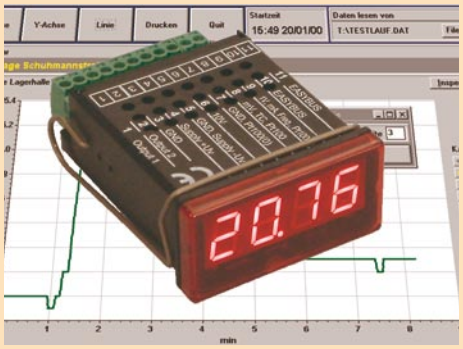
Universal Measuring and Regulating Device

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: 4-20mA, 0-20mA, 0-1V, 0-2V, 0-10V, 0-50mV
- 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: *countervalue remains on power loss*
0 ... 9999 (10 Mio. with prescaler),
pulse frequency: ≤ 10kHz
selectable prescaler: 1-1000
Serial interface: Displaying and controlling from values comming 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 outher connections. For wire cross sections from 0.14^2 to 1.5^2.
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

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 55)
(Input: 230VAC, Power supply for device + transducer, 2 relay outputs)

GR10 Relay module (p.r.t. page 55)
(Input: 12VDC, 2 relay outputs - chance-over contacts)

GNG220 Power supply device for top hat rail (p.r.t. pagte 55)

GNG12-LE Plug-in power supply: 12VDC/300mA

EBW1 interface converter GIA20EB => RS232 (p.r.t. page 70)

EBS 9M software for recording and archiving of the measuring values from the GIA20EB (p.r.t. page 39).

Temperature probes **p.r.t. page 89 - 98, 100, 101**
Transducer **p.r.t. page 72 - 88**
for other accessories p.r.t. page 54, 55, 71