

III. PRECISION SHUNT NETWORKS

Precision-Networks

Type	Resistance Range	Power max.	Temperature Coefficient	Tolerance	Stability	Page
FPN FHN	0R01 ... 90R	30 Watt	± 15ppm/K	0.1%	0.1%	71
FPN 3-4916 FHN 3-5426 FHN 3-6819	0R01 ... 90R	20 Watt	± 15ppm/K	0.1%	0.1%	74
FPN 4-5716 FHN 4-6426 FHN 4-7819	0R01 ... 90R	20 Watt	± 15ppm/K	0.1%	0.1%	75
FPN 5-4818	0R01 ... 90R	2 Watt	± 15ppm/K	0.1%	0.1%	76
FPN 7-6516	0R025 ... 2R5	2 Watt	± 15ppm/K	0.1%	0.1%	77
FHN 4-8526 FHN 6-8526	0R01 ... 9R	30 Watt	± 15ppm/K	0.1%	0.1%	78



- Resistor Values over four Decades
- Extremely Low Ohm Rating
- Kelvin Connection
- Small Temperature Coefficient
- Low Inductance

SPECIFICATIONS

ELECTRICAL

	FPN	FHN 5426/6819 FHN 6426/7819	FHN 8526
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Resistance Range	:	R010...90R		
Power Rating	:	2 W (70°C)	2 W (70°C) from to 20W*	3 W (70°C) from to 30W*
			* with heatsink depending on the quantity of the single resistors	
Tolerances	:	0.1%, 0.25%, 0.5%, 1%		
Stability	:	0.1%, 0.2%, 0.5% (depends on stress)		
Temperature Coefficient	:	± 15 ppm/K (20 ... 60)°C		
Voltage Proof	:	-	>1 kV DC	>1 kV DC
Insolation Resistance	:	> 10 GOhm	-	-
Thermal EMF	:	< 1 µV/K		
Max. Current	:		25 A	25 A

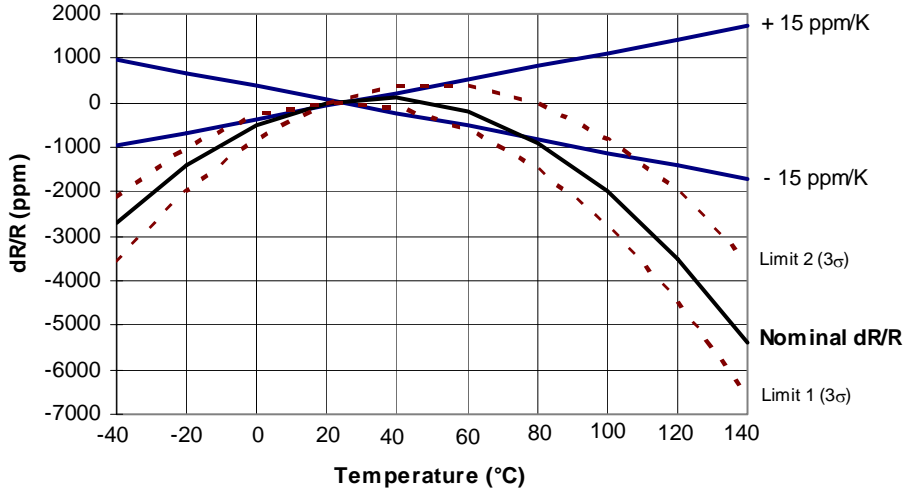
ENVIRONMENTAL

Operating Temperature Range : -40°C...130°C

MECHANICAL

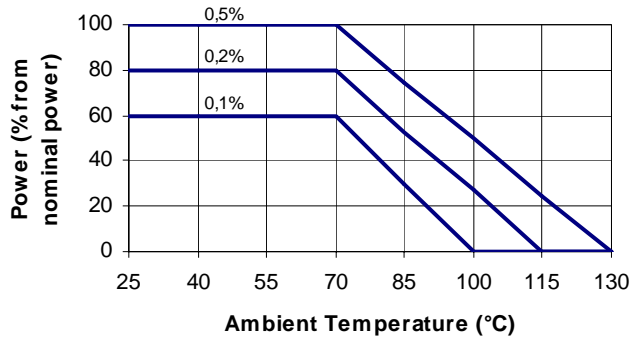
Resistor Material	:	Metalfoil CuNiMn (DIN 17471)
Substrate	:	anodized aluminium
Housing	:	Epoxy
Connector Material	:	Cu tinned
Max. torque backplate	:	1 Nm

TEMPERATURE COEFFICIENT

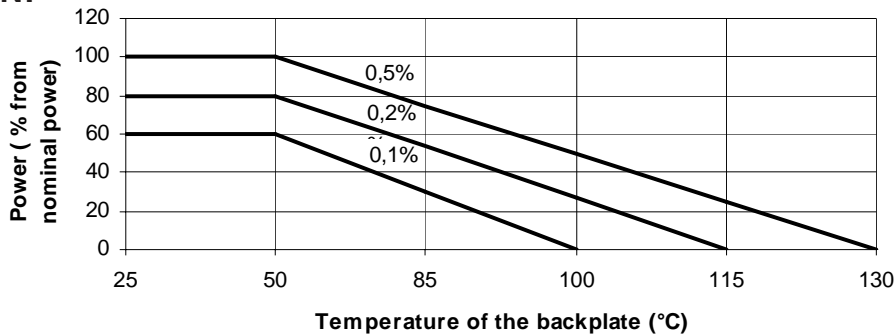


DERATING CURVE

FPN:

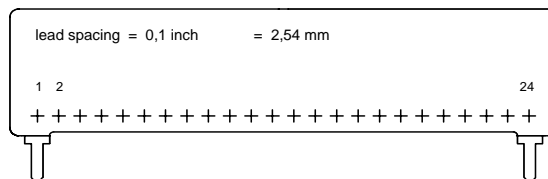


FHN:



Pattern

The resistor networks can be configured upon request of the customer. The only restrict is the grid of 5.08mm between two contacts. The point of the contact can be in a grid dimension of 2.54mm.



RESISTANCE VALUE COMBINATION

Description	Type	Resistance Value Combination
FPN 3-4916 / FHN 3-5426 / FHN 3-6819	A	R01 - R09 - R90
	B	R01 - R10 - R90
	C	R09 - R90 - 9R0
	D	R10 - R90 - 9R0
	E	R90 - 9R0 - 90R
	F	1R0 - 9R0 - 90R
	G	R10 - R90 - 9R0
FPN 4-5716 / FHN 4-6426 / FHN 4-7819	B	R01 - R09 - R90 - 9R0
	C	R10 - R90 - 9R0 - 90R
	D	R05 - R45 - 4R5 - 45R
	E	R025 - R075 - R150 - R250
FHN 4-8526	B	R01 - R09 - R90 - 9R0
FPN 5-4818	A	R01 - R09 - R90 - 9R0 - 90R
	R	R033 - R067 - R90 - 9R0 - 90R
FHN 6-8526	K	R025 - R075 - R15 - R75 - 1R5 - 7R5
FPN 7-6516	A	R025 - R075 - R15 - R25 - R50 - 1R5 - 2R5

(Detailed drawings and applications see the following pages.)

HOW TO ORDER

FPN 3-4916 A 0.1% R01-R09-R90
 FHN 3-5426 C 0.1% R09-R90-9R0
 FPN 4-5716 B 0.1% R010-R090-R900-9R00
 FHN 4-6426 C 0.5% R10-R90-9R0-90R
 FPN 5-4818 A 0.1% R010-R090-R900-9R00-90R0
 FHN 6-8526 K 1.0% R025-R075-R15-R75-1R5-7R5
 FPN 7-6516 A 0.1% R025-R075-R15-R25-R50-1R5-2R5

