

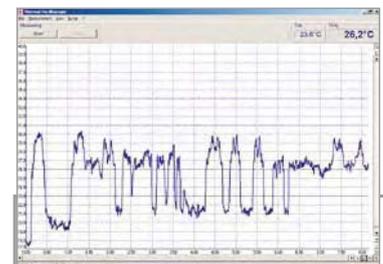
thermoMETER LS



thermoMETER LS Infrared thermometer with crosshair laser sighting

The LS is the most sophisticated IR hand held device. It provides an accurate measurement with its precision optics (adjustable for close or far field focus) and marks the actual true measurement with a laser crosshair, eliminating the guesswork out of handheld IR devices. It is fully programmable, offers a digital interface for on and offline data logging and includes a thermocouple plug in.

- Measuring range from -35° to +900°C
- The new performance standard with spot sizes as small as 1mm
- Crosshair laser sighting marks the actual spot size at any distance
- Optical resolution 75:1
- Response time 150ms
- Thermocouple input
- USB interface and graphic software with oscilloscope function
- Multi function flip display
- Programmable emissivity
- High and low limits
- Statistical data processing



Optical specifications thermoMETER LS

□ = smallest spot size (mm)

| | | | | | | | |
|------------------------------|----------------|-----------------------|----|------|------|------|------|
| Standard Focus optics | 75:1 | 20 | 16 | 40 | 70 | 100 | 130 |
| | | <i>distance in mm</i> | 0 | 1200 | 2000 | 3000 | 4000 | 5000 |
| Close Focus optics | CF 75:1 | 17 | 1 | 123 | 262 | | |
| | | <i>distance in mm</i> | 0 | 62 | 500 | 1000 | |

Flip display for multi purposes:
 Measurement of smallest objects (1mm) on a circuit board - data transfer via USB to a common PC

| Model | thermoMETER LS |
|-----------------------------------|--|
| Optical resolution | 75:1 |
| Temperature range | -35 to 900°C |
| Spectral response | 8 to 14µm |
| System accuracy | ±0.75°C or ±0.75% ¹⁾ |
| Temperature coefficient | ±0.05°C or ±0.05% ¹⁾ |
| Response time (95%) | 150ms |
| Repeatability | ±0.5°C or ±0.5% ¹⁾ |
| Switchable to focus | 1mm @ 62mm (90%) |
| Smallest spot | 1mm |
| Laser class II | standard focus: patented crosshair laser (crosshair size = IR spot size@any distance) close focus: two point laser (laser dot size = IR spot size@focus distance) |
| Emissivity/gain | 0.100 to 1.100 (adjustable) |
| Configurations | MAX/MIN/HOLD/DIF/AVG/°C/°F |
| Alarm functions | audible and visible HIGH/LOW alarm |
| Display | LC flip display (horizontal and vertical viewing directions controlled by position sensor) |
| Display LCD backlight | green and alarm colours (red, blue) |
| Bar graph display | auto scaling |
| Ambient temperature | 0 to 50°C |
| Storage temperature | -30 to 65°C |
| Relative humidity | 10 - 95% (non condensing) |
| Weight | 420g |
| EMV | 89/336/EWG |
| Vibration/Shock | IEC 68-2-6: 3 G, 11-200Hz, any axis IEC 68-2-27: 50 G, 11ms duration, any axis |
| Temperature range t/c probe input | -35 to 900°C (-30 to 1650°F) |
| Accuracy t/c probe input | ±0.75°C or ±1% of reading ¹⁾ |
| Interface, data output | USB |
| Data memory | 100 measurement protocols with time stamps, customizable 4 digit location and material names |
| Software | CompactConnect oscilloscope software with 20 readings per second |
| Power | battery 2xAA Alkaline or via USB |
| Battery life time | 5h with laser on and 50% backlight use 10h with laser on and w/o backlight 25h w/o laser and backlight |
| Tripod mount | 1/4-20 UNC |
| Option | certificate of calibration or DKD certificate |

¹⁾ whichever is greater; ± at ambient temperatures 23 ±5°C; 20 to 900°C range

Scope of supply

- ▶ thermoMETER LS
- ▶ USB cable and software
- ▶ t/c type K insertion probe
- ▶ carrying case
- ▶ padded pouch
- ▶ wrist strap
- ▶ manual
- ▶ cells

| Index | Datum | Uhrzeit | TObj | Min. TObj | Max. TObj | Mittl. TObj | Tint | TExt | Hi-Alarm | Lo-Alarm | Eps | Name |
|-------|------------|----------|---------|-----------|-----------|-------------|--------|--------|----------|----------|-------|------|
| 1 | 14.10.2005 | 20:58:14 | 25.8°C | 25.8°C | 25.9°C | 25.8°C | 26.0°C | 25.7°C | 29.7°C | -40.0°C | 0.946 | PO00 |
| 2 | 14.10.2005 | 20:13:50 | 26.8°C | 26.8°C | 29.8°C | 27.9°C | 27.3°C | ..... | 28.7°C | -40.0°C | 0.946 | PO01 |
| 3 | 14.10.2005 | 20:58:24 | 26.0°C | 25.6°C | 26.0°C | 25.8°C | 26.0°C | 25.7°C | 29.7°C | -40.0°C | 0.946 | PO02 |
| 4 | 14.10.2005 | 20:58:28 | 25.7°C | 25.6°C | 25.8°C | 25.7°C | 26.0°C | 25.8°C | 29.7°C | -40.0°C | 0.946 | LH12 |
| 5 | 14.10.2005 | 20:58:58 | 25.5°C | 25.5°C | 25.8°C | 25.6°C | 26.0°C | 25.9°C | 29.7°C | -40.0°C | 0.946 | PO04 |
| 6 | 14.10.2005 | 20:17:20 | 599.6°C | 29.2°C | 600.5°C | 538.2°C | 27.2°C | ..... | 28.7°C | -40.0°C | 0.947 | PO05 |
| 7 | 14.10.2005 | 20:14:06 | 26.8°C | 26.8°C | 29.8°C | 27.9°C | 27.3°C | ..... | 28.7°C | -40.0°C | 0.946 | PO06 |
| 8 | 18.10.2005 | 13:16:46 | 22.3°C | 22.0°C | 23.0°C | 22.4°C | 25.6°C | ..... | 900.0°C | -40.0°C | 1.000 | PO07 |
| 9 | 19.10.2005 | 17:05:06 | 23.0°C | 21.3°C | 23.2°C | 22.6°C | 26.8°C | ..... | 900.0°C | -40.0°C | 0.999 | PO08 |
| 10 | 19.10.2005 | 17:05:12 | 23.0°C | 21.3°C | 23.2°C | 22.6°C | 26.8°C | ..... | 900.0°C | -40.0°C | 0.999 | PO09 |
| 11 | 19.10.2005 | 17:05:28 | 34.6°C | 24.8°C | 34.6°C | 28.8°C | 26.8°C | ..... | 900.0°C | -40.0°C | 0.999 | PO10 |
| 12 | 20.10.2005 | 13:50:46 | 24.6°C | 24.2°C | 26.0°C | 24.5°C | 27.1°C | ..... | 30.0°C | -40.0°C | 1.000 | PO11 |
| 13 | 20.10.2005 | 13:28:25 | 24.1°C | 24.1°C | 24.3°C | 24.1°C | 27.0°C | ..... | 29.1°C | -40.0°C | 0.950 | PO12 |
| 14 | 20.10.2005 | 13:51:13 | 51.1°C | 21.0°C | 51.2°C | 37.3°C | 27.1°C | ..... | 30.0°C | -40.0°C | 1.000 | PO13 |
| 15 | 20.10.2005 | 13:53:29 | 21.8°C | 21.8°C | 21.9°C | 21.8°C | 27.3°C | ..... | 30.0°C | -40.0°C | 1.000 | PP5L |
| 16 | 20.10.2005 | 18:06:45 | 48.7°C | 24.3°C | 48.6°C | 41.2°C | 24.5°C | ..... | 30.0°C | -40.0°C | 0.950 | PO15 |
| 17 | 20.10.2005 | 18:08:49 | -11.1°C | -11.4°C | 4.8°C | -10.7°C | 24.6°C | ..... | 30.0°C | 10.0°C | 0.950 | PO16 |

Software IRConnect

- Data logging
- Display and recording of temperature graphs
- Modifications of handheld settings

System requirements

- Windows XP, Windows 2000
- USB 2.0
- Hard disc min. 30 MByte
- min. 128 MByte RAM
- CD-ROM drive

