SIEMENS

USA

Technical Manual

Bus Coupling Unit (BTM) UP 117C12

5WG1117–2CB12

Product and Applications Description

Bus Coupling Units (BTM) provide the connection to the bus for DELTA switches and wall box mounted control devices with Bus Transceiver Interface (BTI).

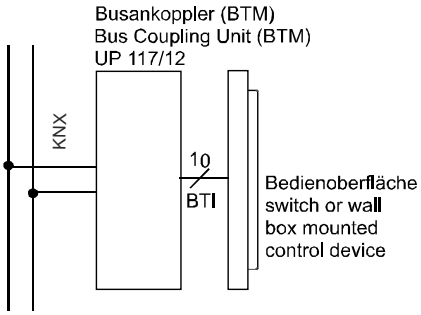
The Bus Coupling Unit (BTM) comes with a mounting frame for NEMA type wall boxes.

Application Program

The Bus Coupling Unit (BTM) does not require an application program.

More information www.siemens.com/gamma-td

Example of Operation



Technical Specifications

Power supply
Input voltage
- Bus: DC 24 V (DC 21 ... 30 V)

Output voltage and current via BTI
- DC 5 V, 10 mA
- DC 20 V, 25 mA

Operator elements
The device has no operator elements.

Display elements
The device has no display elements.

Connections
- Bus line : screwless bus connection block (red-black) 0.6…0.8 mm Ø single core
- 10-pin socket (BTI): for connection of DELTA switches and wall box mounted control devices with BTI plug

Physical specifications
- housing: plastic
- dimensions (L x W x D): 110 x 64 x 18 mm
- weight: approx. 60 g
- installation: mounted with mounting frame on NEMA type wall boxes

Electrical safety
- degree of pollution (according to IEC 60664-1): 2
- protection (according to EN 60529): IP 20
- overvoltage class (according to IEC 60664-1): III
- bus: safety extra low voltage SELV DC 24 V
- the device complies with EN 50428

Electromagnetic compatibility
complies with EN 50428, EN 61000-6-2 and EN 62479

Environmental specifications
- climatic conditions: EN 50090-2-2
- ambient temperature operating: - 5 ... + 45 °C
- ambient temperature non-op.: - 25 ... + 70 ° C
- relative humidity (non-condensing): 5 % to 93 %

Markings
EIB, KNX

Listings and Certifications

CE mark
complies with the EMC regulations (residential and functional buildings) and low voltage regulations

Electromagnetic compatibility

USA:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

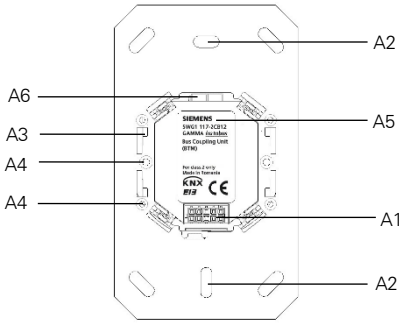
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules. Changes or modifications not expressly approved by Siemens Schweiz AG could void the user's authority to operate the equipment.

United States representative:
https://new.siemens.com/us/en/products/buildingtechnologies/home.html

Canada:
CAN ICES-3(B)/NMB-3(B)

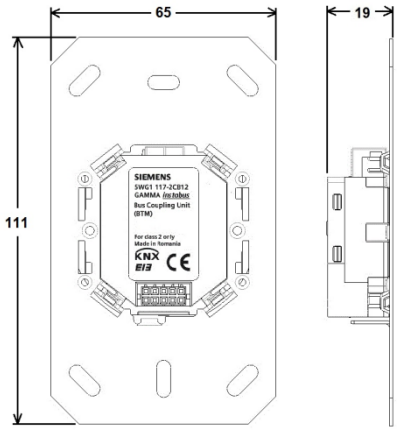
Location and Function of the Display and Control Elements



A1 Bus Transceiver Interface (BTI) socket for connecting an application unit with BTI plug
A2 Slots for attaching the Bus Coupling Unit (BTM) to wall boxes
A3 Slots for mounting application unit with guide and mounting clamps
A4 Thread for mounting screws (for additional support, e.g. for securing the application unit against theft)
A5 Type plate
A6 Bus connection block for single core conductors with Ø 0.6 ... 0.8 mm

Dimension Diagram

Dimensions in mm



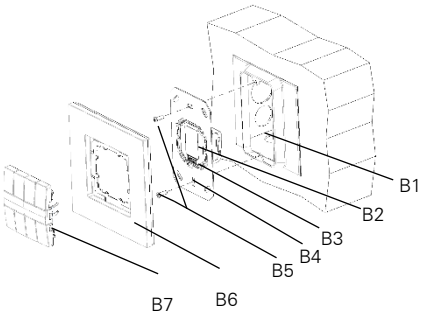
⚠ WARNING

Class 2 power wiring only.

The device must be mounted and commissioned by an authorized electrician.

The prevailing safety rules must be heeded.

The device must not be opened.
A device suspected faulty should be returned to the local Siemens sales office or distributor.



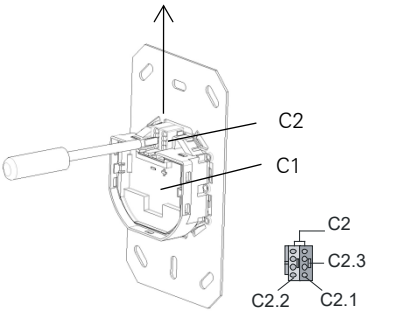
B1 NEMA wall box (minimum internal width: 50mm)
B2 Bus coupling unit (BTM)
B3 Bus Transceiver Interface (BTI)
B4 Mounting screw holes
B5 Mounting screws
B6 Design frame
B7 Wall switch

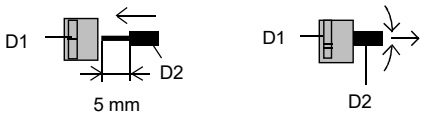
Mounting

General description
The connection to the bus line is established via bus connection block (screwless plug-in terminals for single core conductors). The application unit is slipped onto the bus coupling unit (BTM) via guide and mounting clamps and, depending on the device type, fastened with screws.

Note

The Bus Coupling Unit (BTM) must be mounted with the Bus Transceiver Interface (BTI) situated at the bottom. Thus, the application unit will be oriented properly when slid onto the BTI. Use bus devices with mounting screws only to achieve a permanently stable contact at the BTI.





Wiring

Slipping off/on bus connection blocks

The bus connection block (C2) is situated on the back of the bus coupling unit (BTM) (C1).
It consists of two components (C2.1 and C2.2) with four terminal contacts each. Take care not to damage the two test sockets (C2.3) by accidentally connecting them to the bus cable or with the screw driver (e.g. when attempting to unplug the bus connection block).

Slipping off bus connection blocks
- Carefully put the screw driver to the wire insertion slit of the bus connection block's grey component (C2.2) and
- pull the bus connection block (C2) from the bus coupling unit (BTM) (C1).

Note

Don't try to remove the bus connection block from the bottom side. There is a risk of shorting-out the device!

Slipping on bus connection blocks
- Slip the bus connection block (C2) onto the guide slot of the BTM (C1) and
- press the bus connection block (C2) down to the stop.

Connecting and Disconnecting bus cables

Connecting bus cables
- The bus connection block (D1) can be used with single core conductors Ø 0.6...0.8 mm.
- Remove approx. 5 mm of insulation from the conductor (D2) and plug it into the bus connection block (D1) (red = +, black = -)

Disconnecting bus cables
- Unplug the bus connection block (D1) and remove the bus cable conductor (D2) while simultaneously wiggling it.