

Front view



Features

- Modbus RTU open protocol
- Freely configurable coupling module for connection of Modbus slave devices
- Monitoring of individual data points within selected limits and with alarm signals
- Monitoring of Modbus communication for error diagnosis
- Monitoring of connected devices
- Recording of freely selectable data points, max. 200
- Supports 32-bit integers and floating point numbers
- Can write up to 16 data points (write process data) into the Modbus
- Can read up to 20 data points (read process data) from the Modbus

Writing conventions

Symbol	Meaning
 CAUTION	Avoid the described hazard: otherwise minor or medium physical injury or damage to property will result.
 WARNING	Avoid the described hazard: otherwise there is danger from electric voltage that could lead to death or serious physical injury.

For your safety

For safe operation and to avoid personal injury and equipment damage through operator 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 case of improper use or use for other than the intended purpose.

Target group	These instructions are intended for "service technicians".
Intended use	The C2C-Modbus coupling module is used to connect Modbus devices in a master-slave configuration.



WARNING

Danger to life from electric shock and/or fire!

- Switch off the power to the entire plant when installing, wiring or removing. Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off.
- Only qualified electricians are permitted to wire the device.
- Use only the correct tools for all work.
- Check all wiring after connection.
- Take note of the maximum loads on all connections.
- Never expose the device to moisture, for example due to condensation or cleaning agents.
- Take the device out of operation if it is faulty or damaged and is therefore compromising safe operation.
- 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

Electromagnetic interference can cause faults!

- Use only shielded data lines and place them far away from power lines.

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Software revisions and validity of documentation

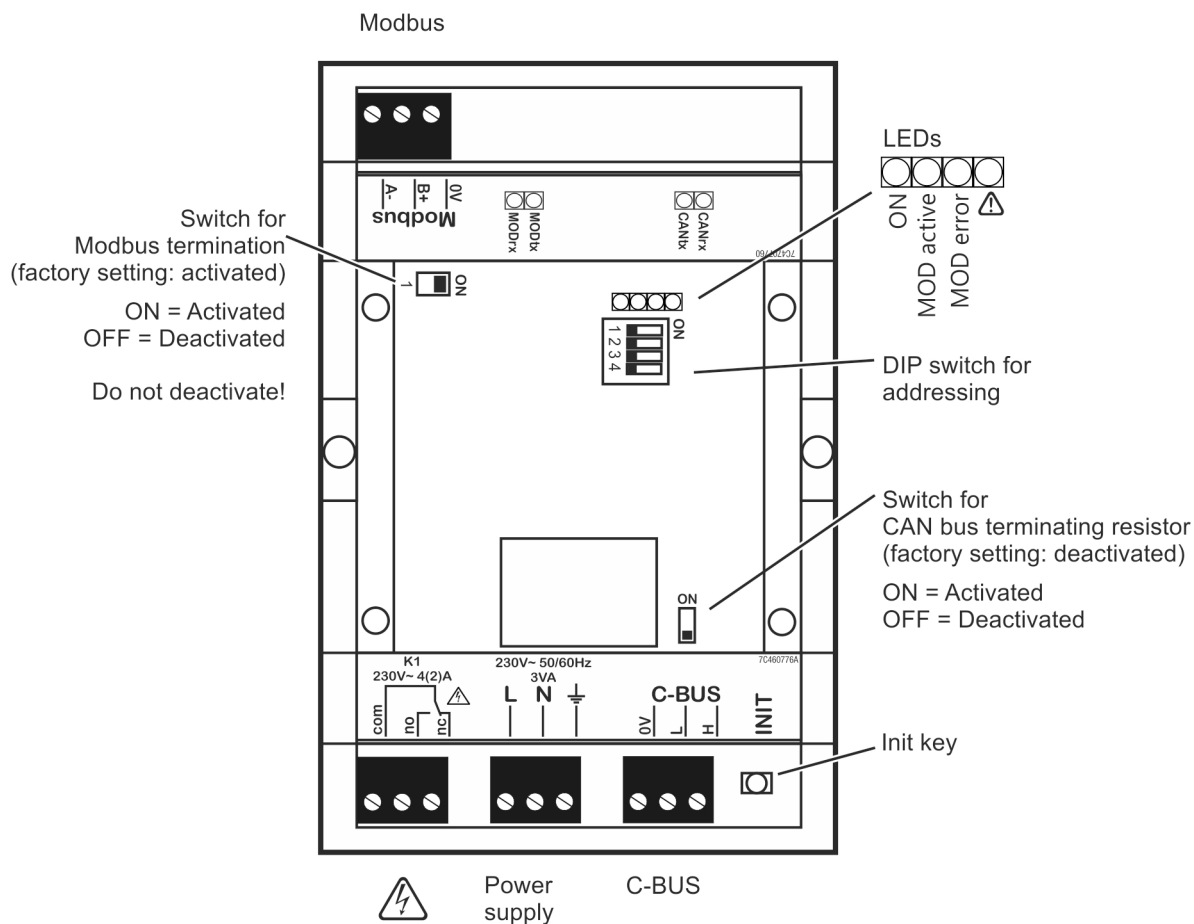
Software version		
V1.7.4	2019-04	Documentation status

Any software versions not listed are special solutions for individual projects and are not described in detail in this document. This document automatically ceases to be valid if a new technical description is issued.

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You can find more information on our website at www.wurm.de

Connection diagram



NOTE

- The Modbus termination is activated ex works and may not be deactivated!
- From the factory, the CAN bus terminating resistor is deactivated and can be activated depending on the integration of the coupling module in the C-BUS.

LED displays

LED	Status	Colour	Function
	● Lit continuously	Red	Alarm
MOD error	● Lit continuously	Orange	Modbus error
MOD active	⚡ Flashing	Green	Modbus communication active
ON	● Lit continuously	Green	Operation
CANtx	⚡ Flashing	Green	Data are being received over the CAN bus.
CANrx	⚡ Flashing	Green	Data are being sent over the CAN bus.
MODtx	⚡ Flashing	Green	Data are being received over the Modbus.
MODrx	⚡ Flashing	Green	Data are being sent over the Modbus.

Addressing

The C-BUS address can be set in the range 105-120 using the address switch.

In the delivered state, address 105 is set (switch 1-4 set to OFF).

The following table shows the switch settings and the resulting C-BUS addresses.

Switch setting	C-BUS address	Switch setting	C-BUS address	Switch setting	C-BUS address
	105		111		117
	106		112		118
	107		113		119
	108		114		120
	109		115		
	110		116		

Technical data

Power supply	230V~, +10% / -15%, approx. 3VA
Display	1 x green LED, operation 1 x green LED, Modbus communication 1 x orange LED, Modbus error 1 x red LED, alarm 4 x green LED, Modbus and CAN bus data traffic
Alarm relays	Change-over contact, 230V~, 4(2)A
C-BUS communication	3-wire CAN bus interface, galvanically isolated, switchable terminating resistor
Modbus communication	3-wire Modbus interface, galvanically isolated, switchable complete termination
Housing	Plastic
Dimensions	(WxHxD) 90 x 127 x 50mm
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	About 350g
CE conformity	– 2014/30/EU (EMC Directive) – 2014/35/EU (Low Voltage Directive) 
EAC conformity	– TR CU 004/2011 – TR CU 020/2011 
	RoHS II
Valid from	Version 1.7.4