



RAYOMATIC NET

Compact 8-14 µm process infrared sensor with RS485 Modbus interface



IRtec Rayomatic NET is a high quality, low cost, compact process infrared sensor which measures temperatures from -20°C to 500°C, accurately and consistently, with an outstanding response time of 240 ms.

A built-in RS485 RTU Modbus interface enables the user to configure the instrument.

- 8 to 14 μm
- Built-in RS485 Modbus RTU interface
- Touch screen terminal for configuration, indication, alarm generation and data logging
- Emissivity adjustable from 0.2 to 1.0
- MIN / MAX / AVG / instantaneous reading, pick and valley hold
- 2:1, 15:1, 30:1 and CF optics
- IP65 stainless steel housing

Description

IRtec Rayomatic NET is a range of high quality, low cost, compact sensors which measure the temperature of inaccessible or moving objects and materials. They measure temperatures from -20°C to 500°C, accurately and consistently, with an outstanding response time of 240 ms.

Two-way digital communications via a built-in RS485 Modbus RTU interface enables the user to adjust the emissivity setting; compensate for reflected energy; apply filtering; select maximum, minimum, average or instantaneous readings; and peak or valley hold processing.

Up to thirty two sensors can be installed on a single multidrop network.

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- Built-in RS485 Modbus RTU interface
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- MIN / MAX / AVG / instantaneous reading, pick and valley hold
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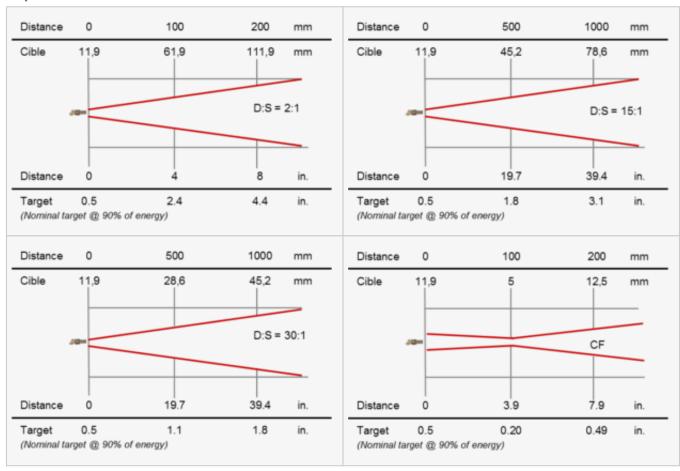


Specifications

Infrared temperature measurement

Model	LT	MT	HT
Temperature range	-20 to 100°C	0 to 250°C	0 to 500°C
Spectral response	8 - 14 μm		
Emissivity	Adjustable from 0.2 to 1.0		
Accuracy	±1% RDG or 1°C		
Repeatability	±0.5% RDG or 0.5°C		
Response time	240 ms (90%)		

Optics



Further features

Multisensor network	Up to 32 sensors on a single network
Modbus interface	Adjustment of emissivity setting,



	compensation for reflected energy, filtering application, selection of maximum, minimum, average or instantaneous readings and peak or valley hold processing
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General specifications

Size L x l x h	Electronic module: Ø 18 x 103 mm Thread mounting: M16 x 1 mm
Weight	95 g with cable
Construction	Stainless steel
Power supply	12 VDC (6-13 VDC), 50 mA max
Interface	RS485 Modbus RTU Baud rate: 9600° Format: 8 bits, no parity, 1 stop bit (further formats upon request)

Environmental specifications

Reference conditions	0°C to +70°C (95% non-condensing)
Environmental rating	IP65



Models and accessories

Instrument:

Ordering code structure: NET-AA-BB-C/MAN

Please select the required options from tables A, B... below to define the right device reference.

NET Rayomatic NET Delivered in standard with:

• Instruction manual in English

 Table AA
 Optics - Distance to target

 2
 Optics 2:1, 61.9 mm @ 100 mm

 15
 Optics 15:1, 45.2 mm @ 500 mm

 30
 Optics 30:1, 28.6 mm @ 500 mm

 CF
 Close focus lens, 5 mm @ 100 mm

Table BB Accessories

NO None

W) Air / Water cooled jacket and air purge collar

Table C Calibration certificate

0 None

1 Factory traceable calibration certificate with data

Accessories:

FBS Fixed mounting bracket for compact sensors
ABS Adjustable mounting bracket for compact sensors

APSW Air purge collar for compact 2:1 sensors

APSN Air purge collar for compact 15:1, 30:1 and close-focus sensors

PWS Protective plastic window in stainless steel holder

LSTS Laser sighting tool for compact sensors

DLSBFS Dual laser sighting bracket, fixed, for compact sensors
DLSBAS Dual laser sighting bracket, adjustable, for compact sensors
DLSBCE Extended cable for Dual Laser Sighting Bracket - Price for 1 m

PBCE Extended cable for uncooled RAYOMATIC NET sensor, 1 m, up to 29 m extension Extended cable, high temperature, for cooled RAYOMATIC NET sensor, 1 m, up

to 29 m extension

CALCERT A Calibration certificate

CALCERT B Re-calibration and certificate

MBAC Change of Modbus address in factory (Sensors are supplied with Modbus address

1 as standard). Please specify the required Modbus address for each sensor at the time of ordering.

MSD 2 Gb MicroSD card for Digimax 180, with SD card adapter

Digimax 180 6-channel touch screen hub

Digimax 240 Panel-mount touch screen terminal for up to 8 NET sensors

Digimax 240E Panel-mount touch screen terminal for up to 8 NET sensors. Includes four

analogue outputs (0 to 10 V DC) and sixteen alarm outputs