



Description

The amplifier transforms a temperature value direct from PT100 to the electrical signal. The outgoing analogue signal can be used for meteorological purposes or as input signal for control and regulation applications.

Construction and operating

The PT 100 is supplied by a power current approx. 0.5 mA. The PT100 outgoing signal is measured and converted proportionally into electrical initial values. The plastic housing protects the circuit against influences of the weather. There are two screw connector attached at the lower surface of the housing.

Technical Data

linearity	: < ± 0,05 K + PT 100 error
offset	: < ± 0,1 K + PT 100 error
temperature error	: max. ± 0,01 % FS / K -30 ... 70°C
settling time	: approx. 5 s
measuring range	: -30 ... 70 °C
operation voltage	
431301, 431302	: 10,5...28 VDC
431303, 431304	: 12 ... 28 V DC
operating current	
431301, 431302	: approx. 9 mA.
431303, 431304	: approx. 40 mA
output	
431301	: 0 ... 1 V, load resistance > 10 kOhm
431302	: 0 ... 10 V, load resistance > 10 kOhm
431303	: 0 ... 10 V, load resistance > 10 kOhm, 4 ... 20 mA, Bürde max. 500 Ohm
431304	: 0 ... 10 V, load resistance > 10 kOhm, 0 ... 20 mA, Bürde max. 500 Ohm
mounting	: two holes for the screw M4 made in housing
ambient temperature	: -30 ... 70 °C
protecting	: IP 54
recommended cable	
431301, 431302	: LiYCY 4 x 0,2 mm ²
431303, 431304	: LiYCY 6 x 0,2 mm ²

Connection

431301, 431302

Position	Connection
1	power supply 10,5...28 V DC
2	supply masse
3	0 ... 1V(10V) output
4	output masse
5	PT 100 supply
6	PT 100 input signal
7	PT 100 input signal
8	PT 100 supply

431303, 431304

Position	Connection
1	power supply 12...28 V DC
2	supply masse
3	0 ... 10V output
4	output masse
5	0 mA (4 mA) ... 20 mA output
6	output masse
7	PT 100 supply
8	PT 100 input signal
9	PT 100 input signal
10	PT 100 supply

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