# 1 C2C-MOD-S GEN 2

Coupling module as Modbus Server

## 1.1 Front view


Fig. 1: Front view

## 1.2 Features

- Pre-configured Modbus Server for coupling an external Modbus Client to Wurm controllers
- Modbus RTU open protocol
- Querying of actual values, setpoints and status information for each cold location
- Simulation mode for testing the Modbus communication
- Support for higher baud rates on the Wurm CAN communication bus (C-BUS) adjustable by DIP switch

### Version and validity of the documentation

| Version | Date | Functional upgrade |
|---|---|---|
| V2.0.0 and higher | 2026-01 | Documentation status |

Any software versions not listed are special solutions for individual projects and are not described in detail in this document. This document will automatically become invalid when a new technical description is created.
**Manufacturer:** Wurm GmbH & Co. KG Elektronische Systeme, Morsbachtalstraße 30, D-42857 Remscheid
You can find more information on our website at www.wurm.de.

## 1.3 Safety instructions

### Writing conventions

**CAUTION**

- Avoid the described hazard: Otherwise, **minor** or **medium** bodily injury or property damage will result.

**WARNING**

- Avoid the described hazard: Otherwise, **electric voltage** represents a danger that could lead to **fatal** or **serious** bodily injury.

### For your safety

For safe operation and to avoid personal injury and equipment damage through operating error, always read these instructions, become familiar with the device, and follow all safety instructions on the product and in this document, as well as the safety guidelines of Wurm GmbH & Co. KG Elektronische Systeme. Keep these instructions ready to hand for quick reference and pass them on with the device if the product is sold.

Wurm GmbH & Co. KG Elektronische Systeme accepts no liability in the case of improper use or use for purposes other than the intended purpose.

| | |
|---|---|
| **Target group** | This manual is intended for “service technicians”. |
| **Intended use** | Coupling module **C2C-MOD-S GEN 2** connects an external Modbus client to Wurm controllers. It is designed exclusively for operation inside a control cabinet or control box. |

**WARNING**

**DANGER TO LIFE FROM ELECTRIC SHOCK AND/OR FIRE!**

- Switch off the power to the entire plant when carrying out installation, wiring or disassembly work! Otherwise, mains voltage and/or external voltage may still be present, even if the control voltage is switched off!
- The wiring of the device must be carried out only by qualified electricians!
- Use the correct tools for any work!
- Check the entire wiring after connection!
- Observe the maximum loads for all connections!
- Never expose the device to moisture, for example due to condensation or cleaning agents!
- Stop operating the device if it is faulty or damaged and its safe operation is compromised!
- Do not open the device!
- Do not repair the device yourself! If the device requires repairs, send it in with an exact description of the fault!

**CAUTION**

**FAULTS CAN OCCUR IF THERE IS ELECTROMAGNETIC INTERFERENCE!**

- Always use shielded data cables and place them far away from power lines!

Wurm Infocenter 

paperless info 

## 1.4 Connection diagram

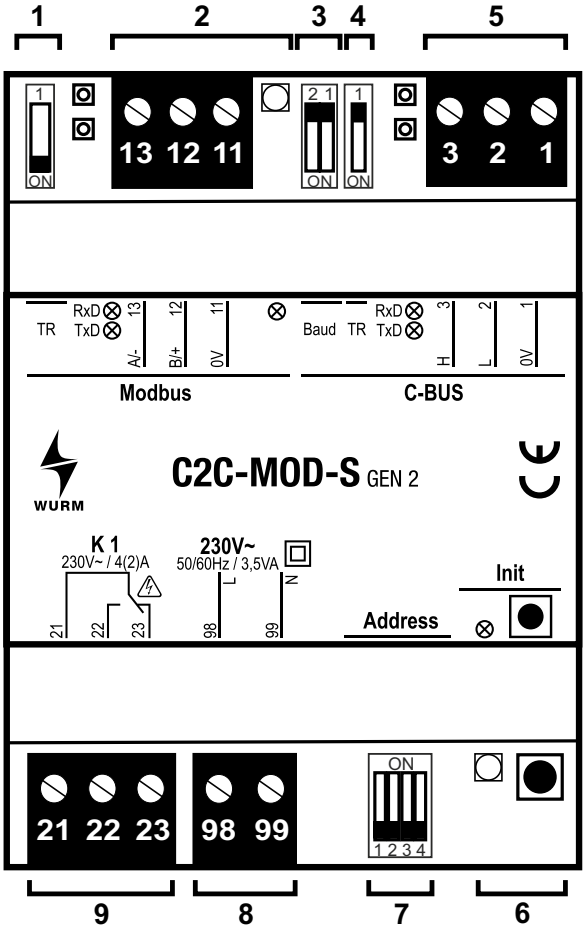


Fig. 2: Connection diagram

| Item | Designation | Function |
|---|---|---|
| 1 | Modbus termination | Factory setting: deactivated (switch setting “OFF”) |
| 2 | Modbus interface | 3-conductor Modbus interface (A/- = Modbus A/-, B/+ = Modbus B/+, 0V = Modbus 0V) |
| 3 | DIP switch | Setting the C-BUS baud rate: see PH<br>Factory setting: 20kBd (switch setting 1…2 “OFF”) |
| 4 | C-BUS terminating resistor | Factory setting: deactivated (switch setting “OFF”) |
| 5 | C-BUS interface | Data communication (H = CAN high, L = CAN low, 0V = CAN-0V) |
| 6 | Init | Init key: activates the simulation mode (see PH)<br>Init LED: see PH |
| 7 | DIP switch | Sets the Modbus-side data transmission: see PH<br>Factory setting: switch setting 1…4 “OFF” |
| 8 | Power supply | L = 230V~, 50/60Hz, 3.5VA<br>N = neutral conductor |
| 9 | Alarm relay K 1 | Change-over contact, 230V~, 4(2)A |

## 1.5 Installing

The device is designed for top-hat rail installation inside a control cabinet or a control box. The housing has the DIN 43880 standard dimensions. The device can be positioned immediately adjacent to another device without gaps.

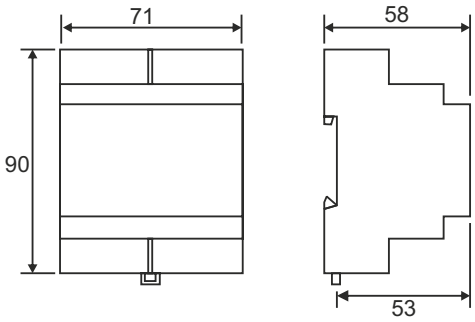


Fig. 3: Dimensions

**WARNING**

**DANGER TO LIFE FROM ELECTRIC SHOCK AND/OR FIRE!**

- Switch off the power to the entire plant before installing! Otherwise, mains voltage and/or external voltage may still be present, even if the control voltage is switched off!

✓ The entire plant must be free of voltage.

1. **(A)** Place the device with the leading edge at an acute angle to the top-hat rail.
2. **(B)** Push the device downwards onto the top-hat rail.
   ▶ The device snaps into place with the fastening safety catch **(a)** on the top-hat rail.

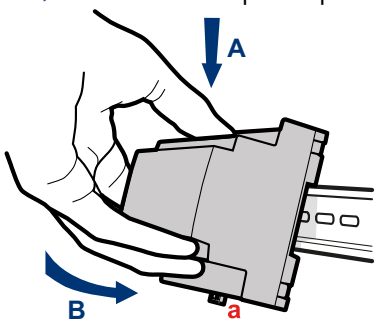


Fig. 4: Top-hat rail installation

## 1.6 Technical data

| | |
|---|---|
| **Power supply** | 230V~, +10% / -15%, approx. 3.5VA |
| **Display** | 1 x green/red LED, operation<br>1 x green/red LED, Modbus communication<br>2 x green LED, CAN bus data traffic (CAN Tx, CAN Rx)<br>2 x green LED, Modbus data traffic (Modbus Tx, Modbus Rx) |
| **Alarm relays** | Change-over contacts, 230V~, 4(2)A |
| **C-BUS communication** | 3-conductor CAN bus interface, galvanically isolated, switchable terminating resistor, baud rate adjustment |
| **Modbus communication** | 3-conductor Modbus interface, fully switchable termination |
| **Housing** | Plastic |
| **Dimensions** | (W x H x D) 71 x 90 x 58mm (DIN 43880) |
| **Fastening** | Top-hat rail TH 35-15 or TH 35-7.5 (DIN EN 60715) |
| **Ambient temperature** | Operation: 0...+55°C, storage: -25...+70°C |
| **Weight** | Approx. 390g |
| **CE conformity** | - 2014/30/EU (EMC Directive)<br>- 2014/35/EU (Low Voltage Directive) CE |
| | RoHS II |