

IRtech Radiamatic IR100 Mk2

Fiber Optic Process Infrared Thermometers

IRtech
Infrared Technology

- Temperature range up to 1800°C
- Fiber optic
Optical resolution up to 40:1
Attenuation up to 95% (2 color)
- 1 μ m or 2 color
Spectral response
- Laser target pointer
- Analog output 4-20mA, V, Tc J/K
- 2 Alarms board
- Up to 250°C of ambient
temperature without cooling
- Up to 5mS response time
- Signal processing
- Remote Control Display with settings
- USB / RS232 / RS485 / Profibus
and Ethernet interface with
IR Settings Windows software

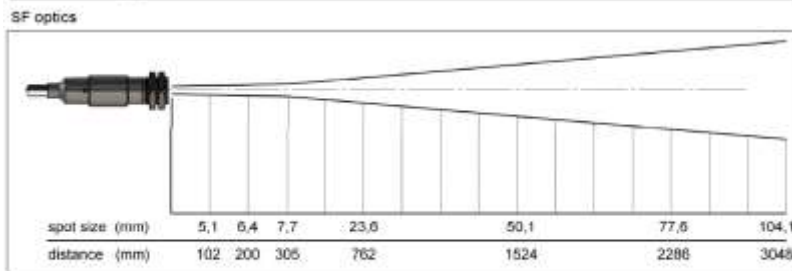
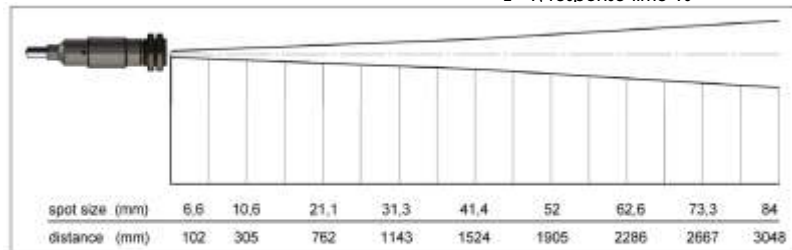


IRtech Radiamatic IR60 and IR100 are fiber optic infrared thermometers with split architecture using a passive measuring head connected with separated electronics module through fiber. The 2 color IR100, due to ratio principle is insensitive to dust or partial target quite independent from emissivity. The standard remote control display make easy to startup and maintenance. All the settings, including emissivity, are available on panel and can be modified with built-in keyboard. The laser aiming simplify the alignment of the thermometer on the target identifying the real area of measurement. The laser can be powered and switched on directly by keyboard or remotely by digital interface. The temperature of the measuring head is monitored switching off the laser if over 70°C to avoid any damage. The modular capability allow to install various digital interface and a board with two relays of alarms. This will avoid to install an additional panel meter. The powerful signal processor allow to adapt the measurement to the requirement of the application.

Models

Models	IR100 1C	IR100 2C
Temperature range	700 - 1800 °C	700 - 1800 °C
Accuracy 23°C±5°C	±0,5% or ±1°C **	±0,5% or ±1°C **
Repeatability 23°C±5°C	±0,2% or ±1°C **	±0,2% or ±1°C **
D:S target ratio	CF 40:1 SF 40:1	CF 40:1 SF 40:1
Spectral response	1 µm	2 color 0,7-1,1 µm

** E=1, response time 1s

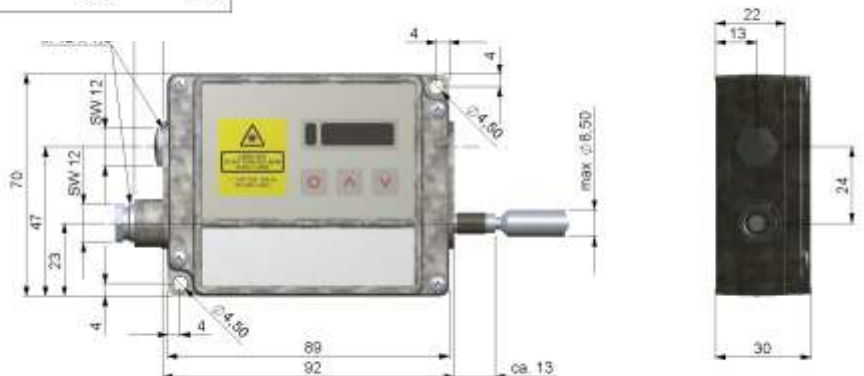


CF2 optics

SF optics: 41 mm@ 1524 mm (D:S = 40:1)
CF2 optics: 7,7 mm@ 305 mm (D:S = 40:1)



Sensing head



Electronics

Emissivity / Gain / IR windows :

Adjustable 0.100 - 1.000 (Slope 0.8 to 1.2)

Working temperature:

Sensing head : -20 to +250°C

0 to +85°C / 10-95% RH non condensing (70°C with laser on). Storage -20 to +85°C

Vibration & Shock:

IEC 68-2-6: 3G, 11-200Hz, any axis

IEC 68-2-27: 50G, 11ms, any axis

Environmental rating :

IP65 (NEMA-4)

Response time :

5 ms to 10sec

Analog output :

0/4-20mA (500ohm), 0-5/10V, Tc J,K, Alarm

Analog input:

External emissivity, ambient temperature compensation, trigger

Digital output board:

Relay : 2x60V DC / 42 V ACeff; 0,4A;

optically isolated

USB, RS232, RS485, CAN, Profibus, Ethernet

Power supply:

8..36 V DC

Functions:

Peak hold, Valley hold, average, extended hold, threshold and hysteresis.

Ordering Code

Code	Model
IR	IRtech includes 2 mounting nuts, bracket ACCTRFB, 3mt fiber & instruction manual.
Table A Range	
100	2 color
Table B Optics	
SF	Standard focus optic
CF	Close focus optic
Table C Fiber Optic	
0	3mt standard fiber optic
C6	6mt fiber optic instead 2mt
C10	10mt fiber optic instead 2mt
C22	22mt fiber optic instead 2mt
Table D Report of Calibration	
0	none
CC	EA traceable with data
IR	60 - SF - C6 - 0 Typical ordering code

● IR Settings Windows Software

Software allows sensor setup and remote control. The real time graphic display and datalogging show the temperature trends with 1mS sampling.

