

ISA-PLAN®-Precision Resistor Type C-N

Spec Sheet R121-1/2 July 97

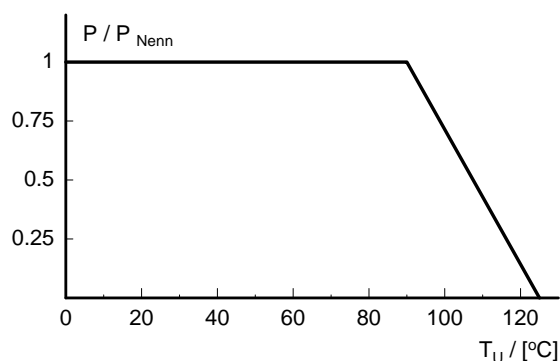
Technical Data	
Resistance range	10 mOhm - 100 Ohm
Tolerances	1%
Temperature coefficient (R > 20 mOhm)	< 50 ppm/K (20 °C to 60 °C)
Applicable temperature range	-55 °C to +125 °C
Load capacity	1 W
Thermal resistance to ambiente	Rth < 35 K/W
Dielectric withstanding voltage	1000 V AC
Inductance (R = 100 mOhm)	< 20 nH
Stability (nominal load at 70 °C)	deviation < 0.5 % after 2,000 h

Remarks:

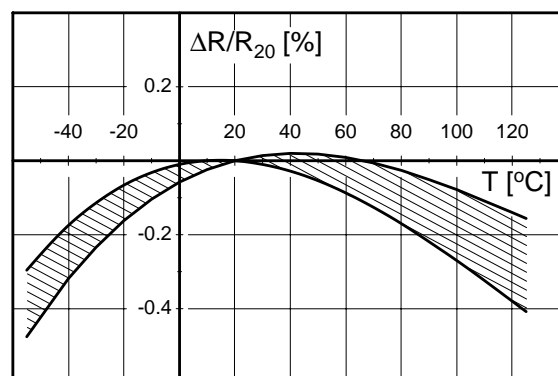
- Standard resistance values according to E12 with the additional values of 2 and 5
- Minimum quantity of other values on request

Resistor type **C-N** is ideally suited for application as current sensor for current limitation or current regulation in power units, power sources, and electronic loads, where the very low temperature coefficient of type A-N is not required or when the required resistance value is > 50 to 100 mOhm. Connections are of 3 mm copper strip and together with the internal aluminum carrier serve for

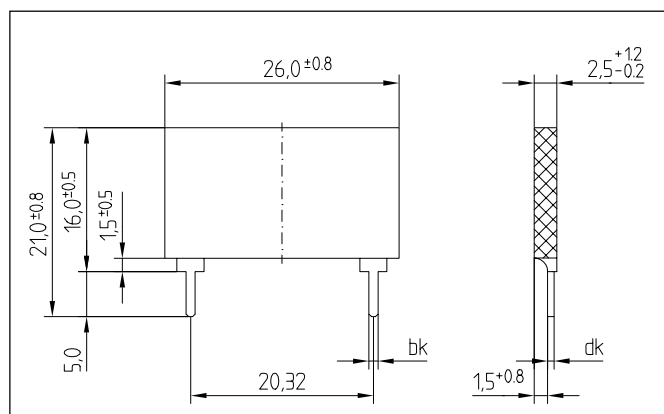
adequate heat abduction and thus exhibit only a small temperature rise at nominal load. The design in foil technique and the use of the precision resistance alloy **MANGANIN** guarantee for a very good long-term stability. By optimizing the shape, a high load capacity accompanied by a distinguishing accuracy as well as low inductance was achieved.



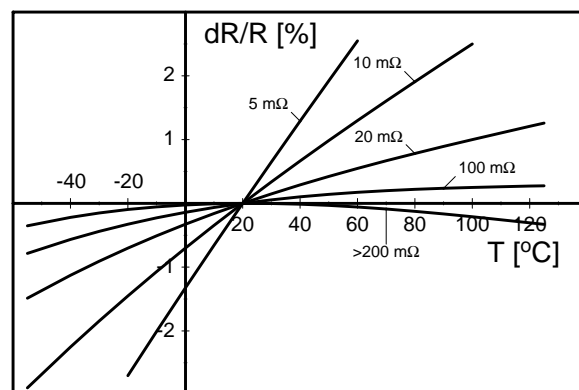
power derating curve



Temperature dependence of the electrical resistance of ISA-PLAN Resistors

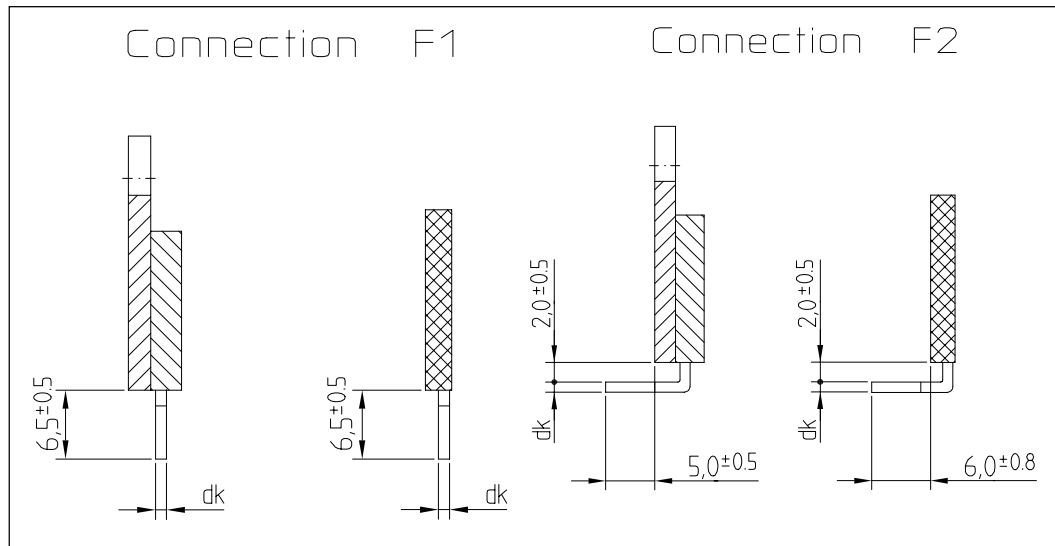


dimensions (mm)

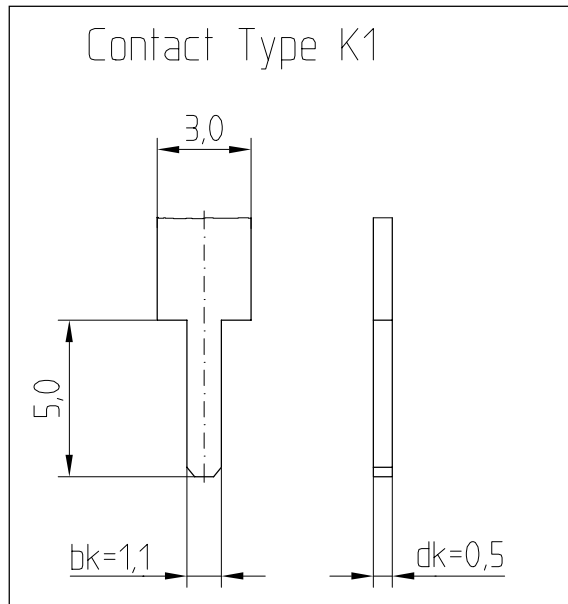


Change of the R(T)-curve to the TCR of copper terminals for very low ohmic 2-terminal-resistors

Available terminals



F1 Standard / F2 on request



ordering example: C-N - R100 - F1 - K1 - 1,0

type	resistance value	terminal	tolerance
C-N	100 mOhm	F1-K1	1,0 %

(Technical modifications reserved)

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