# L 416, Platinum Temperature Sensor according to DIN EN 60751

## Temperature range -50 °C to +400 °C

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 HVAC and energy industries as well as in medical and industrial appliances and machinery.

| Nominal Resistance $R_0$ | Tolerance | Order Number | Packaging |
|---|---|---|---|
| 100 Ohm at 0 °C | F 0.10 (Class 1/3 B)<br>F 0.15 (Class A)<br>F 0.3 (Class B) | 32 307 439<br>32 207 583<br>32 207 440 | VCI-plastic bag |

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

### Temperature and tolerance range

Tolerance class F 0.3 (B): -50 °C to +400 °C
Tolerance class F 0.15 (A): -50 °C to +300 °C
Tolerance class F 0.10 (1/3 B): 0 °C to +150 °C
Continuous operation

### Temperature coefficient

TCR = 3850 ppm/K

### Response time

Water current (v= 0.4m/s): t0.5 = 0.07 s
t0.9 = 0.25 s
Air stream (v= 2m/s): t0.5 = 3.2 s
t0.9 = 14.0 s

### Measuring current

100 Ω: 0.3 to 1.0 mA
(self-heating has to be considered)

### Long-term stability

$R_0$-Drift 0.04 % after 1000 hours at +400 °C

### Self-heating

0.4 K/mW at 0 °C

### Insulation resistance

> 100 MΩ at +20 °C
> 2 MΩ at +400 °C

### Vibration resistance

At least 40 g acceleration at 10 to 2000 Hz, depends on installation

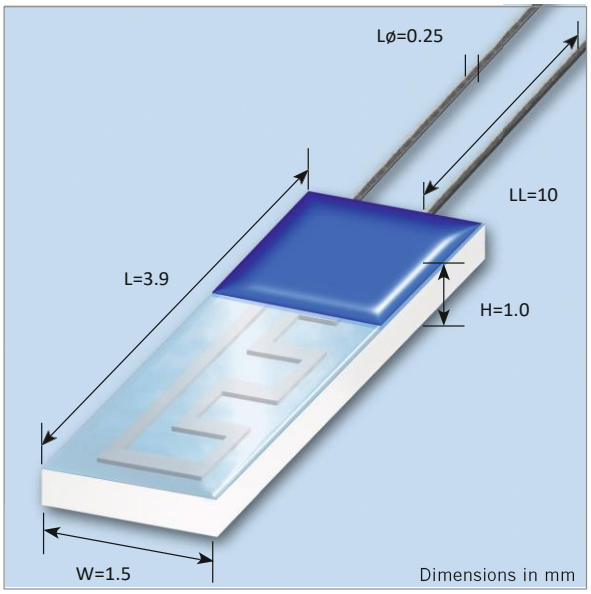

Image for illustration purposes only

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## Temperature range -50 °C to +400 °C

### Shock resistance
At least 100 g acceleration with 8 ms half sine wave, depends on installation

### Leads
AgPd-wire

### Lead lengths (LL)
10 mm ± 1 mm

### Connection technology
Suitable for soft soldering (note, application temperature of the solder)

### Tensile strength for leads
≥ 8 N

### Packaging
Alternative packaging forms on request.

### Storage life
At least 12 months (after manufacture), when stored under the recommended conditions. Longer shelf life may be possible, depending upon actual storage conditions, after requalification by customer.
Nitrogen atmosphere recommended

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

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