

Reference Thermometer Type LR-Cal/ LRT 750 Comparison Reference for thermometers

- check and calibrate temperature by comparison

The reference thermometer **LR-Cal/ LRT 750** is a comparison reference for checking and calibrating all kind of thermometer.

The system consists of a battery powered digital handheld indicator and a pre-aged precision sensor with temperature range $-200\ldots+450^{\circ}\text{C}$.



Technical Data LR-Cal/ LRT 750:

Measuring range: $-200\ldots+450^{\circ}\text{C}$ (switchable to $^{\circ}\text{F}$)

Accuracy (@ 20°C ambient temp.): 0.03K from $-50\ldots+199.9^{\circ}\text{C}$; 0.05K from $-200\ldots-50.01^{\circ}\text{C}$, elsewhere 0.05% of meas.v.

Display: LCD 4 1/2 digits, two lines, with back light, Resolution 0.01K up to 200°C , elsewhere 0.1K

Response time t_{90} : 12 sec.

- Functions:
- Measurement rate (4/sec = „fast“ and 1/sec = „slow“)
 - MIN and MAX values
 - Hold and Average
 - Zero
 - Integr. real time clock

Supply: 9 VDC battery; typical life time about 20 hours of operating

Permissible temperatures: Operation $0\ldots+40^{\circ}\text{C}$; Storage $-10\ldots+50^{\circ}\text{C}$

Housing: rigid ABS plastic, transparent window.

Weight: approx. 350 g

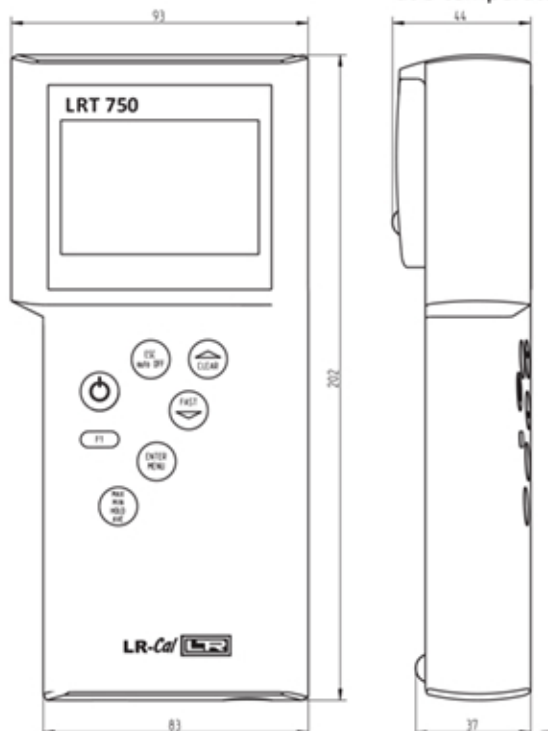
Dimension Pt 100 sensor: 300 mm insertion length x 3 mm diameter, with handle and connection cable.

Order-Code LRT-750-WKZ:

Handheld with sensor and traceable factory certificate of calibration at 5 temperature points $0^{\circ}\text{C} + 50^{\circ}\text{C} + 100^{\circ}\text{C} + 150^{\circ}\text{C} + 200^{\circ}\text{C}$

Order-Code LRT-750-DKD:

Handheld with sensor and DKD/DAkKS certificate at 5 temperature points $0^{\circ}\text{C} + 50^{\circ}\text{C} + 100^{\circ}\text{C} + 150^{\circ}\text{C} + 200^{\circ}\text{C}$



- Scope of supply:**
- Handheld indicator, adjusted
 - Reference sensor, paced-off
 - Certificate of calibration:
Order-Code **LRT-750-WKZ**: factory, traceable;
Order-Code **LRT-750-DKD**: DKD/DAkKS
 - Carrying case with custom foams
 - 9V battery



Temperature Calibrator **LR-Cal** PYROS-BB for Infrared Thermometer, with „Black Body“

- Temperature range: +24°C...+600°C
(at +20°C ambient temperature)
- Inclusive precision digital handheld thermometer as reference, with factory certificate of calibration
- For mobile and stationary usage

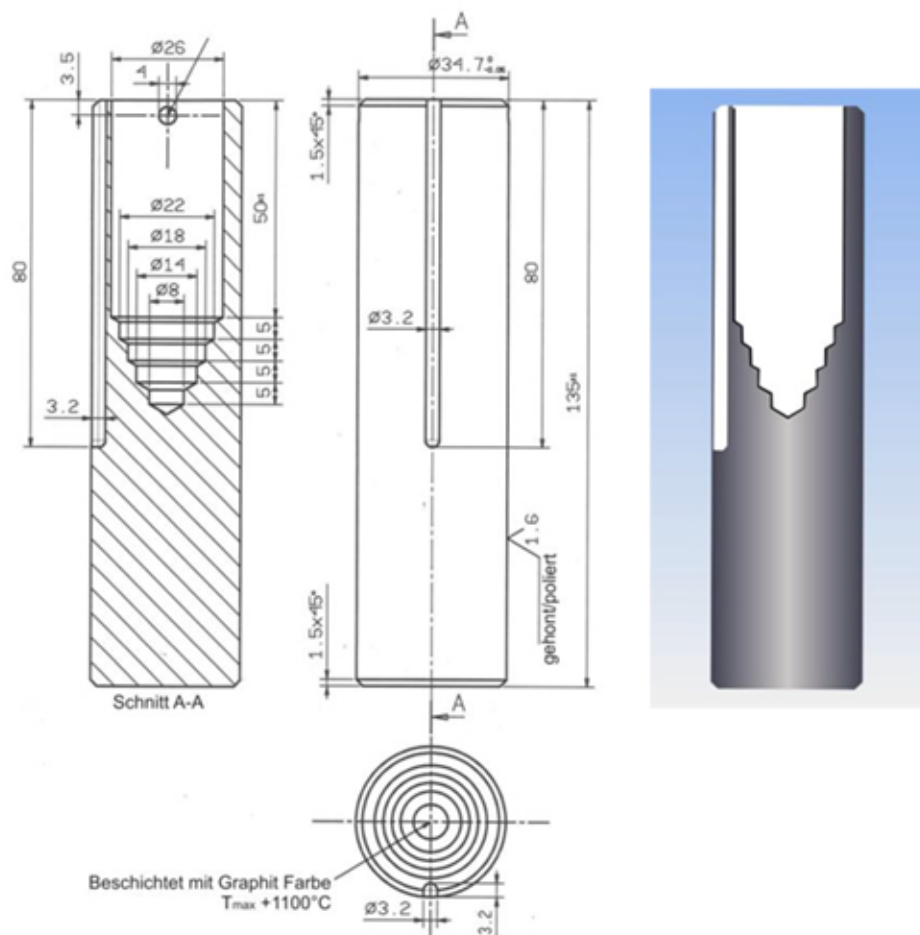
Typical Application:

- Check and calibration of (non-contacting) infrared thermometer



Scope of standard delivery:

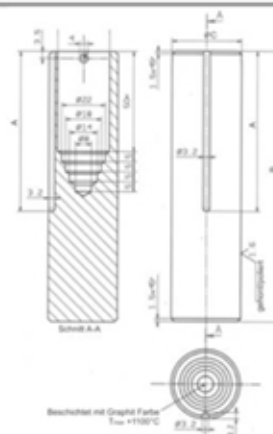
- 1 Dry block temperature calibrator model **LR-Cal** PYROS 650-DNV
- 1 special insert with Black Body, painted with black graphity paint, outer diameter 25.5 mm, depth 150 mm, inner depth 70 mm, incl. hole 3.2 mm for reference probe
- 1 Handheld reference thermometer **LR-Cal** LRT 750 with probe and factory certificate of calibration



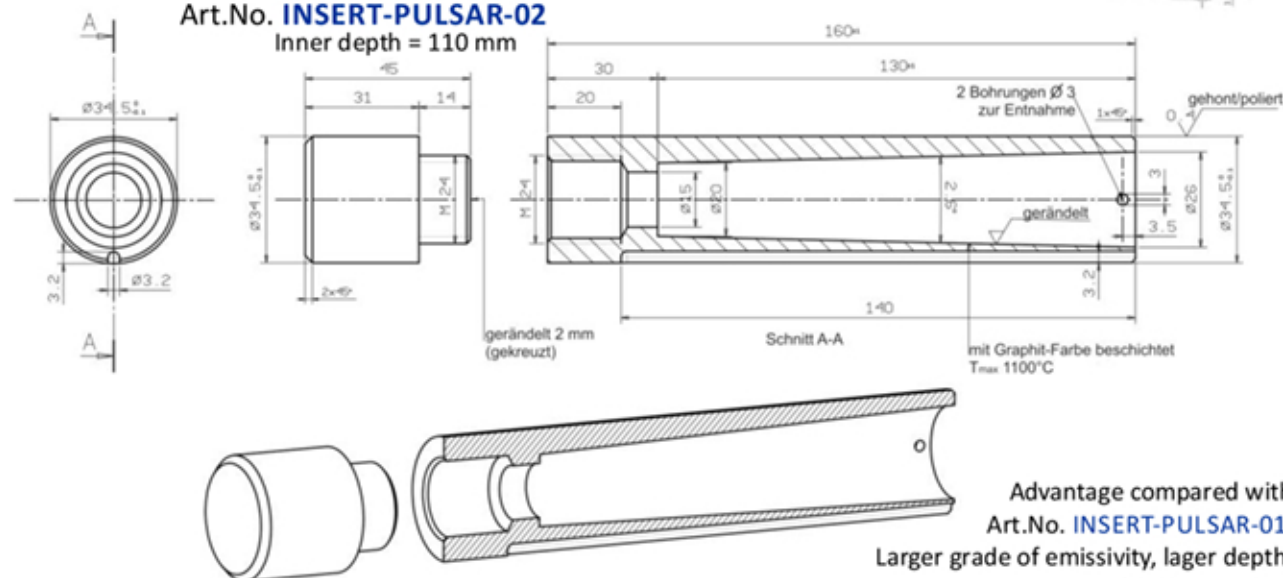
„Black Body“ inserts for **LR-Cal** dry block temperature calibrators
for expansion of possibility to check and calibrate infrared thermometers.

For Model LR-Cal PYROS 375-DNV:	Insert: Reference:	Art.No. INSERT-PYROS Art.No. LRT-750-WKZ	
For Model LR-Cal PYROS 650-DNV:	Insert: Reference:	Art.No. INSERT-PYROS Art.No. LRT-750-WKZ	
For Model LR-Cal QUARTZ-35:	Insert: Reference:	Art.No. INSERT-QUARTZ Art.No. LRT-750-WKZ	
For Model LR-Cal QUARTZ-35-2I: (Referenztemperaturanzeige direkt am Gerät)	Insert: Reference:	Art.No. INSERT-QUARTZ Art.No. BB-SENSOR-01	
For Model LR-Cal PULSAR-35Cu:	Insert: Reference:	Art.No. INSERT-PULSAR-01 , or Art.No. INSERT-PULSAR-02 Art.No. LRT-750-WKZ	
For Model LR-Cal PULSAR-35Cu-2I: (Referenztemperaturanzeige direkt am Gerät)	Insert: Reference:	Art.No. INSERT-PULSAR-01 , or Art.No. INSERT-PULSAR-02 Art.No. BB-SENSOR-01	

No. **INSERT-PYROS**: Inner depth 70 mm A = 80 mm B = 150 mm C = 25,5 mm
No. **INSERT-QUARTZ**: Inner depth 70 mm A = 80 mm B = 135 mm C = 34,7 mm
No. **INSERT-PULSAR-01**: Inner depth 70 mm A = 80 mm B = 190 mm C = 34,5 mm



Art.No. **INSERT-PULSAR-02**
Inner depth = 110 mm



Advantage compared with
Art.No. **INSERT-PULSAR-01**:
Larger grade of emissivity, larger depth,
better accuracy.