More Precision.

optris® **LS**

Infrared thermometer with crosshair laser sighting - the alternative to thermal imagers

The infrared thermometer optris LS supports the professional noncontact temperature measurement of objects as small as 1 mm in a temperature range between -35°C and +900°C. This thermometer can be used in characteristic applications like preventive maintenance, quality management, research and development and electronic design. The precision of the crosshair laser sighting indicates the actual spot size at any distance with absolute accuracy. The high quality optical performance is the distinguishing feature of the LaserSight.

FEATURES

- The new performance standard of infrared thermometers with spot sizes as small as 1 mm
- Crosshair laser sighting marks the actual spot size at any distance
- Temperature range from -35° to +900°C
- Optical resolution 75:1
- Thermocouple input
- USB interface and graphic software with oscilloscope function
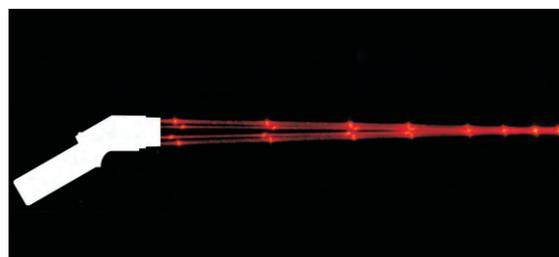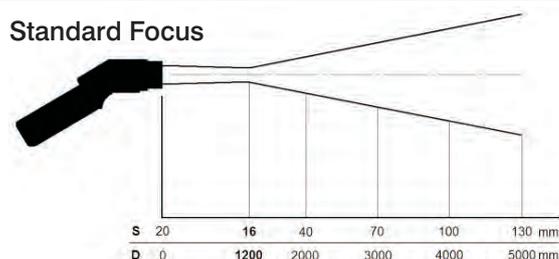- Multi function flip display

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Technical Data

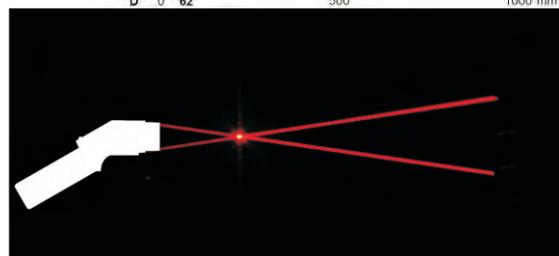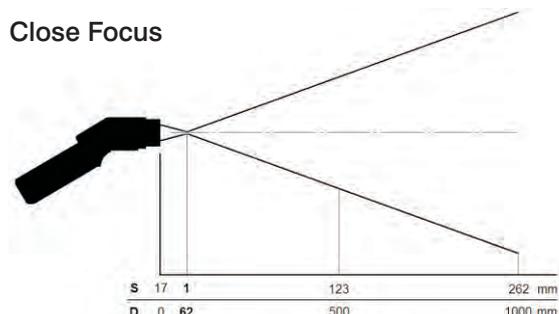|	
Temperature range	-35° to +900°C (-30°F to 1650°F)
Spectral response	8 - 14 μm
Accuracy	±0.75°C or ±0.75% of reading [1] (at ambient temperatures 23 ±5°C at 20 - 900°C range)
Temperature coefficient	0.05K/K or ±0.05%/K [1] (below 20°C and above 30°C ambient temperature)
Temperature resolution	0.1°C
Repeatability	±0.5°C or ±0.5% of reading [1]
Response time	150 ms (95% signal)
Optics	75:1 16 mm @ 1200 mm switchable to focus: 1 mm @ 62 mm
Minimum spot size	1 mm
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 … 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 colors (red, blue)
Bar graph display	auto scaling
Ambient temperature	0°C - 50°C
Storage temperature	-30°C - 65°C
Relative humidity	10 - 95% (non condensing)
Weight	420 g
EMI	89/336/EWG
Vibration/Shock	IEC 68-2-6: 3 G, 11-200 Hz, any axis IEC 68-2-27: 50 G, 11 ms duration, any axis
Temperature range t/c probe input	-35°C to 900°C (-30°F 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	OptrisConnect oscilloscope software with 20 readings per second
Power	Battery 2xAA Alkaline or via USB
Battery life time	5 h with laser on and 50% backlight use 10 h with laser on and w/o backlight 25 h w/o laser and backlight
Tripod mount	1/4-20 UNC (optional)
Standard accessories	USB cable and software t/c type K insertion probe carrying case, padded pouch, wrist strap, batteries

[1] whichever is greater

Standard Focus

Original schematic photography of the laser beam

Close Focus

Original schematic photography of the laser beam

OptrisConnect Software

OptrisConnect oscilloscope software with
20 readings per second