

# High-Precision-Resistor-Networks

## Series HPN

### Features

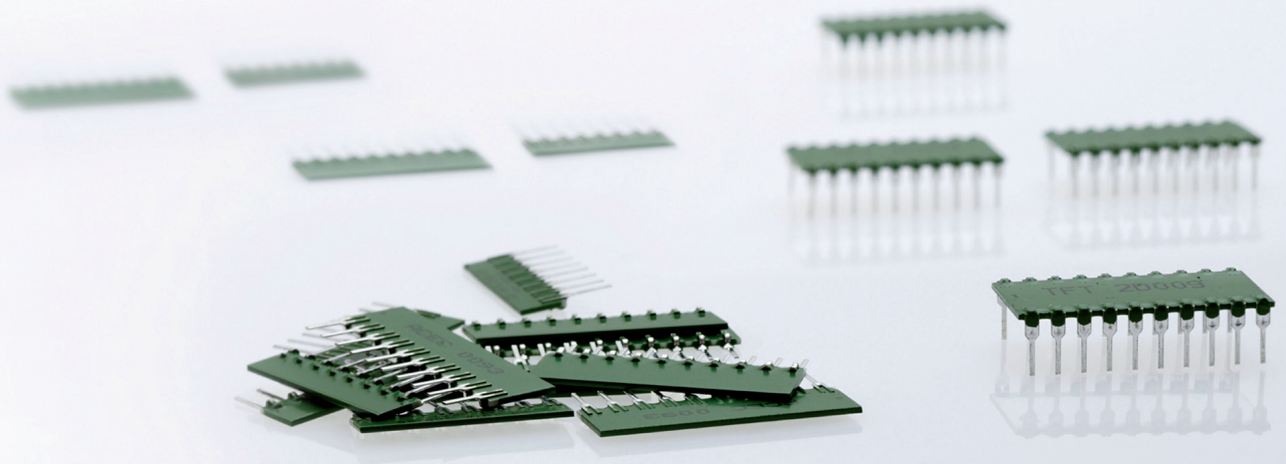
- Thin Film Technology applied on ceramic substrates
- Standard and customized models
- Advantage is the excellent ratio and tracking data
- Available as SMD and THD versions (SIL, DIL)
- RoHS – compliant

### Technical Data

Load Capacity $P_{70}$		20 mW/mm <sup>2</sup> 10 mW/mm <sup>2</sup> for extremely high precision applications
Range of Values		5 $\Omega$ ... 10 M $\Omega$
Isolating Voltage		300 VDC (up to 1 kVDC on request)
R-Tol.	absolute ratio	$\pm 0.05$ ; $\pm 0.1$ ; $\pm 0.25$ ; $\pm 0.5$ ; $\pm 1$ % < 0.025; < 0.05; < 0.1 %
TCR	absolute tracking	$\pm 5$ <sup>1)</sup> ; $\pm 10$ ; $\pm 25$ ; $\pm 50$ ppm/K 2 <sup>1)</sup> ; 5; 10 ppm/K
Operating Temperature Range		- 40 °C ... + 125 °C
Solderability <sup>2)</sup>		245 °C 3 s
Soldering Heat Resistance <sup>3)</sup>		260 °C 10 s

1) Temperature range 0 ... + 75 °C; 2) DIN IEC 68 T2-20, Ta Meth.1; 3) DIN IEC 68 T2-20, Ta Meth.1A

Long Term Stability		1,000 h	10,000 h
Storage 125 °C Continuous Power $P_{70}/70$ °C	absolute ratio	< $\pm 0.1$ % < 0.02 %	< $\pm 0.3$ % < 0.1 %
Overload (100 %/10 s)	absolute ratio	< $\pm 0.05$ % < 0.01 %	
Temperature/Humidity (56 d/40 °C/96 %)	absolute ratio	< $\pm 0.1$ % < 0.02 %	



## Dimensions

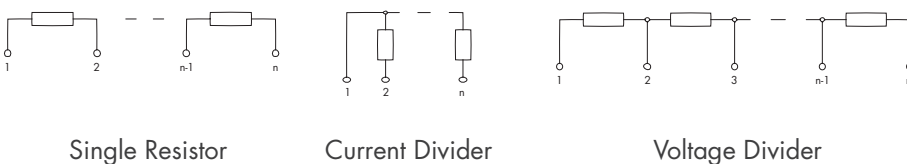
Package Type		
SIL	H = 6.0; 8.0; 11.0; 13.5 mm R = 1.27; 2.54 mm L = R x Number of Pins	
DIL	A = 7.5 mm; 10 mm B = 5 mm; 7.5 mm C = 0.6 ... 0.75 mm	
SMD	A = 7.5 mm; 10 mm R = 1.27; 2.54 mm L = R x Number of Pins	

Other versions on request.

## Package Types

- SIL
- DIL
- SMD

## Schematics (examples)



## Customized Versions

- Most schematics can be realized.
- Resistor data according to client's specification.
- Customized layout is designed in our development department for best product data.

## Ordering Information

- Resistor value and tolerance (absolute & ratio)
- TCR (absolute & tracking)
- Schematic
- Load capacity
- Dimensions
- Operating temperature range
- Specials
- Quantity, expected delivery date

## Delivery form

- Tray (specific, if necessary)

## Sales and Development

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