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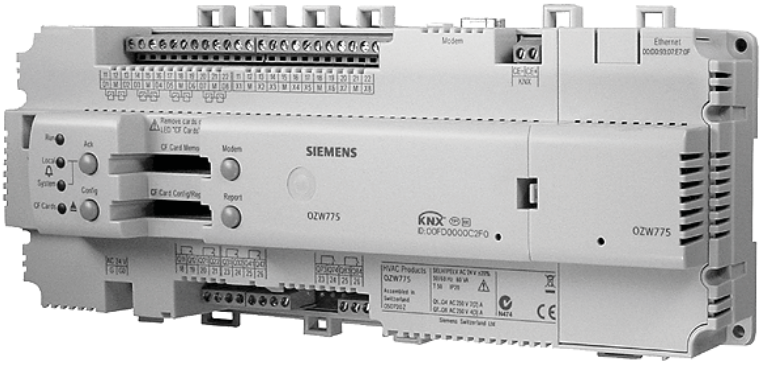

OZZ7E5

OZZ7CF

KNX

Central communication unit

OZW775 V3.0

with integrated web server function

The central communication unit OZW775 in plants is used together with Synco™ 700 devices, RXB/RXL room controllers and the Synco™ living central apartment unit. Key features:

- **Remotely operate and monitor up to 250 Synco devices in a KNX network via ACS and/or via web browser (CD with ACS700 software included in delivery).**
- **Link to an operator station (PC/laptop with ACS) via direct connection (USB) or telephony (RS-232 modem).**
- **Link to a web browser via Ethernet (Ethernet card OZZ7E5 required) and/or via direct connection or telephony.**
- **Operation and monitoring via customized plant diagrams.**
- **Customizable user profiles for web operation.**
- **Customizable user texts for inputs, outputs, function blocks.**
- **Send fault status messages to operator stations, SMS recipients, pagers, fax machines, e-mail recipients (message receivers).**
- **Periodically send system reports to message receivers.**
- **Storage of the last 500 faults and messages (history).**
- **4 message receivers with configurable receiver types and transmission times.**
- **8 digital inputs for fault and operational status contacts.**
- **8 universal inputs, configurable for analog, digital and pulse signals.**
- **5 runtime totalizer meters, automatically send service alarms.**
- **8 meters for pulse signals from heat, water, gas or electricity meters.**
- **4 seven-day time switches to switch consumers via relays.**
- **6 relays for use with 7-day time switches or as fault relays.**
- **5 offline trends with 50,000 recorded values.**

Use

Buildings	• Office and administrative buildings, residential housing. • Schools, gymnasiums, leisure facilities, hotels. • Municipal buildings, industrial buildings.
Building operators	• Building maintenance companies, facility management. • Real estate agencies. • District heating companies, installers, end customers.

Functions

Basic functions

Basic functions of the central communication unit OZW775:

- Monitor KNX network member devices and acquire fault statuses in HVAC plants via digital and universal inputs.
- Signal faults via direct connection to local operator station and/or via modem to operator stations, SMS recipients, pagers, fax machines, email recipients.
- Central communication unit from V2.0 with web server: Send faults to web browser via Ethernet and/or direct connection or modem.
- Operate HVAC plants and equipment with operator stations and/or web browser, and display process values on operator stations and/or web browser.
- Central communication unit from V3.0 allow operation and monitoring via customized plant diagrams.
- Function "Clock time master" for default system time (date and time) to KNX network member devices.
- Function "System clock" with adjustable time zone and daylight saving/standard time changeover.

Faults

Fault sources

- "System" fault source
  The central communication unit detects device failures and faults on the KNX network listed in the unit's device list.
- "Local" fault source
  The central communication unit identifies internal faults and fault states at the digital and universal inputs configured as fault inputs (fault source "Local"). Typical faults at digital and universal inputs:
  - Overload signals from thermal cutouts.
  - Error states signaled by switches or monitors.
  - Limit value violations.
  - Fault states of aggregates and plants.
  - Common messages from external plants.

Fault indication

Depending on the fault's source, the central communication unit indicates faults either via "Local" or "System" LED. The "Local" LED also indicates state "Hours run for service reached".

Fault relays

You can configure two relay outputs as fault relays. As a result, faults can be indicated by optical or acoustic alarm equipment in addition to LEDs.

Fault status message

Faults can also be sent as text messages via PC or modem interface. For messages via modem, both the number of repetitions and the modem message interval can be parameterized.

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Fault acknowledgement

The "Local" LED blinks to indicate that a fault is unacknowledged. The LED continues to be lit until the fault is no longer pending even after the fault is acknowledged with the "Ack" button. "Ack" resets the fault relay if a fault relay is configured.

The same applies to unacknowledged "System" faults in the event of a configured fault relay. Without fault relay, a "System" fault is acknowledged automatically, i.e. the "System" LED is lit immediately (no blinking until acknowledged).

External fault acknowledgement is possible via digital input, provided the input is connected to input "Ack" on function block "Faults".

System report

The central communication unit can generate system reports and periodically send the system operating state to different types of message receivers.

History

The history includes the last 500 events on faults, fault messages, and system reports. The events are entered in the circular message buffer of the central communication unit. The history data can be read via web browser and the ACS software.

Offline trend

"Offline trend" allows logging values for selected data points of the central communication unit and for Synco devices listed in the device list. The ACS7 software is necessary to define trends and trend displays on an operator station as well as to specify data exports (e.g. to Excel).

5 offline trends can be defined and run at the same time. One trend may contain 10,000 values (number of data points x number of samplings).

Examples

Central communication unit memory to log for each trend:

- 1 data point at 30 second intervals for 83 hours.
- 6 data points at 30 second intervals for 27 hours.
- 10 data points at 5 minute intervals for 7 days.

The number of values that can be logged is reduced if text information (e.g. input names, aggregate names for runtime totalization) is also recorded.

Ordering and delivery

When ordering, provide both name and **product number (ASN)**:

- Central communication unit **OZW775**

The central communication unit is delivered in a box. The following are inserted in the package:

- Installation instructions G5663 (multilingual).
- CD with ACS700 software.

Commissioning instructions C5663 saved as a PDF file on the CD.

Accessories

Order the following accessories separately:

- Ethernet card **OZZ7E5**
- CF card (Compact flash card) **OZZ7CF**

Note

The CF card contains the latest firmware version and web server data. See document G5663 on firmware updates and preparing web server data.

Product documentation

	Document type	Document no.
Central communication unit OZW775	Data sheet	**N5663**
	Installation instructions (package insert)	**G5663**
	Commissioning instructions	**C5663**
Ethernet card OZZ7E5	Mounting instructions (package insert)	**M5673**
	Information on OZZ7E5: See this document and →	**G5663**
CF card OZZ7CF	Operating instructions (package insert)	**B5674**
	Information on OZZ7CF: See this document and →	**G5663**
KNX bus	Data sheet	**N3127**
	Basic documentation	**P3127**
ACS7… software	Data sheet	**N5640**
Service tool OCI700.1	Data sheet	**N5655**

Synco products

The following Synco products can be integrated in a KNX network:

	Product		Data sheet no.
Synco 700 devices	Universal controller	RMU7x0, RMU7x0B	**N3144, N3150**
	Heating controller	RMH760, RMH760B	**N3131, N3133**
	Boiler sequence controller	RMK770	**N3132**
	Central control unit	RMB795	**N3121**
	Switching & monitoring device	RMS705	**N3123**
	Bus operator unit	RMZ792	**N3113**
	Room unit	QAW740	**N1633**
	Central communication unit	OZW771	**N3117**
Synco RXB/RXL	Room controller	RXB21.1, RXB22.1	**N3873**
	Room controller	RXL21.1, RXL22.1	**N3877**
	Room controller	RXB24.1	**N3874**
	Room controller	RXL24.1	**N3878**
Synco 900, Synco living	Central apartment unit	QAX910	**N2707**

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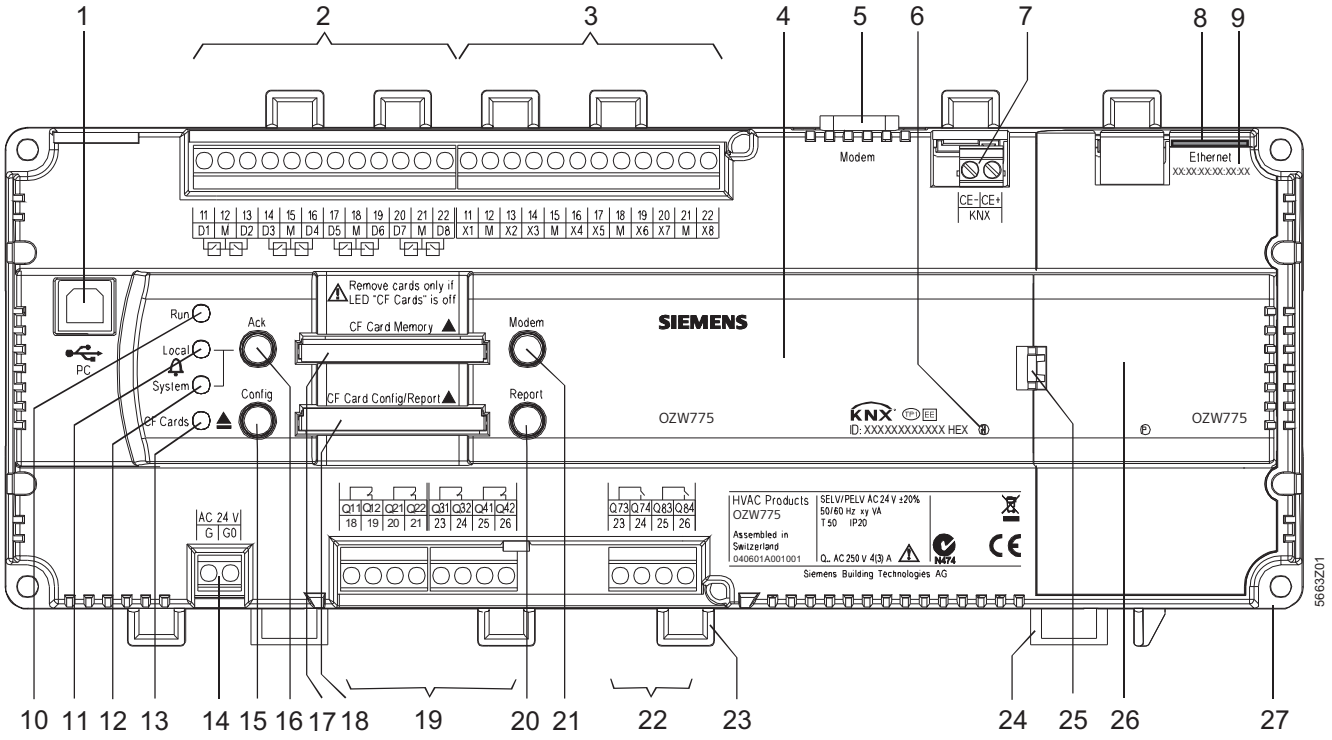
Mechanical design

Basic design

The central communication unit consists of the housing lower section with printed circuit boards and connection terminals. The upper housing section contains the printed circuit boards. The LEDs, operating buttons, interfaces, and slots for the CF cards (compact flash memory cards) are integrated in the upper housing section. These elements and the connection terminals are labeled on the front of the housing. The shape and dimensions of the housing sections conform to DIN 43880 (size 2).



Position	Labeling	Element
1	PC	USB interface
2	D1...D8 M	Connection terminal digital inputs (M = ground)
3	X1...X8 M	Connection terminals universal inputs (M = ground)
4		Upper housing section
5	Modem	RS-232 interface
6	KNX	LED (green/red) Bus voltage, data exchange via KNX (green) / unit in addressing mode (red)
7	CE- CE+	KNX (Konnex) connection terminals
8	Ethernet	Ethernet plug RJ45 on Ethernet card OZZ7E5 (order card separately)
9	XX:XX:XX:XX:XX:XX	MAC address (Media Access Control address, 48 bits)
10	Run	LED (green) Operating voltage applied (lit), communicating with ACS (flashing)
11	Local	LED (red) Central unit faults or faults at fault inputs, or "Hours run for service reached"
12	System	LED (red) Device faults in the KNX network
13	CF cards	LED (green) CF card integrated (lit), CF card being integrated or removed (flashing)
14	G G0	Connection terminals for AC 24 V operating voltage
15	Config	Button Integrate or remove CF card
16	Ack	Button Acknowledgement of "Local" fault, fault relay "System"
17	CF card memory	Slot for CF card (web server data)
18	CF Card Config/Report	Slot for CF card (firmware update)
19	Q11,Q12 Q21,Q22 Q31,Q32 Q41,Q42	Connection terminals for 4 relays with NC contacts
20	Report	Button For function, see “Button combinations“
21	Modem	Button initializes modem, checks connection to the modem (short) / sends system report (long)
22	Q73,Q74 Q83,Q84	Connection terminals for 2 relays with NO contact
23		Lug for cable tie (cable strain relief)
24		Fastening spring to mount the central communication unit to a standard rail TH 35-7.5
25		Snap cover
26		Cover (can be opened without tools if Ethernet card OZZ7E5 needs to be inserted)

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The central communication unit contains various function blocks (FB). The functionality of the unit can be extended by connecting (binding) the digital inputs N.D1…N.D8 and the universal inputs N.X1…N.X8 to the FB inputs "d", "x", and "i" (see figure and function block description).

Inputs and outputs

Digital inputs

The digital inputs N.D1…N.D8 help connect potential-free status contacts. They act as fault inputs when connecting digital inputs to FB "Faults". When connected to FB "Operating hours", the number of operating hours of aggregates (burners, pumps, fans, etc.), can be counted.

Universal inputs

The universal inputs N.X1…N.X8 can be configured for potential-free status and counting impulse contacts and analog signals from sensors and transmitters.

Universal inputs configured for status contacts (digital) or limit values (analog) and connected to FB "Faults" act as fault inputs.

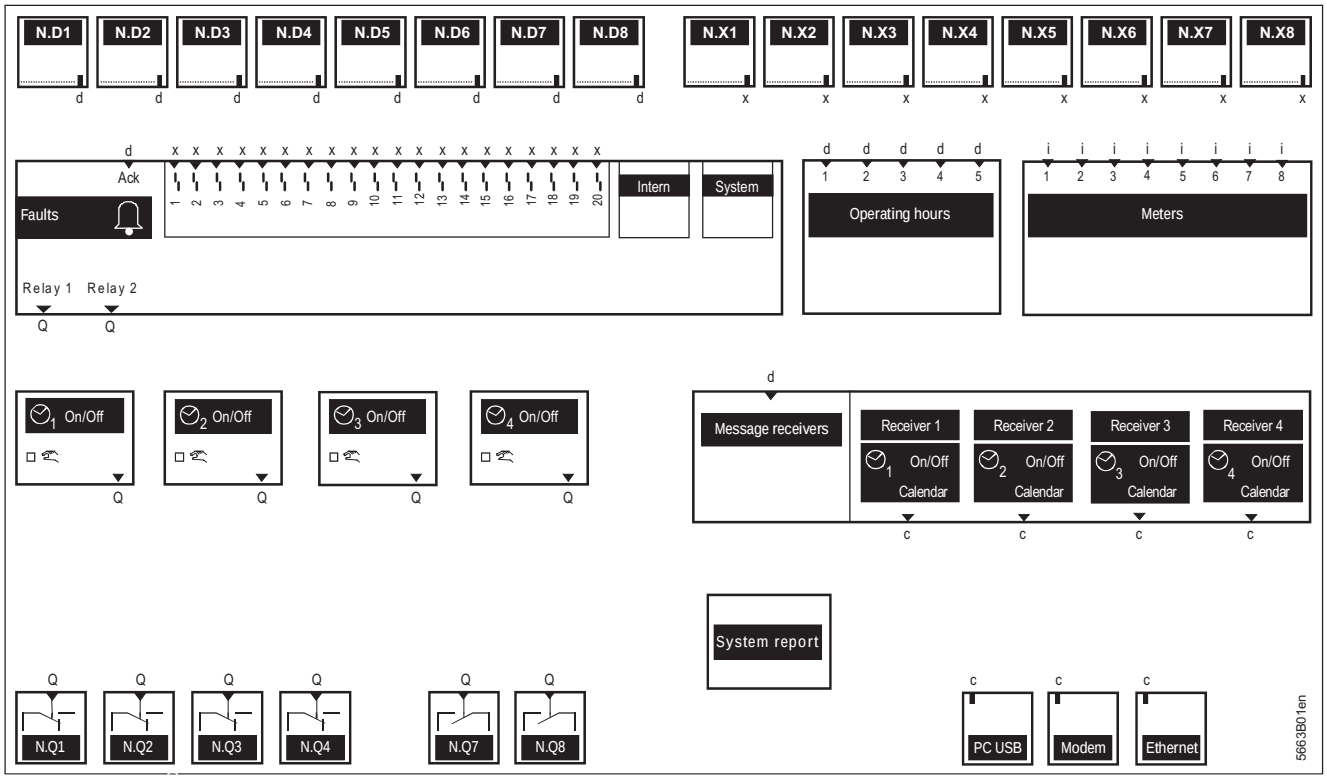
When universal inputs are configured for operating status contacts of aggregates and connected to FB "Operating hours", the operating hours can be acquired.

When universal inputs are configured for counting pulses and connected to FB "Meters", consumption values (heat, gas, electricity, etc.) can be acquired.

Relay outputs

The outputs of relays N.Q1…N.Q4 have NC contacts, those of relays N.Q7, N.Q8 have NO contacts. To signal faults (e.g. with signal lamps, horns), relay 1 and/or relay 2 of FB "Faults" are connected to one of the relays N.Q_.

If one of the relays N.Q_ is connected to an FB "7-day time switch with control switch", relay N.Q_ in "Auto" position operates as per the time switch program, else per the control switch position "Off" or "On".



Inputs, outputs and function blocks of the OZW775 central communication unit.

Function blocks

FB "Faults"

FB "Faults" is designed for 20 fault inputs. Inputs N.D1…N.D8 (digital) and N.X1…N.X8 (digital/analog) are connected to FB inputs "x". "Relay 1" and/or "Relay 2" is activated depending on fault priority and source.

FB "Faults" handles faults and failures of the Synco devices (“System“ faults) listed in the device list as well as faults at the fault inputs and faults of the central communication unit ("Local" faults)..

To facilitate external fault acknowledgement, a digital input must be connected to input "Ack". External fault acknowledgement acts like pressing the "Ack" button.

FB "Operating hours"

FB "Operating hours" can handle up to 5 runtime totalizers. The operational status contacts of the aggregates are connected to FB inputs "d" via the digital inputs N.D1...N.D8 or N.X1...N.X8 (configured as digital inputs).

If a service interval is defined, the “Local“ LED indicates when the number of operating hours is reached and, if configured, a service alarm is issued.

FB "Meters"

FB "Meters" can handle up to 8 counting values. The universal inputs N.X1…N.X8 (configured as counting pulses) are connected to the FB inputs "i". The acquired counting pulses from heat, water, gas, electricity meters are converted to consumption values, e.g. energy in Wh, kWh or volume in m^3. The 15 monthly values along with readout dates are stored.

FB "7-day time switch with operation selector"

The 4 FB "7-day time switch with control switch" allow for switching various consumers in dependence of time via the relays N.Q_. Each 7-day time switch allows for programming up to 6 switching points (3 "On", 3 "Off". Additionally, a configurable operation selector with positions "Auto" / "Off" / "On" is integrated.

If a time switch output "Q" is connected to a relay input, position "Auto" ensures that the relay is energized and deenergized as per the time program, or the relay is constantly deenergized or energized.

FB "System report"

In FB "System report", the time the message is sent (hh:mm) and the message cycle interval (1...255 days) for sending system reports can be programmed. A system report is sent to one or several message receivers depending on fault priority (urgent/not urgent).

FB "Message receivers"

FB "Message receivers" is subdivided into 4 receivers. Message suppression via input "d" acts on all receivers. You can set both receiver type and fault priority individually for each receiver. Each receiver has a "Time switch with calendar" to program three sending times per day and holidays/special days.

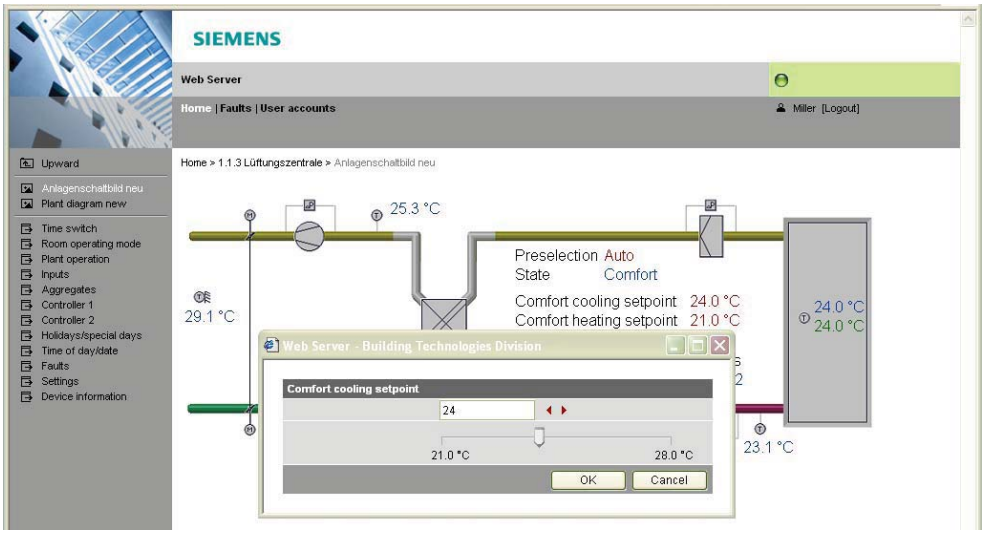
Example: All fault messages from Monday through Friday 08:00 - 18:00 are sent to receiver "Service business receiver", e.g. to a fax machine. Outside these hours, the fault status messages are sent to receiver "24-hour service", e.g. SMS to mobile phone.

The outputs "c" of FB "Message receivers" are connected to inputs "c" of the PC USB, modem, or Ethernet interfaces. The PC USB interface is designed for local commissioning, operation and monitoring (alarming).

Remote operation and monitoring are possible via modem (dial-up) and, at the same time, via Ethernet (Internet/intranet) to one (or several) web browsers.

Plant diagrams

Plant diagrams in the OZW775 V3.0 allow users to display the entire HVAC installation along with all data points. Users can view plant and room states from a user viewpoint, thus gaining a better overview. In the event of faults, access to faulty equipment is much faster. Clicking the diagram opens a dialog box for read/write parameters, allowing users to change values as illustrated below for a change of "Comfort cooling setpoint".



Plant diagrams also allow for integrating additional data such as links to plant, function, and maintenance descriptions or data sheets. Integrating external links allowing users to navigate to several plants is possible also. In addition, plant diagrams even allow users to integrate current webcam pictures.

Interfaces

The central communication unit has three interfaces to communicate between unit and user, and the interface or connection for the KNX bus.

PC

The "PC" interface is intended to directly connect a central communication unit to a local operator station. A USB cable, type A-B, is required to this end.

Modem

The "Modem" interface is intended to connect a modem via RS-232. When communicating via modem, the following message recipients are supported: Operator stations (PC/laptop with ACS software), SMS recipients, pagers, fax machines.

Ethernet

The interface labeled "Ethernet" corresponds to a RJ45 plug on the Ethernet card OZZ7E5. Order the card separately and insert in the central communication unit. A network cable Cat-5 is required to connect to the Ethernet (Ethernet category 5 cable).

KNX

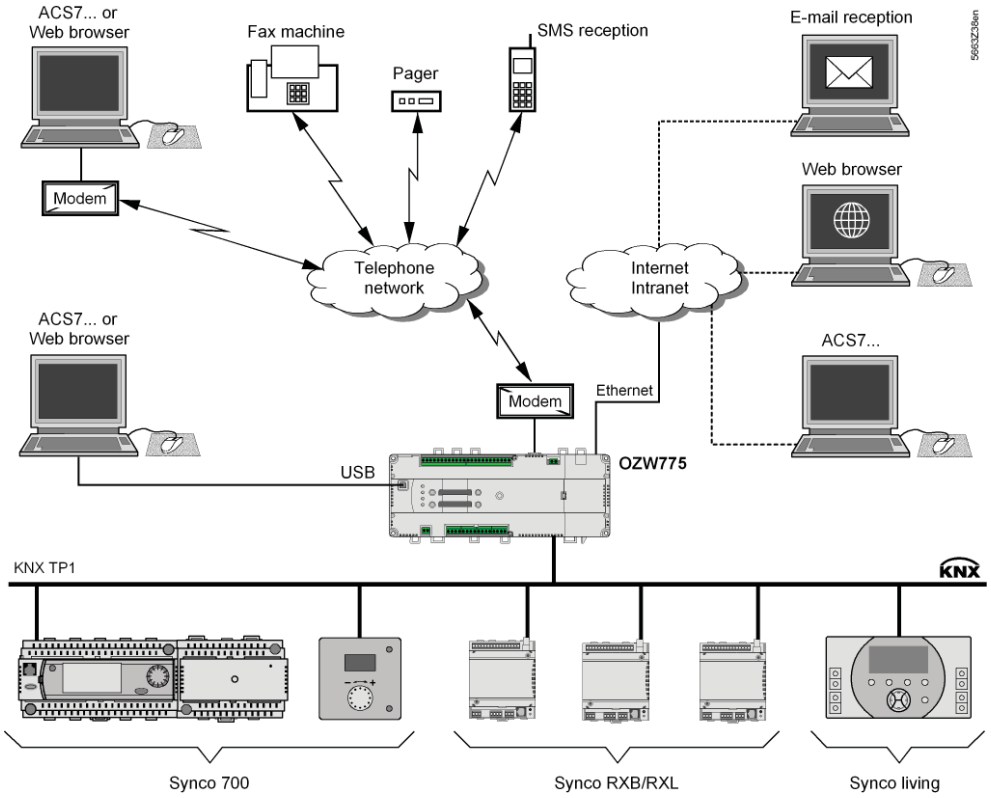
The"KNX" labeled connection terminals CE+ and CE- are intended for the KNX bus. For more information on the KNX bus, see data sheet N3127.

Parallel operation

We speak of parallel operation if one central communication unit is operated with two or multiple operator stations. Also, e.g. with one operator station via USB, and/or via modem, and/or via Ethernet.

Operation, monitoring, alarming

Communication connections for local monitoring and alarming (USB), and for remote operation via modem and Ethernet.



Parameter settings for message receivers

The following table lists all parameters for the communication connections that can be set in each message receiver.

Receiver type	Interface	Modem type	Transmission protocol
--- (Default)	-	-	-
Email	***Ethernet***	**xx**	***SMTP***
ACS alarm	***USB***	**xx**	***ACS protocol***
	Modem	Analog/ISDN	
		GSM	
	Ethernet	**xx**	
Mobile phone	***Modem***	Analog/ISDN	***TAP***
			UCP
		GSM	SMS GSM
Fax machine	***Modem***	Analog	***Fax protocol***
		GSM	Fax protocol
			SMS GSM service
Pager	***Modem***	Analog/ISDN	***TAP***
		GSM	TAP
			SMS GSM service

	No other selection
-	**Value cannot be set** or not value entry required
xx	**No modem required**
Bold/Italics	***Default value***

Example: Receiver type = Email
Interface = Ethernet (Default if receiver type = Email)
Transmission protocol = SMTP (Default if receiver type = Email)

Mounting notes

You must mount the central communication unit in a cabinet or control panel. Make sure service can easily access the unit.

- Standard mounting — On standard rail TH 35-7.5
- Screwed-on mounting — Screwed to rear wall
- Mounting position — Horizontal only
- Mounting and dimensions — See "Dimensions"

Installation notes

Important notes

Observe the following important notes for mounting and installation:

- The central communication unit must be mounted in a cabinet or control panel, as when mounted on a freely accessible wall, the relay output terminals carrying mains voltage (bottom of the unit, terminals not covered) are not protected against electric shock hazard.
- Run fuses, switches, wiring and earthing as per local regulations for electrical installations.
- The relay contacts of the central communication unit can switch either mains voltage or low-voltage. Applying both mains and low voltage is not permitted.
- You must connect circuits with relay contacts Q11, Q12 through Q41, 42 to the same mains phase.
- You must connect circuits with relay contacts Q73, Q74 and Q83, Q84 to the same mains phase.
- Connect only potential-free contacts to digital inputs D1…D8 and universal inputs X1…X8 (configured for digital inputs signals).
- We do not recommend plant monitoring via PC interface in environments with strong electromagnetic interference (e.g. in industrial environments with electrical welding equipment).

Operating voltage

The central communication unit operates on AC 24 V and must meet requirements for SELV/PELV (safety extra low-voltage / protective extra low-voltage).

Use only safety isolating transformers suited for 100 % duty (as per EN 61558-2-6).

Wiring

Plan sufficient space around the unit for easy wiring. The unit's terminals are arranged to eliminate cross-wiring of input and output lines to prevent faulty wiring to the greatest extent possible.

The terminals for digital inputs, universal inputs, and the KNX bus are located at the top of the unit (low-voltage side). The terminals for AC 24 V operating voltage and relay outputs carrying mains voltage are located at the bottom (mains voltage side).

Connecting terminals

The terminals are designed for wire diameters of min. 0.8 mm or cross-sections of 0.5...2.5 mm^2. See "Technical data".

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Commissioning notes

Authorized staff	Only authorized staff may commission and parameterize the central communication unit as well as start the web server.
Select telephone service provider and modem	You must select the telephone service provider and modem depending on the message receiver type prior to commissioning. If you use a GSM modem, make sure that the SIM card allows for data communication and that it is not protected by a PIN code.
IP address	Before activating the web server via the web browser on Ethernet, the network system administrator must assign the IP address for the central communication unit.
Commissioning	Commission the central communication unit locally via PC interface using a PC/laptop. The service tool ACS must be installed on the PC/laptop. You need a USB cable, type A-B, to locally connect the PC interface of the communication unit to the PC/laptop. The installation instructions G5663xx (enclosed with unit), topic “Commissioning“ also point out important commissioning issues.
Parameterization	Parameterize the central communication unit locally via PC interface using a PC/laptop and service tool ACS. Read the commissioning instructions C5663 for the associated procedure. The commissioning instructions PDF file is saved to the CD supplied with the unit. You can also download the PDF file from www.siemens.com/synco
Web server Local activation	Locally activate the web server following commissioning and parameterization of the central communication unit. You need a USB cable, type A-B, to locally connect the PC interface of the communication unit to the PC/laptop. The installation instructions G5663xx (enclosed with unit) stress the following issues: • Insert Ethernet card. • Update firmware. • Prepare web server data. • Start web browser with IP address 192.168.250.1 and login.
Activate via Ethernet connection	See the commissioning instructions C5663 for information on how to activate the web server via Ethernet connection (Ethernet card OZZ7E5). The PDF file of the commissioning instructions are saved on the CD supplied with the unit. You can also download the PDF file from www.siemens.com/synco

LED displays

Run (green)	Dark	No operating voltage AC 24 V or unit is starting.
	Lit	Unit ready to operate.
	Flashing	Communicating with ACS.
Local (red)	Dark	No fault (normal operating state).
	Lit	Central communication unit faults and/or signal at fault inputs "Hours run for service reached".
	Flashing	Fault unacknowledged.
System (red)		Without configured fault relay "System" in the OZW775:
	Dark	No fault (normal operating state).
	Lit	Device fault in KNX network.
		With configured fault relay "System" in the OZW775:
	Dark	No fault (normal operating state).
	Lit	Device fault in KNX network, fault relay acknowledged.
	Flashing	Device fault in KNX network, fault relay unacknowledged.
CF cards (green)	Dark	No CF card integrated.
	Lit	CF card integrated.
	Flashing	CF card is being integrated or removed (after pressing button "long" on "Config").
KNX (green/red)	Dark	No bus power supply.
	Steady green	Bus power supply available.
	Flashing green	Data exchange via KNX.
	Steady red	Unit in addressing mode.

Operating buttons Pressing the button briefly ("short") means <2 seconds, "long" >4 seconds.

Config	Short	No function.
	Long	Integrate or remove CF card (or both CF cards).
Ack	Short	Acknowledge "Local" fault, fault relay "System".
	Long	See “Button combinations“.
Report	Short	No function.
	Long	See “Button combinations“.
Modem	Short	Initializes modem, checks modem connection.
	Long	Initializes modem, sends system report to configured receivers.

Button combinations For button combinations, always press "long" (>4 seconds).

Addressing mode	Simultaneously press "Modem" and "Report" (programming mode).
Restart central unit	Simultaneously press "Modem" and "Ack".
Default state	Simultaneously press "Modem", "Ack", and "Config". **Note:** All configuration data and settings are reset. The device list and all unsent messages are deleted. History data is not deleted.

General notes

Maintenance

The OZW775 central communication unit requires no maintenance (no battery changes, no fuses). Clean the housing only with a dry cloth.

Repair

The central communication unit OZW775 cannot be repaired in the field. If faulty, return to the Repair Center of the relevant Siemens Regional Company.

Disposal

The central communication unit is subject to directive 2002/96/EEC (WEEE, Waste of Electrical and Electronic Equipment).

"Dispose of the device as electronic waste in compliance with European directive 2002/96/EEC (WEEE) and not as municipal waste. Observe all relevant national regulations and dispose of the unit correctly. Comply with all local and currently valid legislation".

Technical data

Power supply G, G0	Operating voltage Rated voltage as per EN 60950-1 Safety extra low-voltage (SELV) / protective extra low-voltage (PELV) as per Requirements for external safety isolating transformer (100 % duty, max. 320 VA)	AC 24 V ±20 % AC 24 V HD 384 EN 61558-2-6
	Frequency	50/60 Hz
	Power consumption OZW775	20 VA
	Supply line fusing	Max. 10 A, transformer on primary side
Functional data	Clock reserve	46 h typical, min. 12 h
	OZW775 device list	Up to 250 Synco devices
Digital inputs D1...D8	Number	8 (terminals D1...D8 and 1 ground connection for 2 terminals each)
	Contact sensing Voltage Current	 DC 16.5 V Typically 8 mA
	Requirements for status / fault contacts Signal coupling Type of contact Insulating strength against mains potential	 Potential-free Maintained contact AC 3750 V as per EN 60950-1
	Permissible resistance Contact closed Contact open	 Max. 200 Ω Min. 50 kΩ
Universal inputs X1...X8	Number	8 (terminals X1...X8 and 1 ground connection for 2 terminals each)
	Sensors Passive Active	 LG-Ni1000, T1, Pt1000 DC 0...10 V
	Transmitter Active	 DC 0...10 V
	Contact sensing status / impulse contacts Voltage Current	 DC 16.5 V Typically 1 mA, max. 6 mA
	Requirements for status contacts Signal coupling Type of contact Insulating strength against mains potential	 Potential-free Maintained contact AC 3750 V as per EN 60950-1

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Universal inputs
continued

Requirements for pulse inputs	
Signal cables	Recommendation: Shielded cables
Signal coupling	Potential-free
Type of contact	Impulse contact
Mechanical signal source (Reed contact)	
Max. pulse frequency	25 Hz
Min. pulse duration	20 ms (incl. max. 10 ms bounce time)
Electronic signal source	
Max. pulse frequency	100 Hz
Min. pulse duration	5 ms
Insulating strength against mains potential	AC 3750 V as per EN 60950-1
Line length for:	
Passive sensor signals LG-Ni 1000, T1, Pt 1000	Max. 300 m
Active signals DC 0…10 V	See data for signal-sending device
Status and impulse contacts	300 m

Relay outputs
Q1_,Q2_,Q3_,Q4_,Q7_,Q8_

⚠ AC 230 V

Number	
Relay with NC contact	4 (terminals Q11,Q12 Q21,Q22, Q31,Q32 Q41,Q42)
Relay with NO contact	2 (terminals Q73,Q74 Q83,Q84)
External supply line fusing	
NC contact, non-renewable fuse (slow)	Max. 3.15 A
NO contact, non-renewable fuse (slow)	Max. 5 A
Automatic line cutout	Max. 13 A
Release characteristic	B, C, D as per EN 60898
Line length	Max. 300 m
Relay contact data	
Switching voltage	Max. AC 250 V, min. AC 19 V
AC current (NC)	Max. 2 A ohm., 2 A ind. (cos φ = 0.6)
AC current (NO)	Max. 4 A ohm., 3 A ind. (cos φ = 0.6)
At 250 V	Min. 5 mA
At 19 V	Min. 20 mA
Switch-on current	Max. 10 A (1 s)
Contact life at AC 250 V	Guide values:
At 0.1 A ohm.	2×10^7 switchings (NC and NO)
At 0.5 A ohm.	2×10^6 switchings (NC) 4×10^6 switchings (NO)
At 2 A ohm.	3×10^5 switchings (NC) 6×10^5 switchings (NO)
At 4 A ohm.	3×10^5 switchings (NO only)
Red. fact. at ind. (cos φ = 0.6)	0.85 (NC and NO)
Insulating strength between:	
Relay contacts and system electronics (reinforced insulation)	AC 3750 V, as per EN 60950-1
Neighboring relay contacts (operational insulation)	AC 1250 V, as per EN 60950-1

Connecting terminals
Inputs and outputs

Screw terminals for:	
Solid / stranded wire (twisted or with ferrule)	Min. Ø 0.8 mm
1 solid / stranded wire per terminal	0.5...2.5 mm^2
2 solid / stranded wires per terminal (max. 2)	0.5...1.5 mm^2

PC interface

Interface	
Standard	USB V1.1 (universal serial bus)
Device class	RNDIS (remote network device Interface specification)
Baud rate	Max. 12 Mbps (full speed)
Connecting cable for operator station	
Cable length	Max. 5 m
Cable type for connection to PC/laptop	USB type A
Cable type for connection to OZW775	USB type B

Modem interface

Interface	
Standard	RS-232, V.24 / EIA 232D
Baud rate	Max. 115 kbaud
Connecting cable for modem	
Cable length	Max. 15 m
Cable type for connection to OZW775	D-sub 9-pin, plugs

Protocols to send messages	Protocol support for connection via	
	Leased line telephone service provider	UCP (universal computer protocol) TAP (telocator alphanum. protocol) FAX protocol (fax class 2 or 2.0)
	GSM telephone service provider, additional	AT+ (extended AT command set)
KNX bus	Interface type	TP1 (twisted pair, 1 cable pair)
	2-wire bus	CE+, CE- (non exchangeable)
	Bus load number OZW775	E 0.3
	Decentralized bus power supply, can be switched off	DC 30 V / 25 mA
	Permissible line length and cable types	See data sheet N3127
Ethernet Ethernet card OZZ7E5	Interface type	100BaseTX, IEEE 802.3 compatible
	Bit rate	10 Mbps
	Protocol	TCP/IP
	Connection	RJ45 plug (screened)
	Cable type	Standard Cat-5, UTP or STP
	Cable length	Max. 100 m
	Ethernet cable for:	
	Point-to-point connection	Crossed cable
	Multi-connection (e.g. to switchbox)	Straight cable
Ambient conditions	Operation to	IEC 60 721-3-3
	Climatic conditions	Class 3K5
	Temperature (housing and electronics)	0 ...50 °C
	Humidity	5...95 % r. h. (non-condensing)
	Mechanical conditions	Class 3M2
	Transport	IEC 60 721-3-2
	Climatic conditions	Class 2K3
	Temperature	−25...+70 °C
	Humidity	< 95 % r. h.
	Mechanical conditions	Class 2M2
Degree of protection	Degree of protection when mounting:	
	Rear wall in cabinet or control panel	IP 20 as per EN 60529
	Front panel cutout for display and operation	IP 30 as per EN 60529
	Safety class	II as per EN 60950-1
Standards	Product safety	
	For information technology equipment	EN 60950-1
	Electromagnetic compatibility	
	Immunity OZW775	EN 61000-6-2
	Immunity PC interface	EN 61000-6-1
	Emissions	EN 61000-6-3
	Home and Building Electronic System (HBES)	EN 50090-2-2
	CE conformity	
	EMC directive	2004/108/EC
	Low voltage directive	2006/95/EC
	-conformity	
	Australian EMC Framework	Radio communication act 1992
	Radio Interference Emission Standard	AS/NZS 3548
	Environmental compatibility	ISO 14001 (Environment)
	The environmental product declaration CE1E5663en contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal)	ISO 9001 (Quality) SN 36350 (Environmentally compatible products) 2002/95/EC (RoHS)
Materials and colors	Housing lower and upper section	Polycarbonate, RAL 7035 (light-gray)
Dimensions	Length x width x height (max. dimensions)	298 mm x 128 mm x 77 mm
	Size	2 as per DIN 43880

دقیق صنعت پیشرو
اتوماسیون و سیستمهای کنترل

Weight OZW775

Central communication unit OZW775	0.825 kg
With packaging, installation instructions and CD	1.185 kg
Packaging	Cardboard box

Weight OZZ7E5

Ethernet card OZZ7E5	0.018 kg
With packaging, mounting instructions	0.044 Kg
Packaging	Cardboard box

Weight OZZ7CF

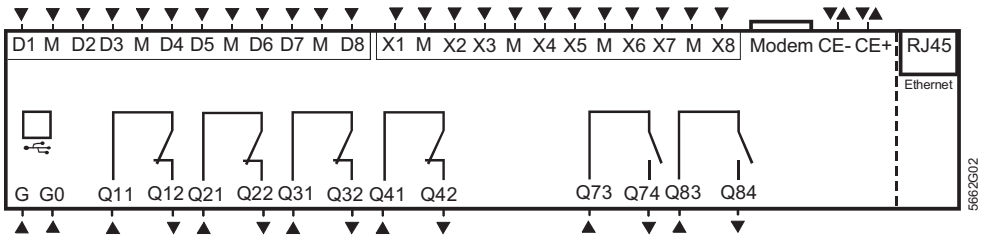
CF card OZZ7CF	0.010 kg
With packaging, operating instructions	0.022 Kg
Packaging	Plastic bag

Terms and abbreviations

Extended command language for modems: Attention+	AT+
Global system for mobile communication	GSM
Integrated services digital networks	ISDN
Internet protocol	IP
Shielded twisted pair	STP
Simple mail transfer protocol	SMTP
Short message service	SMS
Telocator alphanumeric protocol	TAP
Transmission control protocol	TCP
Universal computer protocol	UCP
Universal serial bus	USB
Unshielded twisted pair	UTP

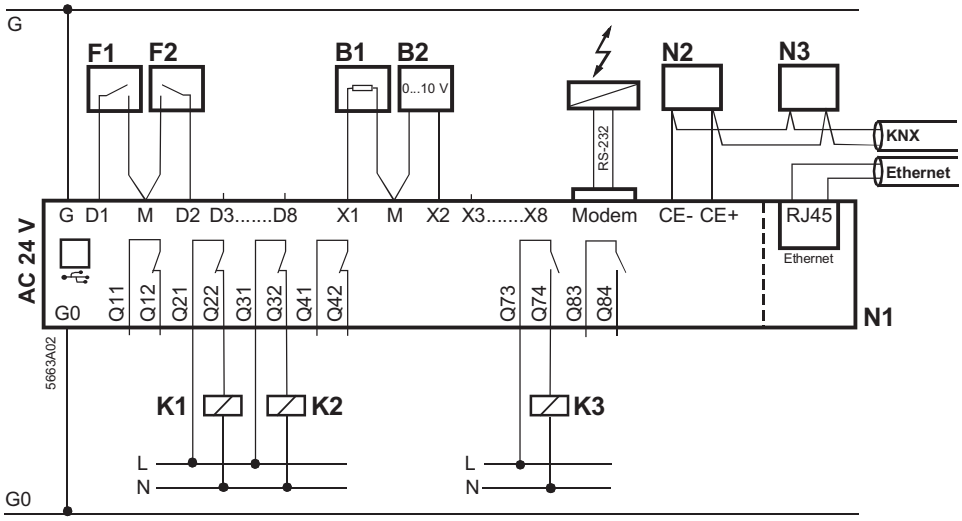
دقیق صنعت پیشرو
اتوماسیون و سیستمهای کنترل

Connection diagram



D1…D8	Digital inputs
X1…X8	Universal inputs
M	Ground for digital inputs, measuring ground for universal inputs
CE-	KNX bus connection (negative)
CE+	KNX bus connection (positive)
G, G0	Operating voltage AC 24 V
Q…	Relay outputs

Connection diagram

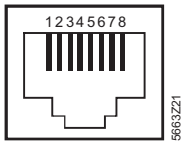


N1	Central communication unit OZW775
N2, N3	Synco device in KNX network
F1, F2	Device with potential-free contact output
B1	Sensor with passive signal
B2	Transmitter with active signal
K1, K2	Contactor (control by relay with NC contact)
K3	Contactor (control by relay with NO contact)

Pin assignment

Ethernet card OZZ7E5

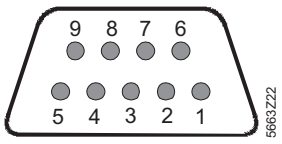
RJ45 plug (screened), standard assignment as per AT&T256.



1	Tx +	5	Not used
2	Tx –	6	Rx –
3	Rx +	7	Not used
4	Not used	8	Not used

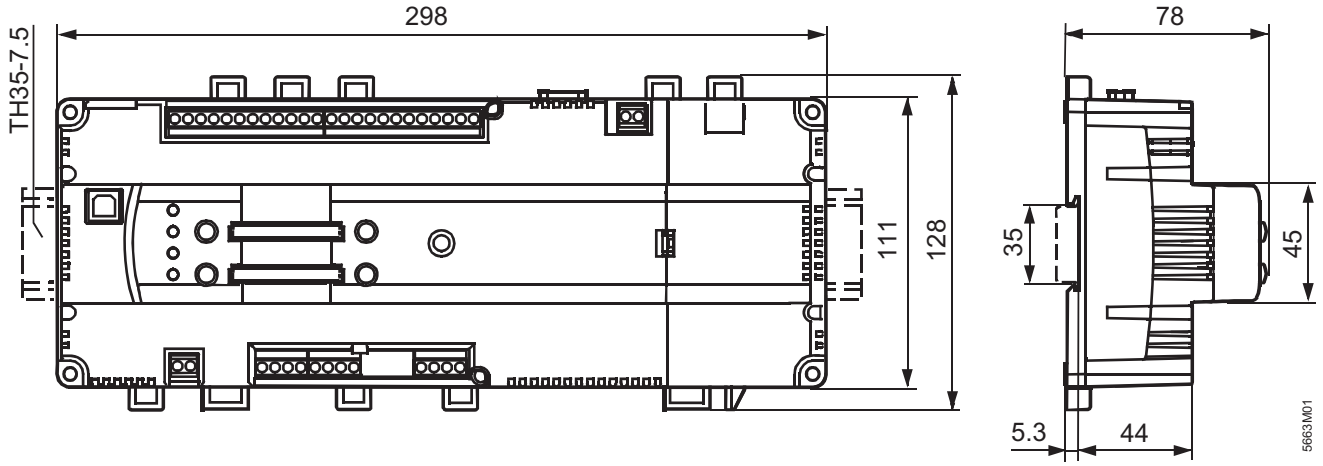
Modem connection, central communication unit

Modem connection (D-pins, 9-pin), interface definition as per RS-232.

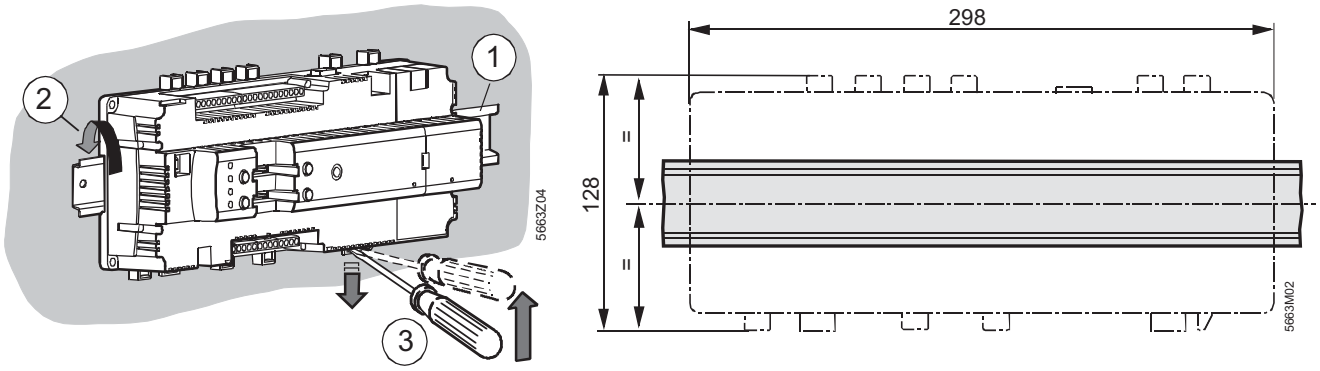


1	DCD	Data carrier detect	6	DSR	Data set ready
2	RXD	Received data	7	RTS	Request to send
3	TXD	Transmit data	8	CTS	Clear to send
4	DTR	Data terminal ready	9	NC	Not connected
5	GND	Signal ground			

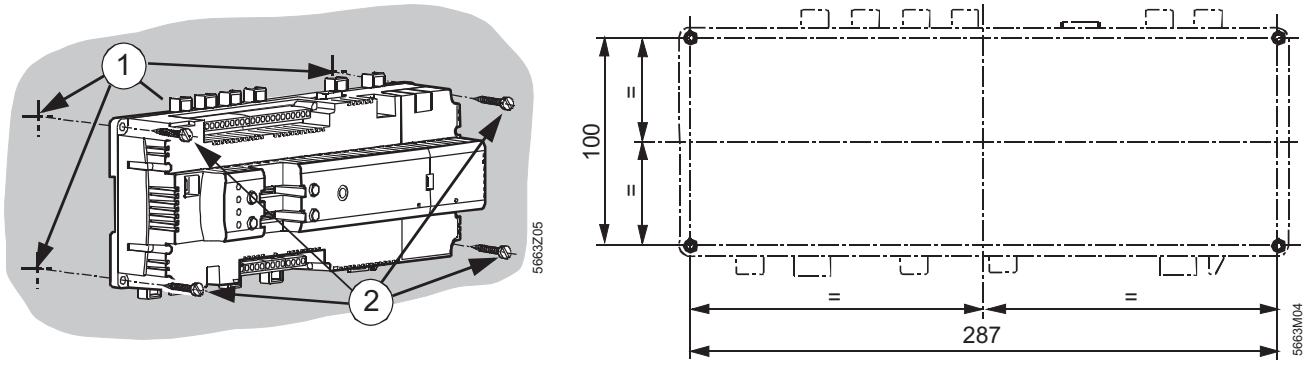
Dimensions



Standard mounting on standard rail TH 35-7.5



Screwed-on mounting



Dimensions in mm