1 CAN bridge

For electrical isolation of 2 bus segments

1.1 Front view

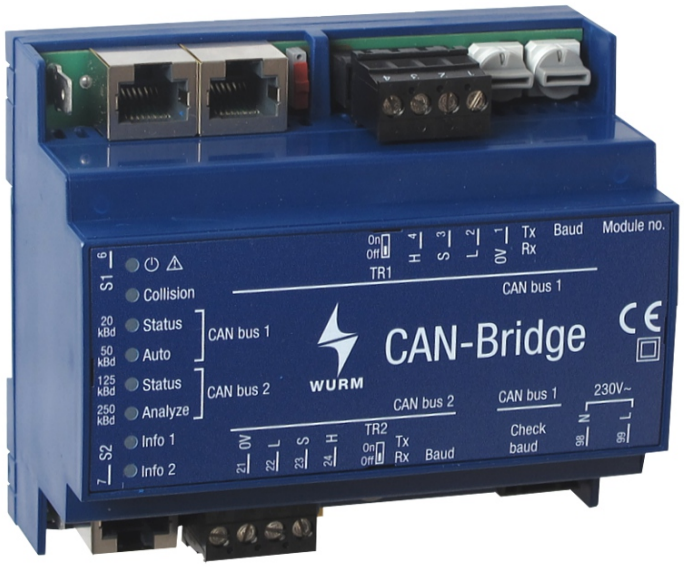

Fig. 1: CAN bridge front view

1.2 Features

- Integrated 230V power supply
- Electrical isolation of two CAN bus segments
- Active suppression of incomplete packets
- Extends the number of possible CAN bus topologies
- Extends the total maximum possible CAN bus length
- Integrated, switchable CAN bus terminating resistors
- Smart data filter
- Different baud rates possible on both CAN bus segments
- Simple handling
- Connection to the Wurm system by communication bus (CAN bus) and FRIGODATA XP

1.3 Scope of supply

- 1 x product information
- 3 x screw terminal sockets
- 1 x terminal strip with end cover plate
- 2 x short PE connection leads
- 1 x adapter ZCB-ADP/CB-PI
- 1 x RJ45 patch cable

1.4 Safety instructions

Writing conventions


Warning!

WARNING!

- Avoid the described hazard: Otherwise there is danger from **electric voltage** that can lead to death or **serious** bodily injury.


Caution!

CAUTION!

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

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	This manual is intended for "service technician" personnel.
Intended use	The CAN bridge is used for the electrical isolation of two bus segments.


Warning!

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!
- The wiring of the device should be carried out only by a qualified electrician!
- 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 required, send it in for repair with an exact description of the fault!


Caution!

CAUTION! FAULTS CAN OCCUR IF THERE IS ELECTROMAGNETIC INTERFERENCE!

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

Software revision and validity of documentation

Software version	
V1.1.0 - 2018-10	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.
Manufacturer: Wurm GmbH & Co. KG Elektronische Systeme, Morsbachtalstraße 30, D-42857 Remscheid
For further information, see our website at www.wurm.de

1.5 Installing the device

The device is intended for top-hat rail mounting and is suitable for operation in fuse boxes and distribution cabinets. The devices can be positioned immediately next to another without gaps.

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

- Switch off the power to the entire plant before installing! Otherwise a mains voltage and/or external voltage may still be present even if the control voltage is switched off!
- Take note of the maximum loads on all connections!


Warning!

✓ The entire system 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 the top-hat rail with mounting catch **(a)**.
   ▶ You can now connect the device.

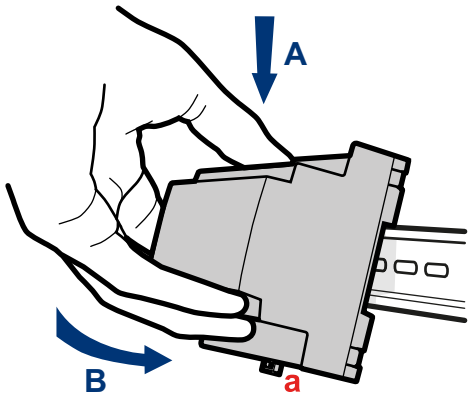

Fig. 2: Top-hat rail installation

1.6 Connection diagram

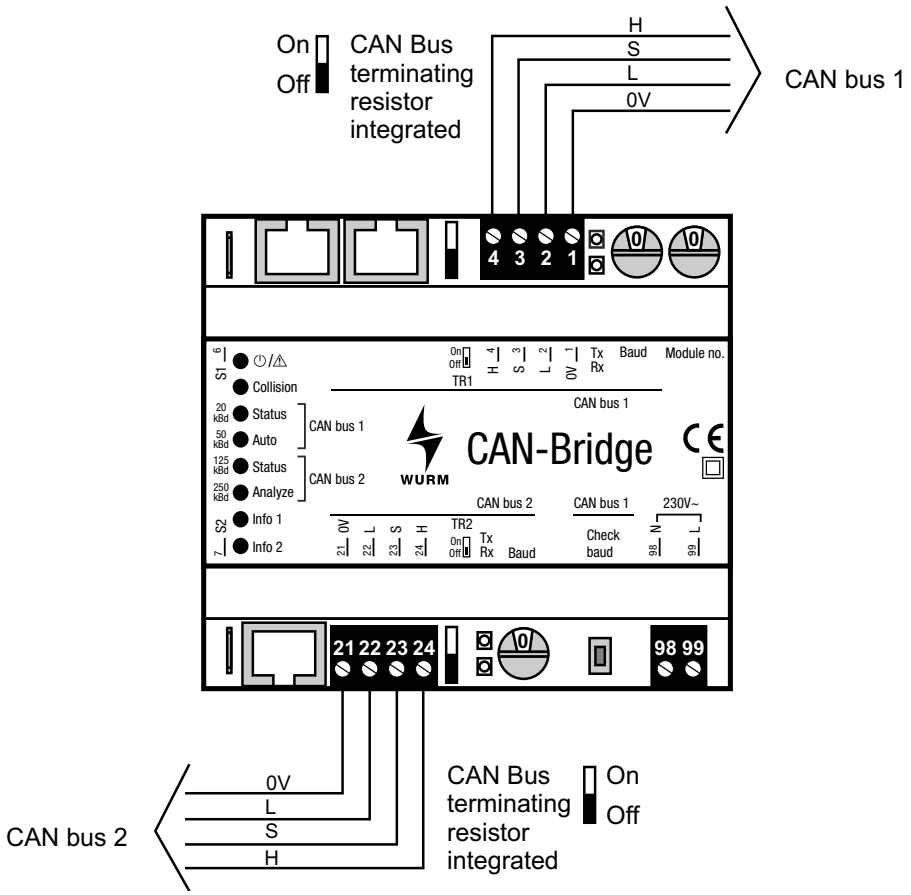

Fig. 3: Connection diagram

NOTE

- The assignment of the Wurm CAN bus is different from the CAN bus assignment for plug-in refrigeration units. Adapter ZCB-ADP/CB-PI is available for connecting plug-in refrigeration units. More details of the adapter can be found in the related product information.

1.7 Technical data

Power supply	230V~, +10% / -15%, 50/60Hz, 4.5VA
Communication CAN bus 1	3-wire CAN bus interface, electrically isolated, screw terminals 2.5mm² / 2 x RJ45 sockets and switchable terminating resistor
Communication CAN bus 2	3-wire CAN bus interface, screw terminals 2.5mm² / RJ45 socket and switchable terminating resistor
Housing	Plastic
Dimensions	(WxHxD) 106 x 89 x 56mm (DIN 43880)
Fastening	Top-hat rail TH 35-15 or TH 35-7.5 (DIN EN 60715)
Ambient temperature	Operation: -20...+55°C, storage: -25...+70°C
Degree of protection	IP20
Weight	About 364g
CE conformity	EU conformity as defined in - 2014/30/EU (EMC Directive) - 2014/35/EU (Low Voltage Directive)
	RoHS II
Valid from	Version 1.1.0