

Applications

- Heating systems
- Industrial electronics
- Automotive electronics

Features

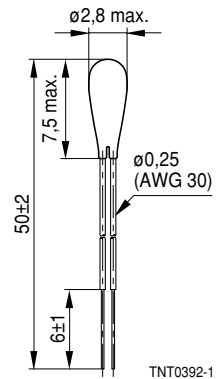
- Improved resistance to humidity
- Fast response
- High measuring accuracy
- Different tolerances available
- Epoxy resin encapsulation
- Insulated leads of silver-plated nickel wire, AWG 30

Options

Non-standard lead lengths

Delivery mode

Bulk



Dimensions in mm
Approx. weight 60 mg

Climatic category (IEC 60068-1)		55/155/56	
Max. power at 25 °C	P_{25}	60	mW
Resistance tolerance	$\Delta R_N/R_N$	$\pm 1\%, \pm 3\%, \pm 5\%$	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	$\pm 1\%$	
Dissipation factor (in air)	δ_{th}	approx. 1,7	mW/K
Thermal cooling time constant (in air)	τ_c	approx. 21	s
Heat capacity	C_{th}	approx. 36	mJ/K

R_{25}	No. of R/T characteristic	$B_{25/100}$	Ordering code
Ω		K	
2,8 k	8016	3988	B57862S0282+040
5 k	8016	3988	B57862S0502+040
10 k	8016	3988	B57862S0103+040

+: F for $\Delta R_N/R_N = \pm 1\%$
H for $\Delta R_N/R_N = \pm 3\%$
J for $\Delta R_N/R_N = \pm 5\%$

Note

The type series S 862 has a specially designed insulation (coating, wire coating) to withstand the immersion test in water of 1000 h/25 °C. Therefore these sensors must be protected to avoid any damage of the insulation material during handling and in the application.

Reliability data

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typical)	Remarks
Storage in dry heat	IEC 60068-2-2	Storage at upper category temperature $T: 155\text{ }^{\circ}\text{C}$ $t: 1000\text{ h}$	< 1 %	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: $40\text{ }^{\circ}\text{C}$ Relative humidity of air: 93 % Duration: 56 days	< 1 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: $-55\text{ }^{\circ}\text{C}$ Upper test temperature: $155\text{ }^{\circ}\text{C}$ Number of cycles: 100	< 1 %	No visible damage
Immersion test		Test voltage 2,7 Vdc on NTC over protective resistor, sensors immersed into water, ambient temperature ($25\text{ }^{\circ}\text{C}$), voltage switched on 5 h switched off 1 h. $t: 1000\text{ h}$	< 2 %	No visible damage
Long-term stability (empirical value)		Temperature: $70\text{ }^{\circ}\text{C}$ $t: 10\,000\text{ h}$	< 2 %	No visible damage

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