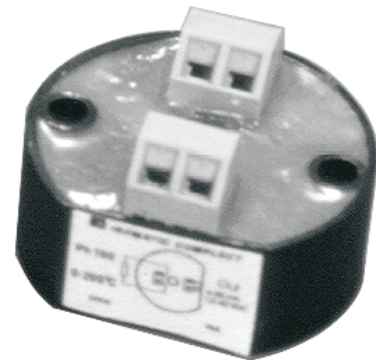




SENSOR SIGNAL TRANSMITTERS CCA/CCB/CCC/CCD/CCN

Basic types and their input ranges

Model	Input Type	Input Range
CCA-11	Pt100	-50...+50 °C
CCA-12	Pt100	0...+200 °C
CCA-13	Pt100	0...+500 °C
CCB-11	TC- J	0...+500 °C
CCB-12	TC- J	0...+800 °C
CCB-21	TC- K	0...+500 °C
CCB-22	TC- K	0...+1000 °C
CCB-31	TC- R	+500...+1800 °C
CCC-11	R	0...100 Ω
CCC-12	R	0...200 Ω
CCD-11	U	0...20 mV
CCD-12	U	-10V...+10V
CCN-XX	CALL	CALL



1. Function and general notes

The sensor signal transmitters CCX transform the signal from measurement analogue sensors (thermistors, etc.) in a standard signal 4-20mA. Such transformation is necessary when the sensor is at a considerable distance from the input of the measurement instrument, data logger or regulator.

The range of the output signal allows detection of interrupted connection to the sensor or to the data logger. In such cases the value of the output signal falls below 4mA or rises above 20mA.

All transmitters allow adjustment of the minimum and the maximum limit of the range. The adjustment is performed using two multi-turn trimmers, applying the corresponding signals from a reference source and measuring the output current.

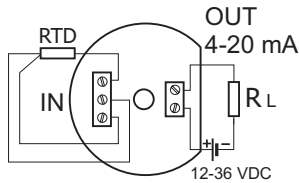
2. Specifications

Output signal	
- basic range	4 20mA
- when the connection is interrupted	< 4mA or > 20mA (2.2mA or 27mA)
Max output current	35mA
Power supply	from 12V dc to 36V dc
Operating temperature	-40°C to +85°C
Error:	
- initial (@20C, 24V dc)	0.1%
- from power supply	0.01% / V
- temperature error (0°C to 50°C)	0.02%/°C
- from cold junction compensation (for CCB models only)	0.1°C/°C
Reverse polarity protection	up to 40V
Cross-section of the wires	< 1.5mm ²
Protection	to IP65
Enclosure type	DIN BL
Weight	60g

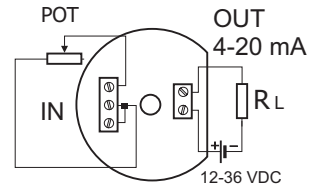
SENSOR SIGNAL TRANSMITTERS CCA/CCB/CCC/CCD/CCN

3. Operation instructions

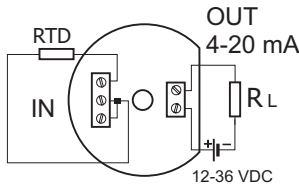
- 3.1.1. Connecting a thermistor using 3-wire line (type CCA-XX)



- 3.1.6. Rheostat) connection diagram (type CCC-XX)

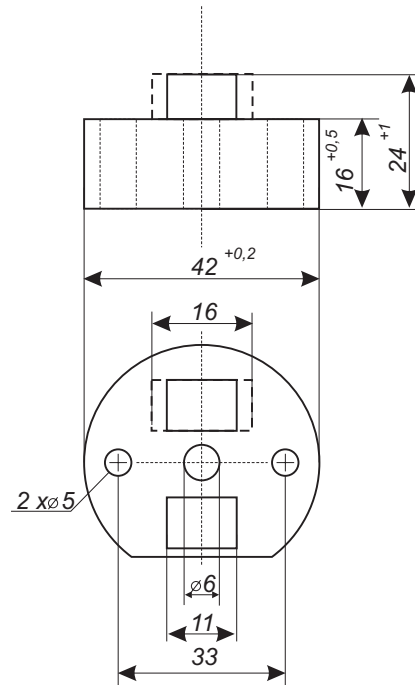
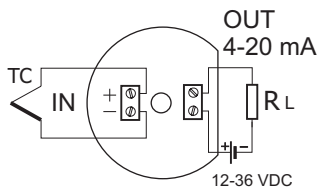


- 3.1.2. Connecting a thermistor using 2-wire line (type CCA-XX)

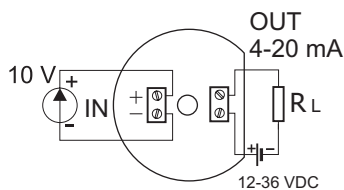


3.2. Overall and mounting

- 3.1.3. Thermocouple connection diagram (type CCB-XX)



- 3.1.4. Connecting a voltage source (type CCD-XX)



3.3. Mounting instructions

The transmitters are fastened by two screws

- 3.1.5. Connecting a potentiometer-type sensor (type CCC-XX)

