



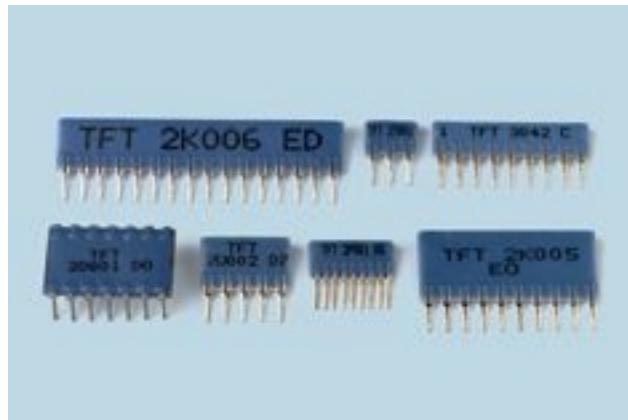
## Precision-R-Networks

Typeg: **HPN**

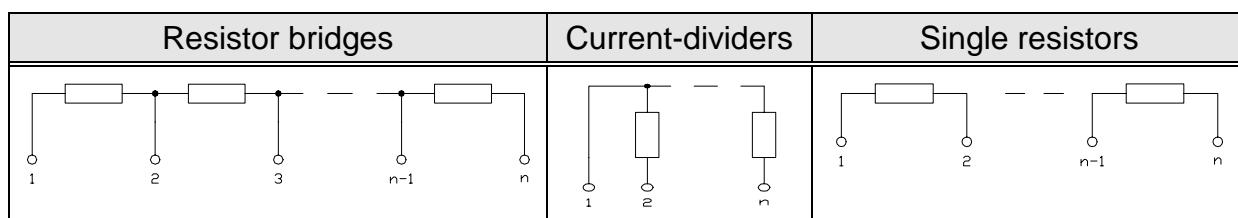
Sizes: **SIL, DIL, SMD**

Features:

- Thinfilm (NiCr) on Aluminia
- Standard types and custom networks
- Relative-data (tolerance, TCR and stability) much closer than with single resistors
- DIL available for SMT



Examples of circuits:



Standard dimensions:

Size		
SIL		H = 6,0; 8,0; 11,0; 13,5 mm R = 1,27; 2,54 L = R x Number of contacts
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 L = R x Number of contacts

Technical Data:



BREL Precision Components, Inc.  
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Power rating P <sub>70</sub>	20 mW/mm <sup>2</sup> 10 mW/mm <sup>2</sup> for applications of high precision		
Resistance range	10 Ω...10 MΩ		
Working voltage	250 V (special versions > 1 kV)		
Tolerance	absolute	± 0,05; ± 0,1; ± 0,25; ± 0,5; ± 1%	
	relative	< 0,025 <sup>1)</sup> ; < 0,05; < 0,1%	
TCR	absolute	± 5 <sup>1)</sup> ; ± 10; ± 25; ± 50 *10 <sup>-6</sup> /K	
	relative	2; 5; 10 *10 <sup>-6</sup> /K	
Operating temperature range Climatic category acc. to DIN IEC 68	-55 °C...+125 °C 25/125/56		
Solderability <sup>2)</sup> Max. soldering temperature <sup>3)</sup>	235 °C 2s 260 °C 10s		

Long term stability		1000 h	10 000h
Storage 125 °C oder Load P70/70 °C	absolute	< 0,1 %	< 0,3 %
	relative	< 0,02 %	< 0,1 %
Overload (100%/10s)	absolute	< 0,05 %	
	relative	< 0,01 %	
Damp heat (56d/40°C/96%)	absolute	< 0,1 %	
	relative	< 0,02 %	

<sup>1)</sup> Temperature range 0...+70°C

<sup>2)</sup> DIN IEC 68 T2-20, Ta Meth.1

<sup>3)</sup> DIN IEC 68 T2-20, Ta Meth.1A

Other specifications on request.

### Customer-specific version:

- Any circuits are possible.
- The parameters of the resistance values are specified by the customer. A customer-specific layout is planned in the company's own development department and implemented technically.

### Ordering data:

- Maximum dimensions
- Number and connection of resistors
- Resistance values
- Tolerance and TCR (absolute and relative)
- Power rating
- Temperature range
- Stability requirements

**Packaging:** Packed in deep-drawing foil

Stand: 11/98



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