

# Precision Resistor Type PLC

Spec Sheet R171-1/2 July 97

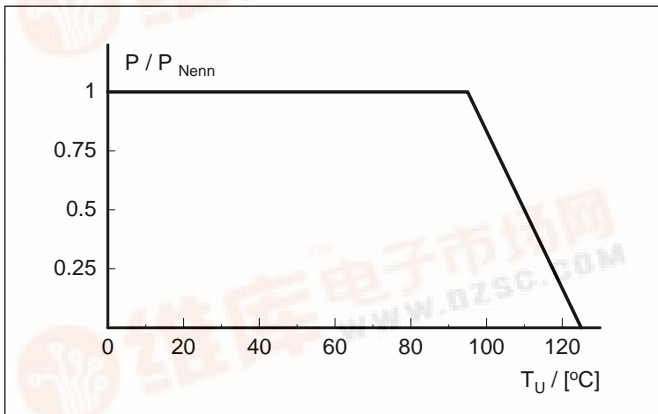
Technical data	
resistance range	2,5mOhm - 10hm
tolerances	1%, 5%
temperature coefficient tcr ( R > 20mOhm )	< ±50ppm/K ( 20°C to 60°C )
applicable temperature range	-55°C to +125°C
load capacity	1W
thermal resistance to ambiente	Rth < 30K/W
dielectric withstanding voltage	50VAC
inductance	< 15nH
stability	deviation <0.5% after 2,000h

- Remarks:
- Standard resistance values according to E6 ( Typ PLC E12 ) with the additional values of 2 and 5
  - Minimum quantity of other values on request

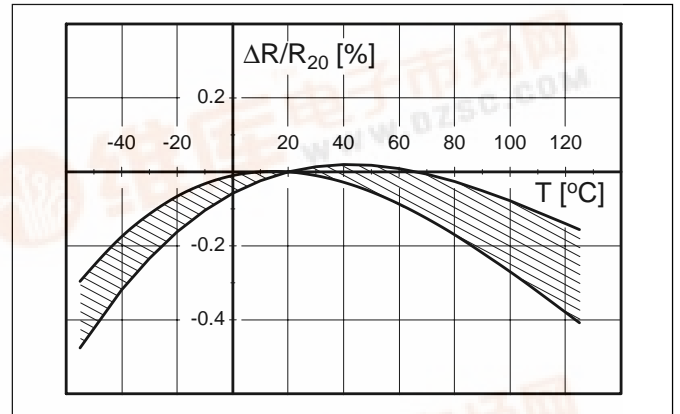
The two terminal resistor type **PLC** was developed to serve as an economic alternative to the type C-N for application as current sensor in linearly regulated power units, switching units, and current sources.

By an additional thermal contact of the aluminum carrier to a dissipator, e.g., by depressing to a heat sink or casing, the loading capacity can be raised to a manifold.

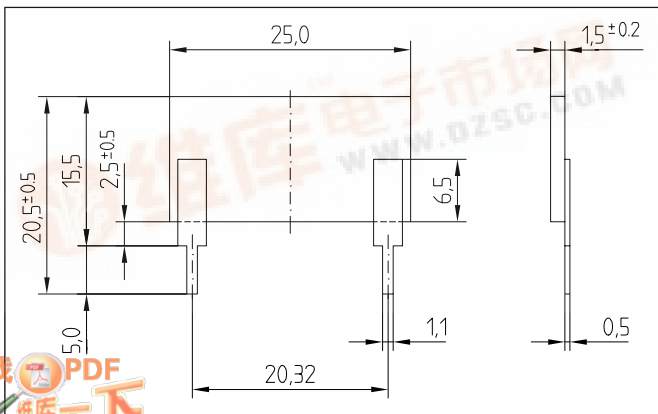
A decisive feature of the resistor is the high transient overload capacity based on its good thermal abductance from resistor material to aluminum substrate.



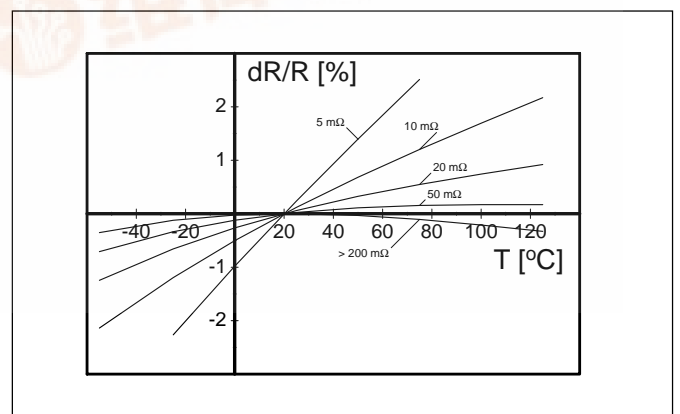
power derating curve



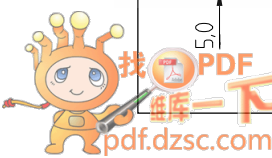
Temperature dependence of the electrical resistance of ISA-PLAN Resistors



dimensions (mm)



Change of the R(T)-curve to the TCR of copper terminals



**ordering example: PLC - R010 - 5**

type	resistance value	tolerance
PLC	10 mOhm	5 %