# IR*tec* Rayomatic 6

eurotron
"Excellence in Measurements"

## Mini Infrared Temperature Sensor

Bulletin 02-04.1 E

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**

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

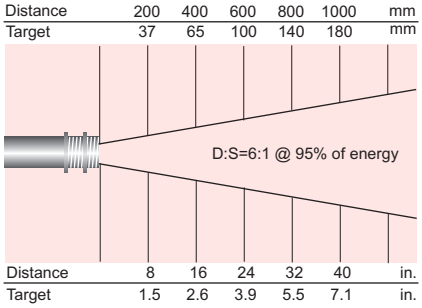
**IR*tec* Rayomatic 6** low cost infrared temperature sensor represents the ideal solution to replace traditional contact probes J & K with the advantage of non-contact measurement.
The output impedance as a thermocouple does not create any problem of connection to any device (indicator, controller and 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.
**IR*tec* 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

# IRtec Rayomatic 6
# IR Compact Transmitter

connection.
A complete set of accessories is available to fix and to purge the IRtec Rayomatic 6.

**Report of Calibration**
**IR***tec* **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.




## 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 or 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 nett

## Ordering Code

**Cat. 1156 - 810 - A - B - C - D**

*Each thermometer includes: 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 | 100 to 500°C |
| 9 | Special on request |

| Table B | Signal Output |
|---|---|
| 1 | 10 mV/°C or 0-5V* |
| 2 | Tc type J |
| 3 | Tc type K |

| Table C | Electrical connection |
|---|---|
| 1 | 1m long shielded cable (PVC max. 105°C) |
| 2 | 8m long shielded cable (PVC max. 105°C) |
| 3 | 8m 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 |

** scaling 0-500°C*

**EE290106**
90° square mounting adapter

**EE290110** 2D adjustable mounting adapter

**EE290114**
3D adjustable mounting adapter

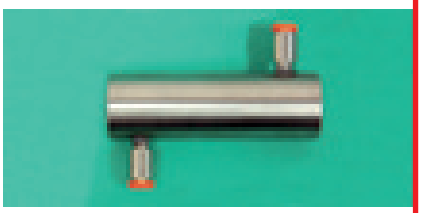
**EE290115**
standard air purge

**EE290104**
laminar air purge device (severe application)

**EE290105**
radial air purge device (don't cool the target)

**BB530018** RS232 adapter cable for PC
**BB260195** Rayomatic 6 Setup software
**EE280362** Mounting nut

**EE290108** air/water cooling jacket



**EE290128**
air cooling jacket with integrated air purge

*Specifications may change without notice.*


**EUROTRON Instruments S.p.A.**
V.le F.lli Casiraghi 409/413
I 20099 Sesto S. Giovanni (MI)
Tel.: +39-02 248820.1
Fax: +39-02 2440286
e-mail: info@eurotron.com
http://www.eurotron.com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