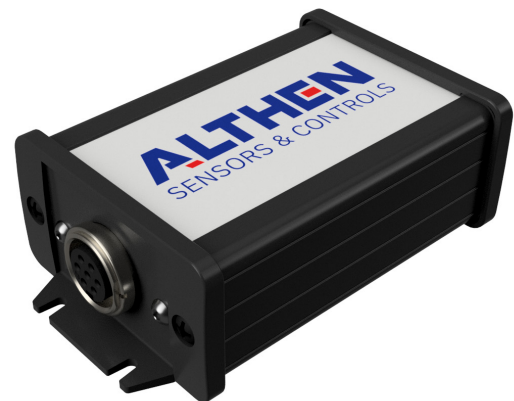




## SG-INL2 Strain Gauge Amplifier



The SG-INL2 1-channel inline strain gauge measuring amplifier in a robust aluminium housing (IP54)

- Supply voltage 10 ... 30 VDC
- Analogue output  $\pm 10$  V
- Galvanic isolation
- Robust aluminium housing (IP54)

The SG-INL2 1-channel inline strain gauge measuring amplifier in a robust aluminium housing (IP54) enables the power supply and signal amplification of a strain gauge transducer. Any strain gauge transducer with a strain gauge full bridge resistance greater than 300 ohms can be connected. The transducer is wired using 4-wire technology.

A standard analogue output signal ( $\pm 10$  V) is available for further evaluation.

Fine adjustment can be carried out using a precision potentiometer for the zero point and one for the amplification.

### TECHNISCHE DATEN

<b>Number of measuring channels:</b>	1 (strain gauge full bridge >300 $\Omega$ )	
<b>Supply voltage:</b>	10 ... 30 VDC, electronics protected against polarity reversal	
<b>Insulation dielectric strength between input and output:</b>	200 V, higher insulation dielectric strength possible on request	
<b>Power consumption:</b>	max. 2 W	
<b>Strain gauge supply voltage:</b>	10 VDC, depending on the strain gauge sensor connected (2.5 VDC, 5 VDC on request)	
<b>Analogue output and load capacity:</b>	$\pm 10$ V, max. 5 mA (short-circuit proof)	
<b>Cut-off frequency (-3 dB):</b>	1 kHz	
<b>Input resistance:</b>	1 G $\Omega$	
<b>Input sensitivity:</b>	0.5 / 1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 mV/V (other sensitivities on request)	
<b>Linearity deviation:</b>	$\pm 0,05$ % v.E.	
<b>Electrical connection:</b>	<b>Vers. voltage / analogue output:</b>	M12 plug, incl. 2 m connection cable Type PUR 4 x 0.34 mm <sup>2</sup>
	<b>Measuring transducer:</b>	7-pin flange socket from Binder Series 423
<b>Casing:</b>	Aluminium casing (IP54)	
<b>Dimensions (W x H x D):</b>	108 x 63 x 35 mm	
<b>Weight:</b>	170 g (without cable)	
<b>Storage temperature range:</b>	-25 ... +70 °C	
<b>Operating temperature range:</b>	-20 ... +50 °C	



## PIN ASSIGNMENT

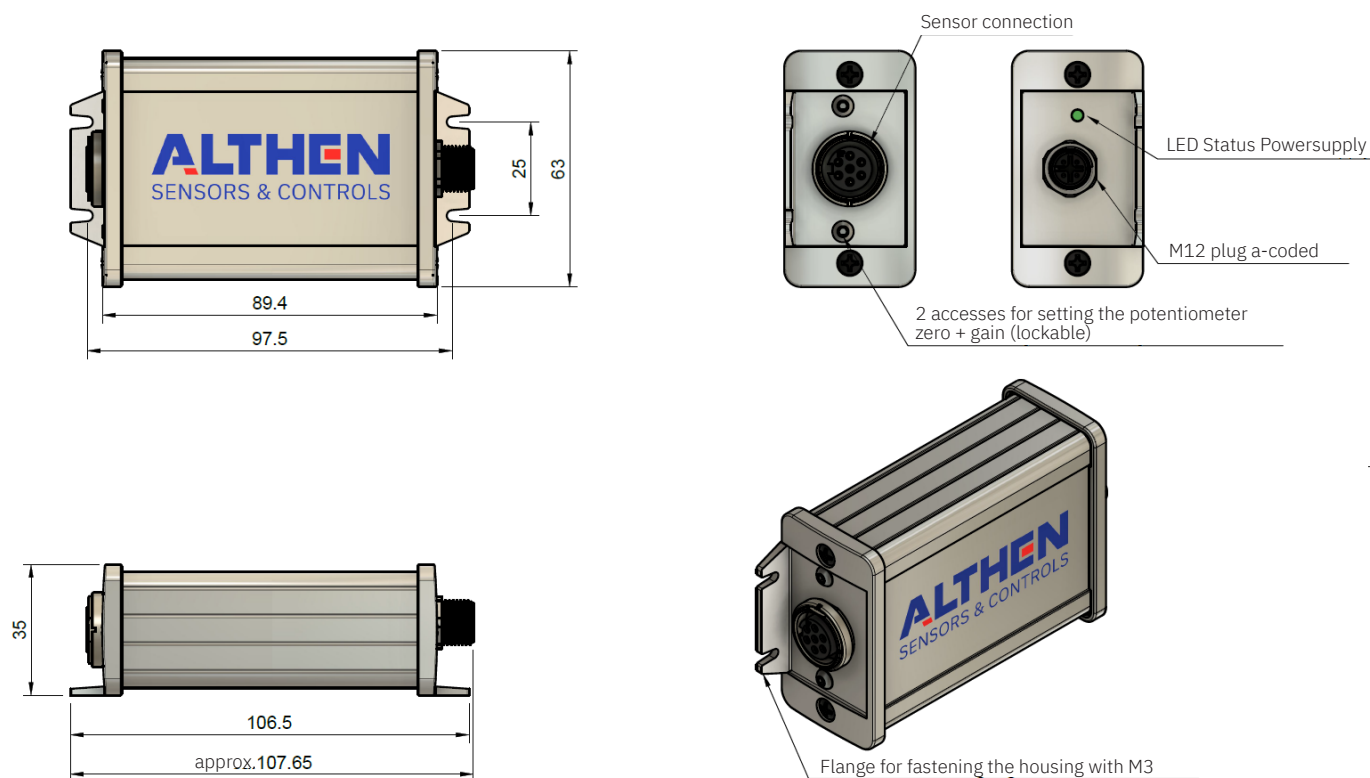
The measuring amplifier is connected via a 2 m long connection cable (type PUR 4 x 0.34 mm<sup>2</sup> shielded).  
The transducer is connected via a Binder Series 423 connector.

CONNECTION CABLE:		BINDER SERIES 423 CONNECTORS:	
PIN / Cable colour	Designation	Pin	Designation
1 / brown	+Supply voltage (+U <sub>b</sub> )	1	+DMS supply voltage transducer
3 / blue	Ground U <sub>b</sub>	6	-DMS supply voltage Transducer
<b>Galvanic isolation</b>		3	+DMS signal Transducer
2 / white	Analogue output ±10 V	4	-DMS signal Transducer
4 / black	Ground Analogue output	2, 5, 7	Not wired

The supply voltage ground and analogue output ground connections are electrically isolated.

## ENCLOSURE DIMENSIONS

**Note:** Illustration shows housing without electrical connections.





## ■ ADJUSTMENT/CALIBRATION

When delivered from the factory, the measuring amplifier is calibrated according to the selected nominal input sensitivity.

### Order description:

- **Measuring amplifier: SG-INL2-05 .. 35**

On request, a customised adaptation can be ordered in accordance with the manufacturer's certificate for the corresponding sensor.

### Order description:

- **Measuring amplifier: SG-INL2-C**
- **Customisation option: A-DMS-1K**

## ■ CUSTOMER-SPECIFIC REQUIREMENTS

Technical modifications according to customer requirements are possible on request. We also supply customised special solutions for many measuring tasks in the field of pressure, force, displacement and inclination measurement using the transducers we offer. Please do not hesitate to contact us.

## ■ ORDER DESCRIPTION

<b>SG-INL2...</b>	1-channel inline strain gauge amplifier in robust aluminium housing (IP54)
<b>... 05</b>	Input sensitivity 0.5 mV/V
<b>... 10</b>	Input sensitivity 1,0 mV/V
<b>... 15</b>	Input sensitivity 1,5 mV/V
<b>... 20</b>	Input sensitivity 2,0 mV/V
<b>... 25</b>	Input sensitivity 2,5 mV/V
<b>... 30</b>	Input sensitivity 3,0 mV/V
<b>... 35</b>	Input sensitivity 3,5 mV/V
<b>... C</b>	Customised adaptation

We reserve the right to make technical changes and to replace materials in order to improve our products.

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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