

# 1 Pt100 KN 3045, Ceramic Wire Wound PRTD

## Temperature range -196 °C to +660 °C

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

Applications: Industrial resistance thermometers, especially in 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.

Nominal Resistance R0	Tolerance	Order number
100 Ohm @ 0 °C	W0.3	32206530
	W0.15	32206533
	W0.1	32206548
	W0.03	32206437
	W0.03*	32206083

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

### Nominal Resistance

100 Ohm @ 0 °C

### Temperature coefficient

TCR = 3850 ppm/K

### Temperature Range

- 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 1/10B) = -50°C to +300°C (lead length 8mm to 9mm)\*
- W0.03 (Class 1/10B) = -50°C to +150°C

### Response time

Water current (v= 0.4m/s):  
 $t_{0.5} = 0.4 \text{ s}$   
 $t_{0.9} = 1.4 \text{ s}$

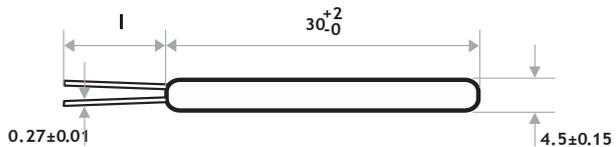
Air stream (v= 3m/s):  
 $t_{0.5} = 26.0 \text{ s}$   
 $t_{0.9} = 90.0 \text{ s}$

### Self Heating

0.01 K/mW at 0°C

### Dimensions in mm

$L = 30_{-0}^{+2}$   $D = 4.5 \pm 0.15$   $d = 0.27 \pm 0.01$   $l = 9.5 \pm 0.5$



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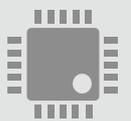
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Status: 04/2021



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Temperature range -196 °C to +660 °C

## Measuring current

1mA

## Tolerance Class

According to IEC 60751:2008

Other standards and narrower tolerances 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

Two separated coils can be embedded in one ceramic body

## Leads

Palladium-gold alloy

## Insulation resistance after assembly

>100 MOhm @ 25 °C

## California Proposition 65



### WARNING:

This product can expose you to chemicals including lead oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to

[www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).



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