

**Applications**

- Evaporator sensor for air conditioning systems
- Heating systems

**Features**

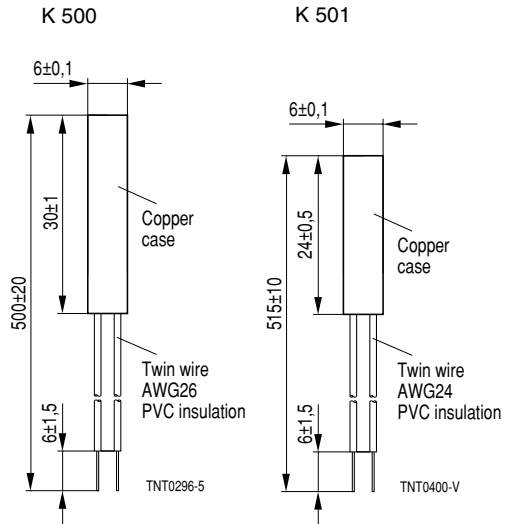
- Copper case
- Twin cable (black)
- PVC-insulated wires with tinned ends,  
 $T_{max} = 105\text{ °C}$

**Options**

Alternative resistance ratings, rated temperatures, resistance tolerances, wire lengths and AWG 22, 24 or 26 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)	$\delta_{th}$	approx. 5	mW/K
Thermal cooling time constant (in air)	$\tau_c$	approx. 50	s
Thermal time constant (in water)	$\tau_a$	approx. 8	s
Heat capacity	$C_{th}$	approx. 250	mJ/K
Insulation resistance ( $V = 100\text{ Vdc}$ )	$R_{is}$	> 100	MΩ
Test voltage ( $t = 1\text{ s}$ )	$V_T$	1,5	kVAC

Type	AWG	$R_{25}$ Ω	No. of R/T characteristic	$B_{25/100}$ K	Ordering code
K 500	26	10,0 k	8016	3988	B57500K0103A001
K 501	24	6,8 k	8016	3988	B57501K0682A002

**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 fluid)	IEC 60068-2-14	Lower test temperature: 0 °C Upper test temperature: 100 °C Time to change from lower to upper temperature: < 30 s Number of cycles: 1000 Medium: oil	< 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		1500 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

**Herausgegeben von EPCOS AG**

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