

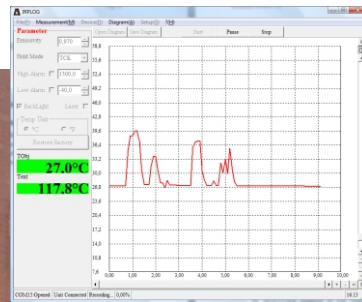
# E instruments

## **IRtech Pro 1000L 1200L 1300L 2000L**

Portable Infrared Thermometers for demanding Industrial applications

**IRtech**  
Infrared Technology

- Temperature range up to 1800°C
- Optical resolution up to 300:1
- 8-14 $\mu$ m and short wavelength 1 $\mu$ m, 1.6 $\mu$ m, 2.3 $\mu$ m for metal
- Spectral response
- Dual/Single laser pointer
- Thermocouple input (minidin)
- Large LCD display
- 3 colors backlight
- Emissivity settings
- Alkaline 9V batteries
- USB interface with
- IR Windows software
- Datalogger up to 2000 measures
- Max, Min, Alarms audible features



Each body, at temperatures above the absolute zero (-273°C or 0K), emits energy as electromagnetic radiation. When temperature rises, the intensity of this infrared energy increases. The temperature of the body surface can therefore be determined by measuring the intensity of this energy in a small spectral band: the infrared region. The instruments used to measure this energy and to calculate the related temperature are called infrared thermometers or non-contact thermometers.

Temperature measurements of a liquid or gaseous compound have been successfully made with thermoelectric or expansion thermometers, thanks to the good thermal exchange of the sensor with the fluid. With solid bodies, a good thermal exchange is difficult to be obtained and an additional measuring error should be considered. When the target is moving or is electrically hazardous, a contact temperature measurement can't be made. Non-contact IR temperature measurement could be the only solution to the above application problems.

Typical application of **IRtech** portable thermometers is to control temperature where an increase of its value means a possible machine wearing, aging, faulting, etc.

[www.eigroup.biz](http://www.eigroup.biz)

Features are related to all models equipped with full configuration. On next pages you can find specific details.

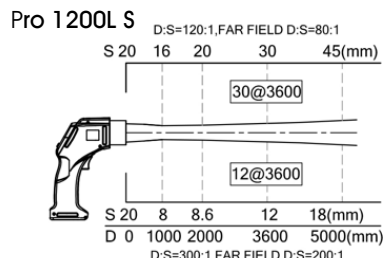
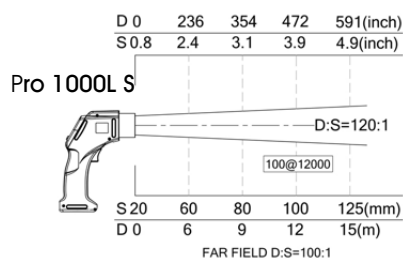


### Models

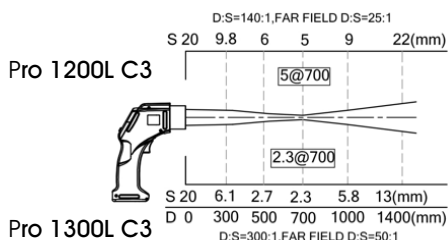
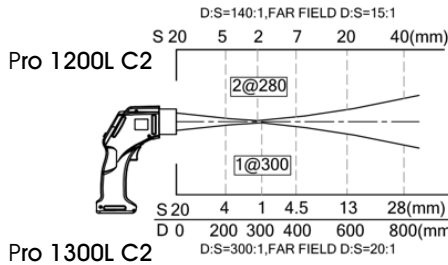
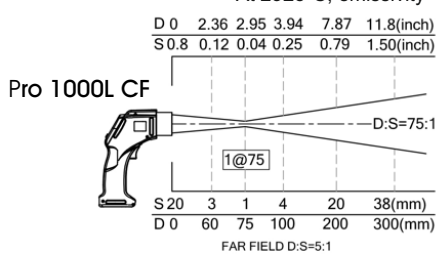
Model	Code	Range	Optics	D:S	Laser
1000L	S	-30 to 1300°C	100mm@12mt	120:1	Dual
	CF	-30 to 900°C	<a href="#">1mm@75mm</a>	75:1	Dual
1200L	L S	100 to 600°C	30mm@3600mm	120:1	Coax single
	L C2	100 to 600°C	2mm@280mm	140:1	Dual
	L C3	100 to 600°C	4.5mm@700mm	140:1	Dual
	H S	200 to 1200°C	15mm@3600mm	250:1	Coax single
1300L	L S	300 to 1300°C	12mm@3600mm	300:1	Coax single
	L C2	300 to 1300°C	1mm@300mm	300:1	Dual
	L C3	300 to 1300°C	2,3mm@700mm	300:1	Dual
	H S	385 to 1600°C	12mm@3600mm	300:1	Coax single
2000L	H S	650 to 1800°C	12mm@3600mm	300:1	Coax single

1000L Accuracy  $\pm 1\%$  or  $\pm 1^\circ\text{C}$  Repeatability  $\pm(0,5\%+0,5^\circ\text{C})$  Response time : 300ms  
 1300L/2000L Accuracy  $\pm 0,5\%$  or  $\pm 1,0^\circ\text{C}$  Repeatability  $\pm(0,3\%+1,0^\circ\text{C})$  Response time 100ms  
 1200L Accuracy  $\pm 0,5\%$  or  $\pm 2,0^\circ\text{C}$  Repeatability  $\pm(0,3\%+1,0^\circ\text{C})$  Response time 100ms

\*At 23 $\pm 5^\circ\text{C}$ , emissivity = 0.95



Pro 1300 2000L H S



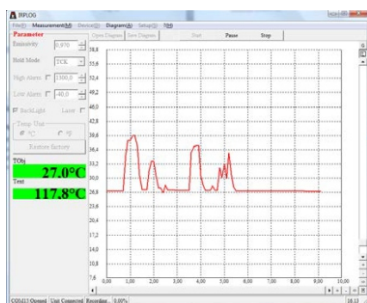
Pro 1200L C3

Pro 1300L C3



### Memory, USB and Windows Software

IRtech Pro L has 2000 non volatile memory where you can store temperature values. It can be downloaded on PC with the software with ID tag for each data.. IRPlot can work on line with graph view. Data can be save in excel format. Instrument setup can be programmed.



### Common specifications

**Emissivity:** Adjustable 0.10 - 1.00  
**Digital interface:**  
 USB (cable and software included)  
**Battery:** 9V Alkaline battery or USB  
**Battery life:**  
 12 hours with laser/backlight on  
 24 hours without laser and backlight  
**Laser:** Class II (<1mW) dual (C) coaxial (S) models  
**Tc :** Thermocouple K input minidin std connector -40°C to +400°C, Acc  $\pm 1\%$  or  $\pm 1^\circ\text{C}$   
**Functions:** Max, Min and Scan/Hold  
**Alarms:** High and Low adjustable by keyboard with audible and visible with enable/disable  
**Working temperature/humidity:**  
 0 to +50°C 10-95% RH non condensing  
**Dimensions :** 210x160x70 mm  
**Weight :** 450gr

**Optics and Tc measurement**  
 IRtech Pro L has the optical body in metal that grant advanced and accurate optics with a rugged protection for the lens. The minidin input allow connection for any thermocouple Tc K probe so it can be used to compare the non contact reading. It can be displayed simultaneously on Lcd display

**Alarms**  
 IRtech Pro L has two programmable setpoint of audible and visible alarm. In standard measurement the backlight is set to Green. If high level of alarm will be active the backlight is set to Red. If low level of alarm will be active the backlight is set to Blue.  
 Alarms can be disabled if not used.



### Ordering Code

Code	Model
Pro (L)	includes rigid carrying case, 9V battery, USB cable, Software, Thermocouple K & instruction manual
Table A Range	
1000L	-30 - 1300°C
1200L	L 100 - 600°C H 200 - 1200°C
1300L	L 300 - 1300°C H 385 - 1600°C
2000L	650 to 1800°C
Table B Optics	
S C2 C3	See table
Table C Report of Calibration	
CC	none EA traceable with data
Pro 1000L S	Typical ordering code