PT50H, PTP50H, PT50J, PTP50J

RESISTANCE THERMOMETERS WITH HEAD

Design: PT50H (PTP50H)   PT50J (PTP50J)

- Designed for installation in pipe or vessel wall
- With two (three) programmable wire 4-20 mA transmitter

Resistance thermometers without a converter:
Stem sensor is made of stainless steel AISI321 (1.4878). The metal head is equipped with IP56 junction box.
The total length of stem **X** and **Y** is determined by a customer. The basic connection is fitting G1/2.
It is possible other fittings - for example, M20x1, 75, M27x2 ..
Thermometer without transmitter can be equipped with sensor Pt100 / A or B, Pt1000, Ni1000, c KTY, PTC, thermocouples, etc., in two, three or four-wire connection.
It can also be equipped with two sensors into a single stem.

PT50J - for liquids with thermoweel $\varnothing$10,2mm, -25 ... +120 ° C (τ = approx. 10sec) or -25 ... +400 ° C (τ = approx. 25sec)

Specifications: Temperature sensor: Pt100 / "B" or "A" according to IEC 751, or others, according to a customer requirements
Ambient temperature: -25 ... +100 ° C
Dielectric strength: 500V, insulation resistance min. 20M Ω (between circuit and the metal housing)

Resistance thermometers with a converter to 4-20 mA:
Stem sensor is made of stainless steel AISI321 (1.4878). Converter PP200 with output 4..20mA is installed to the metal head with IP56.
The total length of stem **X** and **Y** is determined by a customer. The basic connection is fitting G1/2.
It is possible other fittings - for example, M20x1,5, M27x2 ..
The measuring range of the converter can be made arbitrary, min. range is 10 ° C.
Thermometer with a transmitter can be equipped with sensor Pt100 / A or B, Pt1000, Ni1000 etc. in two (three) wire connection.

PTP50J - for liquids with thermoweel $\varnothing$10,2mm, -25 ... +120 ° C (τ = approx 10sec) or -25 ... +400 ° C (τ = approx 25sec)

Specifications: Temperature sensor: Pt100 / "B" or "A" according to IEC 751, or another customer request Measuring range: any in the acceptable range, min. range 10 ° C
Accuracy: ± 0.3% FS
Output signal: 4 ... 20mA linear
Power supply: according to the transmitter - the output signal
Ambient temperature: -25 ... +80 ° C
Overpressure liquid: up to 15 MPa
Dielectric strength: 500V, insulation resistance min. 20M Ω (between circuit and the metal housing)

Parameters of individual converters PP200, PP300, PPL100, which are intended for the thermometer you can see on our web site.

PT50H or PTP50H are made **without a mounting screw**. Here are selected only stem length **X**.

Type tests:
Standard type test: according to ČSN EN 60770-1 ed.2
EMC according to ČSN EN 61326-1
Safety assessed according to ČSN EN 61010-1

PT50H (PTP50H)   PT50J (PTP50J)
for liquid with thermoweel

The order should include:

Version without a converter:
- Type of sensor, or any other spec. requirements
  (four-wire connections, dual sensor ...)
- Expected maximum temperature measured
- The total stem length (X) and dive (Y) with regard to the table below
- Mounting bolts - M20x1, 5, G1/2....etc.
- Number of pieces
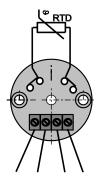
Table recommended distance head from the fitting:

Up to 100°C...... at least
125°C...... 50mm
150°C...... 80mm
200°C......100mm
300°C......120mm
400°C......160mm

Version with a converter:
- Type of sensor, or any other spec. requirements
- Converter type
- Measuring range of the thermometer [° C]
- The total stem length (X) and draft (Y) with regard to the table below
- Mounting bolts - M20x1, 5, G1/2....etc.
- Number of pieces

Table recommended distance head from the fitting:

Up to 80°C........ at least
100°C...... 50mm
125°C...... 80mm
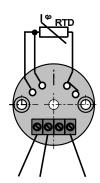150°C......100mm
200°C......120mm
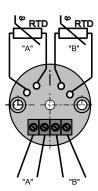300°C......140mm
400°C......180mm
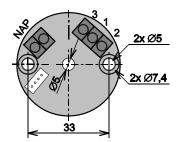
Connection terminals:

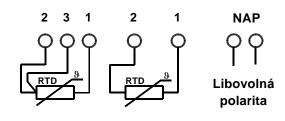Two-wire connection

Four-wire connection:

Three-wire connection:

Two sensors, two-wire connection:
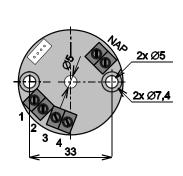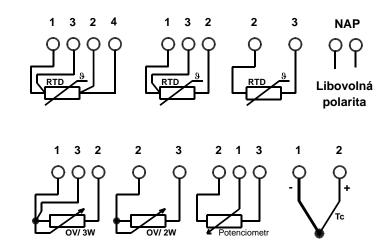
P200

Connection terminals:
NAP: power 8 ... 28V DC, output current loop (polarity insensitive)
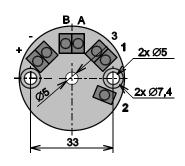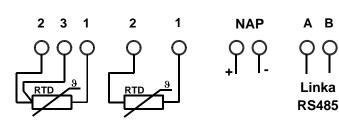
P300

Connection terminals:
NAP: power 8 ... 28V DC, output current loop (polarity insensitive)

PPL100

Connection terminals:
NAP: (-), (+): power 8 ... 28V DC

All terminals accept wires with cross sections up to 2.5 mm2.

Examples of orders:
PT50J 160/80mm G1/2 P100/B max. 150°C, 2pcs
PTP50J 300/160mm M20x1,5 0...+300°C / ASCII, 10pcs
PT50J min/100mm M27x1,5 2xPt1000/B max. 100°C, 3pcs
PT50H 250mm Pt100/A max. 120°C, 3pcs
PTP50H 340mm 0…150°C / 4-20mA, 1pcs

The thermometer can be ordered exposure calibration.