

## ⇒ SG-IP-3L-2P

Single Channel Strain Gauge Amplifier (3-wire) for Parallel Operating of 2 Transducers with Normalized Signal

- Supply voltage 22 ... 26 VDC (no galvanic isolation)
- Analogue output 4 ... 20 mA
- EMC aluminium die-cast enclosure (IP65)
- Dimensions (W x H x D) 100 x 100 x 60 mm



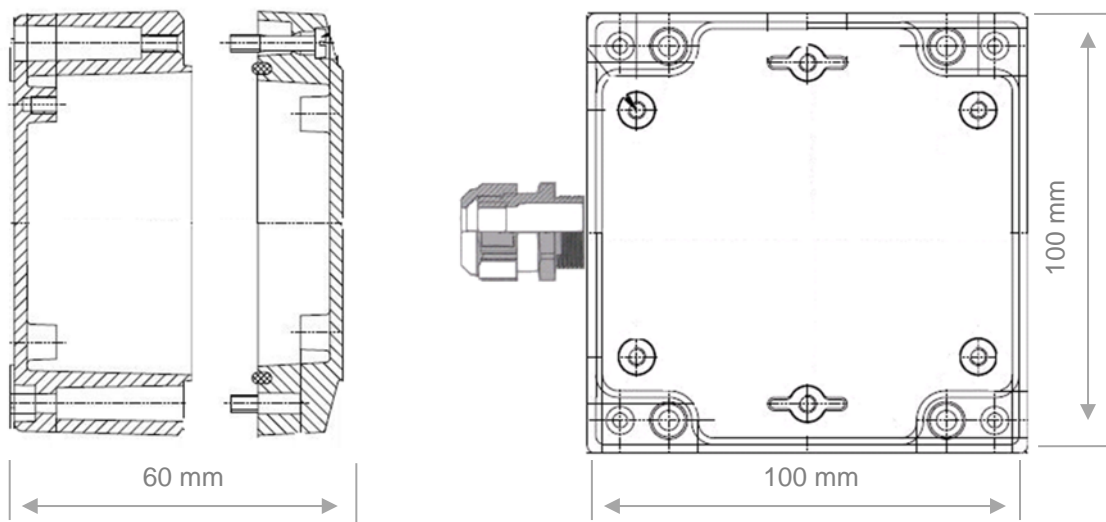
The single-channel strain gauge measuring amplifier SG-IP-3L-2P (3-wire technology) allows supply and signal evaluation of up to two transducers with normalized sensitivity and a strain gauge full bridge greater than 300 ohms. For further evaluation a standard analogue output of 4 ... 20 mA is available. Input and output are not galvanically isolated. The measuring amplifier is built-in into a robust EMC die-cast aluminium enclosure (IP65) which is suited for applications in rough and industrial environments. The amplification can be adapted by an internal precision resistance.

The potentiometers Z (zero) and G (gain), which are accessible after removing the enclosure cover, allow a calibration correction.

### ⇒ Technical Data

|                                 |  |
|---------------------------------|--|
| Number of measuring channels:   | 1 (full bridge resistance >300 Ω)          |
| Supply voltage:                 | 22 ... 26 VDC                              |
| Power consumption:              | 4 W max.                                   |
| Strain gauge excitation supply: | 10 VDC                                     |
| Analogue output:                | 4 ... 20 mA, 500 Ω max.                    |
| Limit frequency (-3 dB):        | 1 kHz                                      |
| Input resistance:               | >3 MΩ                                      |
| Max. input sensitivity:         | 100 mV/V at 10 VDC excitation supply       |
| Non-linearity:                  | ±0.05 % FSO                                |
| Electrical connection:          | EMC cable gland on internal terminal block |
| Enclosure:                      | EMC aluminium die-cast enclosure (IP65)    |
| Dimensions (W x H x D):         | 100 x 100 x 60 mm                          |
| Weight:                         | 525 g                                      |
| Temperature, storage:           | -20 ... +60 °C                             |
| Temperature, operating:         | 0 ... +50 °C                               |

## Enclosure Dimensions



## Terminal Wiring

Electrical connections are made via cable glands on a terminal block located inside of the enclosure. The terminal numbering is stated on the board. The maximum cable cross section amounts 2.5 mm<sup>2</sup>. EMC installation information must be followed.

**Note:** The amplifier has to be operated with closed cover only.

| Terminal | Description                         | Terminal | Description                |
|----------|-------------------------------------|----------|----------------------------|
| 1        | Supply Voltage                      | 5A/5B    | - SG-Signal Transducer     |
| 2        | Supply Ground / Analogue Ground     | 6A/6B    | + SG-Excitation Transducer |
| 3        | Analogue Output (3-wire Technology) | 7A/7B    | - SG-Excitation Transducer |
| 4A/4B    | + SG-Signal Transducer              | 8A/8B    | Screen/Enclosure           |

Supply Ground and Analogue Ground are not galvanically isolated.

## Ordering Description

|                    |   |
|--------------------|---|
| SG-IP-3L-24-420-2P | Single channel SG amplifier in 3-wire technology for parallel operating of two strain gauge transducers with normalized sensitivity, no galvanic input/output isolation |
|--------------------|---|

## Alignment / Calibration

On request, 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 modifications according to customized requirements are available on request. Moreover, we deliver customized special solutions for a lot of measuring tasks in the section pressure, force, position and tilt measuring using our measuring transducers. Do not hesitate to contact us.

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

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*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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