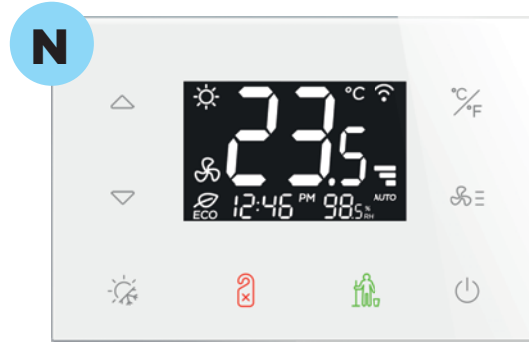# GRT3-100 | Glass room thermo-regulator

**N**

**N**

EAN code
GRT3-100/W: 8595188191746
GRT3-100/B: 8595188191739

Order Code:
GRT3-100/W: 9174
GRT3-100/B: 9173

The picture of device is illustrative, the icons (symbols) are configurable by the customer.

| Technical parameters | GRT3-100/B | GRT3-100/W |
|---|---|---|
| **Outputs** | | |
| Relays: | 5x switching / 5A / 250V AC1 / 1385VA | |
| Contact life: | mechanical: 10 mil. / electrical 100.000 switches | |
| Mains voltage detection: | yes (relay switching in zero) | |
| Analog Output: | 2x 0-10V, 10 mA | |
| **Inputs (external)** | yes (relay switching in zero) | |
| Binary: | ro potential-free contact, terminals IN1/IN2 against GND, maximum wire length 30m | |
| Temperature: | 1x for external temperature sensor TC/TZ, terminals IN1/T & IN2/TC, temperature range -20 to +120 ° C, accuracy ± 0.5 ° C | |
| **Sensors (internal)** | | |
| Temperature: | range 0 to +55 °C, accuracy ± 0.5 °C from the range | |
| Humidity: | 0 - 99% RH, accuracy ± 3 °C from the range | |
| Lighting: | adaptive backlight control of the display and buttons | |
| **Communications** | | |
| *iNELS BUS:* | BUS | |
| *MODBUS* | Configurable by IDM | |
| **Power supply** | | |
| Supply voltage BUS: | 27 V DC | |
| Tolerance/ rated current: | -20/+10 , ??? mA | |
| **Control and display** | | |
| Display: | LCD (VA/TN), active area 54 x 34mm | |
| Buttons: | 8x, capacitive, backlit | |
| **Mechanics** | | |
| Operating temperature: | - 0 to 50 °C / max 90% RH | |
| Storage temperature: | - 20 to 60 °C | |
| Enclosure: | IP30 (mounted) | |
| Overvoltage category: | II. | |
| Pollution degree: | 2 | |
| Working position: | horizontal | |
| Installation: | on EU or British box with 60 mm bolt spacing | |
| Terminals: | min. 0.2 mm²/max 1.5 mm² with sleeve 18 pole, screwless (push-in) | |
| Dimension: | 120 x 80 x 27 mm | |
| Weight: | 230g | |
| Shape/edges: | sharp | |
| Color (glass and plastic): | White | Black |
| Standard: | EN 63044-1 | |

- Glass room thermo-regulator GRT3-100 is part of a comprehensive range of glass iNELS control units for apartments, guest room management system (GRMS) and serves to regulate the temperature in the room.
- The glass room thermo-regulator is a design component of the iNELS system and is available in elegant black (GRT3-100/B) and white (GRT3-100/W) version.
- GRT3-100 thermo-regulator has a display for displaying the current room temperature and desired temperature. To adjust the required temperature, it is possible to use the touch buttons with symbols "▽" and "△".
- The GRT3-100 is equipped with 5x 5 A relay output for fan speed and valves. It is also equipped with analog-to-digital input (AIN/DIN), which can be used to connect potential-free contact or external temperature sensor TC/ TZ (for example temperature measurement of the room or floor).
- GRT3-100 is also suitable for controlling fan coils and fan speed can be easily adjusted by using the touch buttons with symbols.
- Thermo-regulator GRT3-100 also features its touch buttons whose function can be adjusted by software, for example fan coil on/off , heating/ cooling or comfort temperature for heating or cooling.
- The unit has synchronized closing and opening of the relay in the zer-ovoltage of the sinusoidal waveform. Sync input L against N terminal.
- Thermo-regulator is equipped with an integrated temperature sensor for ambient temperature measurement.
- Engraving of symbols is possible upon a request.
- Individual symbols can be illuminated.
- GRT3-100 are designed for mounting into wall.
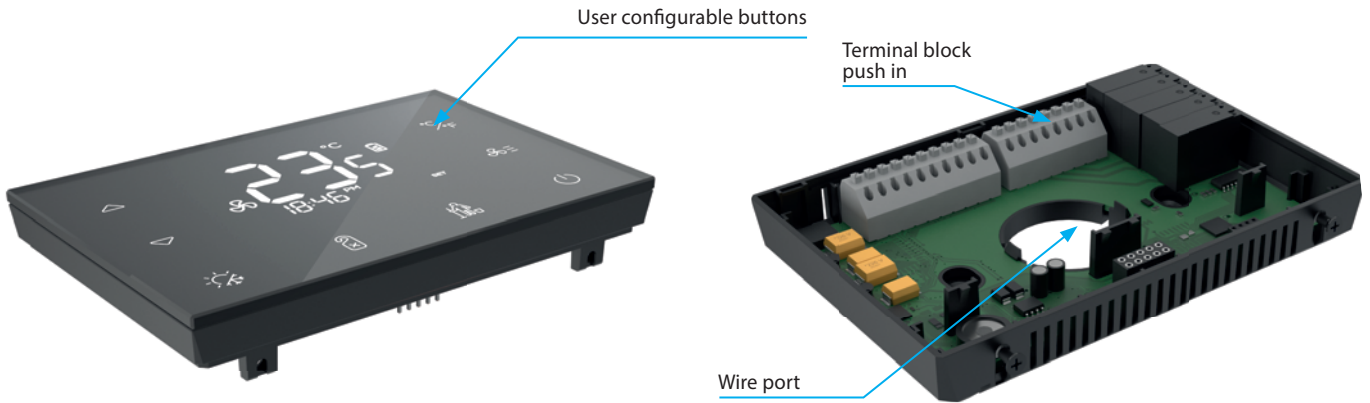
## Options: external temperature sensors

| TC-0 | TC-3 | TC-6, TC-12 | NTC 12K |
|---|---|---|---|
| | | | **2 x 0,25 mm²** |
| | | | **PVC, IP67** |
| 100 mm | 3 m | | |
| Order code: 209970800010 | Order code: 209970800011 | | |

Create your glass design here:
**icons.inels.com**

# GRT3-100 | Glass room thermo-regulator

## Buttons and display description

User configurable buttons

Terminal block push in

Wire port

## Connection
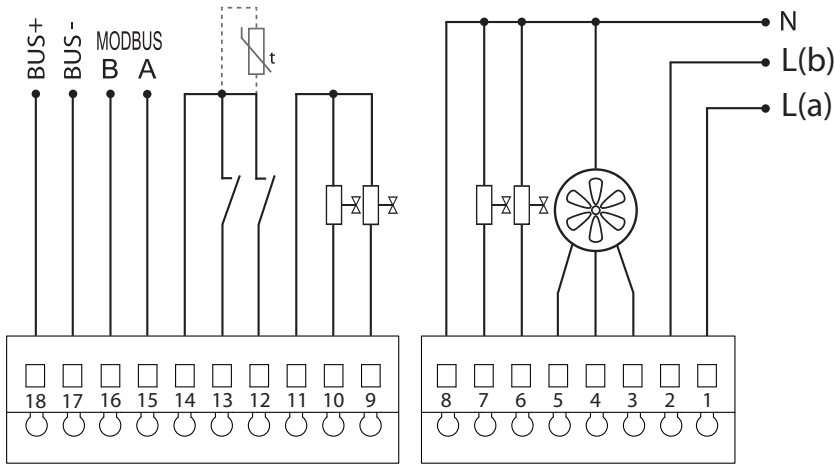


| No. | Terminal | Description |
|-----|----------|-------------|
| 1. | L(a) | power supply phase wire |
| 2. | L(b) | phase - identical to phase L(a) - see.* |
| 3. | HIGH | fan top speed |
| 4. | MED | fan medium speed |
| 5. | LOW | fan lowest speed |
| 6. | HEAT | valve 0/1 for heating |
| 7. | COOL | valve 0/1 for cooling |
| 8. | N | neutral wire power supply -synchronization (zero switching) |
| 9. | 1:0-10V | 1. analog output 0-10V |
| 10. | 2:0-10V | 2. analog output 0-10V |
| 11. | GND | common terminal for analog output |
| 12. | IN1 | 1. binary input for external contact |
| 13. | IN2 | 2. binary input for external contact |
| 14. | COM | common terminal for binary inputs 1. and 2. |
| 15. | BUS A | Modbus A |
| 16. | BUS B | Modbus B |
| 17. | BUS - | BUS - |
| 18. | BUS + | BUS + |

**Option for an external temperature sensor TC/TZ**

| 12. | IN1 | temperature input NTC |
|-----|-----|------------------------|
| 13. | IN2 | temperature input NTC |

*  in the case of an auxiliary heater, it is connected to terminals 6 or 7 (max. 1500 W).

## Another view



GRT3-100/W

GRT3-100/B