

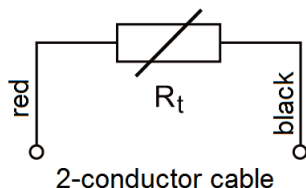
Temperature sensor CP-201T/CP-201T-NW

Use:

Resistor temperature sensors CP-201T (2 sensors per packaging) and CP-201T-NW (1 sensor per packaging) are designed for universal use in detecting temperature of liquid, gaseous, and solid substances. They can be used to measure surface temperature of pipes using suitable accessories to fix the sensors on a pipe. The sensor has a temperature range of -25 °C to +105 °C which must not be exceeded, not even temporarily. Sensors may be used with all control systems which are compatible with an NTC 10 kΩ temperature sensor with a B25/100 = 3455 K temperature coefficient. The sensors comply with the IP67 rating. Brass housing of 4.6 mm diameter provides fast response of the sensor to changing temperature. These sensors are intended to be used in a chemically non-aggressive environment.

Installation

1. Place the temperature sensor in the area you want to measure.
2. If the sensor is to be used to detect surface temperature, it is necessary to fix it with a suitable fixing tape and insulating it from effects of the surrounding environment.
3. Connect the supply cables with a diagnostic device according to the scheme.
4. The sensor will be ready to function after installation and connection to an electric measuring device. The sensor doesn't require any special service or maintenance. It can be used **in any position**.



Warnings and limitations

The sensors must not be used to measure temperature in places:

- Where the operating conditions are not abode
- Where tremors and vibrations may occur
- Where the sensor's housing or the supply cable may be affected mechanically
- Where an explosion may occur (the supply cable is not resistant against spreading fire)
- With a chemically aggressive environment (which doesn't comply with resistance of the materials used on the housing and the supply cable)
- to measure temperatures of items which are supplied with electric current
- with operating pressure exceeding values mentioned in technical specifications
- where the sensor could be permanently submerged in a liquid

It's not recommended to use the sensors to measure temperature in places:

- Where the sensor doesn't have a sufficient contact with the measured medium (poorly submerged sensor, poor contact with the measured surface, effects of the surrounding environment)
- Where the supply cable could be ran parallel to mains electricity (danger of inducing interfering signals, therefore affecting measured results). Safe distance from the mains electricity may be up to 0.5 m according to a character of interference fields.

Not abiding by these limitations and recommendations will negatively affect accuracy, reliability and lifetime of the temperature sensor.

Technical specifications

Manufactured for JABLOTRON by	SENSIT s.r.o, Czech Republic
Sensor type	NTC 10 kΩ, B25/100 = 3455 K
Sensor tolerance	± 1% at 25 °C ± 2°C in the range of -25 °C to 105 °C
Temperature sensor connection	2 conductors
Detection range	-25 °C to 105 °C
Maximum input power	15 mW
Water resistance	IP67 according to EN 60 529
Feedback time	$\tau_{0,5} < 7$ s (in flowing water $> 0,2 \text{ m.s}^{-1}$) $\tau_{0,9} < 15$ s (in flowing water $> 0,2 \text{ m.s}^{-1}$)
Housing material	brass
Housing diameter	4.6 ± 0,1 mm
Housing length	24 mm
Insulation resistance	$> 200 \text{ M}\Omega$ at 500 V DC, 25 °C ± 3 °C
Supply cable - type	unshielded PVC, 2 x 0.35 mm ²
Supply cable - length	3 m
Supply cables - resistance	0,102 Ω/1 m of cable at 25 °C
External pressure resistance	2.5 MPa
Weight	0.05 kg/1 m
The sensors are intended to be used permanently in an environment defined by EN 60721-3-3 with an accuracy level IE 37 and following conditions:	
Supply cable - surrounding temperature:	-25 to 105 °C
Relative humidity of the surrounding environment:	10 to 100%
Atmospheric pressure:	70 to 106 kPa



Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use. For more detailed information visit www.jablotron.com.

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