

GE Sensing

Features

- Low cost, solid state temperature sensor
- Suitable for use over range of -112°F to 302°F (-80°C to 150°C)
- High sensitivity greater than -4% /°C at 77°F (25°C)
- Suitable for temperature measurement, control and compensation
- High reliability and stability
- Resin coated for good mechanical strength and resistance to solvents
- Standard resistance tolerances down to ±2%
- High sensitivity to changes in temperature
- Excellent mechanical strength
- Wide operating temperature range: -58°F to 300°F (-50°C to 150°C)
- Suitable for PCB and probe mountings
- Available in a wide range of material systems
- Overall lengths from 0.71 in to 3.07 in (18 mm to 78 mm)
- Tight tolerances on resistance and B value
- Operation up to 311°F (155°C) with excellent stability
- Small body size
- Fast response
- Available with nickel or monel (cupronickel) wires to limit heat conduction
- Epoxy resin provides voltage insulation
- Suitable for automotive, HVAC and white goods applications
- Limited heat conduction along monel (copper nickel) lead-wires
- Limited heat conduction along steel wires
- Available on bandolier to IEC 286-2
- Also available on tape and reel to EIA RS-468A for automatic insertion.

NTC Epoxy Chip Series

Thermometrics Thermistors

NTC Epoxy Chip Series is a Thermometrics product. Thermometrics has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



Type C100 Specifications

Epoxy-coated chip thermistor

Description

Epoxy-coated chip thermistors with 0.012 in (0.3 mm) bare tinned-copper lead-wires.

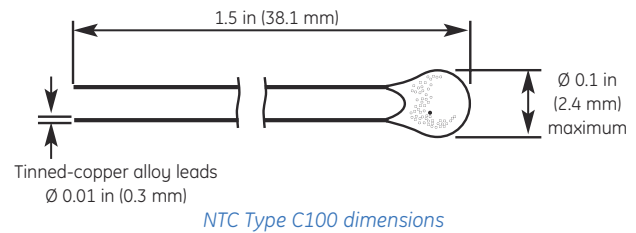
Select appropriate part number below for resistance and temperature tolerance desired

| R25°C | Material System | R25°C ± 1% | R25°C ± 2% | R25°C ± 5% | R25°C ± 10% |
|--------|-----------------|------------|------------|------------|-------------|
| 2000 | F | C100F202F | C100F202G | C100F202J | C100F202K |
| 2252 | F | C100F232F | C100F232G | C100F232J | C100F232K |
| 3000 | F | C100F302F | C100F302G | C100F302J | C100F302K |
| 5000 | F | C100F502F | C100F502G | C100F502J | C100F502K |
| 10000 | F | C100F103F | C100F103G | C100F103J | C100F103K |
| 10000 | Y | C100Y103F | C100Y103G | C100Y103J | C100Y103K |
| 15000 | F | C100F153F | C100F153G | C100F153J | C100F153K |
| 20000 | F | C100F203F | C100F203G | C100F203J | C100F203K |
| 30000 | H | C100H303F | C100H303G | C100H303J | C100H303K |
| 50000 | G | C100G503F | C100G503G | C100G503J | C100G503K |
| 100000 | Y | C100Y104F | C100Y104G | C100Y104J | C100Y104K |
| 100000 | G | C100G104F | C100G104G | C100G104J | C100G104K |

Options

Consult GE for availability of options:

- Other resistance values in the range of 100 Ω to 100 kΩ
- Other tolerances
- Alternative lead lengths
- Other reference temperatures
- Alternative lead wires or lengths



Data

Thermal And Electrical Properties:

- Dissipation constant: (still air) 1 mW/°C (stirred oil) 8 mW/°C
- Thermal time constant: (still air) 10 seconds (stirred oil) 1 second
- Maximum power at 77°F (25°C) 75 mW; derated from 100% at 77°F (25°C) to 0% at 212°F (100°C)

Type MS Specifications

Epoxy-coated thermistor

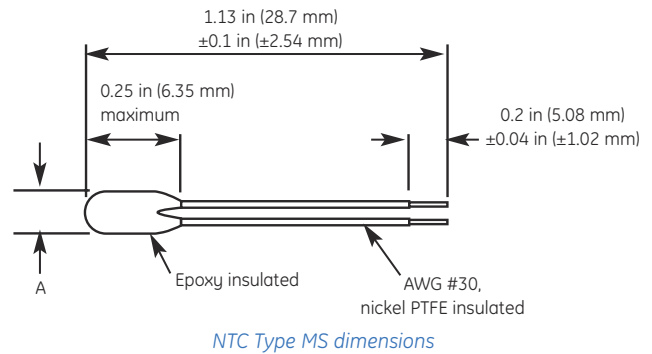
Description

Epoxy-coated point-matched disc thermistors with 0.010 in (0.254 mm) nickel PTFE insulated lead-wires.

| Type Number | Ro@ 77°F (25°C) (Ω) | Material System | A in | mm |
|----------------------|------------------------|--------------------|---------|------|
| RL0703-624-73-MS | 1K | D7.3 | 0.120 | 3.05 |
| RL0503-1248-73-MS | 2K | D7.3 | 0.095 | 2.41 |
| RL0703-1445-95-MS | 2.5K | D9.5 | 0.120 | 3.05 |
| RL0503-2890-95-MS | 5K | D9.5 | 0.095 | 2.41 |
| RL0703-2910-97-MS | 5K | D9.7A | 0.120 | 3.05 |
| RL0703-3720-84-MS | 6K | D8.4 | 0.120 | 3.05 |
| RL0503-5820-97-MS | 10K | D9.7A | 0.095 | 2.41 |
| RL0703-5744-103-MS | 10K | D10.3 | 0.120 | 3.05 |
| RL0503-7440-84-MS | 12K | D8.4 | 0.095 | 2.41 |
| RL0703-8780-96-MS | 15K | F9.61 | 0.120 | 3.05 |
| RL0503-11.49K-103-MS | 20K | D10.3 | 0.095 | 2.41 |
| RL0703-13.77K-120-MS | 25K | D12.0 | 0.120 | 3.05 |
| RL0503-17.56K-96-MS | 30K | F9.61 | 0.095 | 2.41 |
| RL0503-27.53K-120-MS | 50K | D12.0 | 0.095 | 2.41 |
| RL0703-27.68K-122-MS | 50K | D12.2 | 0.120 | 3.05 |
| RL0503-55.36K-122-MS | 100K | D12.2 | 0.095 | 2.41 |

Options

- Other resistances in the range 2 kΩ to 100 kΩ
- Other tolerances, tolerances at other temperatures
- Alternative lead lengths, lead materials, insulations
- For ±5% @ 77°F (25°C), replace "MS" with "MS5"
- For ±3% @ 77°F (25°C), replace "MS" with "MS3"
- For ±2% @ 77°F (25°C), replace "MS" with "MS2"



Data

- Temperature accuracy: ±1°C @ 77°F (25°C)
- Dissipation constant: 1.4 mW/°C
- Time constant: 15 seconds
- Operating range: -58°F to 302°F (-50°C to 150°C)

Type NDK Specifications

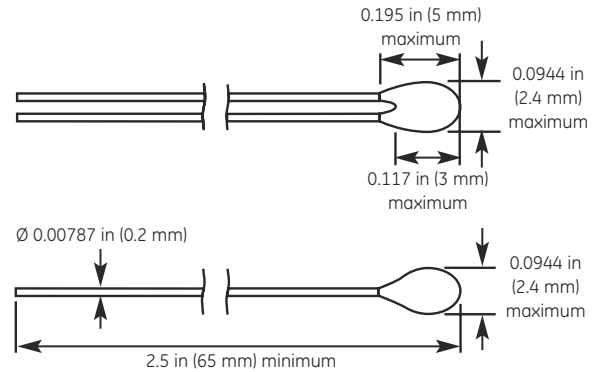
Epoxy-coated chip thermistor

Description

A range of epoxy-coated chips with bare 0.007 in (0.2 mm) tinned monel lead-wires.

Options

- Other resistance values within the ranges shown; e.g. code NDK152C2R1 for 1500 Ω ±1% at 77°F (25°C) in the range of 32°F (0°C) up to the maximum operating temperature
- Reference temperatures
- Wire lengths 1.181 in to 23.62 in (30 mm to 600 mm) (±1 mm or ±2%, whichever is the greater)
- Other wire materials



*Diameter will be 0.11 in (2.8 mm) maximum for NDK103C4-types

NTC Type NDK dimensions

Data

- Minimum operating temperature: -40°F (-40°C)
- Thermal time constant: <20s
- Dissipation factor: 1.5 mW/K
- Voltage insulation: 500 VDC
- Packing/MOQ: 500/box

| R 25 | Material System | B 25/85 | Maximum Operating Temperature | Code | Code | Code | Code | Code |
|--------|-----------------|-------------|-------------------------------|-------------|-------------|-------------|-------------|--------------|
| Ω | | K | °F (°C) | R25 ± 1% | R25 ± 2% | R25 ± 3% | R25 ± 5% | R25 ± 10% |
| 1000 | 2 | 3540 ± 1% | 257 (125) | NDK102C2R1 | NDK102C2R2 | NDK102C2R3 | NDK102C2R5 | NDK102C2R10 |
| 2000 | 2 | 3540 ± 1% | 257 (125) | NDK202C2R1 | NDK202C2R2 | NDK202C2R3 | NDK202C2R5 | NDK202C2R10 |
| 5000 | 2 | 3540 ± 1% | 257 (125) | NDK502C2R1 | NDK502C2R2 | NDK502C2R3 | NDK502C2R5 | NDK502C2R10 |
| 1000 | 2A | 3627 ± 1% | 257 (125) | NDK102C2AR1 | NDK102C2AR2 | NDK102C2AR3 | NDK102C2AR5 | NDK102C2AR10 |
| 2000 | 2A | 3627 ± 1% | 257 (125) | NDK202C2AR1 | NDK202C2AR2 | NDK202C2AR3 | NDK202C2AR5 | NDK202C2AR10 |
| 5000 | 2A | 3627 ± 1% | 257 (125) | NDK502C2AR1 | NDK502C2AR2 | NDK502C2AR3 | NDK502C2AR5 | NDK502C2AR10 |
| 2700 | 1 | 3977± 0.75% | 311 (155) | NDK272C1R1 | NDK272C1R2 | NDK272C1R3 | NDK272C1R5 | NDK272C1R10 |
| 5000 | 1 | 3977± 0.75% | 311 (155) | NDK502C1R1 | NDK502C1R2 | NDK502C1R3 | NDK502C1R5 | NDK502C1R10 |
| 10000 | 1 | 3977± 0.75% | 311 (155) | NDK103C1R1 | NDK103C1R2 | NDK103C1R3 | NDK103C1R5 | NDK103C1R10 |
| 30000 | 1 | 3977± 0.75% | 311 (155) | NDK303C1R1 | NDK303C1R2 | NDK303C1R3 | NDK303C1R5 | NDK303C1R10 |
| 50000 | 1 | 3977± 0.75% | 311 (155) | NDK503C1R1 | NDK503C1R2 | NDK503C1R3 | NDK503C1R5 | NDK503C1R10 |
| 2700 | 3 | 3960± 1% | 311 (155) | NDK272C3R1 | NDK272C3R2 | NDK272C3R3 | NDK272C3R5 | NDK272C3R10 |
| 5000 | 3 | 3960± 1% | 311 (155) | NDK502C3R1 | NDK502C3R2 | NDK502C3R3 | NDK502C3R5 | NDK502C3R10 |
| 10000 | 3 | 3960± 1% | 311 (155) | NDK103C3R1 | NDK103C3R2 | NDK103C3R3 | NDK103C3R5 | NDK103C3R10 |
| 30000 | 3 | 3960± 1% | 311 (155) | NDK303C3R1 | NDK303C3R2 | NDK303C3R3 | NDK303C3R5 | NDK303C3R10 |
| 50000 | 3 | 3960± 1% | 311 (155) | NDK503C3R1 | NDK503C3R2 | NDK503C3R3 | NDK503C3R5 | NDK503C3R10 |
| 12000 | 5 | 3740 ± 1% | 257 (125) | NDK123C5R1 | NDK123C5R2 | NDK123C5R3 | NDK123C5R5 | NDK123C5R10 |
| 10000 | 4 | 3435 ± 1% | 230 (110) | NDK103C4R1 | NDK103C4R2 | NDK103C4R3 | NDK103C4R5 | NDK103C4R10 |
| 30000 | 4 | 3435 ± 1% | 230 (110) | NDK303C4R1 | NDK303C4R2 | NDK303C4R3 | NDK303C4R5 | NDK303C4R10 |
| 50000 | 4 | 3435 ± 1% | 230 (110) | NDK503C4R1 | NDK503C4R2 | NDK503C4R3 | NDK503C4R5 | NDK503C4R10 |
| 100000 | 4 | 3435 ± 1% | 230 (110) | NDK104C4R1 | NDK104C4R2 | NDK104C4R3 | NDK104C4R5 | NDK104C4R10 |

See separate tables for resistance - temperature data

Type NDL Specifications

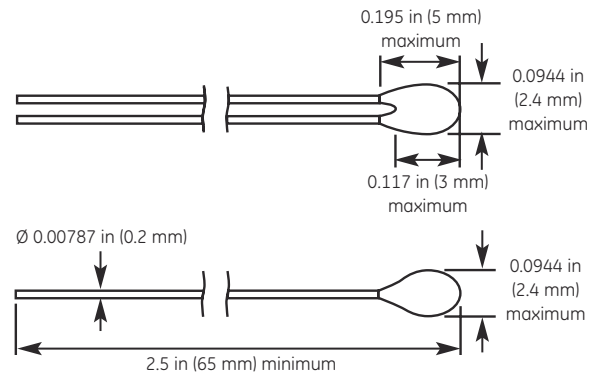
Epoxy-coated chip thermistor

Description

A range of epoxy-coated chips with bare 0.0098 in (0.25 mm) tinned monel lead-wires.

Options

- Other resistance values within the ranges shown; e.g. code NDL152C2R1 for 1500 Ω ±1% at 77°F (25°C) in the range of 32°F (0°C) up to the maximum operating temperature
- Reference temperatures
- Wire lengths 1.181 in to 23.62 in (30 mm to 600 mm) (±1 mm or ±2%, whichever is the greater)
- Other wire materials



*Diameter will be 0.11 in (2.8 mm) maximum for NDL103C4-types

NTC Type NDL dimensions

Data

- Minimum operating temperature: -40°F (-40°C)
- Thermal time constant: <10 s
- Dissipation factor: 2.2 mW/K
- Voltage insulation: 500 VDC
- Packing: 500/box

| R 25 | Material System | B 25/85 | Maximum Operating Temperature °F (°C) | Code | Code | Code | Code | Code |
|--------|-----------------|-------------|---------------------------------------|-------------|-------------|-------------|-------------|--------------|
| | | K | | R25 ± 1% | R25 ± 2% | R25 ± 3% | R25 ± 5% | R25 ± 10% |
| 1000 | 2 | 3540 ± 1% | 257 (125) | NDL102C2R1 | NDL102C2R2 | NDL102C2R3 | NDL102C2R5 | NDL102C2R10 |
| 2000 | 2 | 3540 ± 1% | 257 (125) | NDL202C2R1 | NDL202C2R2 | NDL202C2R3 | NDL202C2R5 | NDL202C2R10 |
| 5000 | 2 | 3540 ± 1% | 257 (125) | NDL502C2R1 | NDL502C2R2 | NDL502C2R3 | NDL502C2R5 | NDL502C2R10 |
| 1000 | 2A | 3627 ± 1% | 257 (125) | NDL102C2AR1 | NDL102C2AR2 | NDL102C2AR3 | NDL102C2AR5 | NDL102C2AR10 |
| 2000 | 2A | 3627 ± 1% | 257 (125) | NDL202C2AR1 | NDL202C2AR2 | NDL202C2AR3 | NDL202C2AR5 | NDL202C2AR10 |
| 5000 | 2A | 3627 ± 1% | 257 (125) | NDL502C2AR1 | NDL502C2AR2 | NDL502C2AR3 | NDL502C2AR5 | NDL502C2AR10 |
| 2700 | 1 | 3977± 0.75% | 311 (155) | NDL272C1R1 | NDL272C1R2 | NDL272C1R3 | NDL272C1R5 | NDL272C1R10 |
| 5000 | 1 | 3977± 0.75% | 311 (155) | NDL502C1R1 | NDL502C1R2 | NDL502C1R3 | NDL502C1R5 | NDL502C1R10 |
| 10000 | 1 | 3977± 0.75% | 311 (155) | NDL103C1R1 | NDL103C1R2 | NDL103C1R3 | NDL103C1R5 | NDL103C1R10 |
| 30000 | 1 | 3977± 0.75% | 311 (155) | NDL303C1R1 | NDL303C1R2 | NDL303C1R3 | NDL303C1R5 | NDL303C1R10 |
| 50000 | 1 | 3977± 0.75% | 311 (155) | NDL503C1R1 | NDL503C1R2 | NDL503C1R3 | NDL503C1R5 | NDL503C1R10 |
| 2700 | 3 | 3960± 1% | 311 (155) | NDL272C3R1 | NDL272C3R2 | NDL272C3R3 | NDL272C3R5 | NDL272C3R10 |
| 5000 | 3 | 3960± 1% | 311 (155) | NDL502C3R1 | NDL502C3R2 | NDL502C3R3 | NDL502C3R5 | NDL502C3R10 |
| 10000 | 3 | 3960± 1% | 311 (155) | NDL103C3R1 | NDL103C3R2 | NDL103C3R3 | NDL103C3R5 | NDL103C3R10 |
| 30000 | 3 | 3960± 1% | 311 (155) | NDL303C3R1 | NDL303C3R2 | NDL303C3R3 | NDL303C3R5 | NDL303C3R10 |
| 50000 | 3 | 3960± 1% | 311 (155) | NDL503C3R1 | NDL503C3R2 | NDL503C3R3 | NDL503C3R5 | NDL503C3R10 |
| 12000 | 5 | 3740 ± 1% | 257 (125) | NDL123C5R1 | NDL123C5R2 | NDL123C5R3 | NDL123C5R5 | NDL123C5R10 |
| 10000 | 4 | 3435 ± 1% | 230 (110) | NDL103C4R1 | NDL103C4R2 | NDL103C4R3 | NDL103C4R5 | NDL103C4R10 |
| 30000 | 4 | 3435 ± 1% | 230 (110) | NDL303C4R1 | NDL303C4R2 | NDL303C4R3 | NDL303C4R5 | NDL303C4R10 |
| 50000 | 4 | 3435 ± 1% | 230 (110) | NDL503C4R1 | NDL503C4R2 | NDL503C4R3 | NDL503C4R5 | NDL503C4R10 |
| 100000 | 4 | 3435 ± 1% | 230 (110) | NDL104C4R1 | NDL104C4R2 | NDL104C4R3 | NDL104C4R5 | NDL104C4R10 |

See separate tables for resistance - temperature data

Type NDM Specifications

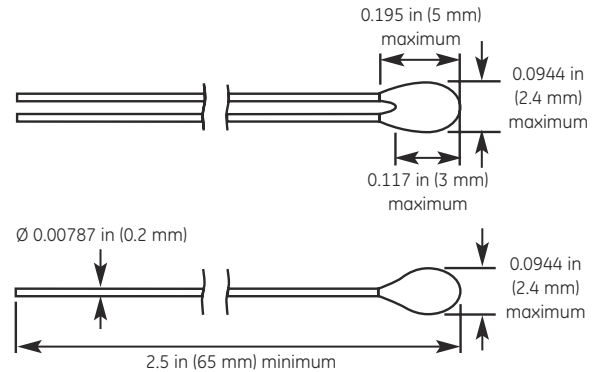
Epoxy-coated chip thermistor

Description

A range of epoxy-coated chips with bare 0.007 in (0.2 mm) tinned-copper lead-wires.

Options

- Other resistance values within the ranges shown; e.g. code NDM152C2R1 for 1500 Ω ±1% at 77°F (25°C) in the range of 32°F (0°C) up to the maximum operating temperature
- Reference temperatures
- Wire lengths 1.181 in to 23.62 in (30 mm to 600 mm) (±1 mm or ±2%, whichever is the greater)
- Other wire materials



*Diameter will be 0.11 in (2.8 mm) maximum for NDM103C4-types

NTC Type NDM dimensions

Data

- Minimum operating temperature: -40°F (-40°C)
- Thermal time constant: <10 s
- Dissipation factor: 2.2 mW/K
- Voltage insulation: 500 VDC
- Packing/MOQ: 500/box

| R 25 | Material System | B 25/85 | Maximum Operating Temperature °F (°C) | Code | Code | Code | Code | Code |
|--------|-----------------|--------------|---------------------------------------|-------------|-------------|-------------|-------------|--------------|
| Ω | K | | | R25 ± 1% | R25 ± 2% | R25 ± 3% | R25 ± 5% | R25 ± 10% |
| 1000 | 2 | 3540 ± 1% | 257 (125) | NDM102C2R1 | NDM102C2R2 | NDM102C2R3 | NDM102C2R5 | NDM102C2R10 |
| 2000 | 2 | 3540 ± 1% | 257 (125) | NDM202C2R1 | NDM202C2R2 | NDM202C2R3 | NDM202C2R5 | NDM202C2R10 |
| 5000 | 2 | 3540 ± 1% | 257 (125) | NDM502C2R1 | NDM502C2R2 | NDM502C2R3 | NDM502C2R5 | NDM502C2R10 |
| 1000 | 2A | 3627 ± 1% | 257 (125) | NDM102C2AR1 | NDM102C2AR2 | NDM102C2AR3 | NDM102C2AR5 | NDM102C2AR10 |
| 2000 | 2A | 3627 ± 1% | 257 (125) | NDM202C2AR1 | NDM202C2AR2 | NDM202C2AR3 | NDM202C2AR5 | NDM202C2AR10 |
| 5000 | 2A | 3627 ± 1% | 257 (125) | NDM502C2AR1 | NDM502C2AR2 | NDM502C2AR3 | NDM502C2AR5 | NDM502C2AR10 |
| 2700 | 1 | 3977 ± 0.75% | 311 (155) | NDM272C1R1 | NDM272C1R2 | NDM272C1R3 | NDM272C1R5 | NDM272C1R10 |
| 5000 | 1 | 3977 ± 0.75% | 311 (155) | NDM502C1R1 | NDM502C1R2 | NDM502C1R3 | NDM502C1R5 | NDM502C1R10 |
| 10000 | 1 | 3977 ± 0.75% | 311 (155) | NDM103C1R1 | NDM103C1R2 | NDM103C1R3 | NDM103C1R5 | NDM103C1R10 |
| 30000 | 1 | 3977 ± 0.75% | 311 (155) | NDM303C1R1 | NDM303C1R2 | NDM303C1R3 | NDM303C1R5 | NDM303C1R10 |
| 50000 | 1 | 3977 ± 0.75% | 311 (155) | NDM503C1R1 | NDM503C1R2 | NDM503C1R3 | NDM503C1R5 | NDM503C1R10 |
| 2700 | 3 | 3960 ± 1% | 311 (155) | NDM272C3R1 | NDM272C3R2 | NDM272C3R3 | NDM272C3R5 | NDM272C3R10 |
| 5000 | 3 | 3960 ± 1% | 311 (155) | NDM502C3R1 | NDM502C3R2 | NDM502C3R3 | NDM502C3R5 | NDM502C3R10 |
| 10000 | 3 | 3960 ± 1% | 311 (155) | NDM103C3R1 | NDM103C3R2 | NDM103C3R3 | NDM103C3R5 | NDM103C3R10 |
| 30000 | 3 | 3960 ± 1% | 311 (155) | NDM303C3R1 | NDM303C3R2 | NDM303C3R3 | NDM303C3R5 | NDM303C3R10 |
| 50000 | 3 | 3960 ± 1% | 311 (155) | NDM503C3R1 | NDM503C3R2 | NDM503C3R3 | NDM503C3R5 | NDM503C3R10 |
| 12000 | 5 | 3740 ± 5% | 257 (125) | NDM123C5R1 | NDM123C5R2 | NDM123C5R3 | NDM123C5R5 | NDM123C5R10 |
| 10000 | 4 | 3435 ± 1% | 230 (110) | NDM103C4R1 | NDM103C4R2 | NDM103C4R3 | NDM103C4R5 | NDM103C4R10 |
| 30000 | 4 | 3435 ± 1% | 230 (110) | NDM303C4R1 | NDM303C4R2 | NDM303C4R3 | NDM303C4R5 | NDM303C4R10 |
| 50000 | 4 | 3435 ± 1% | 230 (110) | NDM503C4R1 | NDM503C4R2 | NDM503C4R3 | NDM503C4R5 | NDM503C4R10 |
| 100000 | 4 | 3435 ± 1% | 230 (110) | NDM104C4R1 | NDM104C4R2 | NDM104C4R3 | NDM104C4R5 | NDM104C4R10 |

See separate tables for resistance - temperature data

Type NDP Specifications

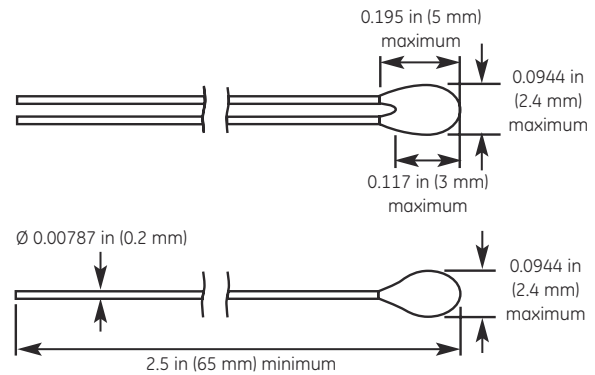
Epoxy-coated chip thermistor

Description

A range of epoxy-coated chips with insulated 0.0078 in (0.25 mm) monel lead-wires.

Options

- Other resistance values within the ranges shown; e.g. code NDP152C2R1 for 1500 ±1% at 77°F (25°C) in the range of 32°F (0°C) up to the maximum operating temperature
- Reference temperatures
- Wire lengths 1.181 in to 23.62 in (30 mm to 600 mm) (±1 mm or ±2%, whichever is the greater)
- Other wire materials
- Other wire insulation colors



*Diameter will be 0.11 in (2.8 mm) maximum for NDP103C4-types

NTC Type NDP dimensions

Data

- Minimum operating temperature: -40°F (-40°C)
- Thermal time constant: <20 s
- Dissipation factor: 1.5 mW/K
- Voltage insulation: 500 VDC
- Wire insulation: cadmium free red PTFE
- Packing: 500/box

| R 25 | Material System | B 25/85 | Maximum Operating Temperature °F (°C) | Code | Code | Code | Code | Code |
|--------|-----------------|-------------|---------------------------------------|-------------|-------------|-------------|-------------|--------------|
| | | K | | R25 ± 1% | R25 ± 2% | R25 ± 3% | R25 ± 5% | R25 ± 10% |
| 1000 | 2 | 3540 ± 1% | 257 (125) | NDP102C2R1 | NDP102C2R2 | NDP102C2R3 | NDP102C2R5 | NDP102C2R10 |
| 2000 | 2 | 3540 ± 1% | 257 (125) | NDP202C2R1 | NDP202C2R2 | NDP202C2R3 | NDP202C2R5 | NDP202C2R10 |
| 5000 | 2 | 3540 ± 1% | 257 (125) | NDP502C2R1 | NDP502C2R2 | NDP502C2R3 | NDP502C2R5 | NDP502C2R10 |
| 1000 | 2A | 3627 ± 1% | 257 (125) | NDP102C2AR1 | NDP102C2AR2 | NDP102C2AR3 | NDP102C2AR5 | NDP102C2AR10 |
| 2000 | 2A | 3627 ± 1% | 257 (125) | NDP202C2AR1 | NDP202C2AR2 | NDP202C2AR3 | NDP202C2AR5 | NDP202C2AR10 |
| 5000 | 2A | 3627 ± 1% | 257 (125) | NDP502C2AR1 | NDP502C2AR2 | NDP502C2AR3 | NDP502C2AR5 | NDP502C2AR10 |
| 2700 | 1 | 3977± 0.75% | 311 (155) | NDP272C1R1 | NDP272C1R2 | NDP272C1R3 | NDP272C1R5 | NDP272C1R10 |
| 5000 | 1 | 3977± 0.75% | 311 (155) | NDP502C1R1 | NDP502C1R2 | NDP502C1R3 | NDP502C1R5 | NDP502C1R10 |
| 10000 | 1 | 3977± 0.75% | 311 (155) | NDP103C1R1 | NDP103C1R2 | NDP103C1R3 | NDP103C1R5 | NDP103C1R10 |
| 30000 | 1 | 3977± 0.75% | 311 (155) | NDP303C1R1 | NDP303C1R2 | NDP303C1R3 | NDP303C1R5 | NDP303C1R10 |
| 50000 | 1 | 3977± 0.75% | 311 (155) | NDP503C1R1 | NDP503C1R2 | NDP503C1R3 | NDP503C1R5 | NDP503C1R10 |
| 2700 | 3 | 3960± 1% | 311 (155) | NDP272C3R1 | NDP272C3R2 | NDP272C3R3 | NDP272C3R5 | NDP272C3R10 |
| 5000 | 3 | 3960± 1% | 311 (155) | NDP502C3R1 | NDP502C3R2 | NDP502C3R3 | NDP502C3R5 | NDP502C3R10 |
| 10000 | 3 | 3960± 1% | 311 (155) | NDP103C3R1 | NDP103C3R2 | NDP103C3R3 | NDP103C3R5 | NDP103C3R10 |
| 30000 | 3 | 3960± 1% | 311 (155) | NDP303C3R1 | NDP303C3R2 | NDP303C3R3 | NDP303C3R5 | NDP303C3R10 |
| 50000 | 3 | 3960± 1% | 311 (155) | NDP503C3R1 | NDP503C3R2 | NDP503C3R3 | NDP503C3R5 | NDP503C3R10 |
| 12000 | 5 | 3740 ± 5% | 257 (125) | NDP123C5R1 | NDP123C5R2 | NDP123C5R3 | NDP123C5R5 | NDP123C5R10 |
| 10000 | 4 | 3435 ± 1% | 230 (110) | NDP103C4R1 | NDP103C4R2 | NDP103C4R3 | NDP103C4R5 | NDP103C4R10 |
| 30000 | 4 | 3435 ± 1% | 230 (110) | NDP303C4R1 | NDP303C4R2 | NDP303C4R3 | NDP303C4R5 | NDP303C4R10 |
| 50000 | 4 | 3435 ± 1% | 230 (110) | NDP503C4R1 | NDP503C4R2 | NDP503C4R3 | NDP503C4R5 | NDP503C4R10 |
| 100000 | 4 | 3435 ± 1% | 230 (110) | NDP104C4R1 | NDP104C4R2 | NDP104C4R3 | NDP104C4R5 | NDP104C4R10 |

See separate tables for resistance - temperature data

Type NK Specifications

Chip thermistor with solder-coated wires

Description

A range of NTC chip thermistors with solder-coated steel wires and epoxy resin coating.

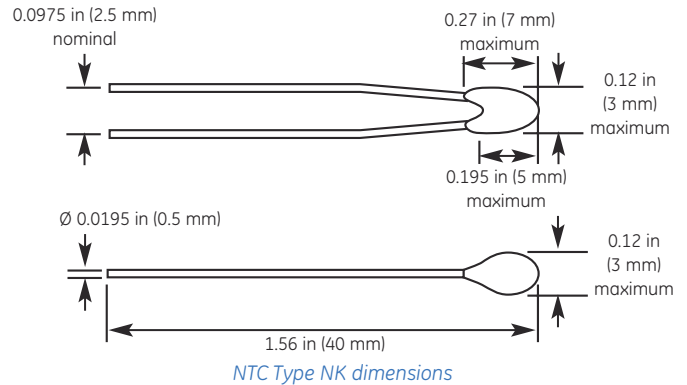
Ordering Information

Replace * in the codes shown above as follows:

- Loose-packed: R
- Banded: B

Options

- Other resistance values within the ranges shown; e.g. code NK701C2*2 for 700 Ω ± 2% at 77°F (25°C)
- Reference temperatures other than 77°F (25°C)
- Wire lengths 0.47 in to 1.57 in (12 mm to 40 mm) (±1 mm)



Data

- Minimum operating temperature: -40°F (-40°C)
- Maximum operating temperature: See table
- Thermal time constant: 15s (cooling)
2.4 s (ambient change)
- Dissipation factor: 2.2 mW/K
- Mass: 0.00040 lbs (0.18 g)
- Packing/MOQ: 1000/box (loose)
2000/reel (banded)

| R25 Ω | Material system | B 25/85 K | Maximum Operating temperature °F (°C) | Code R25 ±1% | Code R25 ±2% | Code R25 ±3% | Code R25 ±5% | Code R25 ±10% |
|----------|--------------------|--------------|---|-----------------|-----------------|-----------------|-----------------|------------------|
| 500 | 2 | 3540 ± 1% | 257 (125) | | NK501C2*2 | NK501C2*3 | NK501C2*5 | NK501C2*10 |
| 1000 | 2 | 3540 ±1% | 257 (125) | | NK102C2*2 | NK102C2*3 | NK102C2*5 | NK102C2*10 |
| 2000 | 2 | 3540 ±1% | 257 (125) | | NK202C2*2 | NK202C2*3 | NK202C2*5 | NK202C2*10 |
| 500 | 2A | 3627 ±1% | 257 (125) | | NK501C2A*2 | NK501C2A*3 | NK501C2A*5 | NK501C2A*10 |
| 1000 | 2A | 3627 ±1% | 257 (125) | | NK102C2A*2 | NK102C2A*3 | NK102C2A*5 | NK102C2A*10 |
| 2000 | 2A | 3627 ±1% | 257 (125) | | NK202C2A*2 | NK202C2A*3 | NK202C2A*5 | NK202C2A*10 |
| 2200 | 1 | 3977 ±0.75% | 311 (155) | NK222C1*1 | NK222C1*2 | NK222C1*3 | NK222C1*5 | NK222C1*10 |
| 2700 | 1 | 3977 ±0.75% | 311 (155) | NK272C1*1 | NK272C1*2 | NK272C1*3 | NK272C1*5 | NK272C1*10 |
| 5000 | 1 | 3977 ±0.75% | 311 (155) | NK502C1*1 | NK502C1*2 | NK502C1*3 | NK502C1*5 | NK502C1*10 |
| 10000 | 1 | 3977 ±0.75% | 311 (155) | NK103C1*1 | NK103C1*2 | NK103C1*3 | NK103C1*5 | NK103C1*10 |
| 2200 | 3 | 3960 ± 1% | 311 (155) | | | NK222C3*3 | NK222C3*5 | NK222C3*10 |
| 2700 | 3 | 3960 ± 1% | 311 (155) | | | NK272C3*3 | NK272C3*5 | NK272C3*10 |
| 5000 | 3 | 3960 ± 1% | 311 (155) | | | NK502C3*3 | NK502C3*5 | NK502C3*10 |
| 10000 | 3 | 3960 ± 1% | 311 (155) | | | NK103C3*3 | NK103C3*5 | NK103C3*10 |
| 5000 | 4A | 3435 ±1% | 311 (155) | NK502C4A*1 | NK502C4A*2 | NK502C4A*3 | NK502C4A*5 | NK502C4A*10 |
| 10000 | 4A | 3435 ±1% | 311 (155) | NK103C4A*1 | NK103C4A*2 | NK103C4A*3 | NK103C4A*5 | NK103C4A*10 |
| 10000 | 5 | 3740 ± 1.5% | 311 (155) | NK103C5*1 | NK103C5*2 | NK103C5*3 | NK103C5*5 | NK103C5*10 |
| 12000 | 5 | 3740 ± 1.5% | 311 (155) | NK123C5*1 | NK123C5*2 | NK123C5*3 | NK123C5*5 | NK123C5*10 |

See separate tables for resistance - temperature data



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