- 7** Up to 16 CAN bus systems may be connected
- 8** CMC III vandalism sensor
- 9** CMC III temperature sensor
- 10** CAN bus sensor for connection of CMC II sensors
- 11** CMC III CAN bus access
- 12** Up to 16 CAN bus systems may be connected

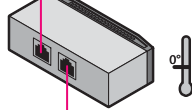
# CMC III Processing Unit Compact

## System overview

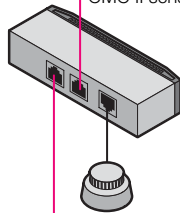


Up to 4 CAN bus components are supported<sup>1)</sup>

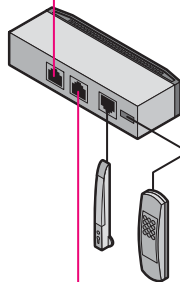
**CMC III sensors**  
for direct connection



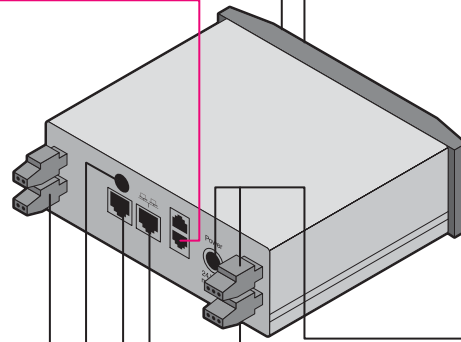
**CMC III CAN bus sensor**  
as adaptor for CMC II sensors



**CMC III CAN bus access**  
with integral IR access sensor



CAN bus 1



**CMC III Processing Unit Compact**

**Mini USB:**

Programming cable 7030.080 is required for programming, see page 457

**Internal infrared access sensor**

**Voltage supply 24 V (DC) and Redundant voltage supply 24 V (DC)**  
Power packs, see page 457

**Alarm relay output:**  
Changeover contact for safety extra-low voltage

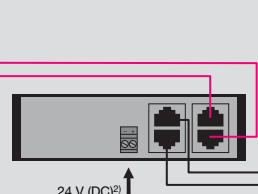
**Ethernet 10/100 BaseT RJ 45 with PoE:**  
Ethernet interface to IEEE 802.3  
Over 10/100 BaseT full duplex 10/100 Mbit/s

**RJ 12/RS232 accessory modules:**  
Display unit, ISDN unit, GSM unit

**External temperature sensor**  
(included in the supply of PUC)

**Two integral digital inputs**

**CMC III CAN bus unit**



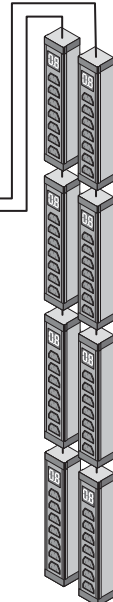
**Interfaces unit for connecting CMC II accessories**

**Connection for other products,**  
see page 452

<sup>2)</sup> External 24 V (DC) supply via 7030.060 required

**Note:**

Server shutdown software for CMC III is required to shut down the server, see page 463

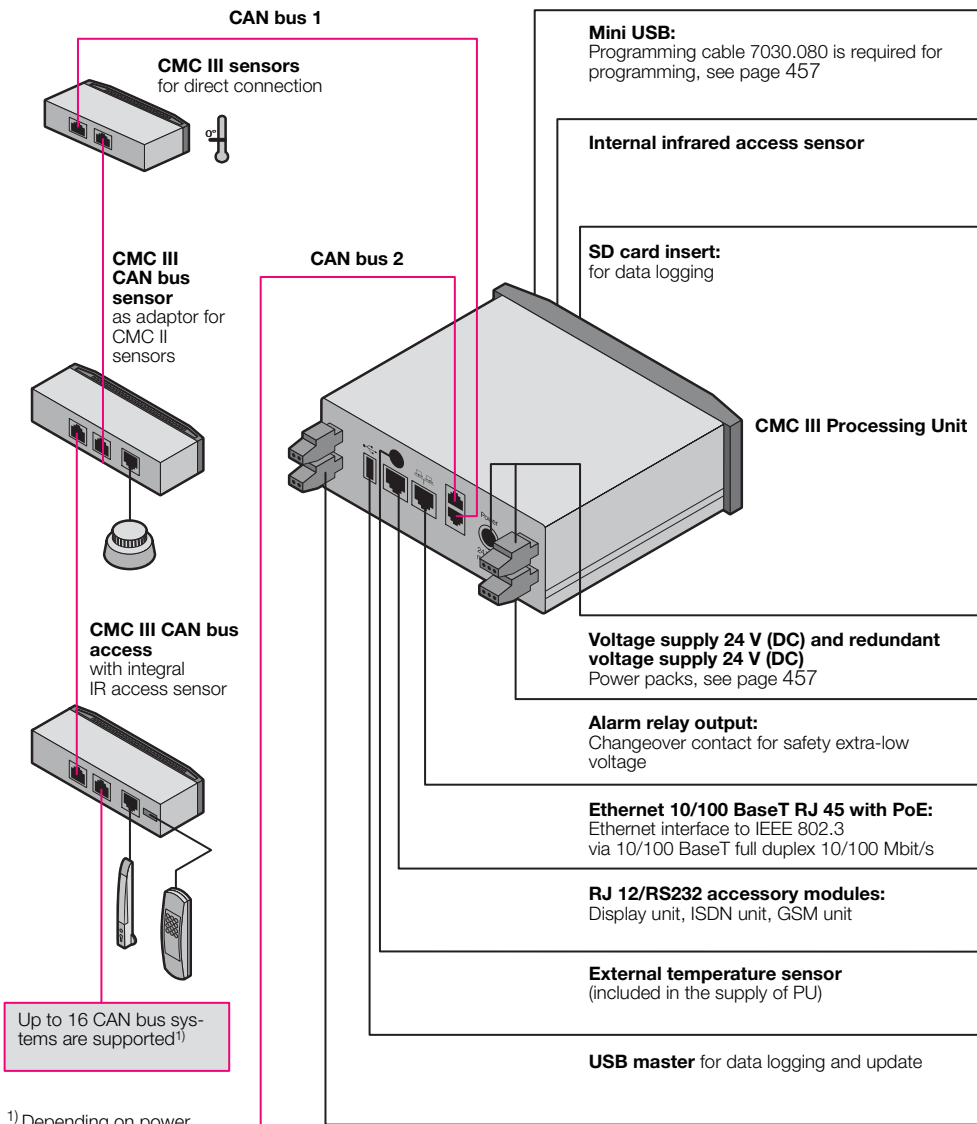


<sup>1)</sup> Depending on power supply/ connection combinations, see page 451

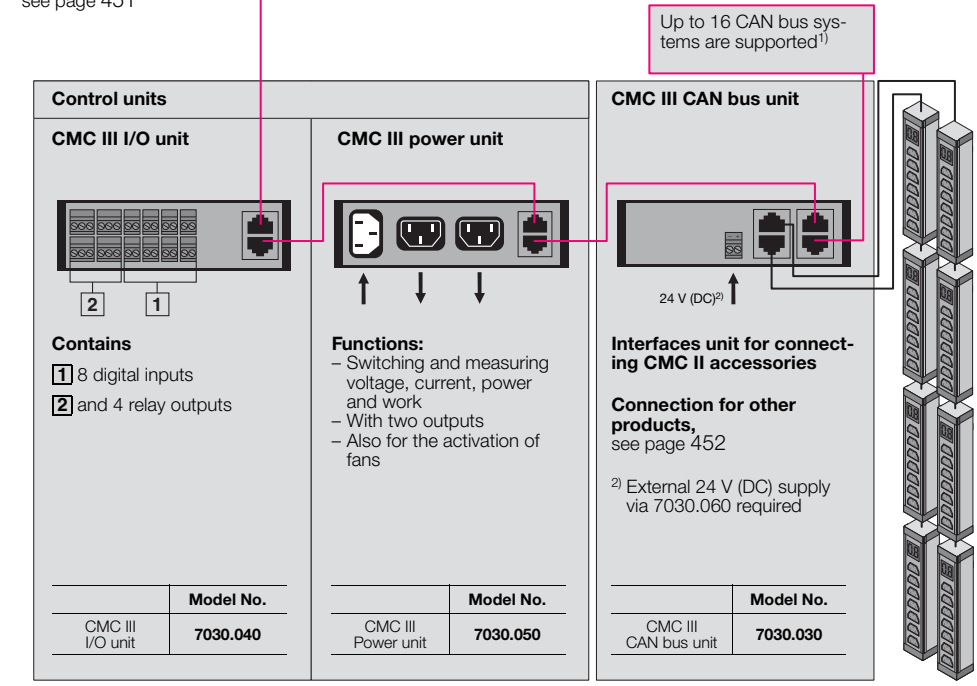
	Model No.
CMC III CAN bus unit	7030.030

# CMC III Processing Unit

## System overview



<sup>1)</sup> Depending on power supply/connection combinations, see page 451



# CMC III Processing Unit/Compact



**System overview** Page 448/449 **Basic modules and connection accessories** Page 451

- Redundant voltage supply, plus Power over Ethernet (PoE)
- Simple wiring with CAN bus connection system (RJ 45)
- Connection to control room-systems via OPC UA

**Material:**

- Plastic

**Surface finish:**

- Front: Smooth
- Enclosure: Textured

**Colour:**

- Front: RAL 9005
- Enclosure: RAL 7035

**Protection category IP to IEC 60 529:**

- IP 30

**Supply includes:**

- Basic system
- Quick-start instructions
- 4 mounting feet

**Approvals:**

- cULus

Photo shows a configuration example with equipment not included in the scope of supply

		<b>CMC III Processing Unit</b>	<b>CMC III Processing Unit Compact</b>
W x H x D mm		138 x 40 (1 U) x 120 + 12 (front assembly)	138 x 40 (1 U) x 120 + 12 (front assembly)
Operating temperature range		0°C...+45°C	0°C...+45°C
Operating humidity range		5 – 95 % relative humidity, non-condensing	5 – 95 % relative humidity, non-condensing
Sensors/CAN bus connection units		max. 32	max. 4
Max. overall cable length for CAN bus		2 x 50 m	1 x 50 m
<b>Model No.</b>		<b>7030.000</b>	<b>7030.010</b>
<b>Interfaces</b>	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Rear USB interface	For USB stick for data records and SW updates up to 32 GB	-
	Front SD-HC slot	1 x up to 32 GB for data recording	-
	Rear serial RS232 (RJ 12)	1 x for the connection of display unit, GSM unit or ISDN unit	1 x for the connection of display unit, GSM unit or ISDN unit
	CAN bus (RJ 45)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see page 453)	1 x for max. 4 sensors (quantity restriction, see page 453)
<b>Inputs and outputs</b>	Digital inputs (terminal)	2	2
	Relay output (terminal)	Changeover contact max. 24 V (DC), 1 A	Changeover contact max. 24 V (DC), 1 A
<b>Operation/ signals</b>	Push-button	1 x acknowledgement button	1 x acknowledgement button
	Concealed reset button	1 x service button	1 x service button
	Piezo signal generator	1	1
	LED display	1 x multi-colour OK/warning/alarm	1 x multi-colour OK/warning/alarm
	Rear LED	1 x for the network status	1 x for the network status
<b>Protocols</b>	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP
<b>Redundant power supply</b>	Input 24 V DC (jack)	1 x for connecting CMC III power pack	1 x for connecting CMC III power pack
	Input 24 V DC (terminals)	1 x for direct connection or for connecting CMC III power pack	1 x for direct connection or for connecting CMC III power pack
	Power over Ethernet PoE	1 x 15.4 W	1 x 15.4 W
<b>Functions</b>	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	LDAP	LDAP
	User interface	Integral WEB server	Integral WEB server
	Control room connection	Integral OPC UA server	Integral OPC UA server
<b>Integral sensors</b>	Temperature sensor	NTC sensor with cable, supplied loose	NTC sensor with cable, supplied loose
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front

### Control units for CMC III Processing Unit

	Model No.	PU Compact	PU	Page
		Maximum quantity		
CMC III I/O Unit, 8 digital inputs + 4 relay outputs	7030.040	–	16	454
CMC III Power Unit, 1 input (C14) + 2 outputs (C13) 230 V, 50/60 Hz – For switching 10 A total current (fan/heater etc.) – For measuring current, voltage, power, energy	7030.050	–	16	454

**!** **Also required:**

- CAN bus connection cable 7030.090/.095, see page 457
- Mounting unit, 1 U, 7030.070, see page 458



### CMC III sensors for direct connection

	Model No.	PU Compact	PU	Page
		Maximum quantity		
Temperature sensor with external sensor	7030.110	4	32	454
Temperature/humidity sensor	7030.111	4	32	454
Infrared access sensor	7030.120	4	32	454
Vandalism sensor	7030.130	4	32	454
Analog airflow sensor	7030.140	4	10 <sup>1)</sup>	454
Analog differential pressure sensor	7030.150	4	32	454
Universal sensor (2x digital input and 4 – 20 mA)	7030.190	4	32	454

<sup>1)</sup> Max. 5 pieces for power supply with PoE

**!** **Also required:**

- CAN bus connection cable 7030.090/.095, see page 457



### Interface for CMC II sensors

	Model No.	PU Compact	PU	Page
		Maximum quantity		
<b>CMC III CAN bus sensor</b>	<b>7030.100</b>	4	32	–
<b>For connecting the following products:</b>				
5 x access sensors (packs of 2), connect a max. of 5 in series	7320.530	■	■	455
1 x smoke detector	7320.560	■	■	455
1 x motion detector	7320.570	■	■	455
1 x leakage sensor	7320.630	■	■	455
1 x leakage sensor, with sensor length 15 m	7320.631	■	■	455
1/3 x fire detector and extinguisher system DET-AC Plus with 3 messages	7338.120	■	■	473
1/3 x early fire detector system DET-AC Plus with 3 messages	7338.220	■	■	473
1/2 x door control system for one rack	7320.790	■	■	460

**!** **Also required:**

- CAN bus connection cable 7030.090/.095, see page 457



# CMC III

## Accessories



### Access system

The CAN bus access is designed for one door. It has an integral IR access sensor and may be connected to one handle system and one reader unit.

	Model No.	PU Compact	PU	Page
		Maximum quantity		
<b>CMC III CAN bus access</b>	<b>7030.200</b>	2	16 <sup>1)</sup>	–
<b>For connection to handle:</b>				
1 x TS 8 handle with master key function	7320.721	2	16 <sup>1)</sup>	455
<b>For connection to reader unit:</b>				
1 x CMC III coded lock	7030.220	2	16 <sup>1)</sup>	455
1 x CMC III transponder reader	7030.230	2	16 <sup>1)</sup>	455

<sup>1)</sup> Max. 5 pieces for power supply with PoE



#### Also required:

- CAN bus connection cable 7030.090/.095, see page 457



### Interface for PSM, PCU

The products listed may be connected to the PU/PU Compact via CAN bus unit 7030.030, see page 456.

	Model No.	PU Compact	PU	Page
		Maximum quantity		
<b>CMC III CAN bus unit</b>	7030.030	1	4	456
<b>For connecting the following products:</b>				
2 x 4 x Rittal Power Control Unit (PCU) 8-way	7200.001	■	■	412
2 x 4 x Rittal Power Control Unit (PCU) C13 LED, 8-way	7859.225	■	■	412
2 x 4 x Rittal Power Control Unit (PCU) C13/19 LED, 6-way	7859.235	■	■	412
2 x 4 x PSM socket module C13, 8-way	7856.201	■	■	411
2 x 4 x PSM socket module C13/earthing-pin, 6-way	7856.203	■	■	411
2 x 4 x PSM socket module C13/19, 6-way	7856.204	■	■	411
2 x 4 x PSM socket module C13/earthing-pin LED, 6-way	7859.212	■	■	411
2 x 4 x PSM socket module C13 LED, 8-way	7859.222	■	■	411
2 x 4 x PSM socket module C13/19 LED, 6-way	7859.232	■	■	411



#### Accessories:

- Power supply unit 7030.060 and connection cable 7200.210, see page 457
- CAN bus connection cable 7030.090/.095, see page 457
- Mounting unit, 1 U, 7030.070, see page 458

#### Note:

- Allow one power pack 7030.060 for every CMC III CAN bus unit

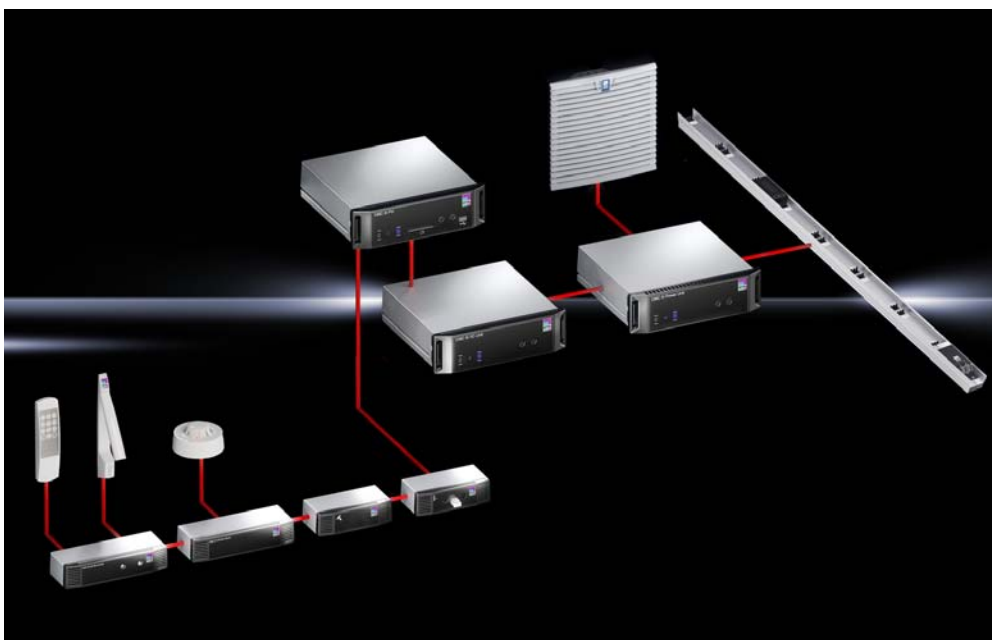


### PSM and slave PDU for direct connection

	Model No.	PU	PU	Page
		Compact	Maximum quantity	
PSM measuring bars 16 A, with 2 infeeds	7859.050	4	8	410
PSM measuring bars 32 A, with 1 infeed	7859.053	4	8	410
PSM MID measuring module 16 A, with 2 infeeds	7859.312	4	8	421
PSM MID measuring module 32 A, with 2 infeeds	7859.332	4	8	421
Slave PDU international, managed, 16 A, 12 x C13	7955.901	3	6	417
Slave PDU international, managed, 16 A, 24 x C13, 4 x C19	7955.910	3	6	417
Slave PDU international, managed, 32 A, 24 x C13, 4 x C19	7955.911	3	6	417
Slave PDU international, managed, 16 A, 18 x C13, 3 x C19	7955.931	3	6	417
Slave PDU international, managed, 16 A, 24 x C13, 6 x C19	7955.932	3	6	417
Slave PDU international, managed, 32 A, 24 x C13, 6 x C19	7955.933	3	6	417
Slave PDU UK, managed, 13 A, 16 x UK	7955.940	3	6	418
Slave PDU UK, managed, 16 A, 16 x UK, 4 x C19	7955.941	3	6	418
Slave PDU UK, managed, 32 A, 16 x UK, 4 x C19	7955.942	3	6	418

#### Accessories:

- CAN bus connection cable 7030.090/.095, see page 457



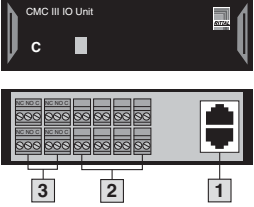
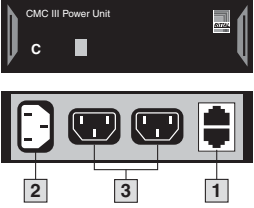




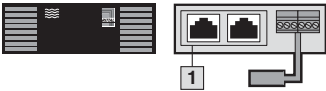

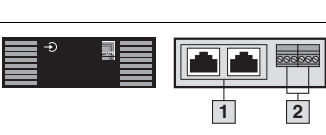
# CMC III

## Accessories

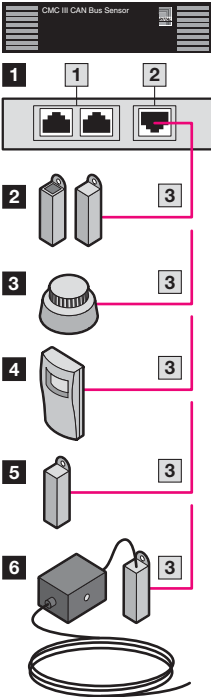
### CMC III control units/ CMC III sensors

- Material:**  
– Plastic
- Surface finish:**  
– Front: Smooth  
– Enclosure: Textured

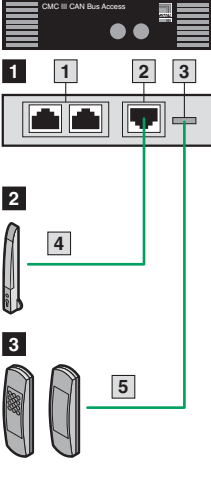
- Colour:**  
– Front: RAL 9005  
– Enclosure: RAL 7035
- Protection category IP to IEC 60 529:**  
– IP 30

		1	2	3	Model No.
		Connection RJ 45 2 x CAN bus	Inputs	Outputs	
 <p>CMC III IO Unit</p>	<p><b>Control unit I/O unit</b></p> <ul style="list-style-type: none"> <li>– Inputs for earth-free signals</li> <li>– Relay output (changeover contact) can handle loads of up to max. 24 V (DC)/1 A</li> </ul>	■	8 x digital	4 x relays	<b>7030.040</b>
 <p>CMC III Power Unit</p>	<p><b>Control unit, power unit</b></p> <ul style="list-style-type: none"> <li>– Switches 2 outputs</li> <li>– Measures voltage, current, power, work</li> <li>– For controlling and switching fans, heaters, equipment</li> </ul>	■	1 x voltage C14 110 – 230 V 50/60 Hz	2 x current C13 Aggregate current max. 10 A	<b>7030.050</b>
	<p><b>Temperature sensor</b></p> <ul style="list-style-type: none"> <li>– External NTC sensor, 2 m cable</li> <li>– Measurement range for external sensors: -40°C...+80°C</li> </ul>	■	–	–	<b>7030.110</b>
	<p><b>Temperature/humidity sensor</b></p> <p>Measurement range: 0°C...+55°C/ 5 % relative humidity ... 95 % relative humidity</p>	■	–	–	<b>7030.111</b>
	<p><b>Infrared access sensor</b></p> <p>Monitoring and reflector on the door, spacing adjustable</p>	■	–	–	<b>7030.120</b>
	<p><b>Vandalism sensor</b></p> <ul style="list-style-type: none"> <li>– Axis: x, y, z</li> <li>– Acceleration limits: -7 – 7 g, adjustable</li> </ul>	■	–	–	<b>7030.130</b>
	<p><b>Analog airflow sensor</b></p> <ul style="list-style-type: none"> <li>– External airflow sensor: 4 – 20 mA</li> <li>– Measurement range: 0.5 – 15 m/s</li> <li>– Application: Fan, filter, climate control devices</li> </ul>	■	–	–	<b>7030.140</b>
	<p><b>Analog differential pressure sensor</b></p> <ul style="list-style-type: none"> <li>– 2 pressure measuring points (infeed via hose)</li> <li>– Measurement range: -500 m Pa – +500 m Pa</li> <li>– Application: Cold aisle containment, raised floor</li> </ul>	■	–	–	<b>7030.150</b>
	<p><b>Universal sensor</b></p> <p>Choice of digital inputs for an application:</p> <ul style="list-style-type: none"> <li>– Earth-free signals</li> <li>– S<sub>0</sub> Input for energy measurement systems</li> <li>– 1 Wiegand interface (external access systems)</li> </ul>	■	2 x digital may be switched over to pulse input S <sub>0</sub> or a Wiegand interface  1 x analog 4 – 20 mA	–	<b>7030.190</b>

### Interface for CMC III sensors

	[1]	[2]	[3]	Model No.
	Connection RJ 45 2 x CAN bus	Input RJ 12	Output RJ 12	
 <p><b>1 CAN bus sensor</b> For connecting one CMC II sensor</p>	■	1 x	–	<b>7030.100</b>
<p><b>2 CMC II access sensor</b> – Sensor: Reed contact/magnet – Max. 5 reed contacts in series – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.530</b>
<p><b>3 CMC II smoke detector</b> Sensor: Visual 2 m cable included with the supply</p>	–	–	1 x	<b>7320.560</b>
<p><b>4 CMC II motion detector</b> – Sensor: Infrared – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.570</b>
<p><b>5 CMC II leak sensor</b> – Sensor: Point infrared sensor – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.630</b>
<p><b>6 CMC II leak sensor 15 m</b> – Sensor: 15 sensitive cables – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.631</b>

### Access system

	Connection		Inputs		Outputs		Model No.
	[1]	[2]	[3]	[4]	[5]		
	RJ 45 2 x CAN bus	RJ 12	Flat-pin connector	RJ 12	Flat-pin connector		
 <p><b>1 CAN bus access</b> – For connecting one handle and one reader unit for door monitoring – Integral IR access sensor</p>	■	1 x	1 x	–	–	<b>7030.200</b>	
<p><b>2 Handles</b> – TS 8 handle with master key function – Handle monitoring – Rated voltage: 24 V (DC) – 3 m cable, 2 m extension cable included with the supply</p>	–	–	–	1 x	–	<b>7320.721</b>	
<p><b>3 CMC III reader units</b> – Coded lock – Transponder reader – Numerical code from 0 – 8 digits may be selected – Transponder technology: Mifare – 3 m cable included with the supply</p>	–	–	–	–	1 x	<b>7030.220</b> <b>7030.230</b>	

# CMC III

## Accessories

### Interface for PSM, PCU

**Material:**

- Plastic

**Surface finish:**

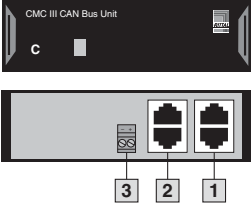
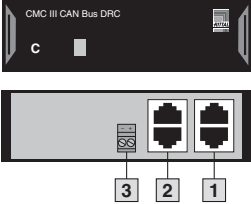
- Front: Smooth
- Enclosure: Textured

**Colour:**

- Front: RAL 9005
- Enclosure: RAL 7035

**Protection category IP to IEC 60 529:**

- IP 30

		Connection RJ 45		[3] Inputs	Model No.
		[1] 2 x CAN bus	[2]		
 <p>CMC III CAN Bus Unit</p>	<p><b>CAN bus unit</b> For connecting:</p> <ul style="list-style-type: none"> <li>- PSM socket strips</li> <li>- PCU 482.6 mm (19") socket strips</li> </ul>	■	2 x for PSM, PCU, see page 452	For operating the required connection clamp for the 24 V power pack 7030.060	<b>7030.030</b>
 <p>CMC III CAN Bus DRC</p>	<p><b>CAN bus DRC</b> For connecting:</p> <ul style="list-style-type: none"> <li>- RFID controller 7890.500</li> </ul>	■	Max. 1 x RFID controller, see page 462	Connection clamps for the 24 V power pack (optional) 7030.060	<b>7030.550</b>

New



PSM – MID  
measuring module

see page 421

### Power supply unit

for PU, PU Compact, CAN bus unit, CAN bus DRC, Door Control System.

#### Technical specifications:

- Input voltage: 100 – 240 V / 50/60 Hz
- Output voltage: 24 V (DC)/2.5 A
- Length of 24 V DC connection cable: 0.6 m

#### Supply includes:

- 4 mounting feet

Packs of	Model No.
1 pc(s).	<b>7030.060</b>



#### Also required:

- Connection cable, see page 457



#### Accessories:

- Mounting unit, see page 458



### Programming cable

For commissioning the Processing Unit (PU) or PU Compact.

#### Supply includes:

- CD with driver and system description

Packs of	Model No.
1 pc(s).	<b>7030.080</b>



### CAN bus connection cable

This can be used to connect the PU with the CAN bus sensors III, units III, control units III as a bus. Also for cabling the CAN bus sensors III, units III, control units III together.

CMC III CAN bus connection cable	Length m	Packs of	Model No.
RJ 45	0.5	1 pc(s).	<b>7030.090</b>
RJ 45	1	1 pc(s).	<b>7030.091</b>
RJ 45	1.5	1 pc(s).	<b>7030.092</b>
RJ 45	2	1 pc(s).	<b>7030.093</b>
RJ 45	3	1 pc(s).	<b>7030.480</b>
RJ 45	4	1 pc(s).	<b>7030.490</b>
RJ 45	5	1 pc(s).	<b>7030.094</b>
RJ 45	10	1 pc(s).	<b>7030.095</b>



### Connection cable/extension

For connecting to:

- CMC III power pack C13
- CMC III power unit C13
- PCU C19
- PDU C19

#### Technical specifications:

- PVC cable, 3-pole, with IEC cable coupling (non-heating appliances) with contact protection CEE22
- Length: Minimum 1.8 m

Country Version	Voltage Volt	Packs of	Model No.
D/F/B/C13	230	1 pc(s).	<b>7200.210</b>
Non-heating appliance extension C13/C14	230/115	1 pc(s).	<b>7200.215</b>
Connection cable D/C19	230/115	1 pc(s).	<b>7200.216</b>
Connection cable C19/C20	230/115	1 pc(s).	<b>7200.217</b>



# CMC III

## Accessories



### Extension cable RJ 12

**with RJ 12 connector/jack**

To extend the cable connections to CMC II sensors.

Length m	Packs of	Model No.
1	2 pc(s).	<b>7320.814</b>



### Mounting unit, 1 U

To accommodate

- PU
- PU Compact
- Control units
- CMC III CAN bus unit
- CMC III CAN bus DRC
- CMC III power pack

Can accommodate up to 3 units and is attached to the 482.6 mm (19") frame.

**Material:**

- Sheet steel

**Surface finish:**

- Zinc-plated

**Supply includes:**

- 2 blanking covers

Packs of	Model No.
1 pc(s).	<b>7030.070</b>

**+ Accessories:**

- Cable clamp strap 7610.000, see page 458



### Cable clamp strap

For rear attachment on the mounting unit.

**Material:**

- Sheet steel, 2 mm

**Surface finish:**

- Zinc-plated

**Supply includes:**

- Assembly parts

Packs of	Model No.
1 pc(s).	<b>7610.000</b>



### Mounting unit

To accommodate

- PU
- PU Compact
- Control units
- CMC III CAN bus unit
- CMC III CAN bus DRC
- CMC III power pack

Can accommodate one unit and is mounted on the enclosure frame.

**Material:**

- Sheet steel

**Surface finish:**

- Zinc-plated

Packs of	Model No.
1 pc(s).	<b>7030.071</b>