

IRtec Miniray 100

Portable non-contact Infrared thermometers

- Compact, Low cost, quick and easy to use. Just a "click" to measure.
- Temperature range: from -32°C to +520°C
- Dot or Circular laser pinpointing for an easy identification of the measured area surface.
- Emissivity adjustment.
- Average, Max, Min measurements.
- Alkaline or rechargeable battery operation.
- Pt100 probe input for penetration, contact and air temperature measurements.



General features

Eurotron **IRtec Miniray** is the ideal tool for periodic process monitoring and maintenance to measure temperature quickly and easily, at contact with the target or from distance.

An optional laser pinpointing method simplify the identification of the measuring surface area.

Principle of operation

All object surfaces emits infrared energy. The hotter an object is, the more active its molecules are, and the more infrared energy it emits. An infrared thermometer incorporate optics that collect the radiant infrared energy from the object and focus it onto a detector. The detector converts the energy into an electrical signal, which is amplified, digitally converted and displayed.

The temperature of the body can therefore be determined by measuring the intensity of this infrared energy.

If contact or immersion temperature measurement is required, a Pt100 input is available for accurate and dedicate probes.

Predictive maintenance applications

The Eurotron **IRtec Miniray** is the absolutely necessary tool for your preventive maintenance

program. It can prevent a variety of temperature related equipment or process malfunctions before serious damage occur such as bearings, motors, valves, electrical switches and distribution conductors, cooling or steam traps, thermal insulation deterioration, hot spots, engine performances, extrusion heads, depleted refrigeration system, etc.

Periodic process monitoring

Rugged, accurate and compact for a fast and easy periodic process monitor to keep quality under control and/or supervise production phases or handling, transport and conservation of cooked and refrigerated foods.

Two instruments in one: Infrared non-contact thermometer plus penetration probe input. The ideal tool for HACCP and ISO9000 specifications.

Unbeatable price/performances

No other hand-held thermometer delivers such high performance for the price that we propose. Please consider the money you could save in repairs, rejected product and downtime, a **IRtec Miniray** thermometer could pay for itself the first time you use it.

SPECIFICATIONS

- **Spectral band:** 8-14 μm
- **Display:** 3 1/2 digit custom LCD with automatic back light plus labels for max, min, emissivity, Hold, $^{\circ}\text{C}$, $^{\circ}\text{F}$, low battery.
- **Resolution:** 0.1 $^{\circ}\text{C}$ up to 199.9 $^{\circ}\text{C}$. 1 $^{\circ}\text{C}$ otherwise.
- **Response time:** 500 ms
- **Target pinpointing:** sight dot or circular laser pointer (*L and XL models only*)
- **Emissivity:** adjustable from 0.30 to 1.00
- **Auto Power Off:** Automatic power Off if no key is pressed for more than 40 sec.
- **Alarm:** low and high alarm with visual and acoustic beeper
- **Signal processing:** $^{\circ}\text{C}/^{\circ}\text{F}$, average, hold, max, min (where applicable)
- **Accuracy IR channel:**
range from 23 $^{\circ}\text{C}$ to f.s.: $\pm 1\%$ of the reading or $\pm 1^{\circ}\text{C}$ whichever is greater
range from -32 $^{\circ}\text{C}$ to 23 $^{\circ}\text{C}$: $\pm 1.5^{\circ}\text{C}$
- **Rtd channel:** Pt100 IEC751 $\alpha 385$ (excluding the probe)
Input range: from -32 $^{\circ}\text{C}$ to 520 $^{\circ}\text{C}$
Accuracy: $\pm 0.3\%$ of rdg or $\pm 0.3^{\circ}\text{C}$ whichever is greater
- **Laser sight:** *Wavelength* 650nm, *Beam diameter* 3mm, *Indicator* asterisk on LCD
- **Power supply:** alkaline or rechargeable battery
- **Battery life:** 60 h (back light and laser off)
- **Ambient temperature:** -10 to +45 $^{\circ}\text{C}$ / 10-95% RH non condensing
- **Storage temperature:** -30 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$
- **Dimensions:** 180x140x45 mm
- **Weight:** 380g nett - 700g gross

MODELS

Model	Range	D:S	Laser
MiniRay 100	-32 to 520 $^{\circ}\text{C}$	12:1	No
MiniRay 100 L	-32 to 520 $^{\circ}\text{C}$	12:1	Yes
MiniRay 100 XL	-32 to 520 $^{\circ}\text{C}$	30:1	Yes

ORDERING CODE

IRtec Miniray 1180 A - B - CC - DD - E

The basic instrument is supplied with an instruction manual.

Table A	Model
100	$\phi 80$ mm at 1m without laser pinpointing
100 L	$\phi 80$ mm at 1m
100 XL	$\phi 30$ mm at 1m

Table B	Power supply and charger
0	Alkaline battery
1	Ni-MH / 115 V USA plug
2	Ni-MH / 230 V Schuko plug
3	Ni-MH / 230 V UK plug
4	Ni-MH / 230 V European plug
5	Ni-MH / 100 V USA-Japan plug

Table C	
0	none
1	laser pinpointing (<i>model L and XL only</i>)
2	circular laser pinpointing (<i>model L and XL only</i>)
3	input channel for Pt100 probe

Table D	Accessories
0	none
1	soft vinyl case
2	rigid ABS case
3	Pt100 Penetration probe
4	Pt100 Contact probe
5	Pt100 Air probe

Table E	Report of Calibration
0	none
1	Eurotron Report

