



Universal Displaying Device

GIA 2000

easy operability - high accuracy - economic price

Temperature display, pressure control, tachometer, flow meter, etc.



- Universal inputs for normalized signals, frequency, Pt100, Pt1000 and thermocouples, freely adjustable
- integrated isolated power supply for meas. transducer (24V / 22mA)
- extensive self-monitoring and diagnostic system
- Serial interface - EASYBus (max. 240 devices can be combined)
- Limit functions, digital filter, min-/max value memory

Specification

Measuring input: universal input (freely adjustable) 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:** TTL-signal, switching contact
- **Flow, Rotational speed:** TTL-signal, switching contact
- **Counter up / down:** TTL-signal, switching contact
- **Serial interface**

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

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 or - 70.0 ... +300.0°C
- type K:** -270 ... +1372°C or - 70.0 ... +250.0°C
- type N:** -270 ... +1350°C or -100.0 ... +300.0°C
- type S:** - 50 ... +1750°C
- type T:** -270 ... + 400°C or - 70.0 ... +200.0°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 ... 9999 U/min, selectable prescaler: 1-1000

Flow: 0 ... 9999 l/s, 0 ... 9999 l/min, 0 ... 9999 l/h

Counter up/down: counter value remains on power loss
0 ... 9999 (10 Mio. with prescaler), pulse frequency: ≤ 10kHz

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:** < 0.3 % 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

Analog output: (option)

freely scaleable analogue output 0-20mA / 4-20mA or 0-10V

Display: approx. 13 mm high, 4-digit red LED-display

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

Interface: serial interface, elect. isolated, EASYBus compatible

Power supply for sensor: integrated isolated power supply for measuring transducer: 24 V DC ±5%, 22mA (for dc-supply 18 V DC)

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

Voltage supply: 230 V AC, 50/60 Hz (standard)
optionally other supply voltages are possible

Power consumption: approx. 5 VA

Operating temperature: -20 to +50 °C

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

Storage temperature: -30 to +70 °C

Housing: standard rack type housing 48 x 96 mm (front frame)
installation depth: approx. 115 mm (incl. screw-type/plug-in terminals)

Panel mounting: by fixing clamps
Panel cutout: 43.0^{+0.5} x 90.5^{+0.5} mm (H x W)

Electrical connection: via screw-type/plug-in terminals
cable diameters from 0.14 to 1.5 mm².

Protection class: front side IP54, with optional sealing IP65

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

Options (upon upcharge)

- **12VDC** voltage supply = 12 VDC (11-14V) ¹⁾
 - **24VDC** voltage supply = 24 VDC (22-27V) ¹⁾
 - **24VAC** voltage supply = 24 VAC ±5%
 - **115VAC** voltage supply = 115 VAC ±5%
 - **AAG020** analog output 0-20 mA, 4-20 mA (reversible) ¹⁾
 - **AAG010** analog output 0 - 10 V ¹⁾
- 1) For analog output with option 12VDC o. 24VDC add. upcharge

Accessories

GGD 4896 additional sealing for panel mounting IP65

EAK 36 Unit stickers (black with white text)
for 36 different units for lettering of display devices.



EBW 1 interface converter EASYBus => RS232 (p.r.t. page 92)

EBS 20M software for recording and archiving
of the measuring values (p.r.t. page 58).

Temperature probes

p.r.t. page 121 - 135

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