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RESISTANCE THERMOMETERS WITH CONNECTION HEAD

Versions:

PT50H (PTP50H) PT50 (PTP50) PT50J (PTP50J)



- designed for contact temperature measurement
- for installation in a pipe or a vessel wall
- version with terminal block, 2-, 3-, 4-wire connection
- version with 2-, 3-, (4-) wire programmable transmitter

Resistance thermometers without transmitter:

The stem with the sensor is made of 17248 grade stainless steel. A terminal block is fitted in the metal head with IP65 protection.
The total stem length **X** and insertion depth **Y**, as well as the mounting fitting, are specified by the customer.
A thermometer without transmitter can be fitted with a sensor in 2-, 3- or 4-wire connection, see table below.
A pair of sensors can also be fitted in one stem.

- PT50H** - Ø8mm, -25...+200°C (τ≈approx. 10sec) or -25...+400°C (τ≈approx. 25sec) bare, without fitting
PT50 - Ø8mm, -25...+200°C (τ≈approx. 10sec) or -25...+400°C (τ≈approx. 25sec) welded-on fitting
PT50J - Ø10.2mm, -25...+200°C (τ≈approx. 30sec) or -25...+400°C (τ≈approx. 50sec) with thermowell

Technical parameters:

Temperature sensor: Pt100"B" or "A" acc. to ČSN IEC 751, or to customer spec.
 Ambient temperature: -25...+100°C
 Liquid overpressure: max. 15 MPa
 Dielectric strength: 500V, insulation resistance min. 20MΩ (circuit to metal sheath)
 Cable connection via M20x1.5mm cable gland

Resistance thermometers with transmitter:

The transmitter output depends on its type, see ordering code table.
 Any measuring range of the transmitter can be supplied, min. span is 10°C.
 A thermometer with transmitter can be fitted with a sensor in 2-, 3- or 4-wire connection
 A pair of sensors with two transmitters can be fitted in one stem.

- PTP50H** - Ø8mm, -25...+200°C (τ≈approx. 10sec) or -25...+400°C (τ≈approx. 25sec) bare, without fitting
PTP50 - Ø8mm, -25...+200°C (τ≈approx. 10sec) or -25...+400°C (τ≈approx. 25sec) welded-on fitting
PTP50J - Ø10.2mm, -25...+200°C (τ≈approx. 30sec) or -25...+400°C (τ≈approx. 50sec) with thermowell

Thermometer with transmitter:

Measuring range: any within the permitted range, min. span 10°C
 Accuracy: ±0.3% of range
 Output signal: according to transmitter type
 Power supply: according to transmitter type
 Ambient temperature: -25...+80°C
 Liquid overpressure: max. 15 MPa
 Cable connection via M20x1.5mm cable gland

Parameters of the individual transmitters **PP200**, **PP300**, **PX300** and **PPL100**, can be found on our website.

Type tests:

Basic type test:

EMC:

Safety: assessed

acc. to ČSN EN IEC 60751 ed.2

acc. to ČSN EN IEC 61326-1 ed.3

acc. to ČSN EN 61010-1 ed.2

The order must specify:**Version without transmitter:**

- thermometer type PT50 or PT50H or PT50J
- total stem length (X) and insertion depth (Y) with regard to the table below
- mounting fitting - M20x1.5, G1/2....etc.
- sensor type or other special requirements (dual sensor...)
- internal sensor wiring 2w or 3w or 4w
- expected max. measured temperature
- quantity

Recommended distance between head and fitting:

up to 100°C... min.

125°C..... 50mm

150°C..... 80mm

200°C..... 100mm

300°C..... 120mm

400°C..... 160mm

Version with transmitter:

- thermometer type PTP50 or PTP50H or PTP50J
- total stem length (X) and insertion depth (Y) with regard to the table below
- mounting fitting - M20x1.5, G1/2....etc.
- sensor type or other special requirements (dual sensor...)
- internal sensor wiring 2w or 3w or 4w
- transmitter output (4-20mA, 0-10V, RS485)
- thermometer measuring range [°C]
- quantity

Recommended distance between head and fitting:

up to 80°C..... min.

100°C..... 50mm

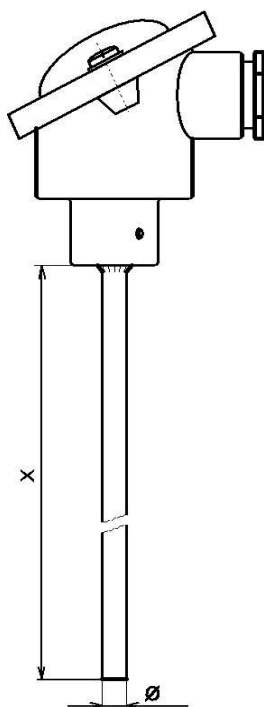
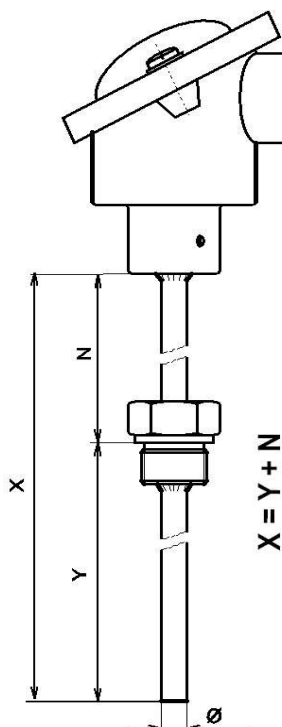
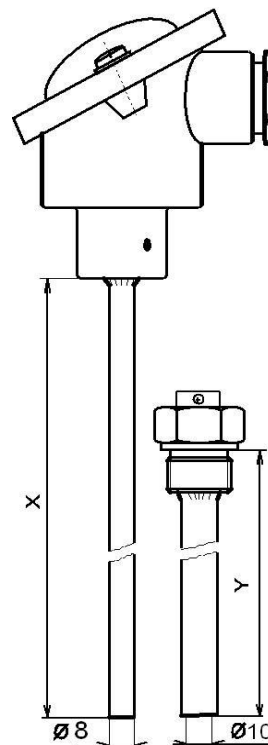
125°C..... 80mm

150°C..... 100mm

200°C..... 120mm

300°C..... 140mm

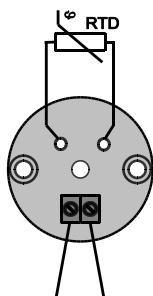
400°C..... 180mm

Dimensional drawing:PT50H
PTP50HPT50
PTP50PT50J
PTP50J

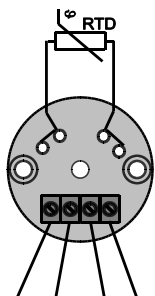
Terminal connection:

Terminals accept wires with a cross-section of max. 2.5mm².
Cable connection via M20x1.5mm cable gland

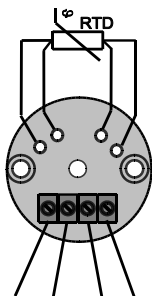
for PT50, PT50H, PT50J



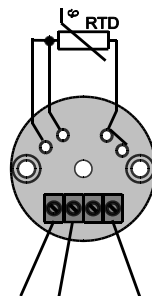
2w connection



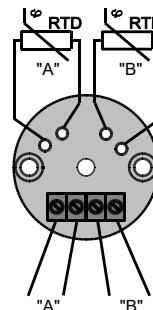
4w connection:
at terminal block



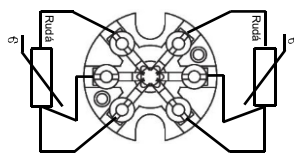
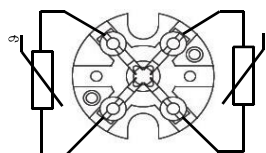
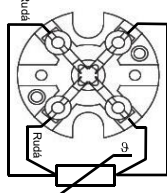
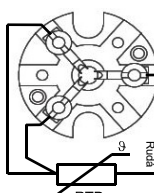
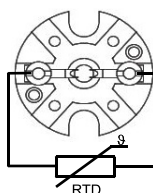
4w connection:
from sensor



3w connection

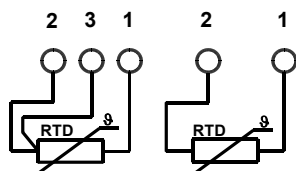
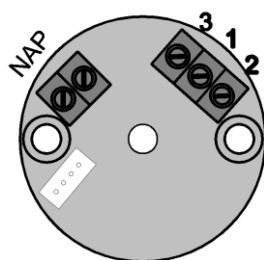


two sensors
2w connection



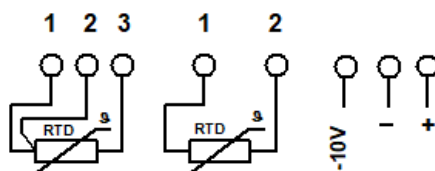
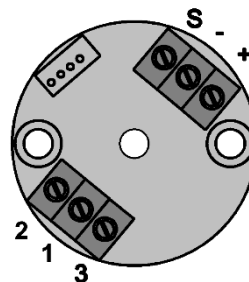
for PTP50, PTP50H, PTP50J

PP200



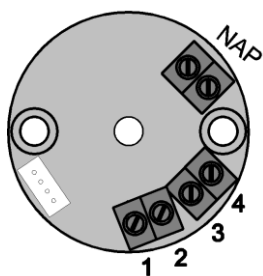
NAP
Libovolná
polarita

PP300RTD

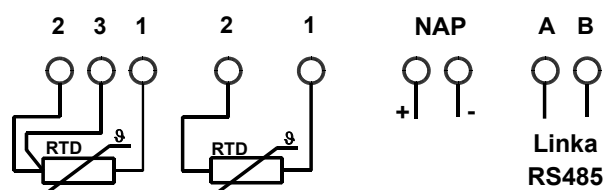
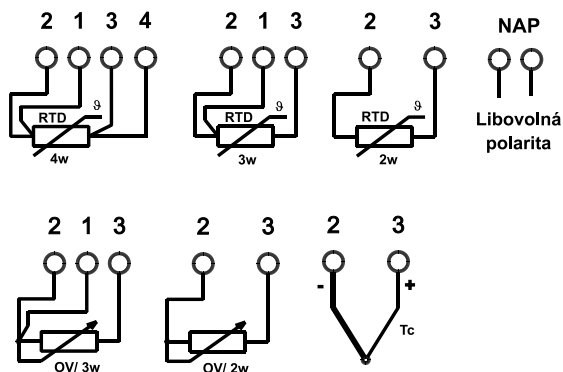
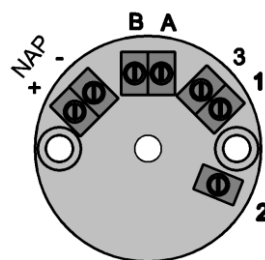


S = výstup 0-10V
Napájení
- +

PX300



PPL100



Order examples:

PT50	8x160/80mm G1/2 1x Pt100/B 2w max. 150°C	2pcs
PT50H	8x110mm 2xPt100/A 3w max. 200°C	1pc
PTP50J	8x300/160mm M20x1.5 Ni1000/6180 2w 0...+300°C / ASCII	6pcs
PTP50H	8x170mm 2xPt1000/B 2w 0...125°C / 4-20mA	3pcs
PTP50	8x440/280mm 1xPt100/A 4w 0...+300°C / 0-10V	4pcs

A calibration certificate can be ordered for the thermometers.

To order, use the calculator on our website: <https://www.rawet.cz/produkt/264?categoryId=34>



At the end of its service life, dispose of the product via separate collection.
Rawet s.r.o. is a member of the RETELA association www.retela.cz

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