

Temperature sensor with converter STPt/I - 210 - 4 - B

DESCRIPTION:

The sensor STPt/I - 210 is resistor temperature sensor with converter with unificate current output signal 4 ~ 20 mA. The sensor is for continual measurement of temperature with use in control and regulation systems. Output signal is possible to use for direct measurement or for process control through appropriate controllers. The sensor is designed with tubular and with protection IP55. The sensor is for basic use. The sensor is delivered single for wall mounting, with the well for mounting to pipeline or with the holder for mounting to an air conditions. The head of sensor is from aluminium, tubular is from stainless steel 17 241. The well is tested for pressure 4,0 MPa. The power supply of sensor have to be connected from safety supply by ČSN EN 61 010 - 1.

TECHNICAL DATES:

Temperature sensor: Pt100 by IEC 751/A2, accuracy class B
 Accuracy: $Dt = \pm(0,30 + 0,005 \times |t|)$ [°C]
 Total error = error of sensor Pt100 + error of converter

Converter dates:

Power supply: 10 ~ 36 VDC (reversal of poles protection)
 Connection of Pt100: three wires
 Output signal: 4 ~ 20 mA (linear with temperature)
 at sensor short: < 2,4 mA
 at sensor interrupting: about 25 mA

Measurement range: 0 ~ 50 °C

Current through Pt100: 0,8 mA

Errors by ČSN IEC 770:

- basic: < 0,1 %
- hysteresis: < 0,02 %
- repeating: < 0,015 %
- linearity: < 0,08 %

Temperature dependence: < 0,01 % / °C

Voltage dependence: < 0,02 % / 1 V

Load resistance influence: < 0,02 % / 100 W

Long-term stability and converter drift : < 0,003 % / 500 hours

Calibration: at 25°C and 40 % r.h.

Electromagnetic compatibility:

ČSN EN 61000 - 4 - 2 Electrostatic discharge resistance - class 3 (8 kV)

ČSN EN 61000 - 4 - 3 Electromagnetic poles resistance - class 3 (10 V/m, error < 1 %)

ČSN EN 61000 - 4 - 4 Bursts resistance - class 4 (4 kV)

Mechanical properties:

Type: with tubular 210 mm

Weight: 0,21 kg

Protection: IP 55

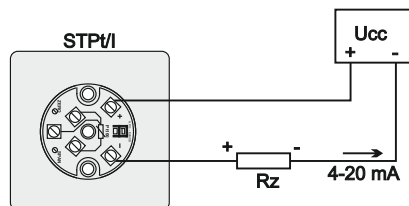
Working temperature of the sensor head: -30 ~ 80°C

Steady time: till 15 minutes after switch-on

Mounting position: arbitrary

Connection: terminals, wire diameter 0,5 ~ 2,5 mm²

CONNECTION:



$$R_{max} = \frac{U_{cc} - 10}{0,02} (W)$$

$$U_{cc} = 10 \text{ až } 36 \text{ V DC}$$

$$R_{max} = R_z + R_v$$

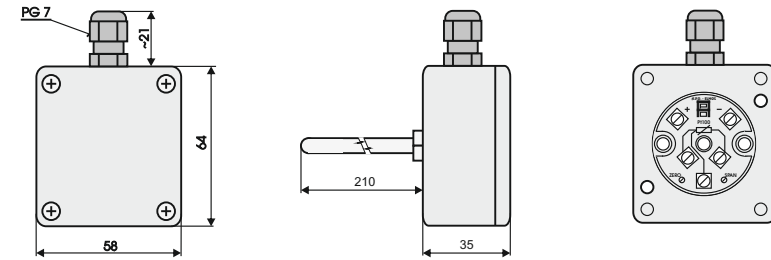
R_z - load resistor

R_v - line resistance

august 1998, TD-S-05-215

You unscrew the cover of sensor and an incoming cable put into the bushing. Recommended diameter of the cable is 4 - 8 mm. Single wires you connect to terminal by the desing of connection and screw in the cover of sensor. After this you can switch-on the power supply.

DIMENSIONS:



CERTIFIKATE ABOUT THE PRODUCT ASSEMBLY AND QUALITY:

Temperature sensor with converter STPt/I - 210 - 4 - B

14-05-23508

We acknowledge that the abovementioned product is complete and answers to technical conditions and it is good inspected and tested.

GUARANTEE CONDITIONS:

The producer answer that his product has and will has characters appointed technical norms for appointed time. That is complete and without defects. The producer also answers for defects which a customer find out in the guarantee time and which he claim in the time.

The guarantee time is 24 months from the date of sale.

The guarantee is possible to apply at material defects or at bad function of product. When is a defect's product sent to repair is necessary to protect this product against damage during transport.

The guarantee is dissolved as long as on the product were arrangements achieved or as long as the

Date of sale:

Signature:

