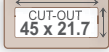


## Universal display and regulating device



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 (Standardausführung)  
Universal display and regulating device

Specifications:		Voltage supply:	
<b>Measuring input:</b>	universal input for	<b>Option:</b>	electrical isolated voltage supply 11 ... 13 V (G12) or 22 ... 27 V (G24)
<b>Normalized signal:</b>	4 ... 20 mA, 0 ... 20 mA, 0 ... 1 V, 0 ... 2 V, 0 ... 10 V, 0 ... 50 mV	<b>Power consumption:</b>	max. 30 mA (without outputs)
<b>Resistance thermometer:</b>	Pt100 (3-wire), Pt1000 (2-wire)	<b>Nominal temperature:</b>	25 °C
<b>Thermocouples:</b>	types J, K, N, S, T	<b>Operating temperature:</b>	-20 ... +50 °C
<b>Frequency, Rotational speed:</b>	TTL-signal, switching contact	<b>Relative humidity:</b>	0 ... 80 % RH (non condensing)
<b>Counter up / down:</b>	TTL-signal, switching contact	<b>Storage temperature:</b>	-30 ... +70 °C
<b>Serial interface</b>		<b>Panel mounting:</b>	with VA-spring clamp
<b>Measuring rate:</b>	approx. 100 measurings / s (for normalized signal) resp. approx. 4 measurings / s (for temperature and frequency)	<b>Allowed panel thicknesses:</b>	from 1 ... approx. 10 mm.
<b>Measuring resp. display ranges, resolution:</b>		<b>Connection terminal:</b>	screw-type/plug-in terminal: 2-pin for interface and 9-pin for other connections. For wire cross sections from 0.14 ... 1.5 mm <sup>2</sup>
<b>Temperature:</b>	(display unit selectable: °C or °F) <b>Pt100:</b> -200 ... +850 °C or -50.0 ... +200.0 °C; <b>Pt1000:</b> -200 ... +850 °C; <b>Type J:</b> -170 ... +950 °C; <b>Type K:</b> -270 ... +1350 °C; <b>Type N:</b> -270 ... +1300 °C; <b>Type S:</b> -50 ... +1750 °C; <b>Type T:</b> -270 ... +400 °C	<b>Protection rating:</b>	front side IP54
<b>Normalized signals:</b>	-1999 ... 9999 digit, start and end value and DP freely scaleable	<b>Housing:</b>	glass fibre reinforced Noryl, front panel polycarbonate
<b>recommended range:</b>	≤2000 digit	<b>Dimensions:</b>	48 x 24 mm (W x H) (front frame)
<b>Frequency:</b>	0.000 Hz ... 10 kHz, display freely scaleable	<b>Mounting depth:</b>	approx. 65 mm (incl. screw-type/plug-in terminal)
<b>Rotational speed:</b>	0.000 U/min ... 9999 U/min, selectable prescaler: 1-1000	<b>Panel cut-out:</b>	45 <sup>+0.5</sup> x 21.7 <sup>+0.5</sup> mm (W x H)
<b>Counter up/down:</b>	countervalue remains on power loss 0 ... 9999 (10 Mio. with prescaler), pulse frequency: < 10 kHz, selectable prescaler: 1-1000	<b>Scope of supply:</b>	device, manual
<b>Serial interface:</b>	Displaying and controlling from values coming via the serial interface.	<b>Standard variants:</b>	
<b>Accuracy: (at nominal temperature = 25 °C)</b>		<b>GIA 20 EB-G12</b>	Art. no. 604305 type with insulated power supply: 11 ... 13 V DC
<b>Normalized signal:</b>	<0.2 % FS ±1 digit (at 0 ... 50 mV: <0.3 % FS ±1 digit)	<b>GIA 20 EB-G24</b>	Art. no. 601983 type with insulated power supply: 22 ... 27 V DC
<b>Resistance thermometer:</b>	<0.5 % FS ±1 digit	<b>Accessories and spare parts:</b>	
<b>Thermocouples:</b>	<0.3 % FS ±1 digit (at type S: <0.5 % FS ±1 digit)	<b>FS3T</b>	Art. no. 603215 Frontpanel with 3 push-buttons for comfortable configuration, for adjustments at variable switching points, calling of min- and max-values etc.
<b>Point of comparison:</b>	±1 °C	<b>GNR 10</b>	Art. no. 603680 Power supply and relay module for one GIA20EB (p.r.t. page 123) (Input: 230VAC, Power supply for device + transducer, 2 relay outputs)
<b>Frequency, rotational speed, counter:</b>	<0.1 % FS ±1 digit	<b>Temperature probes</b>	p.r.t. page 185-200
<b>Outputs:</b>	2 switching outputs, not electrically isolated	<b>Transducer</b>	p.r.t. page 151-183
<b>Switching behavior:</b>	Low-Side, High-Side or Push-Pull (selectable)	<b>Special design types:</b>	
<b>Connection data:</b>	Low-Side: 28 V/1A; High-Side: Ub/200 mA	<b>GIA 20 EB/PK</b>	Art. no. 600968 Universal display and regulating device with individual programmable linearization characteristic.
<b>Controller state:</b>	2-point, 3-point, 2-point with alarm, min/max alarm to 1 output, min/max alarm to 2 outputs	<b>General:</b>	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 (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 corresponding displayed values have to be entered. For detailed information please refer to our homepage <a href="http://www.greisinger.de">www.greisinger.de</a>
<b>Switching point, hysteresis:</b>	freely adjustable		
<b>Reaktionszeit:</b>	≤ 20 ms bei Normsignal ≤ 0,5 s bei Temperatur und Frequenz		
<b>Response time:</b>	≤20 ms at normalized signals ≤0.5 s at temperature and frequency		
<b>Display:</b>	approx. 10 mm high, 4-digit red LED-display		
<b>Service:</b>	with 3 push-buttons (after disassembly of the frontpanel)		
<b>Optional:</b>	FS3T, frontpanel with 3 push-buttons for comfortable configuration. Trouble-free replacement is possible (refer accessories)		
<b>Interface:</b>	serial interface, electrical isolated, EASYBus compatible		