



CERAMIC WIRE WOUND SENSOR TYPE KH

RTD Temperature Sensor

SPECIFICATIONS

- **Temperature sensor**
- **Large temperature range**
From -200°C to +1000°C
- **Good temperature range**
- **No hysteresis**
- **Limited resistance against vibration**
- **Medium resistance to mechanical pressure**
- **Insulation resistance > 100MΩ at 20°C; 1MΩ at 500°C**
- **Meas exclusivity**

A platinum wire is wounded inside a ceramic body.

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FEATURES

- Nominal value: 100 Ω at 0°C
Measuring point at 8 mm from the body to the end of connection wires
Tolerance according to IEC 60751: class W 0.3
Closer tolerance in restricted temperature range
- Temperature coefficient $\alpha = 3850$ ppm/K
- Connection wires: Platinum
- The lead wires connection is especially stable and resistant to pull up stress.
- Options: - Wires length
- Extension cable

APPLICATION

- Accuracy and stability over a large temperature range
- Element for laboratory reference sensor

PERFORMANCE SPECIFICATIONS

Type	Designation	Reference	Nominal reference (Ohm at 0°C)	L D AL A (Dimensions in mm)	Self-heating in air (K/mW)	Response time (s)	
						Water $v = 0,4$ m/s	Air $v = 1$ m/s
						$\leq 0,5$	$\leq 0,5$
Tolerance Class W 0.3 = $\pm (0.3+0.005 t)$ From -196°C to + 1000°C							
1Pt100	KH 4527	SB0589	100	45 2,7 10 0,35	0,07	0,5	14

VALUES FOR PT100

°C	Ohms	Ohms/°C	°C	Ohms	Ohms/°C	°C	Ohms	Ohms/°C
-200	18.52	0.432	200	175.86	0.368	600	313.71	0.322
-150	39.72	0.417	250	194.10	0.362	650	329.64	0.316
-100	60.26	0.405	300	212.05	0.356	700	345.28	0.310
-50	80.31	0.397	350	229.72	0.350	750	360.64	0.304
0	100	0.391	400	247.09	0.345	800	375.70	0.298
50	119.40	0.385	450	264.18	0.339	850	390.48	0.293
100	138.51	0.379	500	280.98	0.333			
150	157.33	0.374	550	297.49	0.327			

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BLOCK DIAGRAM

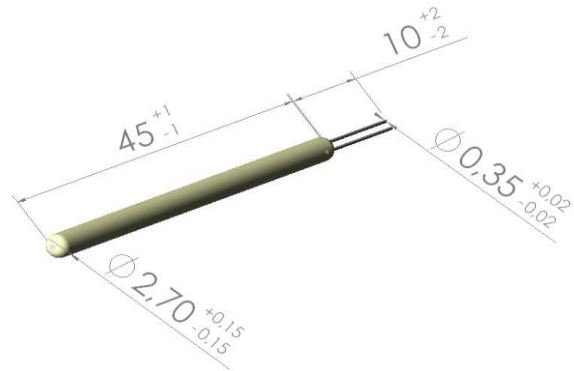
DIMENSIONAL TOLERANCES:

L (length of body) = ± 1 mm

D (diameter of body) = $\pm 0,15$ mm

AL (connection wire length) = ± 2 mm

A (connection wire diameter) = $\pm 0,02$ mm



ORDERING INFORMATION

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