

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



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**.

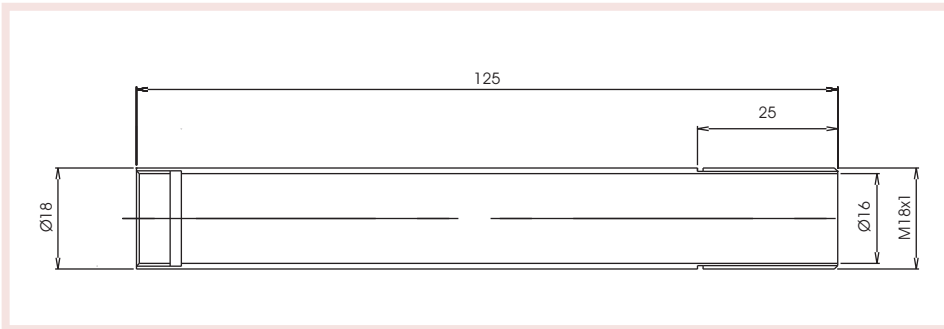
Report of Calibration

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



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: $\pm 2\%$ of rdg. or $\pm 2^\circ\text{C}$

Relative accuracy data are stated with operative conditions +23°C $\pm 5^\circ\text{C}$ and emissivity = 1.0

Repeatability: $\pm 1\%$ of rdg. or $\pm 1^\circ\text{C}$

Temperature resolution: 0.1°C/°F

Power supply:

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

Digital communication:

RS232 with external cable

Output impedance: 50 Ω

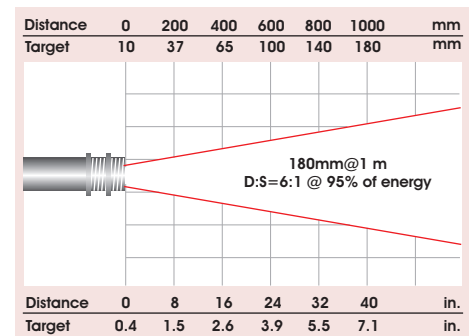
Load impedance: > 50k Ω

Storage temperature: -30°C to +70°C

10-95% RH non condensing

Dimensions and weight: $\phi 18$ mm x 98 mm

Thread M18x1 - 90 g nett



Accessories

EE290128	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
BB260196	Rayomatic 6 LogMan software

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 / EA traceable with data

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



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.