

Universal LowCost-LED-Display for Standard Signals and Temperature



conforming to
EN 50081-1 and
EN 50082-2
requirements for
unrestricted use in
residential and
industrial areas.



Digital display
for standard signals

Digital thermometer
for NiCr-Ni or Pt100

GIA 2448 (for self-adjustment)

GIA 2448 WE ¹⁾

(settings and calibrations by our works)

1) Please specify as follows upon order:

Input signal, scaling (lower and upper limits), decimal point and supply voltage. (Order to read e.g. GIA2448WE: 4-20mA, 4mA=-50.0, 20mA = 100.0, 12VDC)

Specification:

Meas. ranges: 0-20V, 0-10V, 0-2V, 0-1V, 0-200mV, 0-20mA and 4-20mA. (select via soldering jumpers)

Display range: -1999 ... +1999 digit
(adjustable via soldering jumpers and potentiometer)

Decimal point: any position by means of soldering jumpers
(soldering jumpers accessible after removal of front panel)

Accuracy: $\pm 0.2\% \pm 1$ digit (at nominal temperature)

Scan rate: approx. 3 measurements / sec.

Display: 3½-digit, red 10 mm high LED display

Working temperature: 0 to 50°C (permissible ambient temperature)

Relative humidity: 5 to 95 % r.h. (non-condensing)

Storage temperature: -20 to 85°C

Voltage supply: 8 - 20 V DC or 18 - 29 V DC
(set via soldering jumper)

Current supply: max. 30 mA

Housing: glass fibre reinforced Noryl, front panel PC.

Dimensions: 24 x 48 mm (H x W) (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: 4-pin screw-type/plug-in terminal
for wire cross sections from 0.14 bis 1.5 mm²

Noise immunity (EMC): meets EN50081-1 and EN50082-2 requirements, additional fault: <1%

IP rating: front side IP54 (with optional O-rings IP65).

Accessories:

GNG 220/2-12V power supply for GIA2448 and GTH2448 (Input: 230VAC ; output: 2 x 12VDC regulated, 30mA each)

GNG 12/24 power supply
(Input: 12VDC ; output: 24VDC electrically isolated)

GNG 24/24 power supply
(Input: 24VDC ; output: 24VDC electrically isolated)

for additional accessories, transmitter and probes
p.r.t. pages 56, 72 -93

GTH 2448/1 (NiCr-Ni)

GTH 2448/2 (Pt100, 1°C)

GTH 2448/3 (Pt100, 0.1°C)

Specification:

Measuring ranges:

GTH2448/1: -50 ... +1150°C (NiCr-Ni)

GTH2448/2: -200 ... +650°C (Pt100, 2-wire)

GTH2448/3: -60,0 ... 199.9°C (Pt100, 2-wire)

Resolution:

GTH2448/1, GTH2448/2: 1°C

GTH2448/3: 0.1°C

Accuracy:

NiCr-Ni: $\pm 1\% \pm 1$ digit (from -20...+550°C and 920...1150°C)

$\pm 1.5\% \pm 1$ digit (from 550... 920°C)

Pt100: $\pm 0.5\% \pm 1$ digit

Offset compensation: (for Pt100 - GTH2448/2 and GTH2448/3 only)
The zero point offset of the sensor (e.g. due to long cables) can be compensated for by means of the spindle trimmer on the backside of the device.

Display: 3½-digit, red 10 mm high LED display

Scan rate: approx. 3 measurements / sec.

Working temperature: 0 to 50°C (permissible ambient temperature)

Relative humidity: 5 to 95 % r.h. (non-condensing)

Storage temperature: -20 to 85°C

Voltage supply: 8 - 20 V DC or 18 - 29 V DC
(set via soldering jumper)

Current supply: max. 30 mA

Housing: glass fibre reinforced Noryl, front panel PC.

Dimensions: 24 x 48 mm (H x W) (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: 4-pin screw-type/plug-in terminal
for wire cross sections from 0.14 bis 1.5 mm²

Noise immunity (EMC):

GTH2448/1: meets EN50081-1 und EN50082-1 requirements

GTH2448/2, GTH2448/3: meets EN50081-1 und EN50082-2 requirements, additional fault: <1%

IP rating: front side IP54 (with optional O-rings IP65).

Accessories:

GGD 2448 SET optional O-rings for IP65 (2 pieces)

for additional accessories and probes
p.r.t. pages 12, 14, 15, 56, 88, 90-93