

# RT 305.07

## Thermocouple type K and calibrator



### Learning objectives/experiments

- verification of temperature sensors and temperature displays
- familiarisation with the function of a thermocouple calibrator

### Specification

- [1] 2-in-1 device for verification of thermocouples and temperature displays
- [2] measurement and simulation of temperatures
- [3] selection of °C and °F
- [4] data-hold function
- [5] easy to read 3,5-line LCD display
- [6] integrated temperature linearity compensation circuit
- [7] accessory for calibration trainer RT 304

### Technical data

Resolution:

- 0,1°C at -199,9...999,9°C
- 1°C at 1000...1230°C

Accuracy:

- $\pm(1\% + 1^\circ\text{C})$  at -199,9...-100,1°C
- $\pm(0,5\% + 1^\circ\text{C})$  at -100...1230°C

Temperature simulation:

- -199,9...1230°C

Measuring ranges

- temperature: -199,9...1230°C

LxWxH: 195x92x52mm

Weight: approx. 1kg

### Scope of delivery

- 1 thermocouple type K and calibrator (incl. 9V battery)
- 1 set of cables

### Description

- evaluation and display of the temperature of Type K thermocouples
- reproduction of electrical signals from Type K thermocouples
- accessory for calibration trainer RT 304

Type K thermocouples are exposed to natural ageing and environmental influences during operation. Regular calibration is required to ensure consistently high measurement accuracy and process reliability.

Type K thermocouples and temperature displays can be verified using the the RT 305.07 Type K thermocouple and calibrator.

The RT 305.07 is used as a reference thermometer for verifying Type K thermocouples.

For the verification of temperature displays, the RT 305.07 is connected directly to the display using the Type K double plug and used as a calibrator. To do this, the RT 305.07 simulates the electrical signals of a Type K thermocouple.

In both verifications, test points are compared across the entire measuring range. The deviations are recorded.

# **RT 305.07**

## **Thermocouple type K and calibrator**

Optional accessories

RT 304

Calibration trainer