

# Load Cell Amplifier / Strain Gauge Amplifier AS0100

The AS0100 is a miniature board for 3-wire systems providing a 0/4mA - 20mA current output, designed to fit either inside a load cell or within an in-line enclosure. The unit has individual multi-turn potentiometers for the precise setting of Zero and Span and is also available with **mid. zero output** (12mA for example) for compression / tension transducers. The inputs provide EMI-/RF-suppression. The unit also provides under-, over- and transient voltage protection for stable operation in harsh environments. Transducer wires can be easily soldered onto the board or using SIL sockets.

#### **Features**

- Very wide-range power supply 8-28V
- 5V stabilised bridge excitation
- Bridge resistance >=350 Ohm
- Bridge sensitivity 0.3mV/V 3mV/V
- Size (LxBxH): 29mm x 29mm x 7mm
- Fast calibration procedure
- Reverse-polarity protection
- Transient/Overvoltage protection

## **Applications**

- Industrial Weighing
- Load Testing & Monitoring
- 12V Power Supply Systems



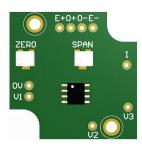
### **Ordering**

| Part number:   AS |
|-------------------|
|-------------------|

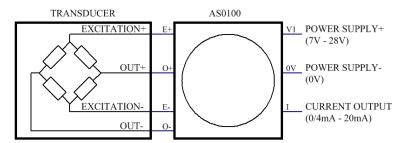
\*Please specify required input range, between 0.3mV/V – 3mV/V and current output range 0-20mA or 4-20mA

Customer specific electrical / mechanical changes are possible – please contact us with your individual requirements.

#### **Board Connections**



## **6 Schematic Diagram**



#### **Specifications**

| Parameter                                     | Min | Typical | Max | Unit |
|---|-----|---------|-----|------|
| Supply Voltage                                | 8   | 12      | 28  | V    |
| Under-/Overvoltage lock-out                   | <8  |         | >28 | V    |
| Transient voltage protection                  |     | +/-30   |     | V    |
| Transient peak power dissipation <sup>1</sup> |     | 400     |     | W    |
| Current Output – Zero (adjustable control)    | 0   | 4       |     | mA   |
| Current Output – Span (adjustable control)    |     | 20      | 23  | mA   |
| Bridge Sensitivity                            | 0.3 |         | 3   | mV/V |
| Bridge Resistance                             | 350 |         |     | Ohms |

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| Parameter                               | Min | Typical | Max | Unit  |
|---|-----|---------|-----|-------|
| Bridge Excitation Voltage               |     | 5       |     | V     |
| Current Output Temp. Coefficient – Zero |     | 0.001   |     | uV/°C |
| Operating Temperature                   | -20 |         | 85  | °C    |

<sup>&</sup>lt;sup>1</sup>T<sub>Ambient</sub>=25°C, non-repetitive 10/1000µs Waveform

**Optional Extras** 

|              |              | ABS Enclosure for AS0100 Amplifier                     |
|--------------|--------------|--|
| Part number: | AS0100-ENCL1 | including Lid with mounting flanges                    |
|              |              | Three colours available: Black, Grey, Translucent Blue |





