



Temperature Measurement

B57045

Probe Assemblies

K 45

Applications

- Temperature compensation (chassis mounting)
- Temperature measurement (chassis mounting)
- Temperature control (chassis mounting)

Features

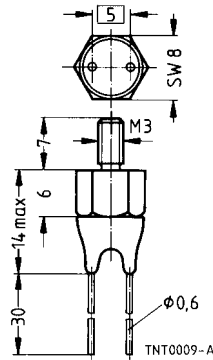
- Cost-effective
- Good thermal coupling through screw-type case (thread M3)
- Electrically isolated aluminum case
 $R_{is} > 100 \text{ M}\Omega$ ($V = 100 \text{ V dc}$); $V_{is} = 2500 \text{ V}$ (test duration: 1 s)
- Tinned copper leads

Options

Closer resistance tolerance available on request

Delivery mode

Bulk



Dimensions in mm
Approx. weight 1 g

Climatic category (IEC 60068-1)		55/125/56	
Max. power at 25 °C	P_{25}	450	mW
Resistance tolerance	$\Delta R_N/R_N$	± 10 %	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	± 3 %	
Dissipation factor (in air)	δ_{th}	approx. 9	mW/K
Dissipation factor (on chassis)	δ_{th}	approx. 20	mW/K
Thermal cooling time constant (in air)	τ_c	approx. 75	s
Thermal cooling time constant (on chassis)	τ_c	approx. 15	s
Torque		approx. 0,5	Nm

R_{25} Ω	No. of R/T characteristic	$B_{25/100}$ K	Ordering code
1 k	1011	3730	B57045K0102K000
2,2 k	1013	3900	B57045K0222K000
4,7 k	4001	3950	B57045K0472K000
6,8 k	2903	4200	B57045K0682K000
10,0 k	2904	4300	B57045K0103K000
33 k	1012	4300	B57045K0333K000
47 k	4003	4450	B57045K0473K000
68 k	2005	4600	B57045K0683K000
100 k	2005	4600	B57045K0104K000
150 k	2005	4600	B57045K0154K000



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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: 125 °C t: 1000 h	< 3 %	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	< 3 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: – 55 °C Upper test temperature: 125 °C Number of cycles: 10	< 3 %	No visible damage
Endurance		P_{\max} : 450 mW t: 1000 h	< 3 %	No visible damage
Long-term stability (empirical value)		T: 125 °C t: 10 000 h	< 5 %	No visible damage



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