



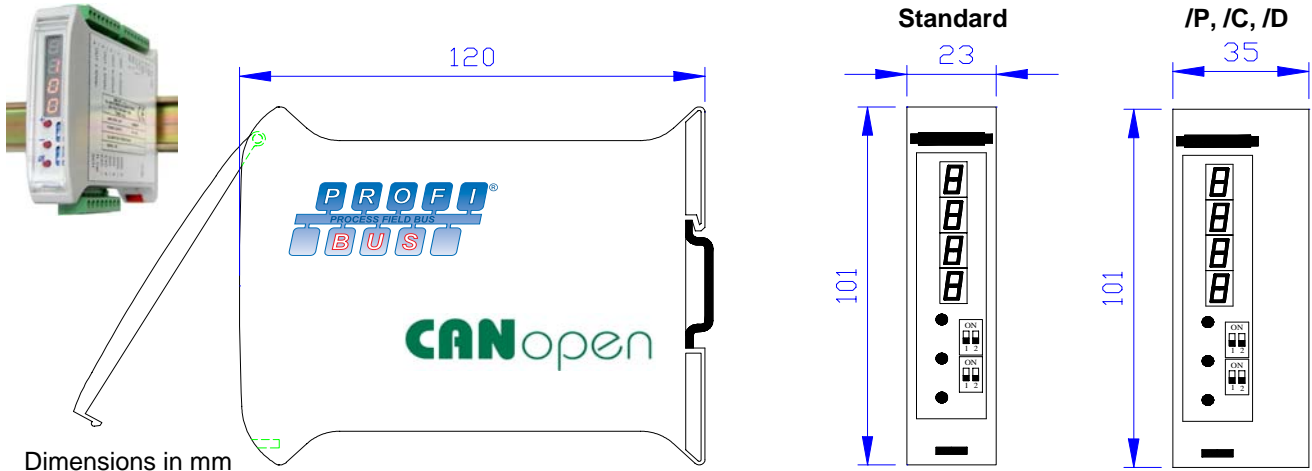
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MEASURING AMPLIFIER

ADS-R

Data sheet ADSR / 04 / 5



**ADS-R is a digital measuring amplifier for strain gauges bridge, including a 24 bit acquisition circuit with programmable gain, 3 analog outputs towards a supervision unit and a digital input for the zeroing of remote outputs.**

In the **standard mode**, the measuring amplifier allows the analog signal zeroing (calibration), and the output gain increasing / decreasing, by a three-buttons interface; the output tension is continuously visualised on the display, allowing, therefore, the adjustment without external instruments (tester or screw-driver).

In the **advanced mode** (selectable by a special combination of keys), it is possible to program all operational parameters of the units, by the keyboard and the display: zero, gain (full scale in engineering unit), pass-band of the filter on the signal, threshold values for alarms, etc.; in normal operation, the display visualises the tension measurement, calculated according to the current parameters, while the two digital outputs indicate two alarms for the overcoming threshold.

The ADS-R is also available with an RS485 interface, a CANopen DS404 interface or a Profibus DPv1 interface

## TECHNICAL CHARACTERISTICS

- External power supply 24V<sub>DC</sub> / ± 10%.
- Interface for strain gauges bridge, characterised by:
  - bridge supply 5 V<sub>DC</sub>.
  - 60 mA total (4 load cells 350 Ohm in parallel).
  - acquisition with a 24 bit ADC converter.
  - independent sense wires.
  - possibility to connect a calibration resistance (internal or external).
- N. 1 auxiliary analog input 4..20 mA (for working as a 4..20 mA => 0..10 V converter).
- N. 2 analog outputs ± 10 V<sub>DC</sub>.
- N. 1 analog output 4..20 mA .
- N. 2 opto-isolated input digital signals 24 V<sub>DC</sub> (positive logic).
- N. 2 opto-isolated output digital signals 24 V<sub>DC</sub> / 0.1 A (positive logic).
- 4-digits display indicating the output value in Volt (from +10.00 to -9.99).
- Zeroing analog key (calibration).
- Analog gain increasing / decreasing keys.
- Frontal dip-switch for internal calibration resistance (if present) or external calibration resistance.
- Frontal dip-switch for polarity inversion of analog outputs.
- Frontal dip-switch to enable the converter 4..20 mA => 0..10 V.
  
- Assembling on DIN guide step 23 mm (standard solution) or 35 mm (with expansion card).
- RS 485 optional expansion card.
- Profibus DPv1 optional expansion card.
- CANopen DS404 optional expansion card.

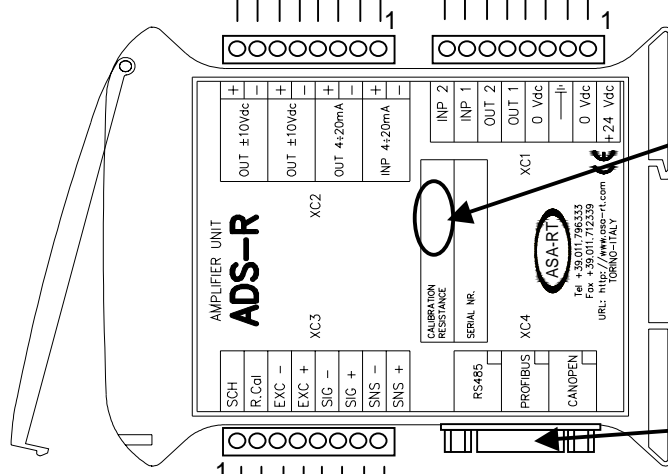
# ELECTRICAL CONNECTION

AGND  
 Analog input 4..20 mA  
 AGND  
 Analog output 4..20 mA  
 AGND  
 Analog output ±10 V<sub>DC</sub>  
 AGND  
 Analog output ±10 V<sub>DC</sub>

Digital input 2  
 Digital input 1 (Remote zero)  
 Digital output 2 (low threshold)  
 Digital output 1 (high threshold)  
 0 V<sub>DC</sub>  
 EARTH  
 0 V<sub>DC</sub>  
 + 24 V<sub>DC</sub>

## POWER SUPPLY

In case of spare parts purchasing, please specify this value (if present).

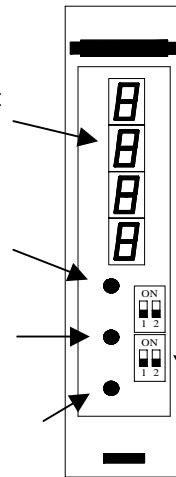


Connector for RS485, CANOpen or Profibus (optional)

## LOAD CELL

EARTH  
 Calibration resistance  
 EXC -  
 EXC +  
 SIG -  
 SIG +  
 SNS -  
 SNS +

Analog output (Volt)  
 Gain increasing  
 Gain decreasing  
 Zeroing



Dip1 ON: Polarity inversion enabled  
 Dip2 ON: Conversion 4..20 mA -> 0..10V enabled  
 Dip1 ON: Calibration resistance inserted

## ORDER CODE

