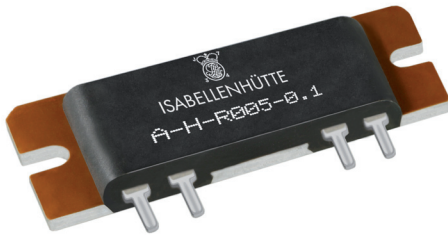




## ISA-PLAN® // PRECISION RESISTORS



### 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)

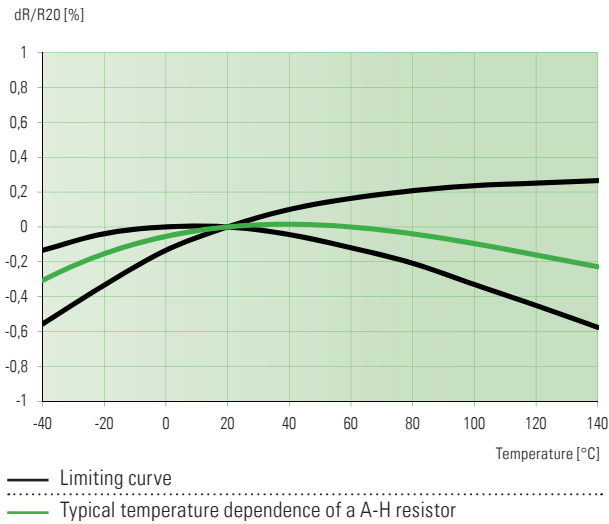
\* See all standard values on page 4



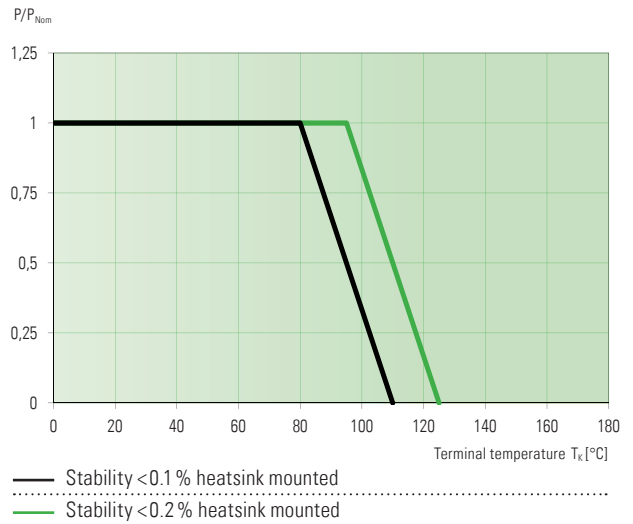


A-H

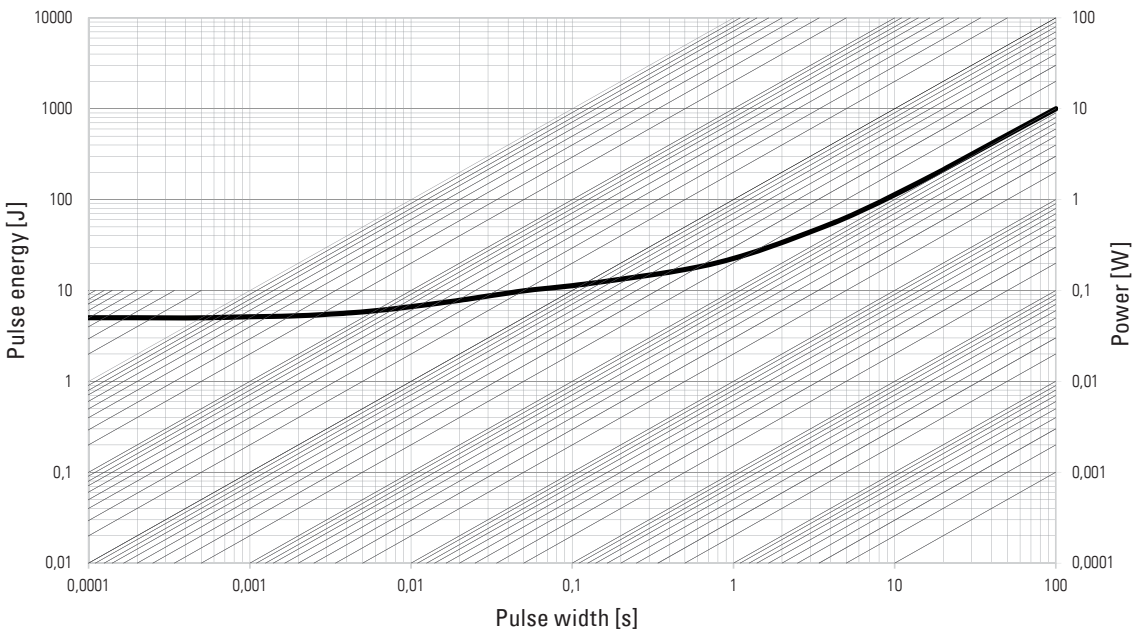
**Temperature dependence of the electrical resistance of A-H resistors**



**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.



A-H

Available standard resistance values and tolerances\*

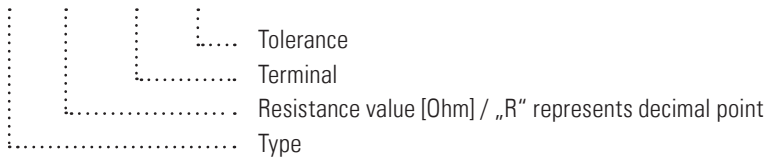
Resistance values A-H1	Tolerance	
	0.1	1.0
R001	✓	✓
R005		✓
R010	✓	
R020	✓	
R050	✓	
R100	✓	
R200	✓	
R250	✓	
R300	✓	
R500	✓	
1R00	✓	
5R00	✓	
10R0	✓	
33R0	✓	
100R	✓	

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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