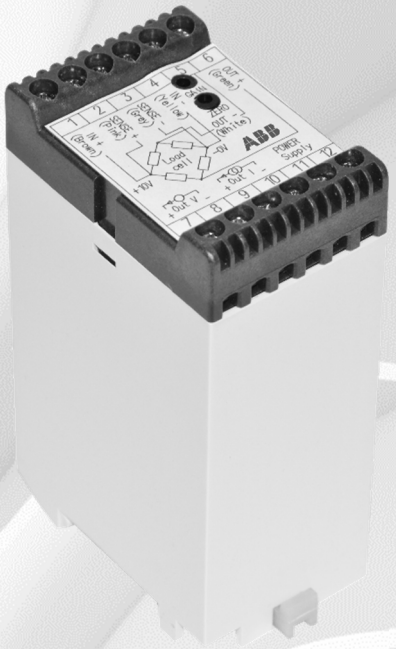
ABB MEASUREMENT & ANALYTICS | DATA SHEET

COND-A420

Conditioners – amplifier for strain gage based transducers



Measurement made easy

The COND-A420 Conditioner – amplifier provides standardized signals in current and voltage from every load cells, force transducer and torque sensor based on the strain gage technology.

Input: Wheatstone bridge (4 or 6 wires connection [sense])

Output: 4(0) to 20 mA and 0 to 10 V (simultaneously)

Sensor excitation: 10 V (120 mA max.) available for up to 4 × 350 Ω. Load cells connected in parallel.

DIN rail mounting

Applications

The COND-A420 is perfectly designed to the following applications:

- Industrial weighing

Functions

- Zero point and full scale adjustment by potentiometers (20 turns) on the front panel.
- Correction of the influence of transducer cable length (6 wires technology).

Specification

	COND-A420	**COND-A420-DC**
Type	Strain gauge conditioner	Strain gauge conditioner
Input range	0.5 to 2 mV/V	0.5 to 2 mV/V
Sensor excitation	10 V DC (max. 120 mA)	10 V DC (max. 120 mA)
Linearity error	< 0.01 % F.S.*	< 0.01 % F.S.*
Temperature coefficient of zero signal	< ±0.2 % F.S.*/10 °C	< ±0.2 % F.S.*/10 °C
Temperature coefficient of the sensitivity	< ±0.06 % F.S.*/10 °C	< ±0.06 % F.S.*/10 °C
IP Rating	IP 20	IP 20
Temperature data		
Service temperature range	−10 to 60 °C (14 to 140 °F)	−10 to 60 °C (14 to 140 °F)
Storage temperature range	−30 to 80 °C (−22 to 176 °F)	−30 to 80 °C (−22 to 176 °F)
Electrical data		
Power supply	230 V AC** (50/60 Hz) (3 VA)	24 V CD (3 W)
Bandwidth	0 to 10 Hz	0 to 10 Hz
Low pass filter	1 to 5000 Hz	1 to 5000 Hz
Output tension	0 to 10 (load R. ≥ 1000 Ω) V	0 to 10 (load R. ≥ 1000 Ω) V
Output current	0 to 20 or 4 to 20 (load R. ≤ 800 Ω) mA	0 to 20 or 4 to 20 (load R. ≤ 800 Ω) mA

* F.S.: Full scale

** 110 V AC available on request

Specifications subjects to change without notice.

Dimensions

Conditioner – amplifier for strain gage based transducers

COND-A420

All dimensions in mm (in)

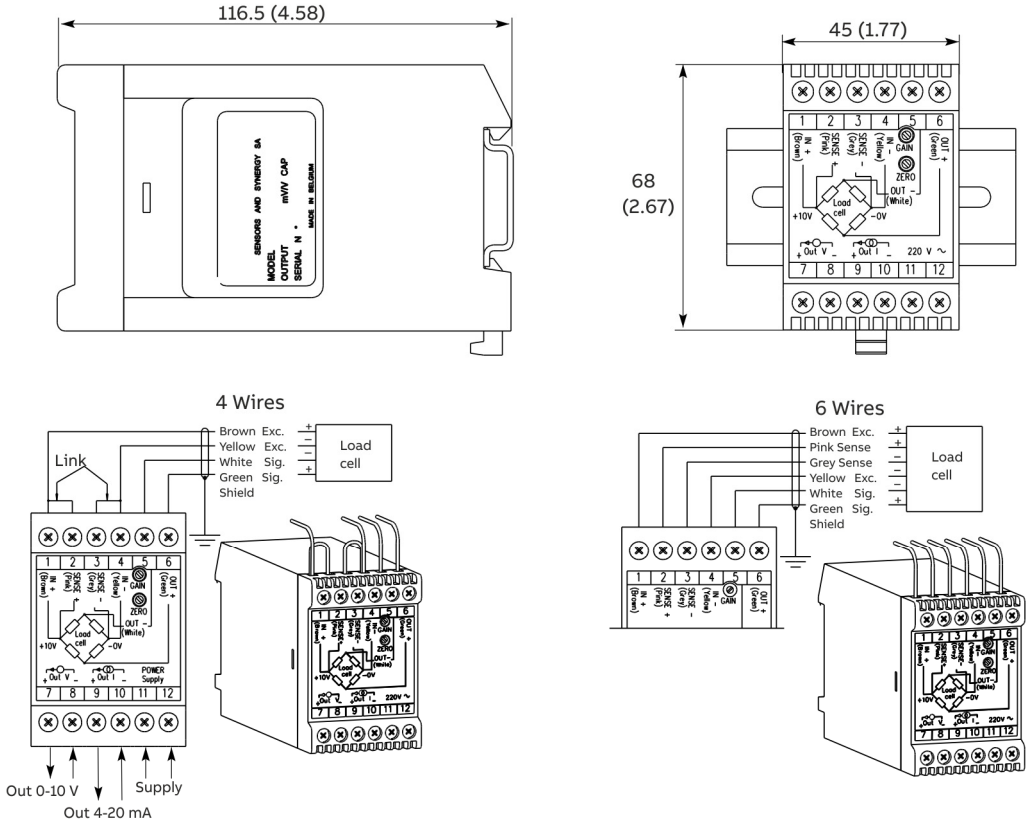


Figure 1: Standard dimensions

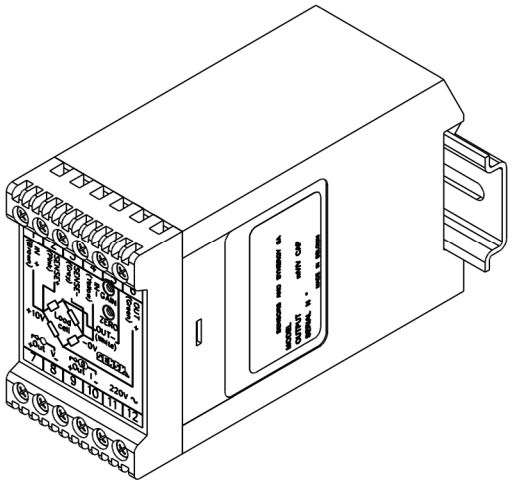


Figure 2: Other view / Terminals (see drawing)

Notes

Notes

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DS/COND-A420-EN Rev. A 11.2018