

Platinum temperature sensor in thin-film technology

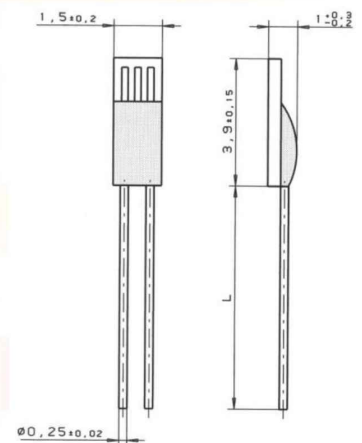
L 416

L-series platinum temperature sensors are characterized by long-term stability, excellent precision over a wide temperature range and compatibility. They are used particularly for applications with high consumption volumes, typically in the automotive, white goods, HVAC and energy generation industries as well as in medical and industrial appliances and machinery.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
100 Ohm at 0°C	Class A	F 0.15	32 207 583
	Class B	F 0.3	32 207 440

The measuring point for the nominal resistance is defined at 8mm from the end of the sensor body.

Specification	DIN EN 60751	
Temperature range	-50°C to +400°C (continuous operation) Tolerance Class B: -50°C to +400°C Tolerance Class A: -50°C to +300°C	
Temperature coefficient	TC = 3850 ppm/K	
Leads	AgPd- wire	
Lead lengths (L)	10mm ±1mm	
Long-term stability	Max. R0 drift 0.04% after 1000h at 400°C	
Vibration resistance	at least 40g acceleration at 10 to 2000 Hz, depends on installation	
Shock resistance	at least 100g acceleration with 8ms half sine wave, depends on installation	
Ambient conditions	Use unprotected only in dry environments	
Insulation resistance	> 100 MΩ at 20°C; > 2 MΩ at 400°C	
Self heating	0.4 K/mW at 0°C	
Response time	Water current (v= 0.4m/s):	t _{0.5} = 0.07s t _{0.9} = 0.25s
	Air flow (v= 2m/s):	t _{0.5} = 3.2s t _{0.9} = 14.0s
Measuring current	100Ω: 0.3 to 1.0mA (self heating has to be considered)	
Note	Other tolerances, values of resistance and wire lengths are available on request.	



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