



TEMPERATURE



FLOW



HUMIDITY



CONDUCTIVITY

# Platinum Temperature Sensor with high temperature range P0K1.516.7W.B.010

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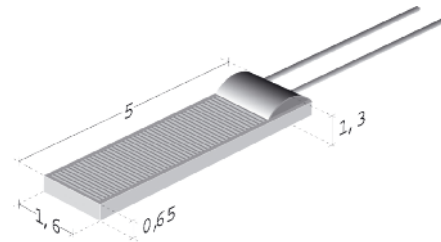


## Product

In many sectors, temperature measurement is one of the most important physically defined parameter to determine product quality, security and reliability. Temperature sensors are produced with different technologies to fit specific application requirements. To this end, IST has concentrated the development, manufacturing processes and materials to produce high-end thin-film temperature sensors. This know-how, partially derived from the semiconductor industry, allows IST to manufacture sensors in very small dimensions. Thin-film temperature sensors exhibit a very short response time due to their low thermal mass. The technologies and processes of IST thin-film sensors combines the positive attributes of traditional wire-wound platinum sensors - accuracy, long-term stability, repeatability and interchangeability within a wide temperature range. The advantages of thin-film massproduction create an optimal price/performance ratio.

## Features

- Fast response time
- Small dimensions
- Vibration and temperature shock resistant
- Excellent long-term stability
- Low self-heating
- Easy interchangeability



## Technical Data

|                                    |  |         |
|------------------------------------|--|---------|
| Nominal resistance:                | 100 Ohm at 0°C                                 |         |
| Temperature range:                 | -200°C - +750°C                                |         |
| Characteristic curve:              | 3850 ppm/K                                     |         |
| Long term stability:               | < less than 0.04% @ 1000 hrs. max. temperature |         |
| Response time (t <sub>63%</sub> ): | Water (v=0.4 m/s)                              | 0.3 s   |
|                                    | Air (v=1m/s)                                   | 7.5 s   |
| Self heating:                      | Water (v=0 m/s)                                | 80 mW/K |
|                                    | Air (v=0 m/s)                                  | 7 mW/K  |
| Dimensions (LxWxH):                | 5 x 1.6 x 1.3 mm (LxWxH)                       |         |
| Tolerance:                         | DIN EN 60751 F 0,3 (Class B)                   |         |
| Contacts:                          | Pt-wire, Ø 0.2 mm, 10 mm long                  |         |
| Recommended applied current:       | 1mA (100Ohm)                                   |         |

All mechanical dimensions are valid at 25°C ambient temperature, if not differently indicated. ■ All data except the mechanical dimensions only have information purposes and are not to be understood as assured characteristics. ■ Technical changes without previous announcement as well as mistakes reserve. ■ The information on this data sheet was examined carefully and will be accepted as correct. No liability in case of mistakes. ■ Load with extreme values during a longer period can affect the reliability. All rights reserved. The material contained herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner. Typing errors and mistakes reserved. Product specifications are subject to change without notice. All rights reserved.



INNOVATIVE SENSOR TECHNOLOGY

