

# 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                                                           |

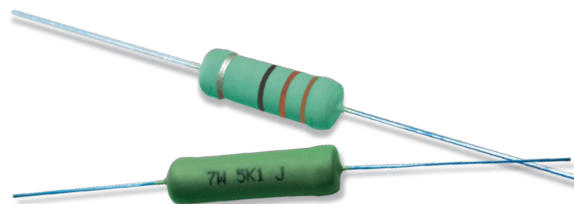
## Ordering Procedure: Ex.: KNP 1W, +/-5%, 100Ω , T/B-1000

| K                                                          | N | P | 0                                                                                                                                                                                                                                          | 1                                                                                                                                                                                                                                                                                        | W | J | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 | 0 | 1                                                                                                                                                                                         | A | 1 | 0 |
|------------------------------------------------------------|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| <div>Type:<br/>KNP = KNP<br/>KNH = KNH<br/>KNS = KNS</div> |   |   | <div>Feature:<br/>0 = Standard<br/>U = UL Approved <br/>A = Anti-Surge<br/>S = Special / Customized<br/>(For KNP Type only)<br/>I = Non-Inductive</div> | <div>Wattage:<br/>Normal<br/>W2 = 1/2W<br/>1W = 1W<br/>.. ..<br/>9W = 9W<br/>AW = 10W<br/>.. ..<br/>A0 = 100W<br/><br/>Small<br/>1S = 1W-S<br/>.. ..<br/>9S = 9W-S<br/>AS = 10W-S<br/><br/>Extra Small<br/>1U = 1W-SS<br/>2U = 2W-SS<br/>3U = 3W-SS<br/>4U = 4W-SS<br/>AU = 10W-SS</div> |   |   | <div>Resistance Value:<ul style="list-style-type: none"><li>E-24 series:<br/>1<sup>st</sup> digit is "0"<br/>2<sup>nd</sup> &amp; 3<sup>rd</sup> digits are significant figures of the resistance<br/>4<sup>th</sup> indicates the number of zeros<br/>"J" ~ 0.1, "K" ~ 0.01<br/>Ex. 4.7Ω ~ 47J, 4.7KΩ ~ 472</li><li>E-96 series:<br/>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.<br/>Ex.: 1.33KΩ = 1331</li></ul></div> |   |   | <div>Packing Type:<br/>A = Tape/Box<br/>T = Tape/Reel<br/>B = Bulk/Box</div>                                                                                                              |   |   |   |
|                                                            |   |   |                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                          |   |   | <div>Packing Qty:<br/>1 = 1,000 pcs.<br/>2 = 2,000 pcs.<br/>A = 500 pcs.<br/>B = 2,500 pcs. (for T/R)<br/>0 = Bulk/Box</div>                                                                                                                                                                                                                                                                                                                                                                                               |   |   |                                                                                                                                                                                           |   |   |   |
|                                                            |   |   |                                                                                                                                                                                                                                            | <div>Tolerance:<br/>F = ±1%<br/>G = ±2%<br/>J = ±5%<br/>K = ±10%</div>                                                                                                                                                                                                                   |   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |   | <div>Additional Information:<br/>(for KNP,KNS,KNH,KNHA Type B/B pack only)<br/>0 = NIL<br/><br/>(for KNP Type Only)<br/>0 = PT-52mm<br/>8 = PT-58mm<br/>9 = PT-64mm<br/>C = PT-73mm</div> |   |   |   |

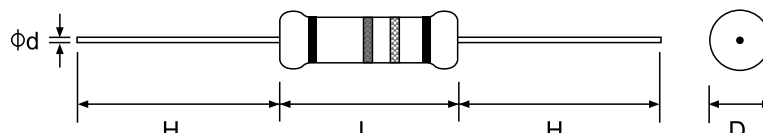
## Wire-Wound Fixed Resistors

### Features

- Color coating Is "Green"
- Non-inductive type available
- Excellent flame resistance
- Too low or too high ohmic value can be supplied on a case to case basis
- Special Fusing Wire-Wound Resistors can be supplied on a case to case basis



Standard : 2% ,5% ,10% -- E - 24 series  
1% -- E - 96 series



| Part No.    | Style       | Power Rating<br>at 70°C | Dimension (mm) |      |     |        |     | Low Resistance Range | Standard Resistance Range | High Resistance Range |
|-------------|-------------|-------------------------|----------------|------|-----|--------|-----|----------------------|---------------------------|-----------------------|
|             |             |                         | D±1            | L±1  | H±3 | d±0.05 | PT  |                      |                           |                       |
| Normal Size |             |                         |                |      |     |        |     |                      |                           |                       |
| KNP0W2      | KNP 50      | 1/2W (0.50W)            | 3.5            | 10.0 | 28  | 0.54   | 52  | 0.06Ω~9.9Ω           | 10Ω~39Ω                   | 40Ω~560Ω              |
| KNP01W      | KNP 100     | 1W                      | 5.0            | 12.0 | 25  | 0.70   | 52  | 0.10Ω~9.9Ω           | 10Ω~50Ω                   | 51Ω~1KΩ               |
| KNP02W      | KNP 200     | 2W                      | 5.5            | 16.0 | 28  | 0.70   | 64  | 0.15Ω~9.9Ω           | 10Ω~120Ω                  | 121Ω~2KΩ              |
| KNP03W      | KNP 300     | 3W                      | 6.5            | 17.5 | 28  | 0.75   | 64  | 0.25Ω~9.9Ω           | 10Ω~200Ω                  | 201Ω~3KΩ              |
| KNP05W      | KNP 500     | 5W                      | 8.5            | 25   | 38  | 0.75   | B/B | 0.50Ω~9.9Ω           | 10Ω~470Ω                  | 471Ω~5KΩ              |
| KNP07W      | KNP 700     | 7W                      | 8.5            | 30   | 38  | 0.75   | B/B | 0.65Ω~9.9Ω           | 10Ω~470Ω                  | 471Ω~6KΩ              |
| KNP08W      | KNP 800     | 8W                      | 8.5            | 40   | 38  | 0.75   | B/B | 1.0Ω~9.9Ω            | 10Ω~1.5KΩ                 | 1.6KΩ~10KΩ            |
| KNP09W      | KNP 900     | 9W                      | 8.5            | 53   | 38  | 0.75   | B/B | 1.0Ω~9.9Ω            | 10Ω~1.5KΩ                 | 1.6KΩ~15KΩ            |
| Small Size  |             |                         |                |      |     |        |     |                      |                           |                       |
| KNP01S      | KNP 100-S   | 1W                      | 3.5            | 10.0 | 28  | 0.54   | 52  | 0.06Ω~9.9Ω           | 10Ω~39Ω                   | 40Ω~560Ω              |
| KNP02S      | KNP 200-S   | 2W                      | 5.0            | 12.0 | 25  | 0.70   | 52  | 0.10Ω~9.9Ω           | 10Ω~50Ω                   | 51Ω~1KΩ               |
| KNP03S      | KNP 300-S   | 3W                      | 5.5            | 16.0 | 28  | 0.70   | 64  | 0.15Ω~9.9Ω           | 10Ω~120Ω                  | 121Ω~2KΩ              |
| KNP05S      | KNP 500-S   | 5W                      | 6.5            | 17.5 | 28  | 0.75   | 64  | 0.25Ω~9.9Ω           | 10Ω~200Ω                  | 201Ω~3KΩ              |
| KNP07S      | KNP 700-S   | 7W                      | 8.5            | 25   | 38  | 0.75   | B/B | 0.50Ω~9.9Ω           | 10Ω~470Ω                  | 471Ω~5KΩ              |
| KNP08S      | KNP 800-S   | 8W                      | 8.5            | 30   | 38  | 0.75   | B/B | 0.65Ω~9.9Ω           | 10Ω~470Ω                  | 471Ω~6KΩ              |
| KNP09S      | KNP 900-S   | 9W                      | 8.5            | 40   | 38  | 0.75   | B/B | 1.0Ω~9.9Ω            | 10Ω~1.5KΩ                 | 1.6KΩ~10KΩ            |
| KNP0AS      | KNP 1000-S  | 10W                     | 8.5            | 53   | 38  | 0.75   | B/B | 1.0Ω~9.9Ω            | 10Ω~1.5KΩ                 | 1.6KΩ~15KΩ            |
| Extra Size  |             |                         |                |      |     |        |     |                      |                           |                       |
| KNP01U      | KNP 100-SS  | 1W                      | 3.0            | 9.0  | 28  | 0.54   | 52  | 0.10Ω~9.9Ω           | 10Ω~39Ω                   | 40Ω~180Ω              |
| KNP02U      | KNP 200-SS  | 2W                      | 3.5            | 10.0 | 28  | 0.54   | 52  | 0.10Ω~9.9Ω           | 10Ω~39Ω                   | 40Ω~220Ω              |
| KNP03U      | KNP 300-SS  | 3W                      | 5.5            | 13.5 | 28  | 0.70   | 64  | 0.20Ω~9.9Ω           | 10Ω~50Ω                   | 51Ω~620Ω              |
| KNP04U      | KNP 400-SS  | 4W                      | 5.5            | 16.0 | 28  | 0.70   | 64  | 0.20Ω~9.9Ω           | 10Ω~120Ω                  | 121Ω~750Ω             |
| KNP0AU      | KNP 1000-SS | 10W                     | 8.5            | 40   | 38  | 0.75   | B/B | 1.0Ω~9.9Ω            | 10Ω~1.5KΩ                 | 1.6KΩ~5KΩ             |

Note: For KNP Series Max. Working Voltage: 500V  
 Max. Overload Voltage: 1,000V  
 Dielectric Withstanding Voltage : Dimension ≤ 3.5 x 10 : 350V  
 > 3.5 x 10 : 500V

# Mouser Electronics

Authorized Distributor

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## Royalohm:

[KNP01UJ0100A10](#) [KNP01UJ0101A10](#) [KNP01UJ010JA10](#) [KNP01UJ0110A10](#) [KNP01UJ0111A10](#)  
[KNP01UJ011JA10](#) [KNP01UJ0120A10](#) [KNP01UJ0121A10](#) [KNP01UJ012JA10](#) [KNP01UJ0131A10](#) [KNP01UJ013JA10](#)  
[KNP01UJ0150A10](#) [KNP01UJ0151A10](#) [KNP01UJ015JA10](#) [KNP01UJ0160A10](#) [KNP01UJ0161A10](#)  
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[KNP01UJ022JA10](#) [KNP01UJ0240A10](#) [KNP01UJ024JA10](#) [KNP01UJ0270A10](#) [KNP01UJ027JA10](#)  
[KNP01UJ0300A10](#) [KNP01UJ030JA10](#) [KNP01UJ0330A10](#) [KNP01UJ033JA10](#) [KNP01UJ0360A10](#) [KNP01UJ036JA10](#)  
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[KNP01UJ082JA10](#) [KNP01UJ091JA10](#) [KNP01WJ010KA10](#) [KNP01WJ022KA10](#) [KNP01WJ025KA10](#)  
[KNP01WJ033KA10](#) [KNP01WJ047KA10](#) [KNP01WJ050KA10](#) [KNP01WJ062KA10](#) [KNP02SJ010KA10](#)  
[KNP02SJ011KA10](#) [KNP02SJ012KA10](#) [KNP02SJ015KA10](#) [KNP02SJ018KA10](#) [KNP02SJ020KA10](#)  
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[KNP02SJ043KA10](#) [KNP02SJ047KA10](#) [KNP02SJ051KA10](#) [KNP02SJ056KA10](#) [KNP02SJ062KA10](#)  
[KNP02SJ068KA10](#) [KNP02SJ075KA10](#) [KNP02SJ082KA10](#) [KNP05SJ039JTA9](#) [KNP05SJ047LTA9](#)  
[KNP07WJ0101B00](#) [KNP0ASJ0100B00](#) [KNP0ASJ0103B00](#) [KNP0ASJ0151B00](#) [KNP0ASJ0153B00](#)  
[KNP0ASJ0220B00](#) [KNP0ASJ0221B00](#) [KNP0ASJ0330B00](#) [KNP0ASJ0392B00](#) [KNP0ASJ0452B00](#)  
[KNP0ASJ0470B00](#) [KNP0ASJ0562B00](#) [KNP01SJ0100A10](#) [KNP01SJ0101A10](#) [KNP01SJ010JA10](#) [KNP01SJ010KA10](#)  
[KNP01SJ0120A10](#) [KNP01SJ0121A10](#) [KNP01SJ012JA10](#) [KNP01SJ012KA10](#) [KNP01SJ013JA10](#)