

THE DISPLAYING AND REGULATING DEVICE FOR 230 V



**GIR 230 NS**

Art. no. 600972

**GIR 230 Pt**

Art. no. 600976

**GIR 230 TC**

Art. no. 600978

**GIR 230 FR**

Art. no. 600970

**GIR 230 NT**

Art. no. 600974

**Version GIR 230 NS (normalized signal):**

<b>Measuring input:</b>	4 ... 20 mA, 0 ... 20 mA, 0 ... 10 V
<b>Display range:</b>	-1999 ... 9999 digit, initial value, final value and DP freely adjustable
<b>Recommended range:</b>	≤2000 digit
<b>Accuracy:</b>	<0.2 % FS ±1 digit (at nominal temperature = 25 °C)
<b>Measuring rate:</b>	approx. 100 measurings / s

**Version GIR 230 Pt (resistor):**

<b>Measuring input:</b>	Pt100 (3-wire), Pt1000 (2-wire)
<b>Measuring ranges, resolution:</b>	<b>Pt100:</b> -200 ... +850 °C (1°) or -50.0 ... +200.0 °C (0.1°) <b>Pt1000:</b> -200 ... +850 °C
<b>Accuracy:</b>	<0.5 % FS ±1 digit (at nominal temperature = 25 °C)
<b>Measuring rate:</b>	approx. 4 measurings / s

**Version GIR 230 TC (thermo couple):**

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

**Version GIR 230 FR (frequency):**

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

**Version GIR 230 NT (NTC and only 1 relay output):**

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

**Accessories and spare parts:**

**GTF 230 S**  
Art. no. 603014  
NTC-temperature probe, -40 ... +120 °C, sensor sleeve made of stainless steel, Ø 5 x 50 mm, approx. 1 m silicone-cable

**GTF 230 S-L03**  
Art. no. 605910  
see above, approx. 3 m silicone cable

**GTF 230 S-L05**  
Art. no. 604620  
see above, approx. 5 m silicone cable

HIGHLIGHTS:

- 5 input executions for choice:
- 2 integrated switching outputs
- Display or controller
- Comprehensive self-monitoring
- Limit function

**GIR 230 DIF-PT...**

Art. no. 600982

Difference controller with 2 measuring inputs for Pt1000

**GIR 230 DIF-NT...**

Art. no. 600984

Difference controller with 2 measuring inputs for NTC

**GIR 230 DIF-NS...**

Art. no. 600980

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

**Version GIR 230 DIF-PT1000, GIR 230 DIF-NT:**

<b>Measuring inputs:</b>	2 x Pt1000 (2-wire) or 2 x NTC
<b>Measuring ranges, resolution:</b>	<b>Pt1000:</b> -200 ... +850 °C, 1 °C <b>NTC:</b> -40.0 ... +120.0 °C, 0.1 °C
<b>Display:</b>	difference temperature sensor 1 - sensor 2
<b>Accuracy:</b>	<0.5 % FS ±1 digit (at nominal temperature = 25 °C)
<b>Measuring rate:</b>	approx. 4 measurings / s

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

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

**Specifications:**

<b>Relay output:</b>	2 (1) closing contacts (GIR 230 NTC: 1 relay output), 230 V~ switching, switching power: 5 A, 230 V AC
<b>Alarm output:</b>	NPN, open collector, switching power: 30 mA, max. 28 V
<b>Controller states:</b>	2-point, 3-point*, 2-point with alarm, min / max alarm to 1 output, min / max alarm to 2 outputs* (* = not available at GIR 230 NT)
<b>Switching points, hysteresis, alarm points:</b>	freely selectable
<b>Display:</b>	approx. 10 mm high, 4-digit red LED-display
<b>Operating conditions:</b>	-20 ... +50 °C, 0 ... 80 % RH (non condensing)
<b>Voltage supply:</b>	230 V, 50 / 60 Hz, approx. 2 VA
<b>Panel mounting:</b>	with VA-spring clamp
<b>Allowed panel thicknesses:</b>	from 1 ... approx. 10 mm

**Connection terminal via screw-type/plug-in terminal:**

<b>4-pin (...NTC: 3-pin)</b>	for power supply and relay outputs
<b>4-pin (...NTC: 3-pin)</b>	for measuring input and alarm output

**For wire cross selections:** from 0.14 ... 1.5 mm<sup>2</sup>.

<b>Protection rating:</b>	front side IP54
<b>Housing:</b>	glass fibre reinforced noryl, front panel polycarbonate
<b>Dimensions:</b>	48 x 24 mm (W x H) (front frame)
<b>Mounting depth:</b>	approx. 65 mm (incl. screw-type/plug-in terminal)
<b>Panel cut-out:</b>	45 <sup>+0.5</sup> x 21,7 <sup>+0.5</sup> mm (W x H)
<b>Scope of supply:</b>	Device, manual

**Options:**

- SA1**  
Power supply 12 ... 28 V DC, Outputs: 2 (1) relay outputs, +Ub switching
- SA2**  
Power supply 12 ... 24 V AC
- SA3**  
Power supply 12 V DC, electrically isolated
- SA4**  
Power supply 24 V DC, electrically isolated