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 1000 Ohm at 0°C	Class B Class B	F 0.3 F 0.3	-70°C up to +500°C -70°C up to +500°C	32 208 666 32 208 667
C	100 Ohm at 0°C 1000 Ohm at 0°C	Class B Class B	F 0.3 F 0.3	-70°C up to +500°C -70°C up to +500°C	32 208 662 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 tp +180°C

Temperature coefficient TC = 3850 ppm/K

Leads Cu, Ni-plated, 0,4mm

Longterm stability ΔR_0 after 300h at 180°C: < Class B

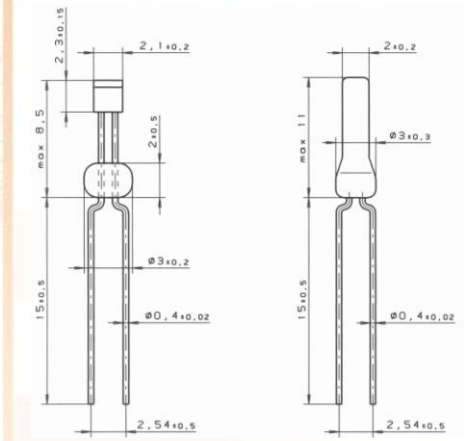
Environmental conditions Version B unprotected only in dry environment
Version C protected against humidity

Isolation resistance > 100 MΩ 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

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



RoHS conform

Measuring current 100Ω: 0.3mA to 1.0mA
1000Ω: 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**

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