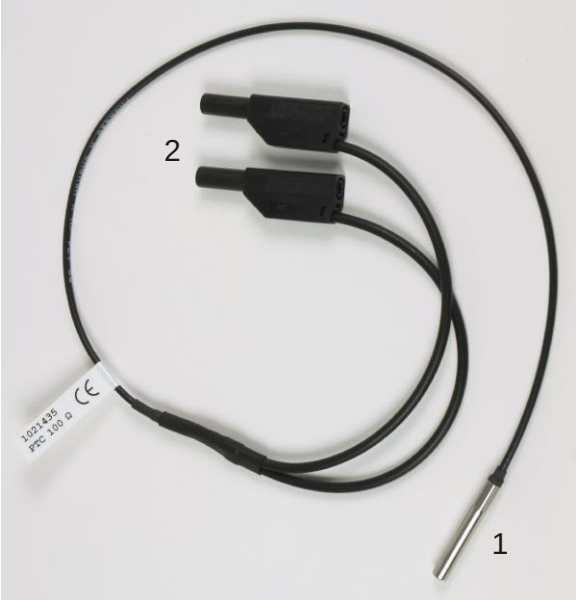
PTC Resistive Probe, 100 Ω 1021435

Instruction Sheet

08/17 JS/SD



1 PTC resistor in metal sleeve
2 Connecting lead with 4 mm plugs

1. Safety instructions

The PTC resistive probe is intended for use in Category I.

- As a voltage source, use only power supplies with a safety isolating transformer that guarantees reliable isolation from the mains supply.
- Resistive probes must not be connected to mains circuits under any circumstances.
- It is important to monitor the current and voltage, and to ensure that a power dissipation of 0.2 W and a DC voltage of 30 V are not exceeded.

The PTC resistive probe may be immersed in boiling hot water during use.

Be careful when experimenting with hot water. There is a risk of scalding!

- Caution! Do not expose the power supply to any liquids.
- Pull out the mains plug immediately if water should enter the power supply.

2. Description

The water-resistant PTC resistive probe, 100 Ω is used in experiments to investigate the temperature dependence of a semiconductor resistor with a positive temperature coefficient (PTC). This is done by immersing the probe in a water bath and measuring the current through the probe with a known voltage.

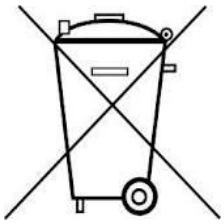
3. Technical data

Probe:	B59100C050A070
Resistance at 25 °C:	100 Ω (±10 %)
T_{Sense}:	50 °C
Maximum temperature:	120 °C
Max. power:	0.2 W
Max. voltage:	30 V DC
Category:	CAT I
Connection:	4 mm safety plug
Total length:	0.75 m
Mass:	approx. 40 g

4. Operation

- Measure the current at 4 V DC as a function of the temperature of the water bath, and calculate the resistance from this.

5. Disposal



- When the time comes for the device itself is to be scrapped, it does not belong in the normal domestic waste. If the device is used in private households, it may be disposed of at the local public disposal facilities.
- Observe the applicable regulations for the disposal of electronic waste.

6. Measurement example