Mini Signal Amplifier SA-011-1500-V0-D2

Voltage regulator: None - Signal direction: Symmetrical (+ and -)

The Senstech signal amplifier simplifies the evaluation of the sensor signals and makes them less sensitive to interference. The gain is matched to the measuring range of the sensors – either in positive load direction or in both directions, depending on the variant. The amplifier module is available with integrated voltage regulator (supply voltage from 12V, output signal range 0-10V) or without regulator (supply voltage from 2.2V, e.g. suitable for connection to Arduino boards).

Product Name: SA-011-1500-V0-D2
Electrical contacting: Input side: Stranded wires (150 mm) with PicoBlade male connector / Output side: Stranded wires (150 mm) with single-pin female «DuPont» connectors
Amplification factor: 166.3 ±1.5
Input signal span: -30.1 mV .... 29.7 mV
Amplification factor tolerance: 100 ppm
Supply voltage: 2.2 .... 18 V DC
Supply current: 1.0 mA at VCC = 3.3 V, 3.3 mA at VCC = 12 V
Output signal span: 0.01 V/V .... 0.994 V/V
Zero offset: ±20 mV at VDD = 10 V and Sig+ = Sig– = 5 V
Thermal shift for zero: ±50 ppm /°C
Thermal shift for amplification factor: -75 ppm/°C
Dimensions (LxWxH): 28.0 x 9.0 x 4.7 mm
Operating temperature range: -40 .... 85 °C
Storage temperature range: -65 .... 125 °C
Ambient humidity: 0 .... 95 %RH non-condensing
Ingress protection: IP65
Packaging: Plastic bag and label with individual calibration data
Product code: 155920

Product details

Signal Amplifier SA-011-1500

The unamplified signal voltage of a thin-film sensor is only a few millivolts per volt of supply. Depending on the evaluation electronics and transmission distance, this signal can be sufficient. If not, an instrumentation amplifier is used to amplify the signal to the full operating voltage range. With some sensor types, the amplifier is even integrated directly. For all others we offer compact amplifier modules that can be connected to the sensor. The mini signal amplifier SA-011-1500 is available in four variants, which are suitable for a wide range of sensors and with an operating voltage range of 2.2 to 25 V, they fit in a wide variety of operating environments

> download data sheet

Outstanding sensor properties thanks to thin-film technology

Senstech force sensors are manufactured using thin-film technology. This makes them particularly reliable and long-term stable because the measuring element is applied directly to the metal using sputtering technology. Unlike bonded strain gauges, there are no adhesives and no creeping layers which reflects in the typical technical properties:

- Best long-term stability with drift < 0.03%/year
- High temperature stability even without temperature compensation (typically < 0.01%/°C)
- Very good linearity with correctly designed measuring bodies
- Excellent miniaturization possibilities
- Simple signal processing

Senstech is a pioneer in thin-film based sensor technology. The broad knowledge and experience flows into all of their products.

The perfect fit for your application

Thanks to Senstech's flexible manufacturing processes, it quickly pays off to adapt a sensor to your individual requirements. All essential parameters can be customized:

- Geometry and material of the sensor
- Layout of the thin film elements
- Mechanical and electrical interfaces
- Signal processing

The first prototypes can usually be delivered within a few weeks. Didn't find the right sensor in the webshop? Contact Senstech for an individual offer

Contact your specialist for force sensors (senstech.ch)

The online shop

Quantity (pieces)	Price (per piece)
1-9	CHF 59.00
10-19	CHF 49.00
20-50	CHF 39.00

Stock: **11**