

## Wire-Wound Fixed Resistors

### Performance Specification

Temperature Coefficient	<20Ω: ±400PPM/°C; ≥20Ω: ±300PPM/°C
Short Time Overload	±(2.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Dielectric Withstanding Voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.
Pulse Overload	±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Terminal Strength	No evidence of mechanical damage.
Resistance to Soldering Heat	±(1.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Solderability	Min. 95% coverage.
Temperature Cycling	±(2.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Load Life in Humidity	±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Load Life	±(5.0% + 0.05Ω)Max, with no evidence of mechanical damage.
Non-Flame	No evidence of flaming or arcing.
Surge Immunity (IEC 61000-4-5)	±(5.0% + 0.05Ω)Max

### Ordering Procedure: Ex.: KNP 1W, +/-5%, 100Ω, T/B-1000

K	N	P	0	1	W	J	0	1	0	1	A	1	0
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**Type:**  
 KNP = KNP  
 KNH = KNH  
 KNS = KNS

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**Feature:**  
 0 = Standard  
 U = UL Approved   
 A = Anti-Surge  
 S = Special / Customized (For KNP Type only)  
 I = Non-Inductive

**Wattage:**  
 Normal  
 W2 = 1/2W  
 1W = 1W  
 .. ..  
 9W = 9W  
 AW = 10W  
 .. ..  
 A0 = 100W

**Small**  
 1S = 1W-S  
 .. ..  
 9S = 9W-S  
 AS = 10W-S

**Extra Small**  
 1U = 1W-SS  
 2U = 2W-SS  
 3U = 3W-SS  
 4U = 4W-SS  
 AU = 10W-SS

**Resistance Value:**

- E-24 series:  
 1<sup>st</sup> digit is "0"  
 2<sup>nd</sup> & 3<sup>rd</sup> digits are significant figures of the resistance  
 4<sup>th</sup> indicates the number of zeros  
 "J" ~ 0.1, "K" ~ 0.01  
 Ex. 4.7Ω ~ 47J, 4.7KΩ ~ 472
- E-96 series:  
 1<sup>st</sup> to 3<sup>rd</sup> digits are significant figures of the resistance and the 4<sup>th</sup> digit indicates the number of zeros.  
 Ex.: 1.33KΩ = 1331

**Packing Type:**  
 A = Tape/Box  
 T = Tape/Reel  
 B = Bulk/Box

**Packing Qty:**  
 1 = 1,000 pcs.  
 2 = 2,000 pcs.  
 A = 500 pcs.  
 B = 2,500 pcs. (for T/R)  
 0 = Bulk/Box

**Tolerance:**  
 F = ±1%  
 G = ±2%  
 J = ±5%  
 K = ±10%

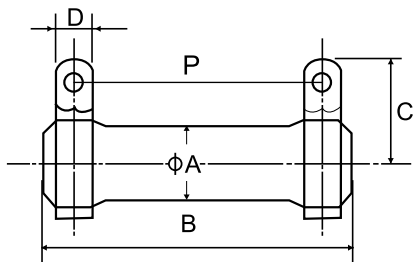
**Additional Information:**  
 (for KNP,KNS,KNH,KNHA Type B/B pack only)  
 0 = NIL

(for KNP Type Only)  
 0 = PT-52mm  
 8 = PT-58mm  
 9 = PT-64mm  
 C = PT-73mm

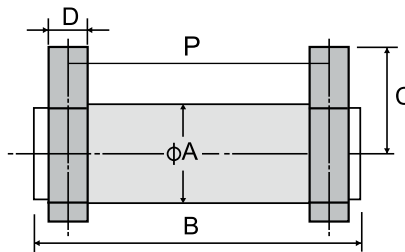
Terminal Wire-Wound Fixed Resistors

KNH, KNHA Type

KNH Type

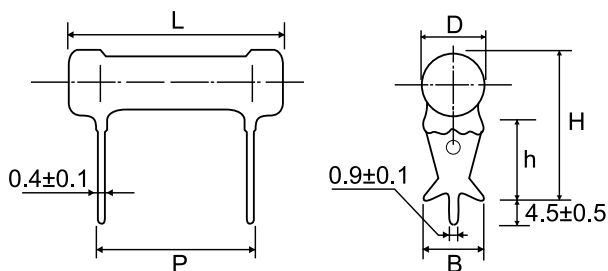


KNHA Type



Part No.	Style	Power Rating at 70°C	Dimension (mm)					Resistance Range
			A±1.5	B±1.5	C±3	D±0.5	P±5	
KNH020	KNH 20W	20W	19	50	19	4.5	40	0.4Ω ~ 10KΩ
KNH030	KNH 30W	30W	19	75	19	4.5	65	0.5Ω ~ 15KΩ
KNH040	KNH 40W	40W	19	90	19	4.5	80	0.6Ω ~ 20KΩ
KNH050	KNH 50W	50W	28	75	31	8	65	3Ω ~ 25KΩ
KNH060	KNH 60W	60W	28	90	31	8	80	3Ω ~ 30KΩ
KNH080	KNH 80W	80W	28	115	31	8	100	3Ω ~ 40KΩ
KNH100	KNH 100W	100W	28	140	31	8	130	3Ω ~ 50KΩ
KNHA25	KNHA 25W	25W	21	41	24	5	30	0.4Ω ~ 10KΩ
KNHA30	KNHA 30W	30W	21	42	24	5	30	0.4Ω ~ 10KΩ

KNS Type



Part No.	Style	Power Rating at 70°C	Dimension (mm)						Resistance Range
			D Max	L±1.5	P±0.5	H±1	h±1	B±0.5	
KNS02W	KNS 200	2W	8	19	8	19	12	4.5	0.1Ω ~ 50Ω
KNS03W	KNS 300	3W	8	21	10	19	13	4.5	0.5Ω ~ 50Ω
KNS05W	KNS 500	5W	10	26	15	21.5	13	6.5	0.5Ω ~ 100Ω
KNS07W	KNS 700	7W	10	31	20	21.5	13	6.5	1Ω ~ 1KΩ
KNS08W	KNS 800	8W	10	41	30	21.5	13	6.5	1Ω ~ 1.5KΩ
KNS0AW	KNS 1000	10W	10	54	43	21.5	13	6.5	1Ω ~ 2KΩ