

The Measuring and Regulating Device at Mini Format

GIR 230 ...

easy operability - high accuracy - economy-price



- 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
- 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 (4-20mA, 0-20mA, 0-10V)

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 0-50mV

GIR 230 FR (frequency input)

Controller with measuring input for frequency

GIR 230 NTC / DIF

Difference controller with measuring input for NTC

GIR 230 Pt1000 / DIF

Difference controller with measuring input for Pt1000

GIR 230 NTC (for techn. data p.r.t. page 49)

Specification:

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 0-50mV

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: (at nominal temperature = 25°C)

$< 0.3\%$ f.s. ± 1 digit (at type S: $< 0.5\%$ f.s. ± 1 digit)

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 Mio with prescaler)

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. ± 1 digit (at nominal temperature = 25°C)

Measuring rate: approx. 4 measurings / sec.

Outputs: 2 relay outputs, 230V~ switching

Relay output: 2 closing contacts, 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

Switching points, hysteresis, alarm points: freely selectable

Others:

Min-/max-value memory: the max- and min value will be stored.

Special: digital filter function, measuring range boundary (limit)

Display: approx. 10 mm high, 4-digit red LED-display

Attendance: via 3 buttons

Operating temperature: -20 to +50 °C

Relative humidity: 0 to 80 %RH (non condensing)

Storage temperature: -30 to +70 °C

Power supply: 230V, 50/60Hz,

Power consumption: 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 for power supply and relay outputs and

4-pin for measuring input and alarm output

For wire cross selections from 0.14² to 1.5².

IP rating: front side IP54 (IP65 upon request)

Noise immunity (EMC): EN61326 (appendix A, class B)

Accessories:

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

Temperature probes

p.r.t. page 49, 89 - 98, 100, 101

Transducer

p.r.t. page 72 - 88

for other accessories p.r.t. page 54