

The Displaying and Regulating Device for 230 V

Front
24 x 48



GIR 230 ...

- 5 input executions for choice:
 - normalized signal: 4-20mA, 0-20mA, 0-10V
 - resistor: Pt100 (3-wire), Pt1000 (2-wire)
 - thermo couple: type J, K, N, S, T and 0-50mV
 - frequency
 - NTC
- 2 relay outputs and 1 switching output NPN (GIR 230 NTC: 1 relay output)
- configurable as display or controller (5 switching functions)
- extensive self-monitoring and diagnostic system
- min/max value memory, limit functions, digital filter

GIR 230 NS (normalized signal input)

Controller with meas. input for normalized signal (4-20 mA, 0-20 mA, 0-10 V)

GIR 230 Pt (resistance input)

Controller with measuring input for Pt100 and Pt1000

GIR 230 TC (thermo couple input)

Controller with meas. input for thermo couple and 0-50 mV

GIR 230 FR (frequency input)

Controller with measuring input for frequency

GIR 230 NTC

Controller with measuring input for NTC and only 1 relay output

Version

GIR 230 NS:

Measuring input: 4-20mA, 0-20mA, 0-10V
Display range: -1999 ... 9999 digit, scale freely adjustable
recommended range: ≤ 2000 digit
Accuracy: < 0.2 % f.s. ±1 digit (at nominal temperature = 25°C)
Measuring rate: approx. 100 measurings / sec.

GIR 230 Pt:

Measuring input: Pt100 (3-wire), Pt1000 (2-wire)
Measuring ranges, resolution:
Pt100: -200 ... +850°C resp. -50.0 ... +200.0°C
Pt1000: -200 ... +850°C
Accuracy: < 0.5 % f.s. ±1 digit (at nominal temperature = 25°C)
Measuring rate: approx. 4 measurings / sec.

GIR 230 TC:

Measuring input: types J, K, N, S, T and 0-50 mV
Measuring ranges, resolution:
type J: -170 ... +950°C **type K:** -270 ... +1350°C
type N: -270 ... +1300°C **type S:** -50 ... +1750°C
type T: -270 ... +400°C
Accuracy: < 0.3 % f.s. ±1 digit (type S: < 0.5 % f.s. ±1 digit) (at 25°C)
Point of comparison: ± 1 °C
Measuring rate: approx. 4 measurings / sec.

GIR 230 FR:

Measuring input: frequency (TTL-signal)
Display range: -1999 ... 9999 digit, freely scaleable
Accuracy: < 0.2 % f.s. ±1 digit (at nominal temperature = 25°C)
Frequency measuring: 0.000 Hz ... 10 kHz
Rotational speed: 0.000 U/min ... 9999 U/min, selectable prescaler (1-1000)
Counter up/down: 0 ... 9999 (~10.000.000 with prescaler)

GIR 230 NTC:

Measuring input: NTC (2-wire)
Measuring ranges: -40.0 ... +120.0°C
Accuracy: < 0.5 % f.s. ±1digit (at nominal temperature = 25°C)
Measuring rate: approx. 4 measurings / sec.

Suitable temperature probes

Temperature probes (Pt100/1000) p.r.t. page 121/122, 129-133

Temperature probes (type K, S, N) p.r.t. page 123/127, 129-133

GTF230S ntc-temperature probe, -40 ... +120°C
 sensor sleeve made of st. steel, Ø 5 x 50 mm, approx. 1m silicone-cable
Option: longer probe cable (silicone) upcharge each m:

GIR 230 Pt1000 / DIF

Difference controller with 2 measuring inputs for Pt1000

GIR 230 NTC / DIF

Difference controller with 2 measuring inputs for NTC

GIR 230 NS / DIF - ...

Difference controller with 2 measuring inputs for 4-20 mA, 0-20 mA or 0-10 V

Version

GIR 230 Pt1000 / DIF, GIR 230 NTC / DIF:

Measuring inputs: 2 x Pt1000 (2-wire) resp. 2 x NTC
Meas. ranges, resolution: **Pt1000:** -200 ... +850°C, 1°C
NTC: -40.0 ... +120.0°C, 0.1°C

Display: difference temperature sensor1 - sensor2
Accuracy: < 0.5 % f.s. ±1digit (at nominal temperature = 25°C)
Measuring rate: approx. 4 measurings / sec.

GIR 230 NS / DIF - 420mA, ... - 020mA, ... - 010V:

Measuring inputs: (2 x) 4-20 mA, (2 x) 0-20 mA or (2 x) 0-10 V
specify required input signals by order!
Display range: -1999 ... 9999 digit, scale freely adjustable
recommended range: ≤ 2000 digit
Accuracy: < 0.2 % f.s. ±1 digit (at nominal temperature = 25°C)
Measuring rate: approx. 100 measurings / sec.

General Specifications

Outputs:

Relay output: 2 (1) closing contacts (GIR 230 NTC: 1 relay output), 230V~ switching, switching power: 5A, 230VAC
Alarm output: NPN, open collector, switching power: 30mA, max. 28V
Controller states: 2-point, 3-point*, 2-point with alarm, min/max alarm to 1 output, min/max alarm to 2 outputs* (* = not available at GIR230NTC)
Switching points, hysteresis, alarm points: freely selectable

Others:

Display: approx. 10 mm high, 4-digit red LED-display
Operating conditions: -20 to +50 °C, 0 to 80 %RH (non condensing)
Power supply: 230V, 50/60Hz, approx. 2 VA
Housing: glass fibre reinforced Noryl, front panel PC
 Dimensions: 24 x 48 mm (front frame).
 Mounting depth: approx. 65 mm (incl. screw-type/plug-in terminal)
Panel mounting: with VA-spring clamp.
 Allowed panel thicknesses from 1 to approx. 10 mm.
 Panel cut-out: 21.7+0.5 x 45+0.5 mm (H x W)
Connection terminal: screw-type/plug-in terminal:
 4-pin (...NTC: 3-pin) for power supply and relay outputs and 4-pin (...NTC: 3-pin) for measuring input and alarm output
 For wire cross selections from 0.14 to 1.5 mm².
IP rating: front side IP54 (IP65 upon request)
Noise immunity (EMC): EN61326 (appendix A, class B)

Option (upcharge)

- **24V** GIR with power supply 12 - 28 V DC
Outputs: 2 (1) relay outputs, +Ub switching

Accessories

GGD2448SET O-rings for device mounting IP65 (2 pieces)

Transducer p.r.t. page 96 - 119

for other accessories p.r.t. page 74/75