

Model A3 Heavy Duty Signal Conditioner for Four Sensors

Model A3 is a Sensor Signal Conditioner (SSC) for heavy duty applications. This SSC is suitable for 2~4 sensors or transducers which consist of strain gauge Wheatstone bridge circuit of sensing function. In application, when connected to power supply (supply voltage is 12/15/24 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 IP 66, and can be easily fixed to panel mounting plate with four water-proof holes which are hidden inside the housing.



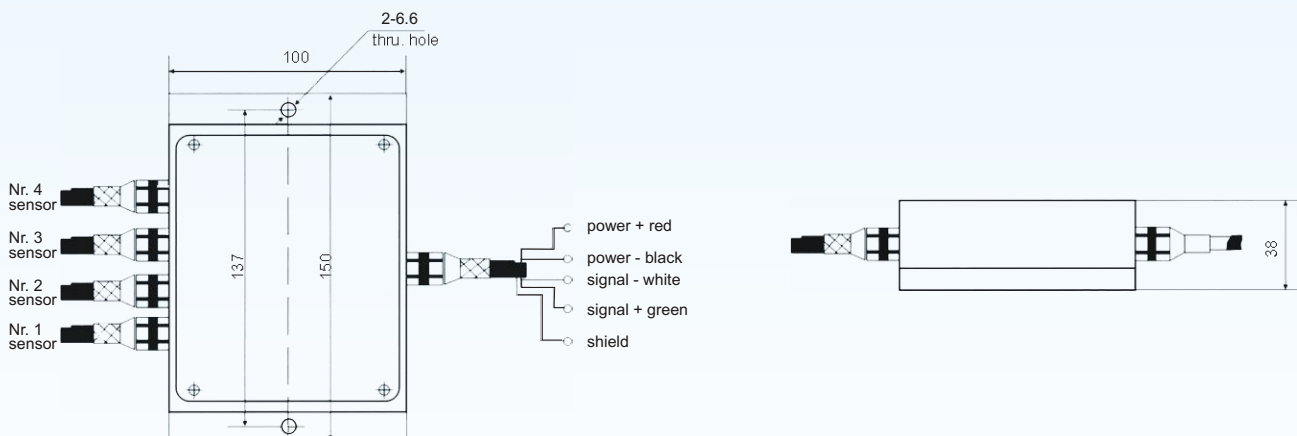
Electrical Features:

- Suitable for 2~4 sensors of strain gauge Wheatstone bridge circuit of output sensitivity ranging from 1mV/V, ..., 2.2mV/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 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: IP 66
- Net weight: 550 g

Dimensions:



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Specifications:

1. power supply: 12/15/24 Vdc
2. excitation voltage for sensors: 5~10 Vdc adjustable
3. input signal: 5 mV, ..., 30 mV each sensor (or: sensor output sensitivity: 1 mV/V, ..., 2.2 mV/V)
4. output signal: 0~5 Vdc, or 1 ~ 5 Vdc for voltage output
4~20 mA, 0~10 mA for current output
5. accuracy: 0.1 %FSO (standard), 0.2 %FSO
6. load resistance: $\geq 1 \text{ k}\Omega$ (voltage output)
 $\leq 1 \text{ k}\Omega$ (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: IP 66

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, 1.5 mV/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 (o/c) system:

Model - sensor No. & output sensitivity - SSC output signal - accuracy - power supply - customer specific requests

Ordering code example: o/c = A3 - 4pcs, 1.5mV/V - 4~20 mA - 0.1%fso - 24VDC - no specific requests

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