



## ISA-PLAN® // PRECISION RESISTORS



## A-H



## Features

- Up to 10 W permanent power
- Max. permanent current: 81 A
- Very high precision of tolerance and TCR
- 4-terminal connection
- Low self-heating
- RoHS 2011/65/EU compliant



## Applications

- Measurement equipment
- Reference resistors in laboratories
- Current sources
- Laboratory power supplies

## Technical data

Resistance values *	<b>mOhm</b>	1 to 500
	<b>Ohm</b>	1 to 100
Tolerance	<b>%</b>	0.1 / 1
Temperature coefficient (20-60 °C)	<b>ppm/K</b>	<30
Applicable temperature range	<b>°C</b>	-55 to +140
Power rating	<b>W</b>	3 / 10 (on a heatsink)
Thermal resistance to ambient (Rth)	<b>K/W</b>	<15
Thermal resistance to aluminium substrat (Rthi)	<b>K/W</b>	<3
Dielectric withstanding voltage	<b>V AC/DC</b>	500
Inductance	<b>nH</b>	<10
Stability (Nominal load) deviation after 2000h T <sub>k</sub> = Terminal temperature		<0.1 % (T <sub>k</sub> = 80 °C with heatsink), <0.2 % (T <sub>k</sub> = 95 °C with heatsink)

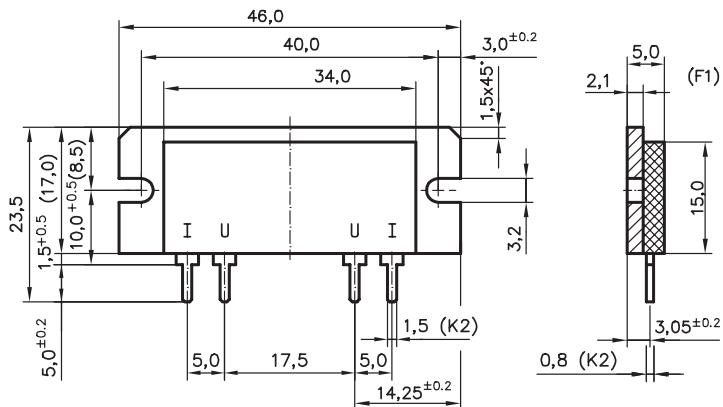
\* See all standard values on page 4



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**Mechanical dimensions [mm]**

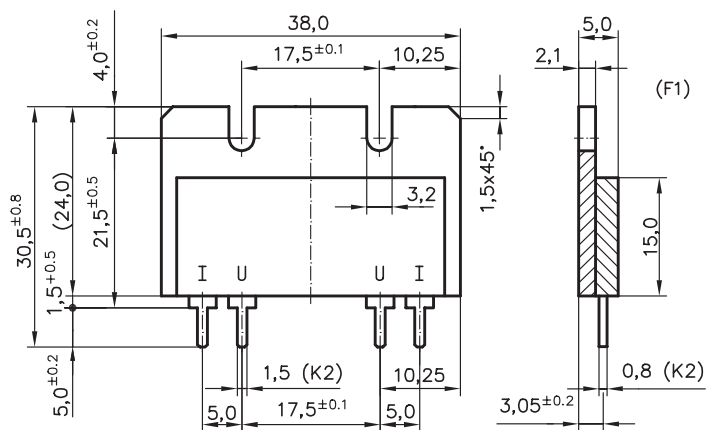
Version A-H1 with standard terminal F1-K2



Z-YW-032a

**Mechanical dimensions [mm]**

Version A-H2 with standard terminal F1-K2

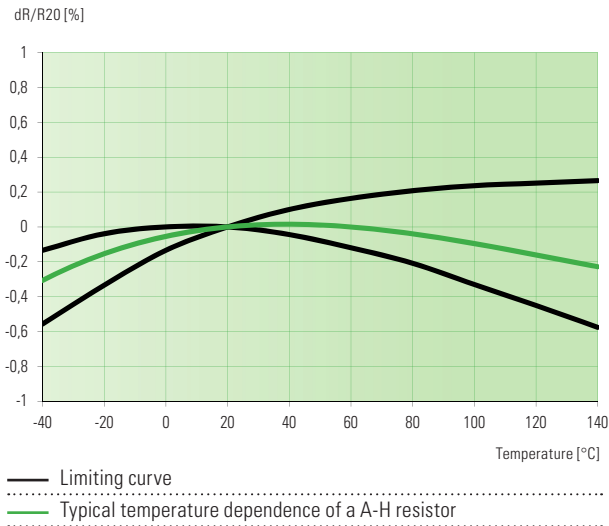


Z-YW-033a

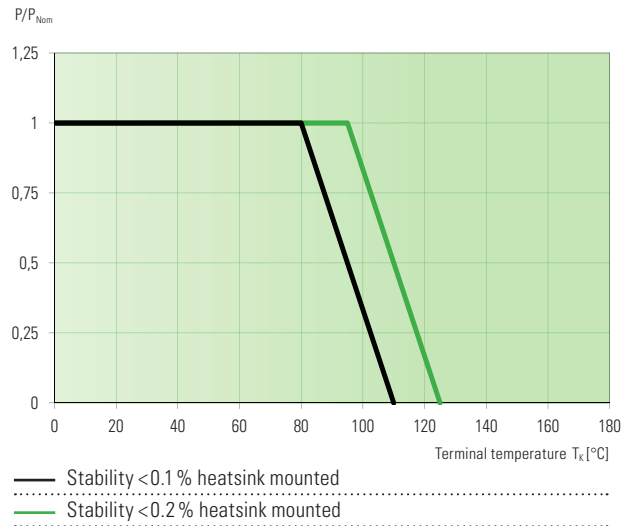


# A-H

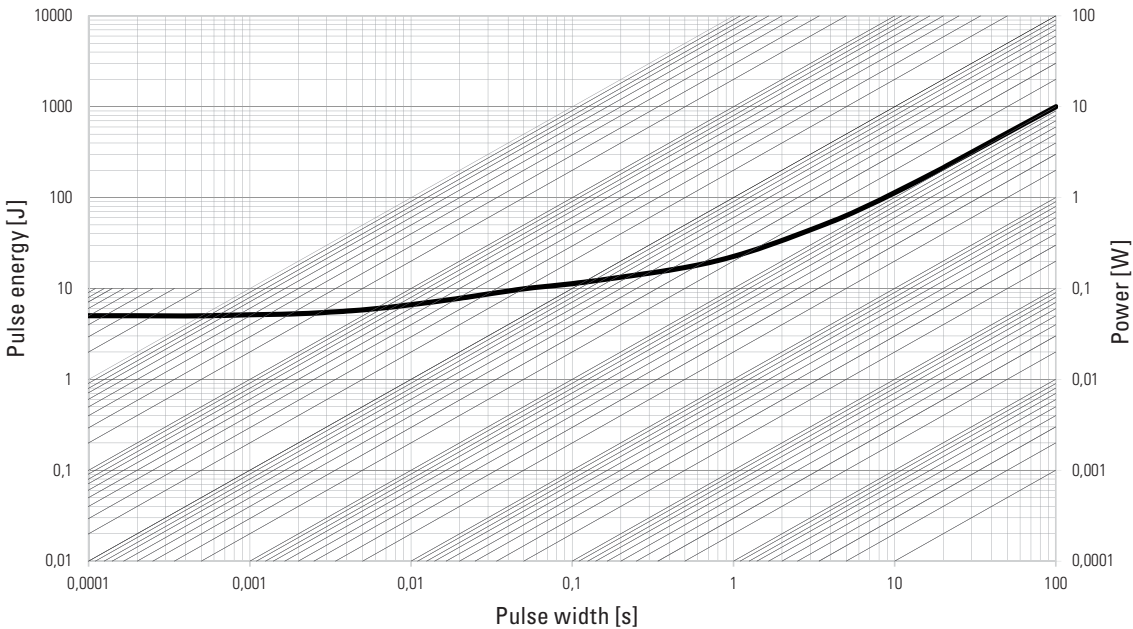
## Temperature dependence of the electrical resistance of A-H resistors



## Power derating curve



## Maximum pulse energy respectively pulse power for permanent operation



This curve is only valid for the resistance value R005. The progression of the curve in the lower range could be different for other resistance values. Therefore a separate qualification should be made in thresholds.



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Available standard resistance values and tolerances\*

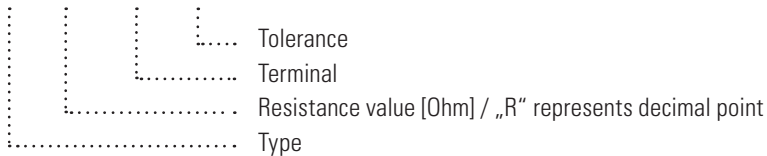
Resistance values A-H1	Tolerance	
	0.1	1.0
R001	✓	✓
R005		✓
R010	✓	
R020	✓	
R050	✓	
R100	✓	
R200	✓	
R250	✓	
R300	✓	
R500	✓	
1R00	✓	
5R00	✓	
33R0	✓	
100R	✓	

Resistance values A-H2	Tolerance	
	0.1	1.0
R001	✓	
R002	✓	✓
R005	✓	✓
R010	✓	
R020	✓	
R050	✓	
R100	✓	✓
R200	✓	
R500	✓	✓
1R00	✓	
2R00	✓	
5R00	✓	
10R0	✓	
20R0	✓	
100R	✓	

\* Further values and tolerances on request  
 ✓ = available

Ordering code

A-H1 - R005 - F1-K2 - 1.0



Packaging Information	Tray
Parts per tray A-H1	40
Parts per tray A-H2	50

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