Front view

Field module for building technology solutions

Features

- Inputs and outputs
  - Constant output 0...10V
  - PWM output 0…10V
  - 1 x analogue input 0…10V / 4…20mA
  - 1 x analogue input 4...20mA
  - 3 x digital input 24V=
  - 4 x temperature sensor (TRK277, DGF980)
  - 3 x relay (2 x NC contact, 1 x NO contact)
- Connection of an external display
- Emergency program in case of bus errors
- No parameters to be set on the device
- Bus connection via patch cable and screw terminals (4-pin)
- Connection to master module via field bus (CAN bus)

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 FGT004 is a field module for building technology solutions.

⚠ **WARNING!**

Danger of death from electric shock!

- Switch off the power to the entire plant when carrying out installation, wiring or removal work. Otherwise a mains 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 only the correct tools for all work.
- Check all wiring after connection.
- 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.

⚠ **CAUTION!**

Danger of fire if connections are overloaded!

- Take note of the maximum loads on all connections.

Electromagnetic interference can cause faults!

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

Damage to the device if handled incorrectly!

- 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.

Software revisions and validity of documentation

Software version		Functional upgrade	Page
V4.2.0	2016-09	Basis of documentation	

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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For further information, see our website at www.wurm.de

Circuit diagram

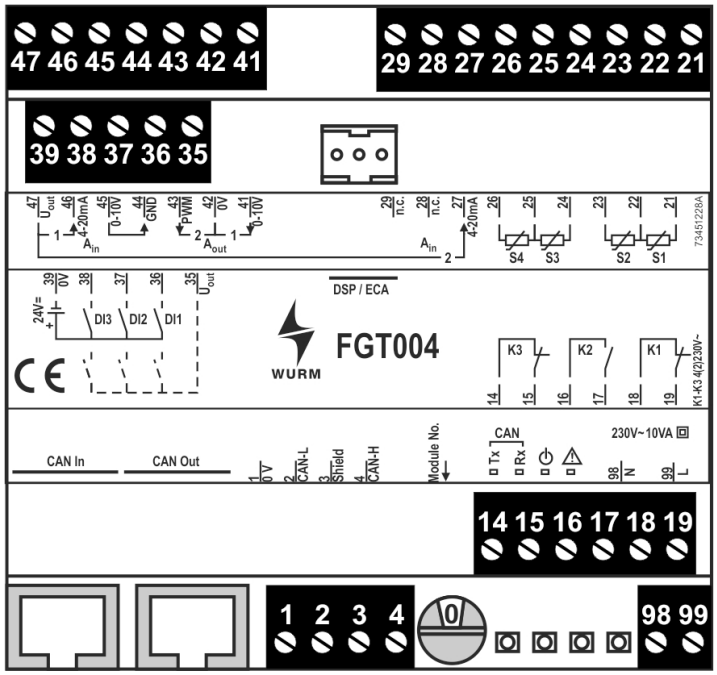

Fig. 1: FGT004 circuit diagram

Installing

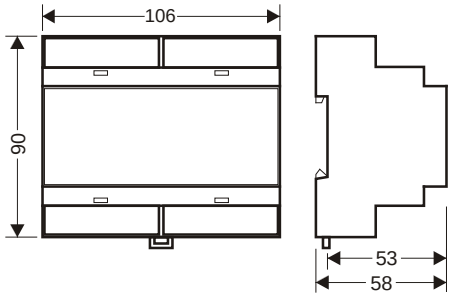

Fig. 2: FGT004 dimensions

This device is designed for top-hat rail installation. The housing is of a standard size and is also suitable for installation in fuse boxes, distribution switch boxes or electric boxes of refrigeration units.

The devices can be positioned next to one another without gaps.

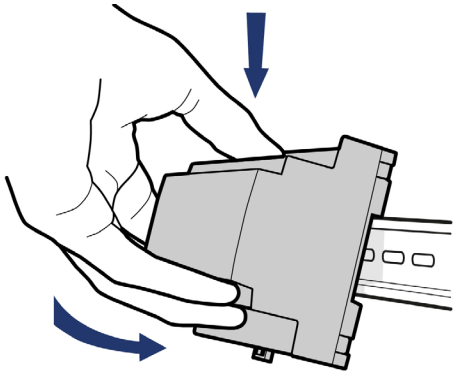

Fig. 3: FGT004 top-hat rail installation

Top-hat rail installation

1. Place the module with the upper guide edge on the top-hat rail.
2. Press it gently downward until it engages with the fastening safety catch on the rail.

Set address

To correctly register the FGT004 on the bus, you must assign it a unique address using the rotary switch. This is a requirement for functioning communication with the master module.

Addresses 0-F can be set with the rotary switch. As such, 16 field modules can be connected to the bus.

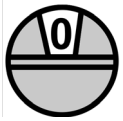

Fig. 4: FGT004 rotary switch

Technical data

Supply voltage	230V~, +10% / -15%, max. 10VA
Display	1 x green LED, operating voltage 2 x green LED, CAN bus data traffic (CAN Tx, CAN Rx) 1 x red LED, flashes in case of fault
Communication	3-wire CAN bus interface, shielded, galvanically isolated, Screw terminals or RJ45 socket (2x)
Temperature sensor	4 x TRK277 / DGF980
Analogue input	1 x 4…20mA or 0…10V=, 22V= supply voltage 1 x 4...20mA, 22V= supply voltage
Digital inputs	24V=, +20% / -10%, approx. 5mA per input
Output relay	2 x NC contact, 230V~, 4(2)A 1 x NO contact, 230V~, 4(2)A
Display / circuit breaker connection	1 x socket for prefabricated cable to display DSP002, DSP100, DSP-LCD, DSP-Booster or for controlling an ECA970 circuit breaker
Analogue output	1 x 0...10V=, non-isolated, max. load 10mA
PWM output	1 x 0...10V=, non-isolated, max. load 10mA
Dimensions	(WxHxD) 106 x 90 x 58mm, DIN 43880
Fastening	Mounting rail DIN EN 50022, 35 x 15
Ambient temperature	Operation: 0...+55°C, storage: -25...+70°C
Weight	About 275g
CE conformity	EU conformity as defined in – 2014/30/EU (EMC Directive) – 2014/35/EU (Low Voltage Directive)
	RoHS II
Valid from	Version 4.2.0