

## Sensor Technology KN Series

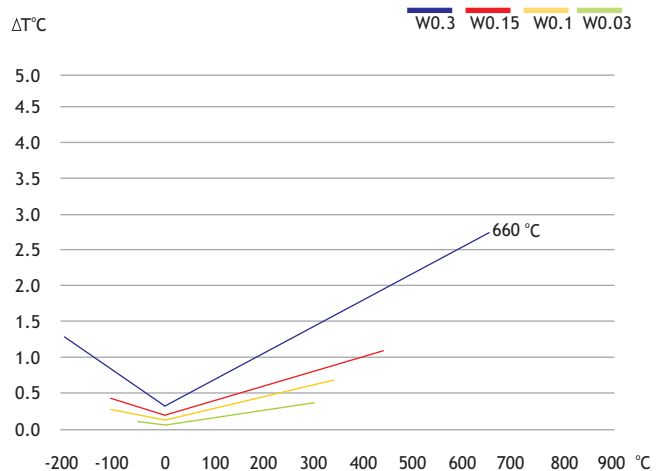
### KN Series Ceramic Wire Wound PRTD

The KN Series Ceramic Wire Wound PRTDs are suitable for general applications requiring temperature stability and accuracy.

**Applications:** Industrial resistance thermometers, for industrial process like chemical, power generation plants and analytical equipment.

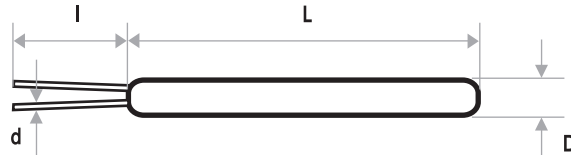
**Construction:** A platinum coil is sealed inside a high purity aluminum oxide ceramic body. Lead wires are shear force resistant and assure proper connection to extension leads and cables. Two separate coils can be embedded in one ceramic body.

Class tolerance chart



# KN Series specifications

## 1 Pt Models



1Pt Types											
Product		Order No.	Dimensions in mm				Self Heating 0°C (K/mW)	Response time			
Description	Tolerance		L	D	d	l		Water: V= 0.4m/s Air: V=3m/s			
				t <sub>0.5</sub>	t <sub>0.9</sub>	t <sub>0.5</sub>	t <sub>0.9</sub>				
1Pt100 KN 0815	W0.3	32.206.463	8 <sup>+2</sup> <sub>0</sub>	1.5±0.15	0.20±0.01	10.0±0.5	0.28	0.2	0.5	6.7	21.8
	W0.15	32.206.464									
	W0.1	32.206.465									
1Pt100 KN 1510	W0.3	32.206.913	15 <sup>+2</sup> <sub>0</sub>	1.0±0.1	0.20±0.01	10.0±0.5	0.14	0.2	0.3	3.0	9.0
	W0.15	32.206.914									
	W0.1	32.206.915									
1Pt100 KN 1515	W0.3	32.206.455	15 <sup>+2</sup> <sub>0</sub>	1.5±0.15	0.20±0.01	10.0±0.5	0.08	0.2	0.4	5.0	15.7
	W0.15	32.206.456									
	W0.1	32.206.457									
	W0.06	32.206.171									
	W0.03	32.206.112									
* See Remark											
1Pt100 KN 1515 EG	W0.3	32.206.907	15 <sup>+2</sup> <sub>0</sub>	1.5±0.15	0.27±0.01	10.0±0.5	0.08	0.2	0.4	5.0	15.7
	W0.15	32.206.908									
	W0.1	32.206.909									
1Pt100 KN 1515 G	W0.3	32.206.901	15 <sup>+2</sup> <sub>0</sub>	1.5±0.15	0.27±0.01	10.0±0.5	0.08	0.2	0.4	5.0	15.7
	W0.15	32.206.902									
	W0.1	32.206.903									
	W0.03	32.206.057									
* See Remark											
1Pt100 KN 1526	W0.3	32.206.925	15 <sup>+2</sup> <sub>0</sub>	2.6±0.15	0.27±0.01	10.0±0.5		To be released soon			
	W0.15	32.206.926									
	W0.1	32.206.927									
1Pt100 KN 2510	W0.3	32.206.362	25 <sup>+2</sup> <sub>0</sub>	1.0±0.15	0.20±0.01	10.0±0.5	0.07	0.2	0.4	3.0	8.8
	W0.15	32.206.365									
	W0.1	32.206.368									
1Pt100 KN 2515	W0.3	32.206.370	25 <sup>+2</sup> <sub>0</sub>	1.5±0.15	0.20±0.01	10.0±0.5	0.07	0.2	0.4	5.3	16.0
	W0.15	32.206.372									
	W0.1	32.206.374									
	W0.03	32.206.099									
* See Remark											
1Pt100 KN 3026	W0.3	32.206.520	30 <sup>+2</sup> <sub>0</sub>	2.6±0.15	0.27±0.01	10.0±0.5	0.4	0.3	0.6	10.5	34.0
	W0.15	32.206.544									
	W0.1	32.206.557									
	W0.03	32.206.082									
* See Remark											

Sensor Technology reserves the right to make changes without notice in the specifications of this products

\*Remark

Class	Working Temperature	Lead Length (l)
W0.03 (1/10 DIN)	<=150°C 150°C to 300°C	10 mm 8 to 9 mm

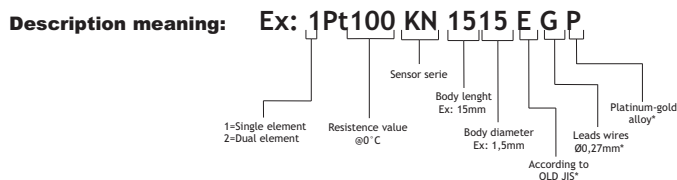
## KN Series specifications 2 Pt Models



Product		Order No.	Dimensions in mm					Self Heating 0 °C (K/mW)	Response time			
Description	Tolerance		L	D	d	l <sub>1</sub>	l <sub>2</sub>		Water: V= 0.4m/s Air: V=3m/s t <sub>0.5</sub> t <sub>0.9</sub> t <sub>0.5</sub> t <sub>0.9</sub>			
2Pt100 KN 1017	W0.3	32.206.182	10 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5		To be released soon			
	W0.15	32.206.183										
2Pt100 KN 1517	W0.3	32.206.157	15 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5		To be released soon			
	W0.15	32.206.158										
	W0.1	32.206.159										
2Pt100 KN 2517	W0.3	32.206.301	25 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5		To be released soon			
	W0.15	32.206.004										
	W0.1	32.206.302										
2Pt100 KN 2517 G	W0.3	32.206.931	25 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.27±0.01	11.0±0.5	10.0±0.5		To be released soon			
	W0.15	32.206.932										
	W0.1	32.206.933										
2Pt100 KN 3026	W0.3	32.206.620	30 <sup>+2</sup> <sub>-0</sub>	2.6±0.15	0.27±0.01	11.0±0.5	10.0±0.5	0.04	0.3	0.6	11.0	36.0
	W0.15	32.206.569										
	W0.1	32.206.647										

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## Technical Specification



\*Without this use the standard specification mentioned below

<b>Temperature range:</b>	W0.3 (Class B)	= -196 °C to +660 °C
	W0.15 (Class A)	= -100 °C to +450 °C
	W0.1 (Class 1/3 B)	= -100 °C to +350 °C
	W0.03 (Class 1/10 B)	= -50 °C to +300 °C (Special ST Class proportional to W0.3)

**Temperature coefficient:** Tc = 3850 ppm/K

**Leads:** Palladium-gold alloy

**Length Leads:** 10 mm ± 1 mm

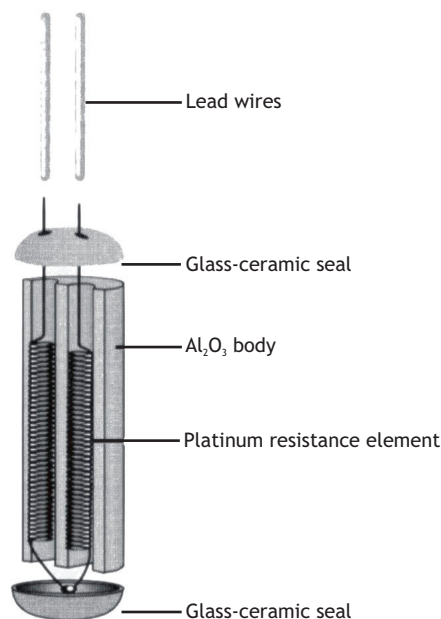
**Insulation resistance after assembly:** > 100 MOhm @ 25 °C

**Measuring current:** 1 mA

**Tolerance class:**  
 - According to IEC 60751:2008  
 - Other standards, narrower tolerances and other nominal resistances are available on request

**Temperature stability:** Excellent long-term stability

**Also available:**  
 - Platinum-gold alloy  
 - Different temperature coefficients On demand. (3916 ppm/K - old JIS)  
 - Extension leads



The measuring point is located at 8 mm from the end of the sensor body.

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# Sensor Technology K Series



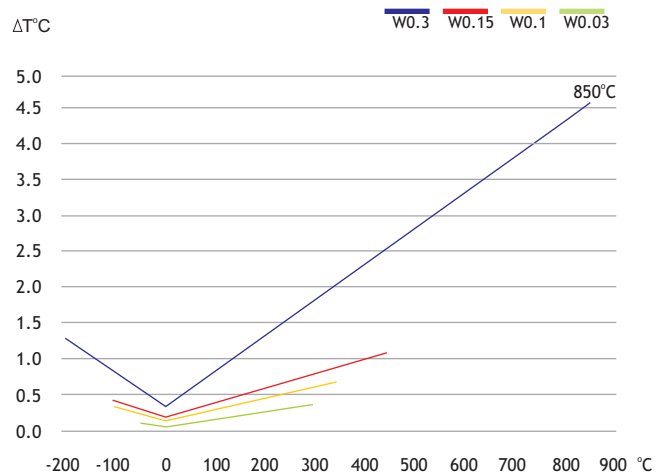
### K Series Ceramic Wire Wound PRTD

The K Series Ceramic Wire Wound PRTDs are suitable for resistance thermometers requiring extremely temperature stability over 800°C, accuracy and high temperature shock resistance.

Applications: Chemical and power generation plants, analytical equipment and for applications requiring extremely high temperature stability as well as high temperature shock resistance.

Construction: A platinum coil is sealed inside a high purity aluminum oxide ceramic body. Lead wires are shear force resistant and assure proper connection to extension leads and cables. Two separate coils can be embedded in one ceramic body.

Class tolerance chart



## K Series specifications 1 Pt Types



1Pt Types											
Product		Order No.	Dimensions in mm				Self Heating 0°C (K/mW)	Response time			
Description	Tolerance		L	D	d	l		Water: V= 0.4m/s		Air: V=3m/s	
							$t_{0.5}$	$t_{0.9}$	$t_{0.5}$	$t_{0.9}$	
1Pt100 K 1515	W0.3	32.206.280	15 <sup>+2</sup> <sub>-0</sub>	1.5±0.15	0.20±0.01	10.0±0.5	0.08	0.2	0.4	5.0	15.7
	W0.15	32.206.281									
	W0.1	32.206.282									
1Pt100 K 2515	W0.3	32.206.105	25 <sup>+2</sup> <sub>-0</sub>	1.5±0.15	0.20±0.01	10.0±0.5	0.08	0.2	0.4	5.7	17.0
	W0.15	32.206.109									
	W0.1	32.206.152									

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## K Series specifications 2 Pt Types



Product		Order No.	Dimensions in mm					Self Heating 0°C (K/mW)	Response time			
Description	Tolerance		L	D	d	l <sub>1</sub>	l <sub>2</sub>		Water: V= 0.4m/s Air: V=3m/s			
								t <sub>0.5</sub>	t <sub>0.9</sub>	t <sub>0.5</sub>	t <sub>0.9</sub>	
2Pt100 K 1517	W0.3	32.206.204	15 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5		To be released soon			
	W0.15	32.206.206										
	W0.1	32.206.207										
2Pt100 K 2517	W0.3	32.206.205	25 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5	0.06	0.2	0.4	6.1	19.0
	W0.15	32.206.150										
	W0.1	32.206.162										
2Pt100 K 2517 E	W0.3	32.206.140	25 <sup>+2</sup> <sub>-0</sub>	1.7±0.15	0.20±0.01	11.0±0.5	10.0±0.5	0.06	0.2	0.4	6.1	19.0
	W0.15	32.206.141										
	W0.1	32.206.142										

### Technical Specification

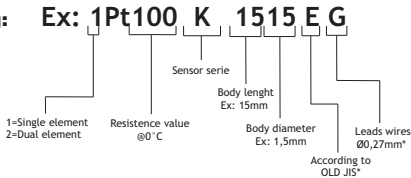
<b>Nominal resistance:</b>	100 Ohm @ 0 °C	<b>Measuring current:</b>	1 mA
<b>Temperature range:</b>	W0.3 (Class B) = -196 °C to +850 °C (ST exceed IEC 60751: -196 °C to 660 °C) W0.15 (Class A) = -100 °C to +450 °C W0.1 (Class 1/3 B) = -100 °C to +350 °C	<b>Tolerance class:</b>	- According to IEC 60751:2008 - Other standards, narrower tolerances and other nominal resistance are available on request
<b>Temperature coefficient:</b>	Tc = 3850 ppm/K	<b>Temperature stability:</b>	Excellent long-term stability
<b>Leads:</b>	Platinum-gold alloy	<b>Also available:</b>	- Different temperature coefficients On Demand. (3916 ppm/K - old JIS) - Extension leads
<b>Insulation resistance:</b>	> 100 MOhm @ 25 °C		

The measuring point is located at 8 mm from the end of the sensor body.

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## Technical Specification

**Description meaning:** Ex: 1Pt100 K 1515 E G



1=Single element  
2=Dual element

Resistance value  
@0°C

Sensor serie

Body length  
Ex: 15mm

Body diameter  
Ex: 1,5mm

Leads wires  
Ø0,27mm\*

According to  
"OLD JIS"

\*Without this use the standard specification mentioned below

**Temperature range:**

W0.3 (Class B)	= -196°C to +850°C
W0.15 (Class A)	= -100°C to +450°C
W0.1 (Class 1/3 B)	= -100°C to +350°C

**Temperature coefficient:** Tc = 3850 ppm/K

**Leads:** Platinum-gold alloy

**Insulation resistance after assembly:** > 100 MOhm @ 25 °C

**Measuring current:** 1 mA

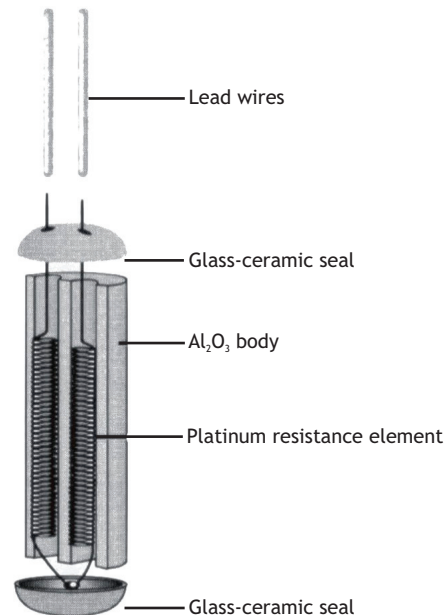
**Tolerance class:**

- According to IEC 60751:2008
- Other standards, narrower tolerances and other nominal resistances are available on request

**Temperature stability:** Excellent long-term stability

**Also available:**

- Platinum-gold alloy
- Different temperature coefficients On demand. (3916 ppm/K - old JIS)
- Extension leads



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