



## SG-TG-12E-005-SPWD

### Single channel strain gauge amplifier with fast digital peak value memory

- ▶ Supply voltage 11 ... 18 VDC, optionally with accumulator
- ▶ Analogue output 0 ... 5 V (Measuring- und Peak value)
- ▶ Aluminium Desktop Enclosure (IP20)
- ▶ Dimension [W x H x D] 160 x 80 x 180 mm



The described single-channel strain gauge measuring amplifier allows the supply and signal evaluation of one transducer with a strain gauge full bridge greater 300 ohms. The input and the output are galvanically isolated. The connection occurs in 4-wire technology. For further evaluation are standard analogue outputs available.

A peak value measuring about signal scanning with a measuring rate of 1,000 measurements / seconds allows a quick peak value capture of the positive peak value. The representation of the topical measuring value as well as the peak value occurs with a 2-spacing LCD display. The evaluation / issue of the measuring signal as well as the peak value signal occur about a BNC socket.

Optionally a version with integrated accumulator is possible. The accumulator allows a measurement for a period from approx. 6 hours. The loading occurs with the help of an external quick battery charger which is included in delivery. With the battery charger it concerns a high-quality "intelligent" battery charger which allows a high life span of the accumulator.

The measuring amplifier is built-in in a robust aluminum desktop enclosure (IP20), which is suited for the application in rough and industrial surroundings.

#### ▶ Technical Data

Number of measuring channels:	1 (full bridge resistance >300 Ω)	
Supply voltage:	Version 12E: 11 ... 18 VDC Version AKKU: 11 ... 18 V	(Electronic protected against reversal voltage) (internal built-in accumulator)
Isolating proof voltage input to output:	200 V	(Higher isolated proof voltage on request)
Power consumption:	max. 12 W	
Strain gauge excitation supply:	5 VDC / 10 VDC	
Analogue output measuring value:	0 ... 5 V	max. 1 mA (short-period short-circuit proof)
Analogue output peak value:	0 ... 5 V	max. 1 mA (short-period short-circuit proof)
Internal A/D-converter:	12 bit	
Display:	Illuminated 2- spacing LCD-Display	
Resolution display:	0.5	
Limit frequency (-3 dB):	1 kHz	
Input resistance:	>3 MΩ	
Non-linearity:	±0.5 % FSO	
Electrical connection:	Connectorr/BNC-Sockets	
Enclosure:	Aluminium-Desktop-Enclosure (IP20)	
Dimension (W x H x D):	160 x 80 x 180 mm	
Weight:	ca. 2 kg	
Temperature, storage:	-10 °C ... +50 °C	
Temperature, operating:	+10 °C ... +40 °C	



## Order Description

**SG-TG-...** Single channel strain gauge amplifier with fast digital peak value memory

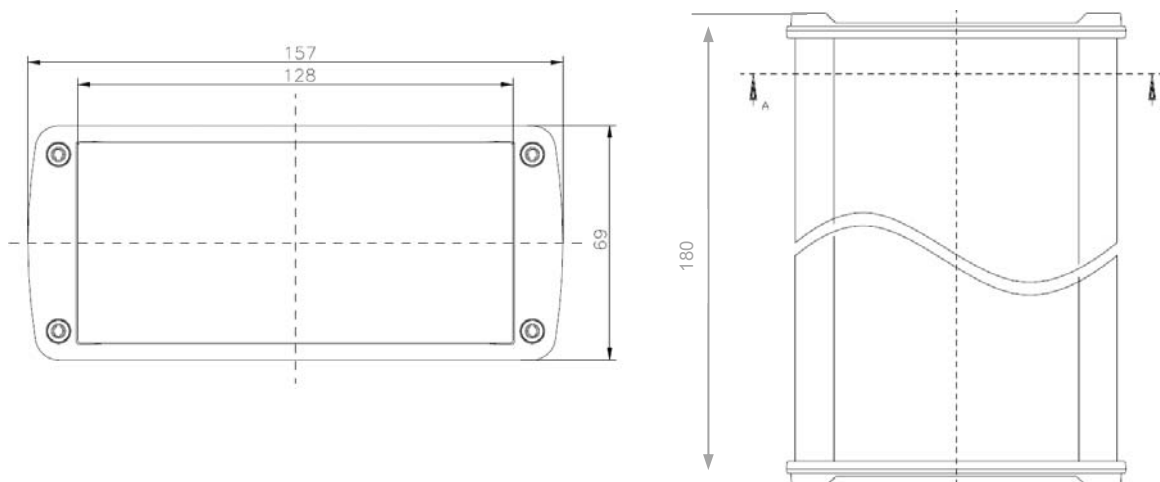
**...-12E-...** Supply voltage: 11 ... 18 VDC

**...-AKKU-...** Supply voltage: 11 ... 18 VDC plus an internal NiMH-Accumulator with external quick charger

**...-005-...** Analogue measuring value/ Analogue peak value: 0 ... 5 V

**...-SPWD** Digital peak value display

## Dimension



### Notice:

By the assembly of elastic feet on the base plate of the measuring amplifier, the whole height of the case rises on approx. 80 mm.

## Terminal wiring

The connection of the amplifier occurs about the connectors on the backside of the enclosure

**Transducer:**  
Flange socket for 7-pin connector  
Type Binder Series 423

Pin	Description
1	+Excitation strain gauge transducer
2	n.c.
3	+Signal strain gauge transducer
4	-Signal strain gauge transducer
5	n.c.
6	-Excitation strain gauge transducer
7	n.c.

**Analogue output 1 (Measuring value)**  
BNC-Socket

<b>Inside</b>	Analogue output 1 (0 ... 5 V, max. 1 mA)
<b>Outside</b>	Analogue ground

**Supply voltage/Analogue output:**  
Flange socket for 5-pin connector  
Type Binder Series 423

Pin	Description
1	Supply voltage
2	Charging voltage accumulator (Version...-AKKU-...)
3	n.c.
4	Supply Ground
5	Supply Ground

**Analogue output 2 (Peak value)**  
BNC-Socket

<b>Inside</b>	Analogue output 2 (0 ... 5 V, max. 1 mA)
<b>Outside</b>	Analogue ground

## Alignment/Calibration:

If requested, a pre-setting of the measuring system or a factory calibration certificate with traceable references can be carried out for an extra charge.

## Customized Requirements

Technical modification according customized requirement are possible on request. Moreover, we deliver Customized special solutions for a lot of measuring tasks in the section pressure-, force-, distance - and tilt-measuring using our offered measuring transducer. Do not hesitate to contact us.

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.

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