# NTC thermistors



NTC sensors are a type of thermistor used for the control and accurate temperature monitoring of critical points in machinery and other equipment including, heat pumps, air conditioning, etc. NTC sensors have a negative coefficient. The sensor's small dimensions render it as ideal for installation in various types of equipment and systems. An ideal material for slot insulation in electric motors and generators for applications with high working temperatures, NMN 411 is also used for transformers and other electrical applications.

- Temperature monitoring of bearing housings and machine components.
- Temperature monitoring of windings in electric motors, generators and transformers.
- Resistance values 0.1 ... 1000kOhm, suitable for most applications.

#### **Product information**

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#### Typical applications

Temperature monitoring of bearing housings, machine components, heat pumps, air conditioning installations, windings in electric motors, generators, transformers, etc.

#### **Properties**

- Temperature monitoring at a low cost within a wide temperature spectrum -40° +300°C (temperature resistance for wiring, insulation, etc. selected according to the specific application)
- Resistance values 0.1 ... 1000kOhm, suitable for most applications
- Low weight
- Short thermal time constant

#### **Description/Function**

- NTC sensors have a non-linear, negative temperature coefficient of resistance over the entire temperature range.
- Resistance values at 25°C on request for different versions (See technical data).

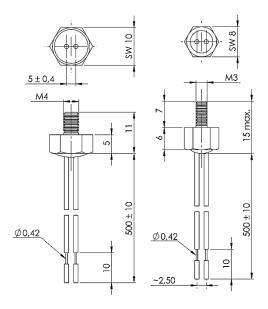
#### **Packaging**

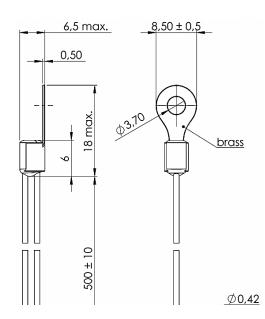
• For variants request MOQ

#### **Variants**

- NTC sensors are usually ordered according to unique project-specific data and manufactured based on the amount variants available (see technical data).
- The following details are only examples of the variants available. Wire lengths, mounting methods etc., are manufactured according to customer specification.

## **NTC Thermistors**







### **Technical data**

| Electrical data                          |  |  |
|--|--|--|
| Parameter                                | Value  | Unit   |
| Resistance values at 25°C (R25)          | 0,1 1000 (E24-Line), Decadic stepped:<br>1.0/ 1.1/ 1.2/ 1.3/ 1.5/ 1.6/ 1.8/ 2.0/ 2.2/ 2.4/ 2.7/ 3.0/ 3.3/<br>3.6/ 3.9/ 4.3/4.7/ 5.1/ 5.6/ 6.2/ 6.8/ 7.5/ 8.2/ 9.   | ΚΩ   |
| Deviation of R25-value                   | 1,2,3,5,10   | %  |
| Deviation of B-value (material constant) | 0.75 5   | %  |
| Max. power loss                          | 500  | mW   |
| Reaction time dependent on housing:      | < 1 20   | S  |
| Temperature range                        | -40 <b>+</b> 300   | °C   |
| Mechanical data                          |  |  |
| Type:                                    | NTC-sensor for surface mounting. Alu-housing screw-in sensor SW 10/M4 ring shaped cable eye for self-tapping sheet metal screw.  | NTC-sensor for windings monitoring in e.g. electric motors, transformers - in stabilized shrink tube design. |
| Lead-in:                                 | AWG 24, Cu-strand silvered, Teflon insulation,<br>Standard colour: green/brown,<br>Standard length: 500 mm ±1%   |  |
| Insulation Class:                        | н  |  |
| Remarks:                                 | Special designs for liquid or gaseous media, in V2 A or other materials are manufactured on request for customers specific applications and specification.  Resistance-temperature curves or table on request. |  |

access the information direct.

