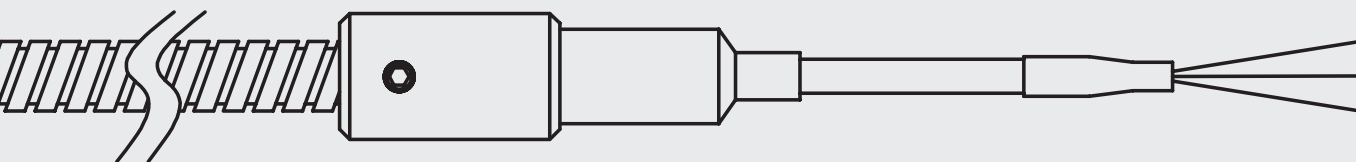


# Industrial resistance thermometer

WIRE & TRANSITION

**PYA-PYB-PYC-PYD-PYH**  
**CONFIGURATIONS**

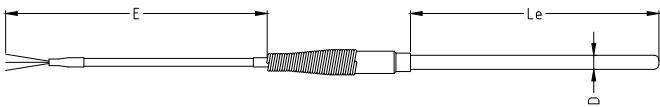
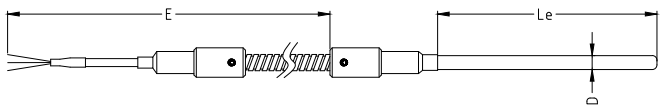
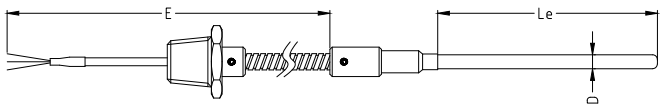
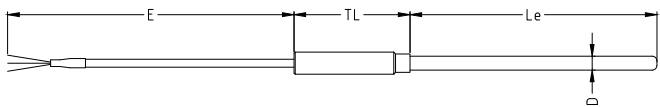
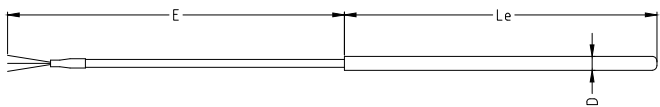
**Ex e RTD**



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

Product series PT100WE

**Table 1: Sensors main models**

<b>PYA</b>	Sensor with lead wire, (threaded) transition and wire relief spring (transition OD 6,35 or 9,53 mm)	
<b>PYB</b>	Sensor with lead wire, (threaded) transition and loose flexible metal hose (transition OD 6,35 or 9,53 mm)	
<b>PYC</b>	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)	
<b>PYD</b>	Sensor with lead wire and transition without relief spring (transition all dimension by request)	
<b>PYH</b>	Sensor with lead wire and transition same OD as sensor	

## 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: Equipment for potentially explosive atmospheres**

## Certification

<b>A</b>	ATEX
<b>I</b>	IECEX
<b>G</b>	GOST-R

## Explosive atmosphere

<b>G</b>	Gas
<b>D</b>	Dust

**Table 3: 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

A1	A3	A5	A6	A10	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

D635 or D953	DXXXLYYY	Other diameters on request
Sensor model PYA, PYB and PYC	Sensor model PYD	
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 4: Lead wires**

## Lead wire

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

			Lead wire	Lead wire + SS 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 5: Certification possibilities**

## Certificates

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

Code	Certificates
<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




## Addenda

## Thermal data related to product series PT100WI

The maximum process temperature  $T_p$  (in °C) and the relation to the temperature class is as follows:

Maximum process temperature $T_p$ (°C)	75	90	125	190	285	435	>435
Temperature class (°C)	T6	T5	T4	T3	T2	T1	$T_p+10$
Maximum surface temperature $T$ of the Assembly (°C)	85	100	135	200	300	450	$T_p+10$

## Certificates for product series PT100WI

<b>ATEX 2014/34/EU</b>	ATEX EU-type examination certificate 18ATEX0060 X	
<b>IECEX 02</b>	IECEX DEK 18.0032 X	
<b>GOST-R</b>	GOST EAC RU C-BE.ГБ05B.00211	

## HOW TO ORDER (example)

Code		Example	Your code
Main model	See table 1	PYA	
Certification	See table 2	A	
Explosion atmosphere	See table 2	G	
Pt100 element	See table 3	S	
Diameter ØD	See table 3	D6	
Electrical connection	See table 3	W3	
Accuracy	See table 3	A1	
Transition OD	See table 3	D635	
Temperature rating transition	See table 3	HT	
Lead wire	See table 4	MS3	
Insertion length Le	In mm	Le150	
Lead wire length E	In mm	E5000	
Options (transmitters, etc.)			

Ordering code example:

PYA A G S D6 W3 A1 D635 HT MS3 Le150 E5000

**For all options: please contact Rodax**

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