



# **ISA-PLAN® - Präzisionswiderstände**

## **precision resistors**

### **Typ / type A-H**

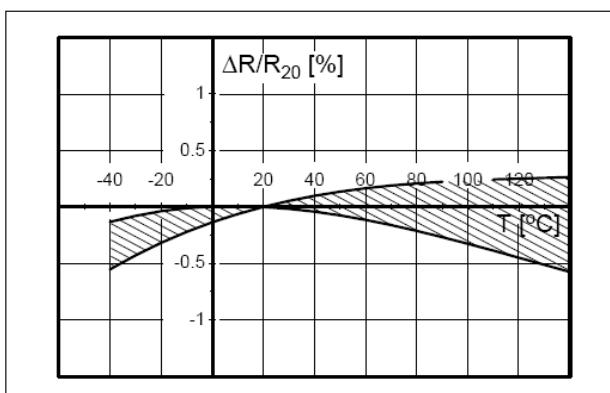
## Technical data

available resistance values version A-H1	(1,2,5,10,22,50,100,200 ,500) mOhm (1, 2, 5, 10, 20,100) Ohm
tolerances	0.1%, 0.5%, 1%
temperature coefficient tcr ( R > 20mOhm )	< ±10ppm/K ( 20°C to 60°C )
applicable temperature range	-55°C to +125°C
load capacity	10W with heatsink provided
thermal resistance to aluminium base plate	Rth < 3K/W
thermal resistance to ambience	15K/W
dielectric withstand voltage	500VAC
inductance (R = 10mOhm)	< 10nH
stability (at 125°Cfoil temperature)	deviation <0.1% after 2,000h

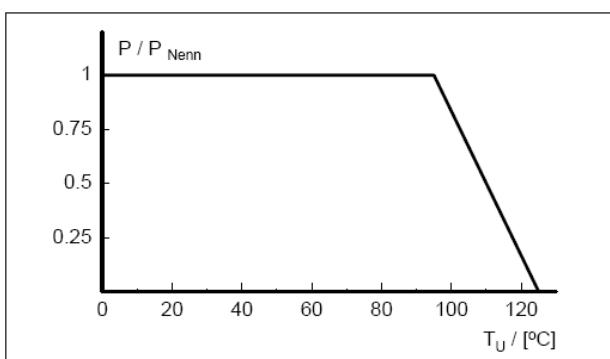
Remarks: - please note that the above standard values are available  
- Tolerance 0.1% for values from 5 mOhm

The Resistor type A-H with its isolated current and voltage connections configured as a four-terminal resistor ( i.e., Kelvin connection ) is ideally suited for precise current measurement, current limitation or regulation in power units, current sources, and electronic loads. It is also applied for current measurements in pulse width modulated ( PWM ) control circuits for inductive users such as servo and stepper motors and solenoid driver circuits.

Design in foil technique and application of precision resistance alloy **MANGANIN** warrants for a long-term stability. By optimization of the shape, a high load capacity was obtained while maintaining accuracy and low inductance. The low thermal resistance to the aluminum base plate of < 3 K/W permits loading up to 10 W with only little self-heating.



Temperaturabhängigkeit des elektrischen Widerstandes von  
MANGANIN-Widerständen  
temperature dependence of the electrical resistance of  
MANGANIN-resistors

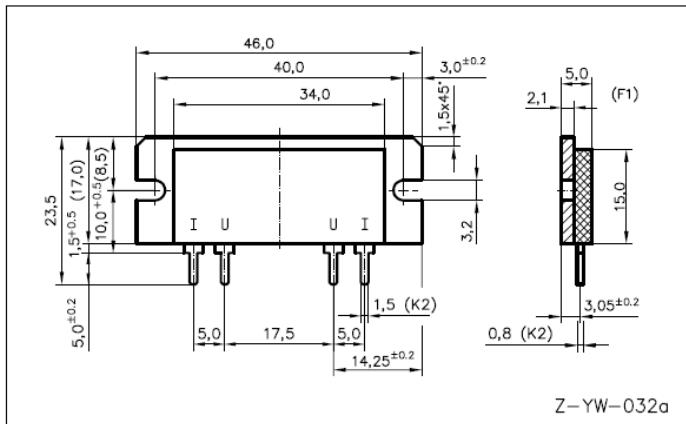


### power derating curve

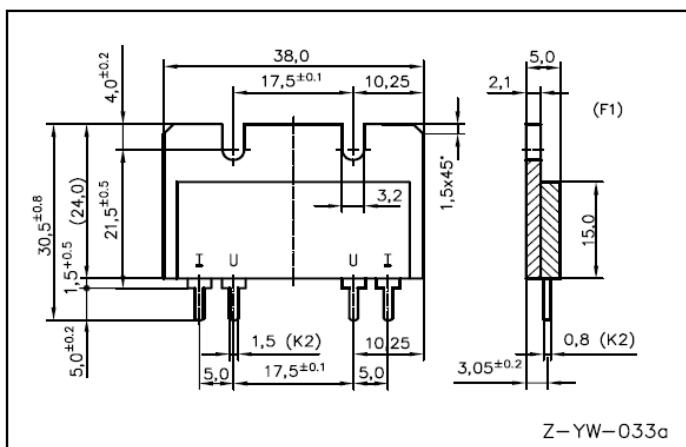
Technische Änderungen vorbehalten - technical modifications reserved



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**precision resistors**  
**Typ / type A-H**



version A-H1 with standard terminal F1-K2



version A-H2 with standard terminal F1-K2

ordering code			
A-H2-R005-F1-K2-0.1			
type	resistance value	terminal	tolerance
A-H2	5 mOhm	F1-K2	0.1%

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