

Applications

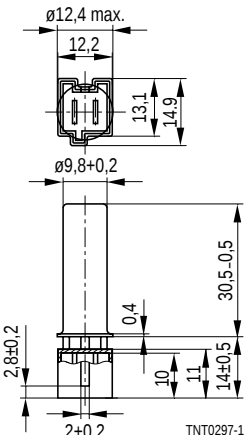
- Washing machines
- Dish washers
- Tumble-dryers
- Water boilers

Features

- Suitable for use in corrosive environments
- Compact stainless steel case
- FASTON 5 plug terminals  
(DIN 46 244/4,8 × 0,8)  
 $R_{is} > 1000 \text{ M}\Omega$  ( $V = 100 \text{ V dc}$ )  
 $V_{is} = 3750 \text{ V dc}$  ( $t = 1 \text{ s}$ )
- Cost-effective ready-to-use sensor

Options

Alternative resistance ratings, rated temperatures  
and resistance tolerances available on request



Dimensions in mm  
Approx. weight 10 g

|                               |                |             |      |
|-------------------------------|----------------|-------------|------|
| Climatic category (IEC 68-1)  |                | 10/100/56   |      |
| Max. power at 25 °C           | $P_{25}$       | 500         | mW   |
| Resistance tolerance          | $\Delta R/R_N$ | ± 2 %       |      |
| Rated temperature             | $T_N$          | 80          | °C   |
| B value tolerance             | $\Delta B/B$   | ± 1,5 %     |      |
| Dissipation factor (in water) | $\delta_{th}$  | approx. 20  | mW/K |
| Thermal time constant         | $\tau_a$       | approx. 15  | s    |
| Heat capacity                 | $C_{th}$       | approx. 100 | mJ/K |

| Type           | $R_{80}$<br>$\Omega$ | $R_{25}$<br>$\Omega$ | No. of $R/T$<br>characteristic | $B_{25/100}$<br>K | Ordering code   |
|----------------|----------------------|----------------------|--------------------------------|-------------------|-----------------|
| K 276/12 k/A27 | 1704                 | 11982                | 2901                           | 3760              | B57276-K123-A27 |

### Reliability data

| Test                                  | Standard       | Test conditions                                                                           | $\Delta R_{25}/R_{25}$<br>(typical) | Remarks           |
|---------------------------------------|----------------|-------------------------------------------------------------------------------------------|-------------------------------------|-------------------|
| Storage in dry heat                   | IEC 60068-2-2  | Storage at upper category temperature<br>$T$ : 100 °C<br>$t$ : 1000 h                     | < 2 %                               | No visible damage |
| Storage in damp heat, steady state    | IEC 60068-2-3  | Temperature of air: 40 °C<br>Relative humidity of air: 93 %<br>Duration: 56 days          | < 1 %                               | No visible damage |
| Rapid temperature cycling             | IEC 60068-2-14 | Lower test temperature: – 10 °C<br>Upper test temperature: 100 °C<br>Number of cycles: 10 | < 1 %                               | No visible damage |
| Endurance                             |                | $P_{\max}$ : 500 mW<br>Duration: 1000 h                                                   | < 2 %                               | No visible damage |
| Long-term stability (empirical value) |                | Temperature: 100 °C<br>Duration: 10 000 h                                                 | < 3 %                               | No visible damage |
| Robustness of terminations            | DIN 46 249     | Pull-out force (both connectors together)<br>$F = 50$ N                                   | —                                   | No visible damage |