

Platinum Resistance Temperature Detector

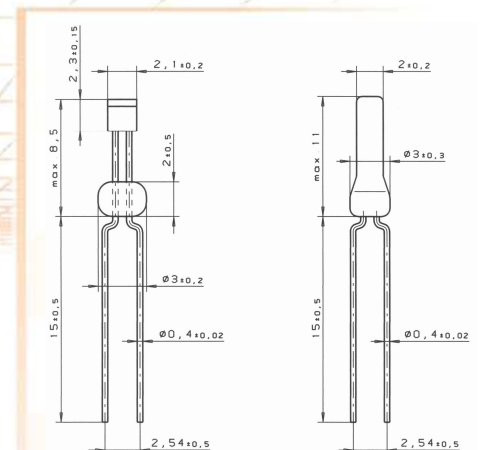
LG

The new LG sensor is based on a platinum sensor in thin film technology with laser welded extended leads and glass covering. It is dense against humidity and can be handled very easily from batch size 1 to full automation. Using this design and the well-known qualities of platinum sensors it is a very good alternative to the glass wire wounds. Platinum thin film sensors are known for good accuracy, a almost linear characteristic line, long-term stability, low drift and reproducibility.

	Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Temperature Range	Order Number Plastic Box
B	100 Ohm at 0°C	Class B	F 0.3	-70°C up to +500°C	32 208 666
	1000 Ohm at 0°C	Class B	F 0.3	-70°C up to +500°C	32 208 667
C	100 Ohm at 0°C	Class B	F 0.3	-70°C up to +500°C	32 208 662
	1000 Ohm at 0°C	Class B	F 0.3	-70°C up to +500°C	32 208 663

The measuring point for the basic value is situated at 8 mm from the end of the sensor body

Specification	DIN EN 60751												
Temperature range	-40°C to +180°C Tolerance Class B: -40°C up to +180°C												
Temperature coefficient	TCR = 3850 ppm/K												
Leads	Cu, Ni-plated, 0,4mm												
Longterm stability	ΔR_0 after 300h at 180°C: < Class B												
Environmental conditions	Version B unprotected only in dry environment Version C protected against humidity												
Isolation resistance	> 100 M Ω at 20°C												
Self heating	Version B: 0,20 K/mW at 0°C Version C: 0,60 K/mW at 0°C												
Response time	<table> <tbody> <tr> <td>Version B:</td> <td>water (v = 0.4 m/s):</td> <td>$t_{0,5} = 0.05s$ $t_{0,9} = 0.10s$</td> </tr> <tr> <td></td> <td>air (v=2 m/s):</td> <td>$t_{0,5} = 2.6s$ $t_{0,9} = 9s$</td> </tr> <tr> <td>Version C:</td> <td>water (v= 0.4m/s):</td> <td>$t_{0,5} = 2.6s$ $t_{0,9} = 7.7s$</td> </tr> <tr> <td></td> <td>air (v=2m/s):</td> <td>$t_{0,5} = 8.1s$ $t_{0,9} = 21s$</td> </tr> </tbody> </table>	Version B:	water (v = 0.4 m/s):	$t_{0,5} = 0.05s$ $t_{0,9} = 0.10s$		air (v=2 m/s):	$t_{0,5} = 2.6s$ $t_{0,9} = 9s$	Version C:	water (v= 0.4m/s):	$t_{0,5} = 2.6s$ $t_{0,9} = 7.7s$		air (v=2m/s):	$t_{0,5} = 8.1s$ $t_{0,9} = 21s$
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Measuring current	100 Ω : 0.3mA to 1.0mA 1000 Ω : 0.1mA to 0.3mA (self heating has to be considered)												
Note	Other tolerances, values of resistance and wire lengths are available on request. For automatical production we can supply on tape.												
Status	preliminary												



We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

Heraeus Sensor Technology GmbH, Reinhard- Heraeus- Ring 23, 63801 Kleinostheim, Germany
Phone: +49 (0) 6181/35-8098, Fax: +49 (0)6181/35-8101, E-Mail: info.HSND@Heraeus.com Web: www.heraeus-sensor-technology.com