

**Applications**

- Refrigerators
- Deep freezers

**Features**

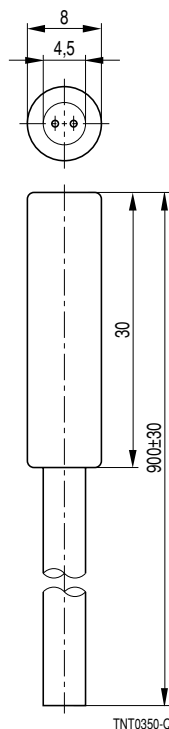
- Thermistor in molded plastic case
- PVC-insulated connecting cable (white),  $T_{\max} = 105\text{ }^{\circ}\text{C}$
- Conductor cross section:  $2 \times 0,34\text{ mm}^2$
- Construction based on DIN EN 60 730-1/VDE protection class 2

**Options**

Alternative resistance ratings,  
rated temperatures,  
resistance tolerance and cable lengths  
available on request

**Delivery mode**

Bulk



Dimensions  
in mm

TNT0350-Q

|                                  |                  |            |      |
|----------------------------------|------------------|------------|------|
| Climatic category (IEC 60068-1)  |                  | 40/80/56   |      |
| Max. power at 25 °C              | $P_{25}$         | 350        | mW   |
| Resistance tolerance             | $\Delta R_N/R_N$ | ± 2 %      |      |
| Rated temperature                | $T_N$            | 0          | °C   |
| B value tolerance                | $\Delta B/B$     | ± 1,5 %    |      |
| Dissipation factor (in air)      | $\delta_{th}$    | approx. 10 | mW/K |
| Thermal time constant (in water) | $\tau_a$         | approx. 35 | s    |
| Insulation resistance            | $R_{is}$         | > 1000     | MΩ   |

| $R_{25}$ | $R_0$ | No. of R/T characteristic | $B_{25/100}$ | Ordering code   |
|----------|-------|---------------------------|--------------|-----------------|
| Ω        | Ω     |                           | K            |                 |
| 5000     | 16330 | 2003                      | 3980         | B57020M2502A017 |

**Reliability data**

| Test                               | Standard          | Test conditions   | $\Delta R_{25}/R_{25}$<br>(typical) | Remarks               |
|------------------------------------|-------------------|---|-------------------------------------|-----------------------|
| Storage in dry heat                | IEC<br>60068-2-2  | Storage at upper category temperature<br>T: 80 °C<br>t: 1000 h  | < 2 %                               | No visible damage     |
| Storage in coldness                |                   | Storage at lower category temperature<br>T: - 40 °C<br>t: 1000 h  | < 2 %                               | No visible damage     |
| Storage in damp heat, steady state | IEC<br>60068-2-3  | Temperature of air: 40 °C<br>Relative humidity of air: 93 %<br>Duration: 56 days  | < 2 %                               | No visible damage     |
| Rapid temperature cycling          | IEC<br>60068-2-14 | Lower test temperature: - 40 °C<br>Upper test temperature: 80 °C<br>Time to change from lower to upper temperature: < 30 s;<br>Number of cycles: 1000<br>Medium: air                        | < 2 %                               | No visible damage     |
| Storage in water                   |                   | Temperature of water: 30 °C<br>t: 4000 h<br>Applied voltage with drop resistor<br>10 k $\Omega$ : 10 V <sub>dc</sub> switched between on ( $t_{on}$ = 30 min) and off ( $t_{off}$ = 30 min) | < 2 %                               | No visible damage     |
| Temperature cycling test           |                   | Lower test temperature: - 30 °C<br>Upper test temperature: 10 °C<br>Test frequency < 15 min under wetness and frozen water<br>Number of cycles: 50000<br>Medium: air                        | < 2 %                               | No visible damage     |
| Voltage proof test                 |                   | 3750 V; 1 min   |                                     | No flash-over         |
| Insulation test                    |                   | The sensors are placed in a vessel containing metallic balls of 1 mm diameter (with total immersed head).<br>The applied voltage is 500 V <sub>dc</sub> .                                   |                                     | Above 1000 M $\Omega$ |

**Herausgegeben von EPCOS AG**

**Unternehmenskommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND**

**☎ ++49 89 636 09, FAX (0 89) 636-2 26 89**

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**Corporate Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY**

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