

Model A3 Heavy Duty Sensor Signal Conditioner

Model A3 is a Sensor Signal Conditioner (SSC) for heavy duty application. This SSC is suitable for the connection up to four sensors or transducers which consist of strain gauge Wheatstone bridge circuit of sensing function.

In application, when connected to power supply (supply voltage is 12, ..., 24 Vdc), this A3 SSC provides a constant excitation voltage to Wheatstone bridge circuit of the sensor, and amplifies the output signal of the sensor to standard signals (for instance, 0~5 Vdc or 4~20 mA) for further transmission to PLC in distance.

The A3 SSC has a heavy-duty aluminum housing of anodized surface treatment. Thanks to both the rubber-seals between housing cover and container and the water-proof cable gland, model A3 SSC is protected to reach IP65, and can be easily fixed to panel mounting plate with two holes at two sides of the housing.



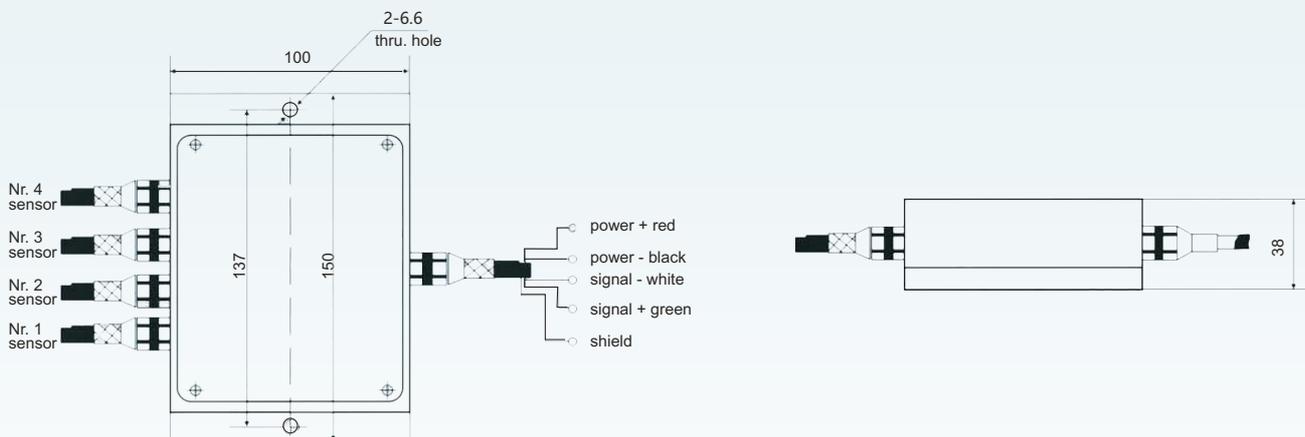
Electrical Features:

- Suitable for up to 4 sensors of strain gauge Wheatstone bridge circuit of output sensitivity ranging from 1mV/V, ..., 12mV/V
- Easy to build up electric connection with water-proof cable glands
- Easy-connecting-terminals for electric connection
- Inverse-polarity protection for sensor circuit when power supply is connected reversely
- Excitation voltage adjustable with a built-in potentiometer, Gain and Zero adjustable with two built-in potentiometers.
- Output configurable to 2-wire, 3-wire, or 4-wire for either current loop or voltage O/P signal
- Fully calibrated to standard output signal for rated sensor sensitivity before delivery

Mechanical Features:

- Aluminium housing of anodized surface treatment
- Rubber-seals between housing cap and container
- Easy-fitting to panel by means of four water-proof holes
- Environment protection: IP65
- Net weight: 550g

Dimensions:



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Model A3

Heavy Duty Sensor Signal Conditioner



Specifications:

1. power supply: 12, ..., 24 Vdc
2. excitation voltage for sensors: 5~10 Vdc adjustable
3. input signal: 5mV, ..., 30mV each sensor (or: sensor output sensitivity: 1mV/V, ..., 12mV/V)
4. output signal: 0~5 Vdc, or 1~5 Vdc
4~20 mA, 0~10 mA
5. accuracy: $\leq \pm 0.1\%fs$ (standard), $\leq \pm 0.2\%fs$
6. load resistance: $\geq 500\Omega$ (voltage output)
 $\leq 350\Omega$ (current output)
7. electric connections:
 - on the side for sensor connection, 4 x 5-pole connector (plus mating connector)
 - on the side for power supply and output signal, 7-pole connector for 2-wire, 3-wire or 4-wire configurations (plus mating connector)
8. operating temperature range: -20 ~ +85 °C
9. environment protection: IP65

Testing and Calibrating:

Before delivery, model A3 SSC is 100% tested for the rated sensor output sensitivity as stated on the purchasing order (for example, 1.5mV/V), and calibrated to the inquired output signal (for example, 0~10 Vdc).

How to order:

When placing a purchasing order, specify an ordering code containing all the necessary technical specifications of your interest.

Ordering code:

model-sensor number-sensor output sensitivity-SSC output signal-accuracy-power supply-(customer specific requests)

Ordering code example of standard product: A3-4pcs-1.5mV/V-4~20mA-0.1%fs-24Vdc

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