

## Platinum Resistance Temperature Detector

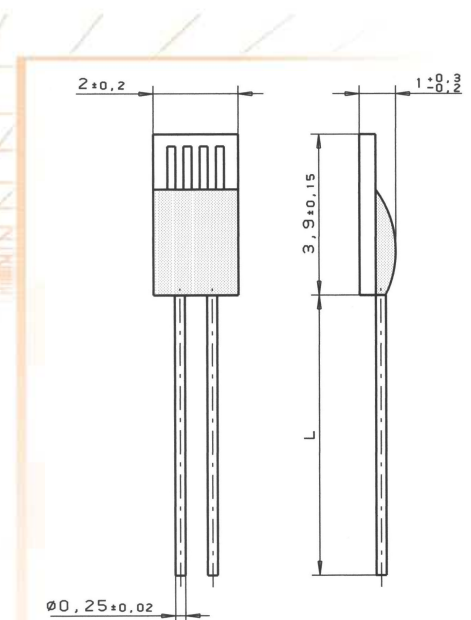
L 420

L series PRTDs are designed for large volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Typical applications are Automotive, White goods, HVAC, Energy management, Medical and Industrial equipment.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Bag
100 Ohm at 0°C	Class B	F 0.3	32 207 702
500 Ohm at 0°C	Class B	F 0.3	32 207 703
1000 Ohm at 0°C	Class 1/3 B	F 0.1	32 207 587
	Class A	F 0.15	32 207 582
	Class B	F 0.3	32 207 704

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

<b>Specification</b>	DIN EN 60751 (according to IEC 751)	
<b>Temperature range</b>	-50°C to + 400°C (continuous operation)	
	Tolerance Class B:	-50°C to +400°C
	Tolerance Class A:	-50°C to +300°C
	Tolerance Class 1/3 B:	0°C to +150°C
<b>Temperature coefficient</b>	TCR = 3850 ppm/K	
<b>Leads</b>	AgPd- wire	
<b>Lead lengths (L)</b>	10mm ±1mm	
<b>Long-term stability</b>	max. R0-drift 0.04% after 1000h at 400°C	
<b>Vibration resistance</b>	at least 40g acceleration at 10 to 2000 Hz, depends on installation	
<b>Shock resistance</b>	at least 100g acceleration with 8ms half sine wave, depends on installation	
<b>Environmental conditions</b>	unhoused for dry environments only	
<b>Insulation resistance</b>	> 100 MΩ at 20°C; > 2 MΩ at 500°C	
<b>Self heating</b>	0.3 K/mW at 0°C	
<b>Response time</b>	water current (v= 0.4m/s):	t <sub>0.5</sub> = 0.08s t <sub>0.9</sub> = 0.25s
	air stream (v= 2m/s):	t <sub>0.5</sub> = 3.5s t <sub>0.9</sub> = 15.0s
<b>Measuring current</b>	100Ω: 0.3 bis 1.0 mA 500Ω: 0.1 bis 0.7 mA 1000Ω: 0.1 bis 0.3 mA (self heating has to be considered)	



**Note** Other tolerances, values of resistance and wire lengths are available on request.

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 USA

1901 Route 130  
North Brunswick, NJ 08902  
Phone 732-940-4400 Fax 732-940-4445  
Email info.hst-us@heraeus.com  
www.hst-us.com

Name of document: 30910008 Index A  
Status: 10/2010