



SG-INL-12E/24E-xxx

Single channel inline strain gauge amplifier (available only in combination with strain gauge transducer)



- ▣ Supply voltage 10 ... 18 VDC / 18 ... 30 VDC
- ▣ Analogue output 0 ... 10 V / ± 10 V
- ▣ Aluminium enclosure (IP20)
- ▣ Dimension (W x H x D) 92 x 31 x 38 mm

The described single-channel inline strain gauge measuring amplifier allows the supply and signal evaluation of one transducer with a strain gauge full bridge greater 300 ohms. The connection occurs in 4-wire technology. For further evaluation are standard analogue outputs available. The measuring amplifier is built-in in a robust aluminum enclosure (IP20), which is suited for the application in rough and industrial surroundings.

The amplification can be adapted by an internal precision resistance.

The potentiometer Z (Zero) and G (Gain), which are accessible after removing the enclosure lid, allow a correction of the calibration.

With the help of an internal dip switch, a change of the range of the potentiometer Z (zero) can be reached.

Notice:

Only available in the combination with a transducer of the company ALTHEN GmbH Mess- und Sensortechnik

▣ Technical data:

Number of measuring channels:	1 (full bridge resistance > 300 Ω)	
Supply voltage:	10 ... 18 VDC 18 ... 30 VDC	Electronic protected against voltage reversal
Isolating proof voltage input to output:	200 V	Higher isolated proof voltage on request
Power consumption:	max. 3 W	
Strain gauge excitation supply:	2.5 VDC, 5 VDC oder 10 VDC	
Analogue output:	0 ... 10 V ± 10 V	max. 1 mA (short-period short-circuit proof)
Limit frequency (-3 dB):	1 kHz	
Input resistance:	>3 M Ω	
Max. input sensitivity:	25 mV/V at 10 VDC excitation supply	
Non-linearity:	± 0.05 % FSO	
Electrical connection:	3 m connecting cable Typ LiYCY (TP) 2 x 2 x 0.25 mm ² 5 pin bead male connector Binder Series 712/423 / Series 712/423 depending on the cable diameter of the connected strain gauge sensor	
Enclosure:	EMC-aluminium diecast enclosure (IP65)	
Dimension (B x H x D):	92 x 31 x 38 mm	
Weight:	150 g	
Temperature, storage:	-20 °C ... +60 °C	
Temperature, operating:	-20 °C ... +50 °C	

Order Description:

SG-INL-... Single channel Inline-strain gauge amplifier in an EMC-aluminium diecast enclosure (IP20)

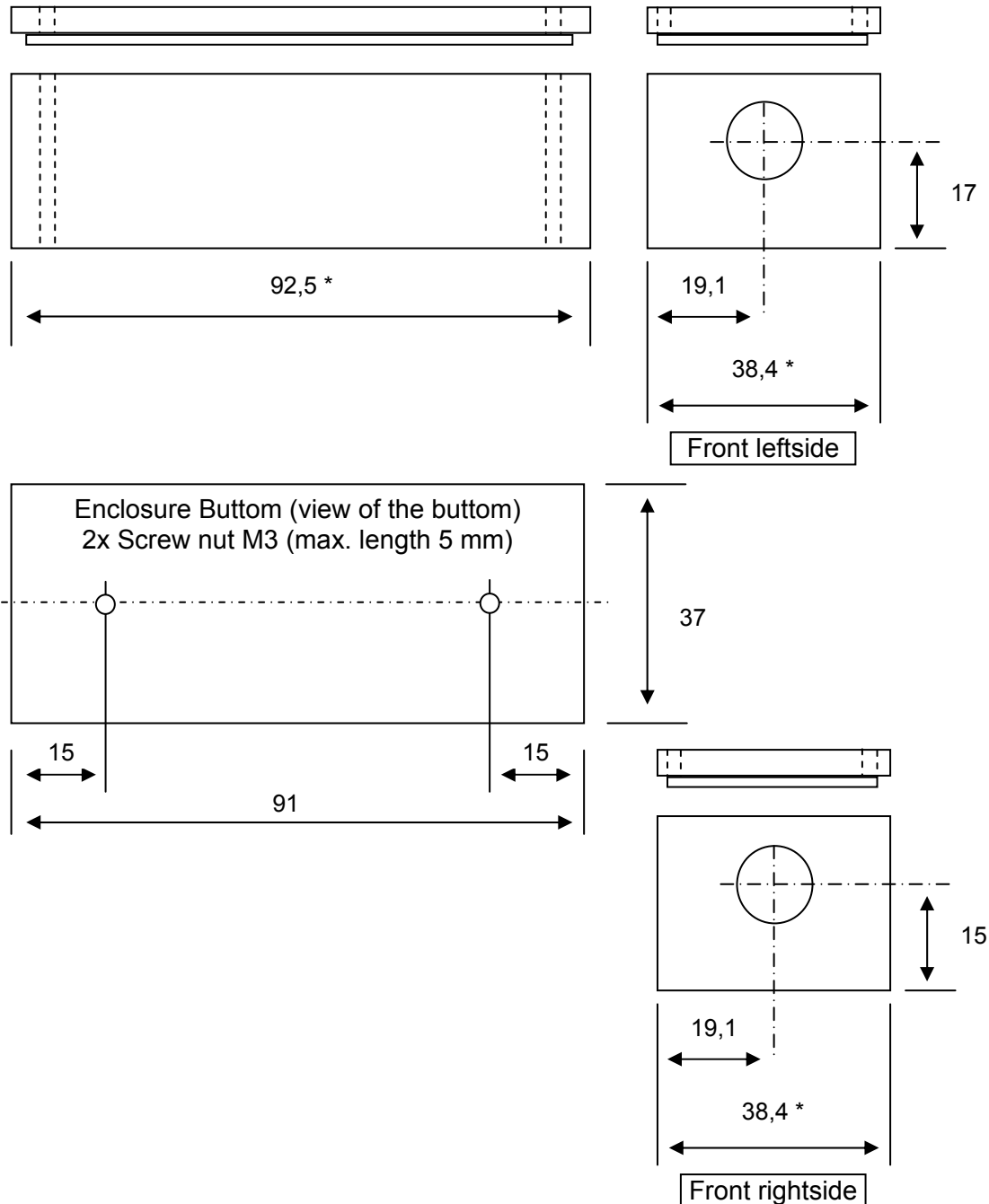
...-12E-... Supply voltage: 10 ... 18 VDC

...-24E-... Supply voltage: 18... 30 VDC

...-010 Analogue output: 0 ... 10 V

...-B10 Analogue output: ± 10 V

Enclosure Dimension (Notice: Figure shows enclosure without electrical connections)



▶ Terminal wiring

The connection of the measuring amplifier occurs about a 3 meters connecting cable (Lapp, Type 2x2x0,25 mm², screened). The connection of the sensor occurs about a connector Binder Series 712 / Series 423, depending on cable diameter of the sensor.

Notice: The amplifier may be pursued only with closed lid.

Connecting cable:

Colour	Description
White	Supply voltage
Brown	Supply ground
Galvanic isolation	
Yellow	Analogue output
Green	Analogue ground

Connector Binder Series 712 / Series 423:

PIN	Description
1	+SG-Excitation supply
2	-SG-Excitation supply
3	+SG-Signal
4	-SG-Signal
5	Not connected

▶ 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.

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.