



SKF Infrared Thermometer

CMSS 3000-SL

Heavy duty, long range, dual laser sighted non-contact infrared thermometer

Features

- Dual point laser sighting
- Adjustable emissivity
- 50:1 Distance to spot size ratio
- Temperature range: -60 °C to +1,000 °C (-76 °F to +1,832 °F)
- Exceptional battery life
- High and low alarm
- MAX, MIN, DIF, AVG temperature displays
- Amber back-light LCD display
- High intensity white LED flashlight
- Heavy duty magnet in base of handle
- Hard case

Introduction

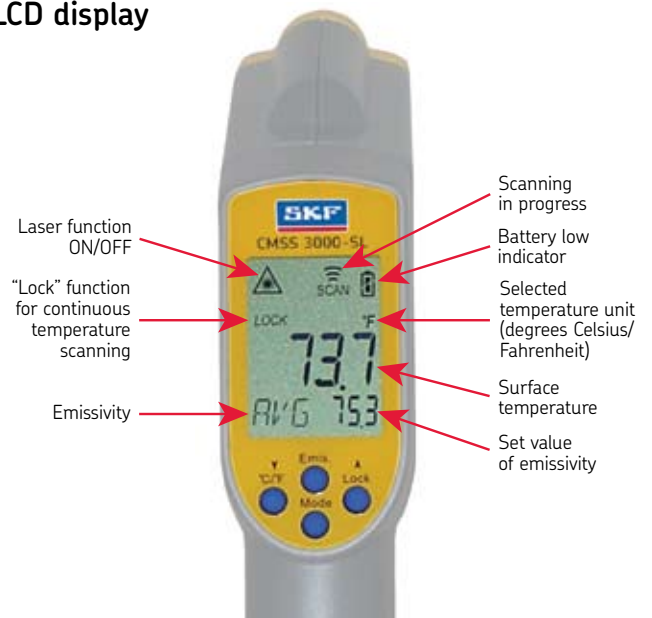
There are many uses for this hand-held non-contact, infrared thermometer. Rugged and easy to use – just aim, pull the trigger, and read the temperature in less than a second. Measures surface temperatures of hot, hazardous, moving, or hard-to-reach objects safely without contact.

The non-contact thermometer senses the thermal energy radiated from an object with an infrared detector. When pointed at an object, the infrared detector collects energy producing a signal that the microprocessor translates as a reading on the backlit display. As the trigger is squeezed, the object temperature is continuously measured by the infrared detector. This allows for fast and accurate real-time readings.

This instrument features an extended temperature range -60 °C to +1,000 °C (-76 °F to +1,832 °F); dual laser sighting; bright large amber back-light LCD display; Maximum, Minimum, Difference (MAX-MIN) and “Lock” function for continuous temperature scanning; programmable High and Low audible alarms; selectable temperature units (°C or °F); low battery indicator and adjustable emissivity for more accurate temperature measurements.



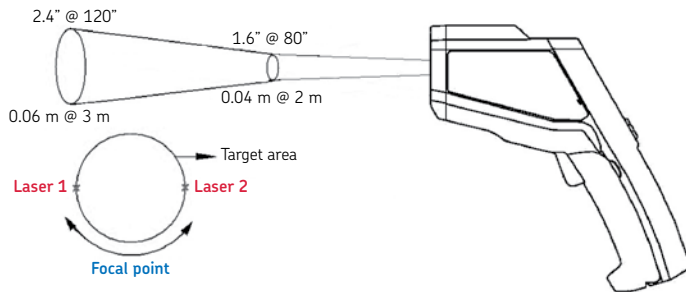
LCD display



SKF Infrared Thermometer CMSS 3000-SL

Dual laser sighting and distance to spot ratio

Dual Lasers provides easy aiming and defines the target area. The target area is highlighted at all distances with two laser dot markers. Laser 1 indicates one point of the measurement spot on one side of the target area to be measured and Laser 2 indicates the location of the diametrically opposed point on the other side of the measurement spot. At the focal point, where the spot size is the smallest, the dots line up vertically, rotating as the CMSS 3000-SL is moved closer or further from the target.



Distance to Spot Ratio 50:1.

Emissivity

Emissivity is a term used to describe the energy-emitting characteristics of materials. Most organic materials and painted or oxidized surfaces have an emissivity of 0.95. Inaccurate readings can result from measuring shiny or polished metal surfaces. To compensate for this, adjust the unit's emissivity reading, or cover the surface to be measured with masking tape or flat black paint (< +148 °C / +300 °F). Allow time for the tape or paint to reach the same temperature as the material underneath it. Measure the temperature of the tape or painted surface.

Hard case

A water resistant, dust-proof case which holds the unit (and magnetic stand) and measures 330 mm x 197 mm x 66 mm (13.00" x 7.75" x 2.60") is included.

Specification

Measurement range: -60 °C to +1000 °C (-76 °F to +1832 °F)

Operating range: 0 to +50 °C (+32 °F to +122 °F)

Accuracy (T_{object}= 15-35 °C, T_{ambient}= 25 °C): ± 1.0 °C (± 1.8 °F)

Accuracy (T_{object}=33-1,000 °C; T_{ambient}= 23 ± 3 °C): ± 2% of reading or +2 °C (+4°F) whichever is greater

Update frequency: 1.4 Hz

Wave length response: 8-14 μm

Emissivity range: 0.95 default – adjustable 0.1 to 1 step .01

Relative humidity: 5% to 95% non-condensing

Resolution (from -9.9 °C to +199.9 °C): 0.1 °C / 0.1 °F

Response time (90%): < 1 sec

Distance spot ratio: 50:1

Dimensions: 47.0 mm x 197.0 mm x 203.3 mm (1.85" x 7.71" x 7.9"

Weight: 386.1 g (13.62 oz) including batteries

Power: 2 x AAA batteries (included)

Battery life: Typical 180 hours, min 140 hours continuous use (Alkaline, without laser and back light)

Modes: Maximum, Minimum, Average, Difference (MAX-MIN), Lock (allows for continuous temperature scan)

NOTE: Under an electromagnetic field of 3 V/m from 90 to 360 MHz the maximum error is ± 10 °C

National Institute of Standards and Technology (NIST), traceable factory calibration available.

Ordering information

- **CMSS 3000-SL Non-Contact Infrared Thermometer**, including quick start guide in standard languages (English, French, German, Portuguese, Spanish and Swedish), two AAA batteries and hard carrying case and magnetic stand.
- **DOC-CAL CERT CMSS 3000**, NIST Certificate of Calibration Accuracy (Watlow-Gordon XACT-CAL)

Optional kits that include the SKF Infrared Thermometer, CMSS 3000-SL

- **CMAK 400 SKF Basic Condition Monitoring kit**
 - CMAS 100-SL SKF Machine Condition Advisor
 - CMSS 3000-SL SKF Infrared Thermometer
 - CMIN 400 SKF Inspector Ultrasonic Probe
- **CMAK 300 SKF Bearing Analysis kit**
 - CMAS 100-SL SKF Machine Condition Advisor
 - CMSS 3000-SL SKF Infrared Thermometer
 - THEH1 SKF OilCheck