

# Industrial resistance thermometer

WIRE & TRANSITION

**PWA-PWB-PWC-PWD-PWH**  
**CONFIGURATIONS**

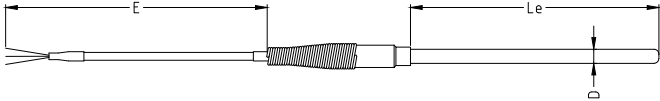
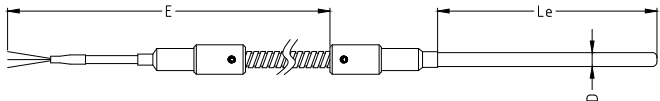
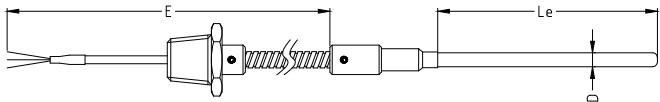
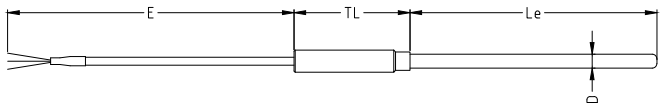
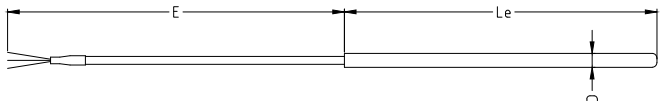
**General use RTD**



**RODAX**<sup>°</sup>  
new temperature solutions

Product series PT100WT

**Table 1: Sensors main models**

<p><b>PWA</b></p>	<p>Sensor with lead wire, (threaded) transition and wire relief spring (transition OD 6,35 or 9,53 mm)</p>	
<p><b>PWB</b></p>	<p>Sensor with lead wire, (threaded) transition and loose flexible metal hose (transition OD 6,35 or 9,53 mm)</p>	
<p><b>PWC</b></p>	<p>Sensor with lead wire, (threaded) transition and wire flexible metal hose for threaded 1/2" NPT attachment to connection head or cable gland (transition OD 6,35 or 9,53 mm)</p>	
<p><b>PWD</b></p>	<p>Sensor with lead wire and transition without relief spring (transition all dimension by request)</p>	
<p><b>PWH</b></p>	<p>Sensor with lead wire and transition same OD as sensor</p>	

## Features assembly

High quality resistance temperature element with MgO mineral insulated metal sheathed cable, providing excellent stability and reproducibility.

The unique properties make this basic element ideally suited for a wide range of applications up to 550 °C.

The PT100 is bendable over the total length except on the tip over 50 mm. High vibration resistant models are available.

**Table 2: Measuring inserts details**

## Details

- Maximum temperature: 550 °C
- Minimum insulation resistance: 1000 MOhm at 500VDC,  $T_{amb}=20\text{ °C}$
- Conductors: material Cu
- Metal sheath: SS321 / 1.4541

## PT100 element

<b>S</b>	<b>D</b>	<b>Option</b>	<b>HV</b>
Single	Double		High vibration

## Diameter ØD

<b>D3</b>	<b>D3,2</b>	<b>D4,5</b>	<b>D4,8</b>	<b>D6</b>	<b>D6,35</b>	<b>D8</b>	<b>D9,53</b>	<b>D12,7</b>	Other diameters on request
3,0 mm	3,2 mm	4,5 mm	4,8 mm	6,0 mm	6,35 mm	8,0 mm	9,53 mm	12,7 mm	

## Electrical connection

<b>W2</b>	<b>W3</b>	<b>W4 (*)</b>	(*) for OD 3 mm: dual sensors max 2x3 wire
2 wire	3 wire	4 wire	

## Accuracy

<b>A1</b>	<b>A3</b>	<b>A5</b>	<b>A6</b>	<b>A10</b>	Other accuracies on request
Class A IEC EN 60751 $\pm(0.15+0.002 t )^{\circ}\text{C}$	1/3 DIN 1/3 class B	1/5 DIN 1/5 class B	1/6 DIN 1/6 class B	1/10 DIN 1/10 class B	

## Transition OD

<b>D635 or D953</b>	<b>DXXXLYYY</b>	Other diameters on request
Sensor model PWA, PWB and PWC	Sensor model PWD	
Standard OD 6,35 or 9,53 mm. Standard length 30 mm	With XXX OD in mm and YYY length in mm	

## Temperature rating transition

<b>STD</b>	Standard	Tmax = 120 °C
<b>HT</b>	High temperature	Tmax = 290 °C

**Table 3: Lead wires**

### Lead wire

Standard conductor wire gauge is AWG 24 (0,24 mm<sup>2</sup>). Other dimensions on request.

			<b>Lead wire</b>	<b>Lead wire + SS</b> external SS braiding
Teflon®	Extruded FEP internal Cu/Ni shielding	-45 °C +200 °C	<b>M01</b>	<b>MS1</b>
Kapton®	Polyimide tape	-80 °C +360 °C	<b>M02</b>	<b>MS2</b>
Glass fiber	Resin impregnation	max. +480 °C	<b>M03</b>	<b>MS3</b>
Silicone	Polyvinyl	-45 °C +160 °C	<b>M04</b>	

**Table 4: Certification possibilities**

### Certificates

Following tests and certificates are possible and are either done in-house or done by an external party.

<b>Code</b>	<b>Certificates</b>
<b>Q04210</b>	Functional test report sensor
<b>Q04230</b>	Calibration report (measuring points to be indicated) E.g. 0/100 °C
<b>Q05220</b>	Calibration report by accredited calibration lab retraceable (measuring points to be indicated)
<b>Q05230</b>	Calibration report by accredited calibration lab ISO/IEC 17025 (BELAC) (measuring points to be indicated)
<b>Q02040</b>	Test report EN10204-2.2
<b>Q04250</b>	Transmitter programming. Range and burn-out settings to be indicated

## HOW TO ORDER (example)

Code		Example	Your code
<b>Main model</b>	See table 1	PWA	
<b>Pt100 element</b>	See table 2	S	
<b>Diameter ØD</b>	See table 2	D6	
<b>Electrical connection</b>	See table 2	W3	
<b>Accuracy</b>	See table 2	A1	
<b>Transition OD</b>	See table 2	D635	
<b>Temperature rating transition</b>	See table 2	HT	
<b>Lead wire</b>	See table 3	MS3	
<b>Insertion length Le</b>	In mm	Le150	
<b>Lead wire length E</b>	In mm	E5000	
<b>Options (transmitters, etc.)</b>			

Ordering code example:

PWA S D6 W3 A1 D635 HT MS3 Le150 E5000

**For all options: please contact Rodax**

© 2018

Santvoortbeeklaan 33, 2100 Antwerp - Belgium

T +32 (0)3 360 90 00

E [quotationdesk@rodax-europe.com](mailto:quotationdesk@rodax-europe.com)

[www.rodax-europe.com](http://www.rodax-europe.com)

**RODAX**<sup>°</sup>  
new temperature solutions

PW-Gen-RTD GB 201810