

Produkt- und Funktionsbeschreibung



The 7KT1 900 REG communication module KNX/EIB is a DIN rail mounted device, which is installed on the left side of an electrical energy meter 7KT1 5xx on the DIN rail. It may be used with the following electrical energy meters:

7KT1 531	Electrical energy meter, single phase, direct meter 80A, 2 tariffs, 2 module units (MU)
7KT1 533	Electrical energy meter, single phase, direct meter 80A, 2 tariffs, no zero setting, MID, 2 MU
7KT1 540	Electrical energy meter, three phase, CT-meter 5A, 2 tariffs, 4 MU
7KT1 542	Electrical energy meter, three phase, CT-meter 5A, 2 tariffs, no zero setting, MID, 4 MU
7KT1 543	Electrical energy meter, single phase, direct meter 80A, 2 tariffs, 4 MU
7KT1 545	Electrical energy meter, single phase, direct meter 80A, 2 tariffs, no zero setting, MID, 4 MU
7KT1 546	Electrical energy meter, single phase, direct meter 125A, 2 tariffs, 6 MU
7KT1 548	Electrical energy meter, single phase, direct meter 125A, 2 tariffs, no zero setting, MID, 6 MU

The data are transferred via IR interface between the energy meter and the KNX/EIB communication module. The connection to the KNX/EIB module is made about a bus terminal.

Application programs

The 7KT1 900 communication modul KNX/EIB is parameterizable with ETS 3.0 and needs for single phase electrical energy meters 7KT1 5xx the application program "01 07 energy 1-phase 802801" and for und für 3-phase electrical energy meters 7KT1 5xx the application program "01 07 energy 3-phase 802901".

01 07 energy 1-phase 802801

- Active energy, imported, tariff 1
- Active energy, imported, tariff 2
- Active energy, exported, tariff 1
- Active energy, exported, tariff 2
- Reactive energy, imported, tariff 1
- Reactive energy, imported, tariff 2
- Reactive energy, exported, tariff 1
- Reactive energy, exported, tariff 2
- Active power
- Reactive power

This application program applies to all single phase electrical energy meters 7KT1 5xx.

01 07 energy 3-phase 802901

- Active energy, imported, tariff 1 (Phase 1, 2, 3 and Total)
- Active energy, imported, tariff 2 (Phase 1, 2, 3 and Total)
- Active energy, exported, tariff 1 (Phase 1, 2, 3 and Total)
- Active energy, exported, tariff 2 (Phase 1, 2, 3 and Total)
- Reactive energy, imported, tariff 1 (Phase 1, 2, 3 and Total)
- Reactive energy, imported, tariff 2 (Phase 1, 2, 3 and Total)
- Reactive energy, exported, tariff 1 (Phase 1, 2, 3 and Total)
- Reactive energy, exported, tariff 2 (Phase 1, 2, 3 and Total)
- Active power (Phase 1, 2, 3 and Total)
- Reactive power (Phase 1, 2, 3 and Total)

This application program applies to all 3-phase electrical energy meters 7KT1 5xx.

Example of operation



Installation

- The DIN-rail device can be installed in distribution boards, surface or flush mounted, or on any DIN rail complying with EN 60715-TH35-7,5.



WARNING

- The device must be mounted and commissioned by an authorised electrician.
- The device must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Technical data

Power supply

- Bus voltage: supplied via the KNX/EIB bus line
- Average Bus current: 7 mA without bus activity, 30 mA with normal bus activity

Operating Elements

Button for switching between normal mode and addressing mode for transferring the physical address.

Display

LED for indicating normal mode (LED Off) or addressing mode (LED On); it turns off automatically after transferring the physical address

Connections

- KNX bus line: bus terminal block
- Energy meter: IR window (on right side)

Mechanical data

- Housing: plastic
- Dimensions: DIN rail mounted device, width: 1 module unit (1 module unit = 18 mm) height: 70 mm
- Weight: approx. 45 g
- Thermal load: ca. 243 kJ

Electrical safety

- Degree of pollution (in acc. with IEC 60664-1): 2
- Protection type (in acc. with EN 60529): IP 20
- Protection class (acc. IEC 61140): III
- Overvoltage category (in acc. with EN 60664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with EN 50090-2-2

EMV-requirements

according EN 61000-6-2, EN 61000-6-3 und IEC 60950

Environmental conditions

- Climatic resistance: EN 50090-2-2
- Ambient operating temperature: 0 ... + 55 °C
- Storage temperature: - 25 ... + 70 °C
- Relative humidity (not condensing): 5 % to 80 %

Reliability

- Failure rate: 420 fit at 40°C

Markings

KNX EIB

CE-marking

In accordance with the EMC guideline and the low voltage guideline.

Location and Function of the Display and Operating Elements

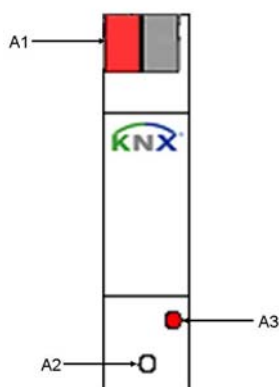


Figure 1: Location of the display and operating elements

- A1 Bus terminal block for connection to the bus line
- A2 Button for switching between normal mode and addressing mode for transferring the physical address.
- A3 LED for indicating normal mode (LED Off) or addressing mode (LED On); it turns off automatically after transferring the physical address

Mounting and wiring

The device can be installed in distribution boards, surface or flush mounted, or on any DIN rail complying with EN 60715-TH35-7,5.

The connection to the bus line is established via the bus connector terminal (red-black) on the top side.

Mounting and dismounting the device:

see figure 2

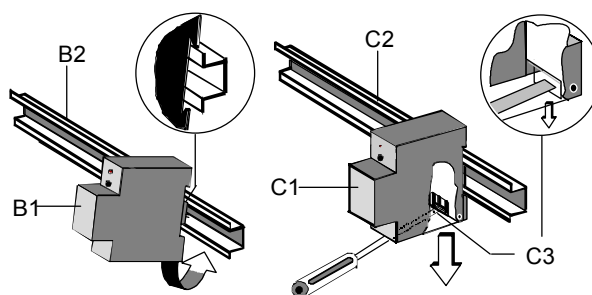


Figure 2: Mounting and dismounting of the device

Connecting and disconnecting the bus line:

see figure 3

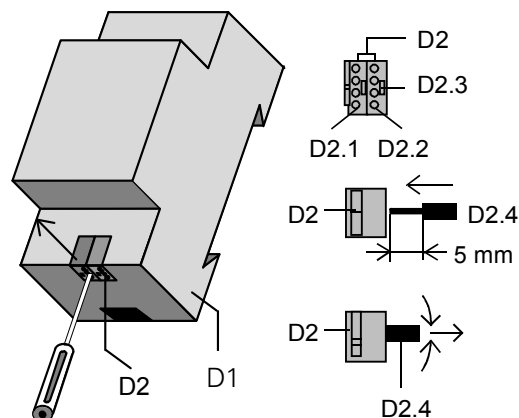
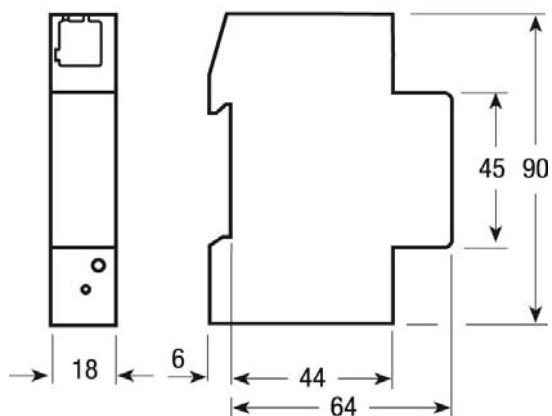


Figure 3: Connecting and disconnecting the bus line

Dimension drawing

Dimensions in mm



General Notes

- The operating instructions must be handed over to the client.
- A faulty device shall be sent with a Return Good Note for Service provided by the appropriate Siemens sales office to the following address:
SIEMENS AG, Siemensstr. 10, D-93055 Regensburg
- If you have further questions concerning the product please contact our technical support.

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E-Mail: support.automation@siemens.com

www.siemens.de/automation/support-request