

NTC Thermistors

Assembly products

NTCGP/NTCDP series

Issue date: September 2012

- All specifications are subject to change without notice.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

NTCGP Series(Multilayer Element Type NTC Thermistor)

RESIN DIP TYPE

FEATURES

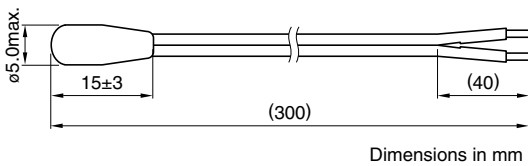
- Employs a multilayer element type thermistor.
- Good heat responsiveness due to its small size.
- Product is lead-free.

APPLICATIONS

- Room temperature detection (air conditioners, fan heaters etc.)
- Temperature maintenance detection (seating surface of toilet seats with warm water washing function etc.)
- Water temperature detection (hot water pots etc.)
- Temperature detection (refrigerator compartments, heated carpets etc.)

PART NO.: NTCGP3UH153HCJDAA

SHAPES AND DIMENSIONS



CHARACTERISTICS

Nominal resistance	$R_{25}=15k\Omega/20k\Omega/50k\Omega\pm 3\%$
B constant	$B_{25/50}=3950K\pm 3\%$
Operating temperature range	-20 to +80°C
Thermal time constant	6s max.[in still water]
Heat dissipation constant	2.8mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.

SPECIFICATIONS

1 Thermistor	Multilayer element type
2 Resin	Epoxy resin
3 Wires	Seven AWG26 parallel lines with heat proof (105°C) vinyl chloride/0.16 mm, Sn-plated
4 End finish	Different specifications available including stripped, crimped and connector fitted.

LUG TERMINAL TYPE

FEATURES

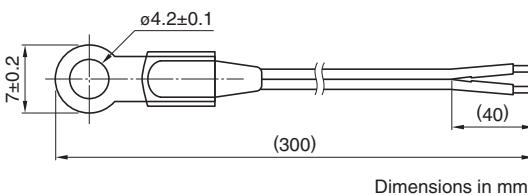
- Possible to affix using a fastening screw and to perform stable temperature detection of the mounting surface.
- Can be used for a wide temperature range; Highly reliable.
- Can be installed in vehicles.

APPLICATIONS

- Temperature detection (Inverters for solar power generation and projectors))
- Substrate temperature detection (Converters for HEVs and EVs)

PART NO.: NTCGP3UG503HCZCCA

SHAPES AND DIMENSIONS



CHARACTERISTICS(TYPICAL VALUE)

Nominal resistance*1	$R_{25}=50k\Omega\pm 3\%$
B constant*1	$B_{25/50}=3950K\pm 2\%$
Operating temperature range*2	-40 to +125°C
Thermal time constant	6s max.[in still water]
Heat dissipation constant	3mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.

*1 R_{25} : Compatible with the 5k Ω to 50k Ω range, $B_{25/50}$: Compatible with the 3400K to 4100K range

*2 Can be compatible with a heat resistance of +150°C

SPECIFICATIONS

1 Thermistor	Multilayer element type
2 Resin	Epoxy resin
3 Wires	Seven AWG26 parallel lines with polyethylene (125°C) vinyl chloride/0.16 mm, Sn-plated
4 End finish	Different specifications available including stripped, crimped and connector fitted.

NTCDP Series(Glass Sealed Diode Type NTC Thermistor)

EPOXY PLASTIC CASE TYPE

FEATURES

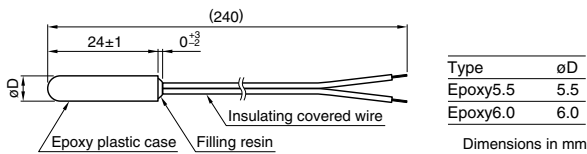
- Excellent in high reliability, high responsiveness, high heat resistance.
- Two types are available.
Epoxy(ø5.5mm) type: Priority given to heat responsiveness
Epoxy(ø6.0mm) type: Compatible with copper case type of ø6.0mm

APPLICATIONS

Temperature detection of refrigerator and vending machine compartments (Air conditioners, refrigerators, vending machines, dishwashers, etc.)

PART NO.: NTCDP4AG103JCDBBA

SHAPES AND DIMENSIONS



CHARACTERISTICS

Nominal resistance	$R_{25}=10k\Omega \pm 5\%$
B constant	$B_{25/85}=4000K \pm 2\%$
Operating temperature range	-40 to +150°C
Thermal time constant	15s max.[in still water]
Heat dissipation constant	3.3mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.



EPOXY FASTENING SCREW TYPE

FEATURES

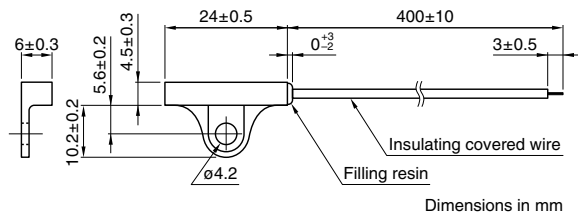
- Excellent in high reliability, high responsiveness, high heat resistance.
- Fastening screw type; Superior surface temperature detection.

APPLICATIONS

Temperature detection of refrigerator and vending machine compartments (Air conditioners, refrigerators, vending machines, dishwashers, etc.)

PART NO.: NTCDP4AG103HCFBBA

SHAPES AND DIMENSIONS



CHARACTERISTICS

Nominal resistance	$R_{25}=10k\Omega \pm 3\%$
B constant	$B_{25/85}=4000K \pm 2\%$
Operating temperature range	-40 to +150°C
Thermal time constant	15s max.[in still water]
Heat dissipation constant	3.3mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.



ABS PLASTIC CASE TYPE

FEATURES

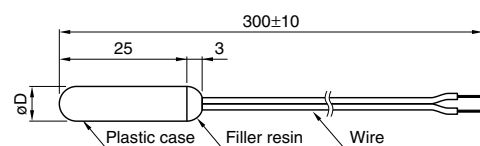
- Uses a plastic case that is compliant to Food Hygiene Act.
- Highly water-proof.
- Inexpensive.

APPLICATIONS

Refrigerators, automatic vending machines, air-conditioners.

PART NO.: NTCDP3SX202XCBBAA

SHAPES AND DIMENSIONS



Type	øD
ABS ø6.0	6.0
ABS ø6.8	6.8
ABS ø8.0	8.0

Dimensions inn mm

CHARACTERISTICS

Nominal resistance	$R_3=5.6k\Omega \pm 0.2k\Omega [3^\circ C]$
B constant	$B_{3/50}=3850K \pm 100K$
Operating temperature range	-40 to +85°C
Thermal time constant	30s max.[in still water]
Heat dissipation constant	2.5mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.



NTCDP Series(Glass Sealed Diode Type NTC Thermistor)

PLASTIC CASE TYPE/ OIL TEMPERATURE SENSOR

FEATURES

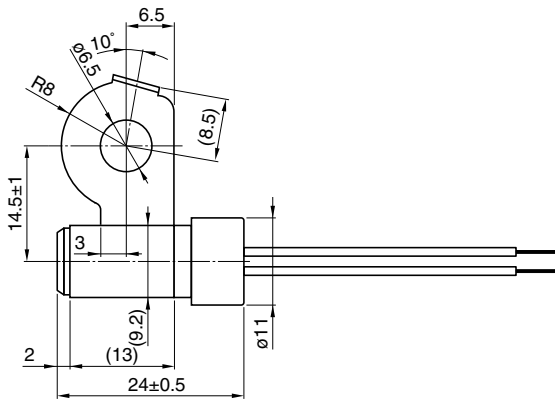
- High heat resistance.
- Excellent oil resistance and ATF resistance.

APPLICATIONS

Oil temperature detection for ATF, transmission oil, oil heaters, etc.

PART NO.: NTCDP3LG252HGHBEA

SHAPES AND DIMENSIONS



Dimensions in mm



CHARACTERISTICS

Nominal resistance	$R_{20}=2.5k\Omega \pm 3\%$ [20°C]
B constant	$B_{20/80}=3520K \pm 2\%$
Operating temperature range	-40 to +165°C
Thermal time constant	60s max.[in still oil]
Heat dissipation constant	5mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.

PLASTIC CASE TYPE/ ATF OIL TEMPERATURE SENSOR

FEATURES

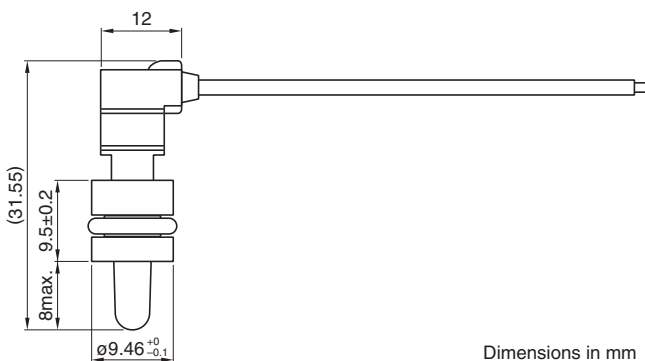
- High heat resistance.
- Excellent oil resistance and ATF resistance.
- Detection portion is sealed by an O-ring allowing for direct detection of oil temperature.

APPLICATIONS

Oil temperature detection for ATF, transmission oil, oil heaters, etc.

PART NO.: NTCDP3LG111XXHBEA

SHAPES AND DIMENSIONS



Dimensions in mm



CHARACTERISTICS

Nominal resistance	$R_{145}=0.111k\Omega \pm 2.5\%$
B constant	$B_{25/85}=3528K \pm 2\%$
Operating temperature range	-40 to +150°C
Thermal time constant	15s max.[in still oil]
Heat dissipation constant	3.5mW/°C[in still air]

- Please contact us for the other specified(nominal resistance value and B constant) products.