
ABB MEASUREMENT & ANALYTICS | DATA SHEET

COND-SGA

Conditioners – amplifier for strain gage based transducers



Measurement made easy

Conditioner – amplifier provides standardized signals in current and voltage from every load cell, force transducer and torque sensor based on the strain gage technology.

Input: Wheatstone bridge 0.1 to 30 mV/V

Output: 4(0) to 20 mA, –10 to 0 to +10 V

Power supply

- COND-SGA-A: 115 to 230 V AC / 18 to 24 V DC
- COND-SGA-D: 18 to 24 V DC

Enclosure: ABS case 164 × 84 × 57 mm (6.45 × 3.30 × 2.24 in)

Applications

The COND-SGA is perfectly designed to the following applications:

- Industrial weighing
- Industrial force and torque measurement
- Direct connection to PLC, display unit, industrial instrumentation, chart recorder or PC (with A/D card)

Functions

- Zero point and full scale by internal dip-switches and potentiometers
- With internal shunt calibration resistor of 120 k Ω

Specification

	COND-SGA-A	COND-SGA-D
Type	Strain gauge conditioner	Strain gauge conditioner
Input range	0.1 to 30 mV/V	0.1 to 30 mV/V
Sensor excitation	5 / 10 V DC (Zmin.: 85 Ω)	5 / 10 V DC (Zmin.: 85 Ω)
Linearity error	< 0.03 % F.S.*	< 0.03 % F.S.*
Temperature coefficient of zero signal	< ± 0.01 % F.S.*/10 °C	< ± 0.01 % F.S.*/10 °C
Temperature coefficient of the sensitivity	< ± 0.01 % F.S.*/10 °C	< ± 0.01 % F.S.*/10 °C
IP Rating	IP 67	IP 67
Temperature data		
Service temperature range	-10 to 50 °C (14 to 122 °F)	-10 to 50 °C (14 to 122 °F)
Storage temperature range	-20 to 70 °C (-4 to 158 °F)	-20 to 70 °C (-4 to 158 °F)
Electrical data		
Power supply	115 to 230 V AC / 18 to 24 V DC (5 VA)	18 to 24 V DC** (5 VA)
Bandwidth	0 to 6000 Hz	0 to 6000 Hz
Low pass filter	1 to 5000 Hz	1 to 5000 Hz
Output tension	0 to 10 or -10 to 0 to 10 (load R. $\geq$ 5k Ω) V	0 to 10 or -10 to 0 to 10 (load R. $\geq$ 5k Ω) V
Output current	0 to 20 or 4 to 20 (load R. $\leq$ 500 Ω) mA	0 to 20 or 4 to 20 (load R. $\leq$ 500 Ω) mA

* F.S.: Full scale

** Power supply 9 to 36 V DC available on request.

Specifications subjects to change without notice

Dimensions

Conditioner – amplifier for strain gage based transducers

COND-SGA-A

All dimensions in mm (in)

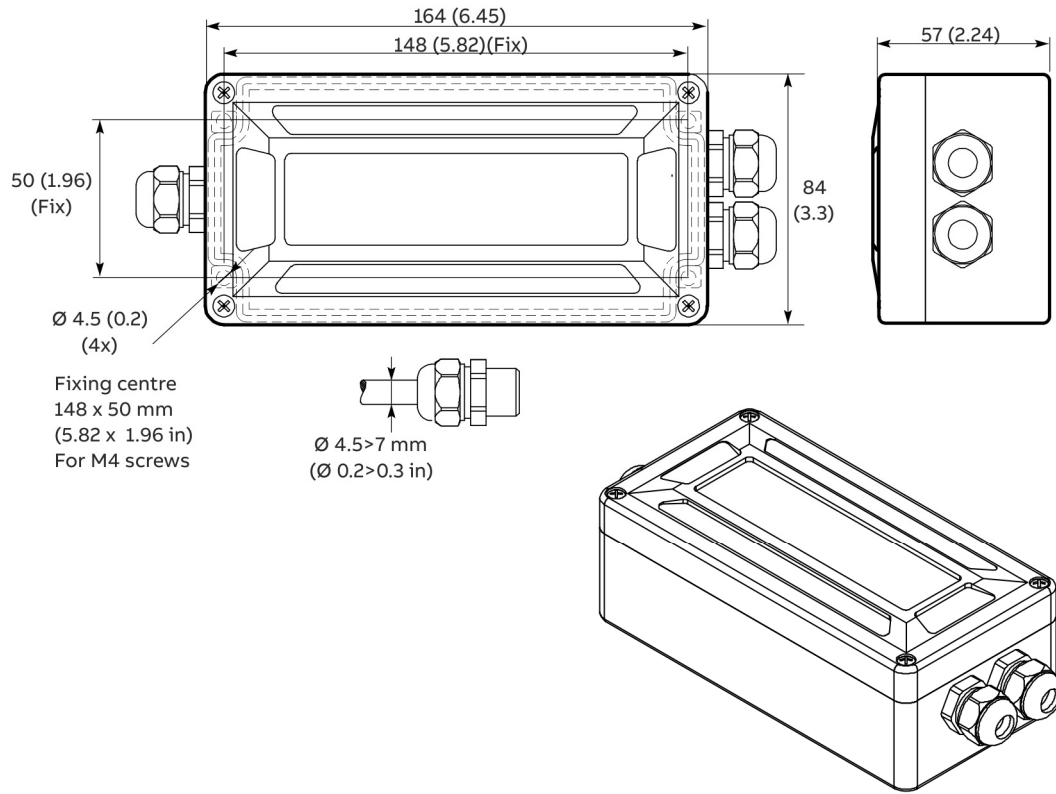


Figure 1: Standard dimensions

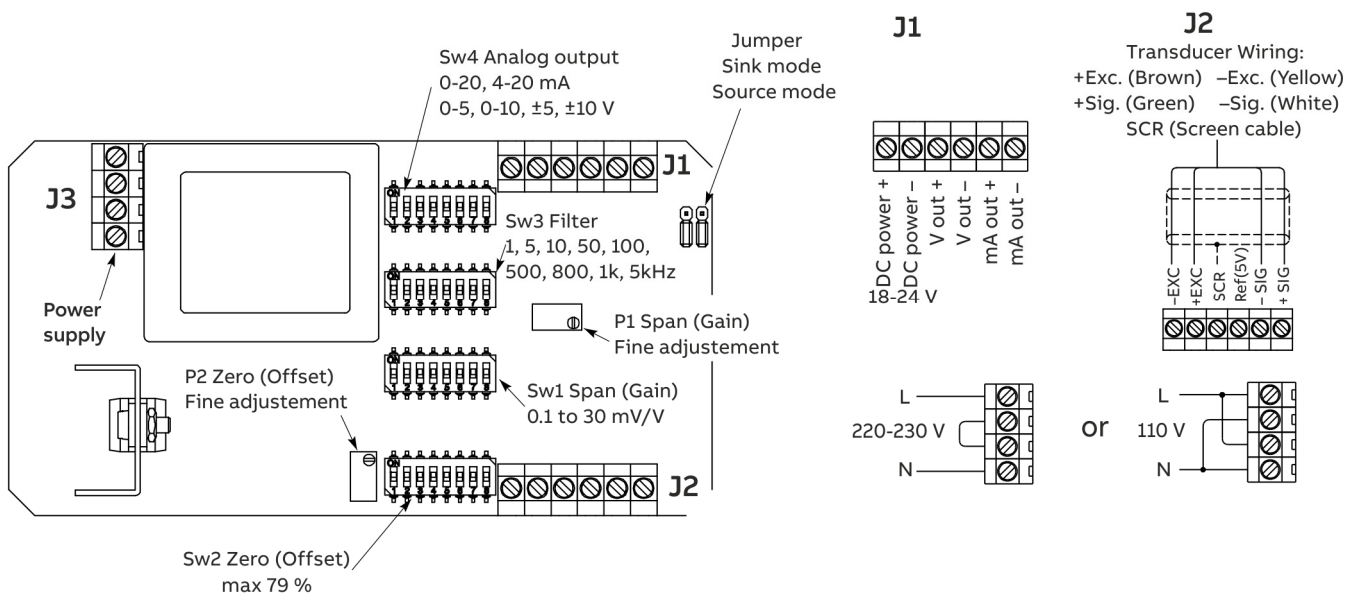


Figure 2: Terminals

COND-SGA-D

All dimensions in mm (in)

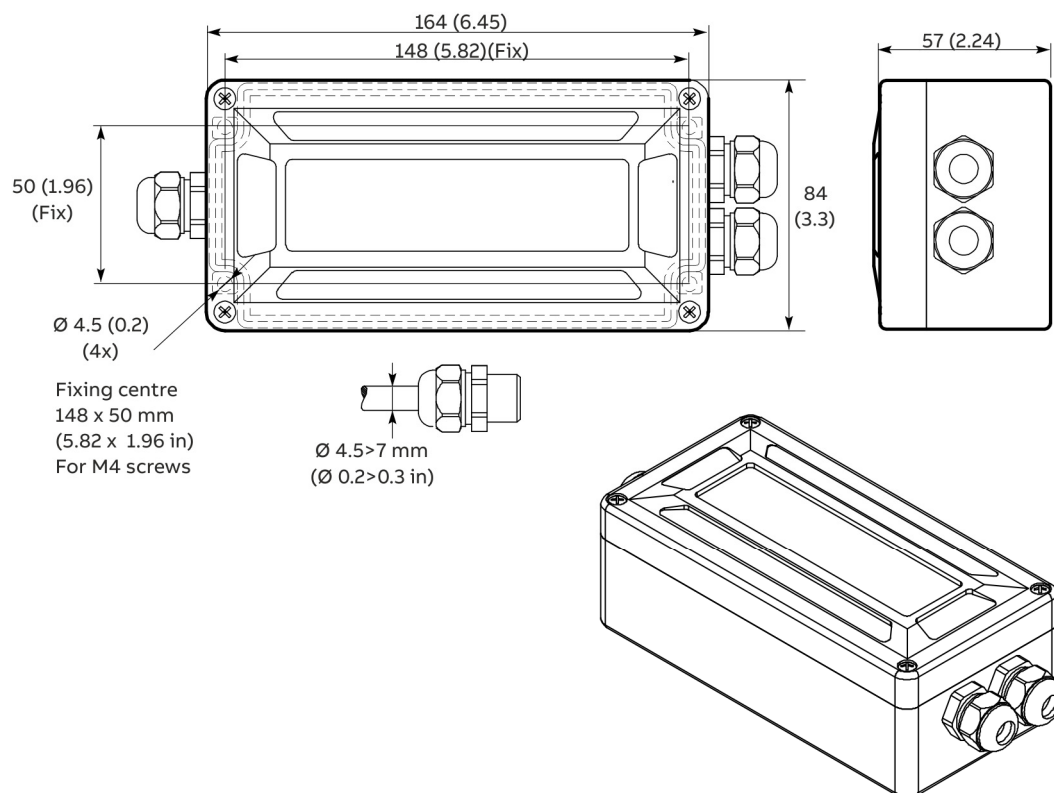


Figure 3: Standard dimensions

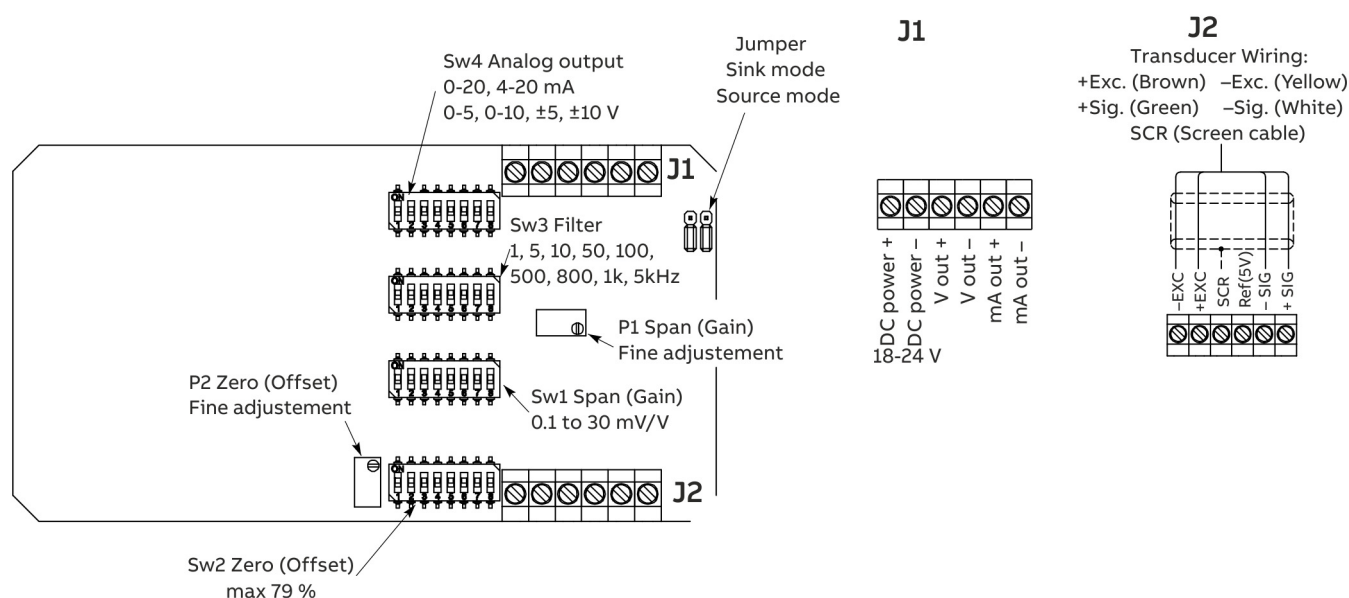


Figure 4: Terminals



Notes

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