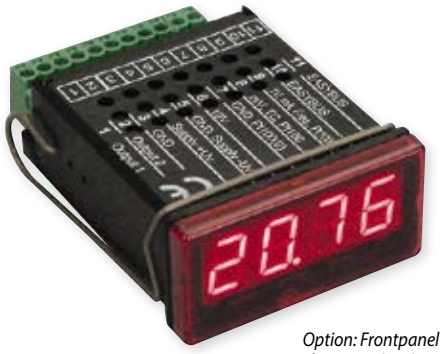
UNIVERSAL DISPLAY AND REGULATING DEVICE

MIN MAX

FRONT 48 x 24

CUT-OUT 45 x 21.7

E.A.S.Y.BUS® MODUL



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

HIGHLIGHTS:

- Universal inputs for normalized signals, frequency, Pt100, Pt1000 and thermocouples
- Configurable as display or controller (5 switching functions)
- extensive self-monitoring and diagnostic system
- Limit functions, digital filter, min-/max value memory
- Alarm delay selectable

GIA 20 EB

Art. no. 601832 (standard model)

Universal display and regulating device

Specifications:	
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 measurings / s (for normalized signal) resp. approx. 4 measurings / s (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
Normalized signals:	-1999 ... 9999 digit, start and end value and DP freely scaleable
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: ≤10 kHz, selectable prescaler: 1 ... 1000
Serial interface:	Displaying and controlling from values coming via the serial interface.
Accuracy: (at nominal temperature = 25 °C)	
Normalized signal:	<0.2 % FS ±1 digit (at 0 ... 50 mV: <0.3 % FS ±1 digit)
Resistance thermometer:	<0.5 % FS ±1 digit
Thermocouples:	<0.3 % FS ±1 digit (at type S: <0.5 % FS ±1 digit)
Point of comparison:	±1 °C
Frequency, rotational speed, counter:	<0.1 % FS ±1 digit
Outputs:	2 switching outputs, not electrically isolated
Switching behavior:	Low-Side, High-Side or Push-Pull (selectable)
Connection data:	Low-Side: 28 V/1 A; High-Side: Ub/200 mA
Controller state:	2-point, 3-point, 2-point with alarm, min/max alarm to 1 output, min/max alarm to 2 outputs
Switching point, hysteresis:	freely adjustable
Response time:	≤20 ms with standard signal ≤0.5 s with 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)
Interface:	serial interface, electrical isolated, EASYBus compatible
Miscellaneous:	constant self-diagnosis, digital filter function, measuring range limiting
Voltage supply:	9 ... 28 V DC (Standard)
Option:	electrical isolated voltage supply 11 ... 13 V (G12) or 22 ... 27 V (G24)
Power consumption:	max. 30 mA (without outputs)
Nominal temperature:	25 °C
Working temperature:	-20 ... +50 °C
Relative humidity:	0 ... 80 % RH (non condensing)
Storage temperature:	-30 ... +70 °C
Panel mounting:	with VA-spring clamp
Allowed panel thicknesses:	from 1 ... approx. 10 mm
Connection terminal:	screw-type/plug-in terminal: 2-pin for interface and 9-pin for other connections. For wire cross sections from 0.14 ... 1.5 mm².
Protection rating:	front side IP54
Housing:	glass fibre reinforced Noryl, front panel polycarbonate
Dimensions:	48 x 24 mm (W x H) (front frame)
Mounting depth:	approx. 65 mm (incl. screw-type/plug-in terminal)
Panelcut-out:	$45^{+0.5}$ x $21{,}7^{+0.5}$ mm (W x H)
Scope of supply:	Device, manual

Standard variants:

GIA 20 EB-G12
Art. no. 604305
Type with insulated power supply: 11 ... 13 V DC

GIA 20 EB-G24
Art. no. 601983
Type with insulated power supply: 22 ... 27 V DC

Accessories and spare parts:

FS3T
Art. no. 603215
Frontpanel with 3 push-buttons for comfortable configuration, for adjustments at variable switching points, calling of min- and max-values etc.

GNR 10
Art. no. 603680
Power supply and relay module for one GIA20EB (p.r.t. page 135)
(Input: 230 V AC, Power supply for device + transducer, 2 relay outputs)

Temperature probes **p.r.t. page 205-220**

Transducer **p.r.t. page 165-204**

Special design types:

GIA 20 EB / PK

Art. no. 600968

Universal display and regulating device with individual programmable linearization characteristic.

General:

Even heavily bent sensor characteristics/value curves can be approximated by a straighte-ned curve with 30 freely programmable linearization points.
The adjustment to the measurement is done via the integrated interface with the (free) configuration software. For the connection with a PC, an additional serial converter EBW 1 or EBW 3 will be needed. Therefore only the input values (in mA, V, Ω or Hz) and the corre-sponding displayed values have to be entered.
For detailed information please refer to our homepage www.greisinger.de