

**High Accuracy Reference Thermometer type LR-Cal/ LRT 1000
as reference standard for temperatur calibrations**

- Check and calibrate by means of comparison measurement
- TFT LCD, anti-glare colour display
- Capacitive touch screen, scratch-resistant
- Sampling rate 1 s
- Data recording (up to 200 data blocks or up to 3 h)
- Graphical analysis including standard deviation
- USB port for data transfer to PC software included



The high accurate handheld device **LR-Cal/ LRT 1000** is used as reference standard for temperature calibration purposes. Excellent stability through multiple annealing cycles. Sensor characteristic curve is determined individually and is saved in the device. Integrated root 2 function for determination of the sensor self-heating, plus automatic elimination of parasitic thermovoltage. For traceability to national standards a DAkkS certificate of calibration is included in standard delivery.

The system consists of the battery operated handheld, a pre-aged precision sensor with temperature range $-150\ldots+400^{\circ}\text{C}$ ($-238\ldots+752^{\circ}\text{F}$), sensor connecting cable 2 m, USB cable, DAkkS certificate of calibration, download link for PC software and a wooden case. Order-Code: [LRT-1000](#)

Technical Data LR-Cal/ LRT 1000:

Measuring range:	$-150\ldots+400^{\circ}\text{C}$ (switchable to $-238\ldots+752^{\circ}\text{F}$)
Accuracy:	$\pm 0.005\text{K}$ at 0°C and $\pm 0.02\text{K}$ in the range $-40\ldots+200^{\circ}\text{C}$
Display:	TFT, resolution 240×320 , 65k colours, very good contrast, suitable for sunlight
Control:	Touch screen, capacitive, surface: toughened glass (degree of hardness: 7)
Display resolution:	3 digits after decimal point
Response time t_{90} :	10 sec.
Measuring current:	Normal operation: 1 mA DC with duty cycle of 50% = 0.50 mA; 1.85 measurements/sec „Root-2 function“: 1 mA DC with duty cycle of 33% = 0.33 mA; 1.25 measurements/sec Automatic elimination of thermo voltage
Data storage:	Up to 200 data / approx. 1'000'000 measured values
Interface:	USB (cable and PC software included in standard delivery)
Supply:	4 Alkaline LR6 AA 1,5 V (included in supply), alternatively via USB port
Active power consumpt.:	approx. 400 mW
Battery life:	passive approx. 1 year, active min. 24 hours
Dimension:	$170 \times 62 \times 34 \text{ mm}$
Weight:	approx. 205 g

Sensor:

Ceramic sensor, bifilar coiled, mineral insulated version, Pt 100, 4-wire, multiple annealing cycles

Dimension probe:	$300 \times 4 \text{ mm}$
Dimension handle:	$119 \times 27/35 \text{ mm}$
Weight / Protection:	120 g / IP 40
Connecting cable:	2 meter, PUR, usage up to 80°C

Case:

High quality wooden case, black with foam insert,
 $50,5 \times 25,5 \times 6,5 \text{ cm}$

