Applications

- Air sensor for air conditioning (not for use in evaporator)

Features

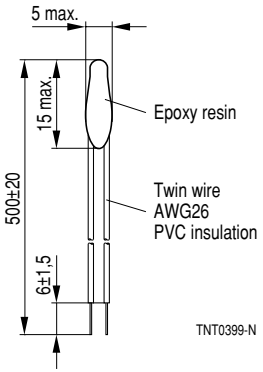
- Thermistor with epoxy resin encapsulation
- PVC-insulated wires (black) with tinned ends, AWG 26, T_{max} = 105 °C

Options

Alternative resistance ratings, rated temperatures, resistance tolerances and wire lengths, AWG 22 or AWG 24 available on request

Delivery mode

Bulk



Dimensions in mm

Climatic category (IEC 60068-1)		30/100/56	
Max. power at 25 °C	P_{25}	60	mW
Resistance tolerance	$\Delta R_N/R_N$	± 3 %	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	± 0,5 %	
Dissipation factor (in air)	δ_{th}	approx. 3	mW/K
Thermal cooling time constant (in air)	τ_c	approx. 20	s
Heat capacity	C_{th}	approx. 60	mJ/K
Insulation resistance (*V* = 100 Vdc)	R_{is}	> 100	MΩ
Test voltage (*t* = 1 s)	V_T	1,25	kVAC

R_{25} Ω	No. of *R*/*T* characteristic	$B_{25/100}$ K	Ordering code
10 k	8016	3988	B57500M0103A005

Note

Only to use in dry environmental conditions.

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*: 100 °C *t*: 1000 h	< 2 %	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: 40 °C Relative humidity of air: 93 % Duration: 56 days	< 2 %	No visible damage
Storage in coldness		Storage at lower category temperature *T*: – 30 °C *t*: 1000 h	< 2 %	No visible damage
Rapid temperature cycling (in air)	IEC 60068-2-14	Lower test temperature: – 30 °C Upper test temperature: 100 °C Time to change from lower to upper temperature: < 30 s Number of cycles: 1000 Medium: air	< 2 %	No visible damage
Vibration resistance	IEC 60068-2-6	Frequency range: 5 to 500 Hz Amplitude: 7,5 mm/2 g Duration: 3 × 8 h	< 3 %	No visible damage
Long-term stability (empirical value)		*T*: 100 °C *t*: 10 000 h	< 3 %	No visible damage
Voltage proof test		1250 Vac; 1 s		No flashover
Insulation test		The sensors are placed in a vessel containing metallic balls of 1 mm diameter (with total immersed head). The applied voltage is 100 Vdc.		Above 100 MΩ

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