

IRtec Rayomatic 6

Mini Infrared Temperature Sensor



INFRARED THERMOMETERS

- ▶ Smart Microcontroller Technology
- ▶ Temperature Range Up to 500°C
- ▶ Linear mV or TC J/K Analog Output
- ▶ IP65 (NEMA 4) Stainless Steel Housing
- ▶ Configurable Emissivity, Response Time and Measuring Range from PC
- ▶ Easy Installation and Wiring
- ▶ RS232/USB Adapter and Windows Software



All descriptions are related to a fully optioned instrument. See last page for the different configurations.

Introduction

IRtec Rayomatic 6 low cost infrared temperature sensor represents the ideal solution to replace traditional contact probes J & K with the advantage of non-contact measurement. The output impedance as a thermocouple does not create any problem of connection to any device (indicator, controller and recorder) also with "open TC" test active. MicroController allows very accurate and linear measurements. The unit is automatically temperature compensated using a built-in Pt100 sensor.

IRtec Rayomatic 6 can be calibrated with standard black-body using serial interface and Windows™ software. The sensor with 0-5V (mV/°) output can be used for easy PLC or control system connection and allows long distance cable minimizing noise and error. Standard integration with 4-wire connection. A complete set of accessories is available to fix and to purge the **IRtec Rayomatic 6**.

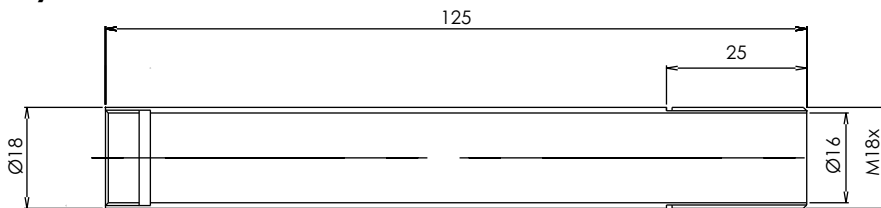
■ Report of Calibration

IRtec Rayomatic is delivered, on request, with a traceable to the International Standards, Report of Calibration stating the nominal and actual values and the deviation errors.

■ RS232 & Software

Emissivity, response time, measuring range, average, peak-picker, decay, peak, valley can be configured using the RS232 PC adapter and the setup Windows™ software.

Body Scheme



Ordering Code

Code **Model**
 1156-810 **IRtec Rayomatic 6**, two mounting nuts, 1 mt of shielded cable and instruction manual.

Table A Range

1	0 to 120°C
2	0 to 300°C
3	0 to 500°C
9	Special on request

Table B Sensor Range - Available Signal Output

1	10 mV/°C or 0-5V (scaling 0-500°C)
2	J-type Thermocouple
3	K-type Thermocouple

Table C Electrical Connection

1	1mt. long shielded cable (PVC max. 105°C)
2	8mt. long shielded cable (PVC max. 105°C)
3	8mt. long high temperature shielded cable (max. 200°C)
9	Special on request

Table D Report of Calibration

0	none
1	NIST traceable with data

1156-810 - 1 - 2 - 1 - 0 Typical ordering code

Specifications

Spectral band: 8-14 μm

Optical resolution: 6:1 (180mm@1000mm)

Response time: 300 ms (t95)

Emissivity: Configurable from 0.30 to 1.00 (pre-set to 0.95)

Working temperature: -10 to +70°C

10-95% RH non condensing

up to 90°C with air cooling

up to 200°C with water cooling

Environmental rating: IP65 (NEMA-4)

Temperature Stability:

Zero = 300ppm/°C - Span = 200ppm/°C

Accuracy: ±2% of rdg. or ±2°C

Relative accuracy data are stated with operative conditions +23°C ±5°C and emissivity = 1.0

Repeatability: ±1% of rdg. or ±1°C

Temperature resolution: 0.1°C/°F

Power supply:

12 ... 24 Vdc (<2.5% ripple @20mA)

Digital communication:

RS232 with external cable

Output impedance: 50Ω

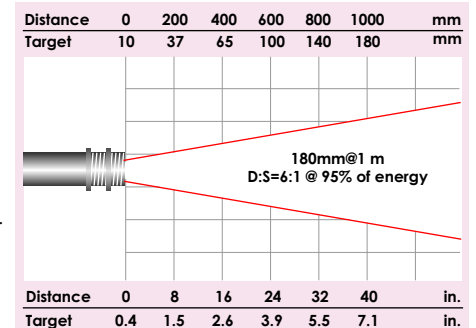
Load impedance: > 50kΩ

Storage temperature: -30°C to +70°C

10-95% RH non condensing

Dimensions and weight: φ18 mm x 98 mm

Thread M18x1 - 90 g net



Accessories

- EE290109** Air cooling jacket with air purge system
- EE290108** Water cooling jacket
- EE290106** 90° adjustable mounting adapter
- EE290110** 2 axis adjustable mounting adapter
- EE290114** 3 axis adjustable mounting adapter
- EE290115** Standard air purge device
- EE290105** Radial air purge device (do not cool the target)
- EE290104** Laminar flow air purge device (severe applications)
- BB530202** RS232 adapter cable for PC
- BB530207** RS232/USB adapter for PC
- BB260195** Rayomatic 6 Setup software

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