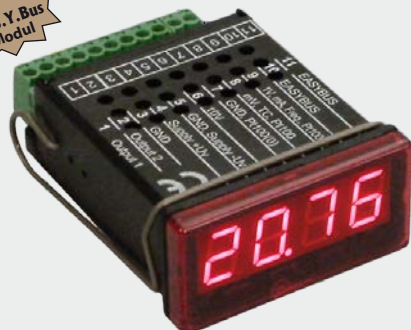


Universal Display and Regulating Device

GIA 20 EB

easy operability - high accuracy - economy-price



Option: Frontpanel with push buttons
(frontpanel without buttons included in delivery)

- Universal inputs for normalized signals, frequency, Pt100, Pt1000 and thermocouples
- 2 integrated switching outputs
- Configurable as display or controller (5 switching functions)
- Quick regulating and controlling stage
- extensive self-monitoring and diagnostic system
- Serial interface (max. 240 devices can be combined)
- Limit functions, digital filter, min-/max value memory
- Alarm delay selectable

Specification

Measuring input: universal input for

- **Normalized signal:** 4-20 mA, 0-20 mA, 0-1 V, 0-2 V, 0-10 V, 0-50 mV
- **Resistance thermometer:** Pt100 (3-wire), Pt1000 (2-wire)
- **Thermocouples:** types J, K, N, S, T
- **Frequency, Rotational speed:** TTL-signal, switching contact
- **Counter up / down:** TTL-signal, switching contact
- **Serial interface**

Measuring rate: approx. 100 meas. / sec. (for norm. signal) resp. approx. 4 meas. / sec. (for temperature and frequency)

Measuring resp. display ranges, resolution:

Temperature: (display unit selectable: °C or °F)

Pt100: -200 ... +850°C or -50.0 ... +200.0°C

Pt1000: -200 ... +850°C

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

Norm. signals: -1999 ... 9999 digit, scale freely adjustable

- **recommended range:** ≤ 2000 digit

Frequency: 0.000 Hz ... 10 kHz, display freely scaleable

Rotational speed: 0.000 U/min ... 9999 U/min, selectable prescaler: 1-1000

Counter up/down: *countvalue remains on power loss*
0 ... 9999 (10 Mio. with prescaler), pulse frequency: ≤ 10kHz, selectable prescaler: 1-1000

Serial interface: Displaying and controlling from values coming via the serial interface.

Accuracy: (at nominal temperature = 25°C)

- **Norm. signal:** < 0.2 % f.s. ±1digit (at 0-50mV: < 0.3% f.s. ±1digit)
- **Resistance thermometer:** < 0.5 % f.s. ±1digit
- **Thermocouples:** < 0.3 % f.s. ±1digit (at type S: < 0.5% f.s. ±1digit)
- **Point of comparison:** ± 1 °C
- **Frequency, rotational speed, counter:** < 0.1 % f.s. ±1digit

Outputs: 2 switching outputs, not electrically isolated

Switching behavior: Low-Side, High-Side or Push-Pull (selectable)

Connection data: Low-Side: 28V/1A; High-Side: Ub/200mA

Controller state: 2-point, 3-point, 2-point with alarm, min/max alarm to 1 output, min/max alarm to 2 outputs

Swirching point, hysteresis: freely adjustable

Response time: ≤ 20 msec. at normalized signals
≤ 0.3 sec. at temperature and frequency

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

Service: with 3 push-buttons (after disassembly of the frontpanel).

Option: FS3T, frontpanel with 3 push-buttons for comfortable configuration.

Trouble-free replacement is possible (refer accessories)

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

Interface: serial interface, elect. isolated, EASYBus compatible

Miscellaneous: permanent self-monitoring, digital filter function, measuring range boundary (limit)

Voltage supply: 9 to 28 V DC (standard)

Option: elec. insulated voltage supply 11-14V or 22-27V

Power consumption: max. 30 mA (without outputs)

Nominal temperature: 25 °C

Operating temperature: -20 to +50 °C

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

Storage temperature: -30 to +70 °C

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: 2-pin for interface and 9-pin for outer connections.

For wire cross sections from 0.14 to 1.5 mm².

IP rating: front side IP54, with optional r-rings IP65

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

Options (upon upcharge)

- **IS12** type with insulated power supply: 11-14V

- **IS24** type with insulated power supply: 22-27V

Special design types

GIA 20 EB / PK

Universal display and regulating device with individual programmable linearization characteristic

Even heavily bent sensor characteristics/value curves can be approximated by a straightened curve with **30** freely programmable linearization points.

The adjustment to the measurement is done via the integrated interface with the (gratis) configuration software. Therefore only the input values (in mA, V, Ω or Hz) and the corresponding displayed values have to be entered.

For detailed information please refer to our homepage www.greisinger.de

Accessories

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

FS3T Frontpanel with 3 push-buttons

For comfortable configuration, for adjustments at variable switching points, calling of min- and max-values etc.

GNR10 Power supply and relay module for one GIA20EB (p.r.t. page 75)

(Input: 230VAC, Power supply for device + transducer, 2 relay outputs)

Temperature probes

p.r.t. page 121 - 135

Transducer

p.r.t. page 96 - 119

for other accessories p.r.t. page 74/75, 93/94