

## HD 421, Platinum Resistance Temperature Detector according to DIN EN 60751

### Temperature range -70 °C to +850 °C

HD 421 Pt 100-type platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application area ist the process technology.

| Nominal Resistance R0 | Tolerance                           | Order Number             |
|-----------------------|-------------------------------------|--------------------------|
|                       | DIN EN 60751<br>2009-05             | Blister box              |
| 100 Ohm at 0 °C       | F 0.3 (Class B)<br>F 0.6 (Class 2B) | 32 208 228<br>32 208 776 |

The measuring point for the nominal resistance is defined at 4 mm from the end of the sensor body.

#### Temperature and tolerance range

-70 °C up to +850 °C

Tolerance class F 0.6 (2B): -70 °C to +850 °C

Tolerance class F 0.3 (B): -70 °C to +650 °C

#### Temperature coefficient

TCR = 3850 ppm/K

#### Response time

Water current (v= 0.4m/s):  
t0.5 = 0.05 s  
t0.9 = 0.17 s

Air stream (v= 2m/s):  
t0.5 = 3.3 s  
t0.9 = 13.0 s

#### Measuring current

20 °C max. 5.0 mA

850 °C max. 2.8 mA

(self-heating has to be considered)

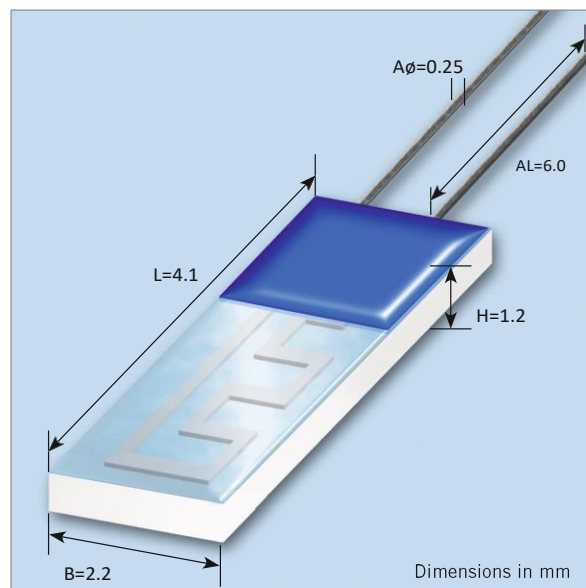
#### Long-term stability

RO-Drift < then the allowed deviation  
according to DIN B after 1000 hours at 850 °C  
(energized, open)

RO-Drift < then the allowed deviation  
according to DIN B after 1000 hours at 650 °C  
(under current as clean MI-type)

#### Self-heating

0.2 K/mW at 0 °C



#### Insulation resistance

> 100 MΩ at 20 °C

> 2 MΩ at 650 °C

#### Vibration resistance

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



The information provided in this data sheet regarding the technical characteristics of the product describe the quality of the product, but shall not be qualified or construed as quality guarantees (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code. The information provided in this data sheet regarding measurement values (response time, long-term stability, vibration and shock resistance, insulation resistance and self-heating) are average values that have been obtained under laboratory conditions in tests of large numbers of the product; measurements in productive use may very significantly depending on the specific conditions of use.

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## HD 421, Platinum Resistance Temperature Detector according to DIN EN 60751 Temperature range -70 °C to +850 °C

### Shock resistance

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

### Leads

Pt-wire

### Lead lengths (L)

6 mm ± 1 mm

### Connection technology

Suitable for welding and hard soldering

### Tensile strength of leads

≥ 10 N

### Packaging

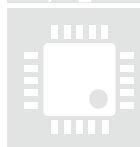
Blister box

### Storage life

Min. 12 months (in original packaging)

### Note

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



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