

Infrared thermometer with RS485 Modbus interface

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.

INFRARED
THERMOMETERS



- ▶ Range from -20°C to 500°C
- ▶ 8 to 14 μm
- ▶ Built-in RS485 Modbus RTU interface
- ▶ Configurable emissivity and signal processing
- ▶ MIN / MAX / AVG / instantaneous reading, pick and valley hold
- ▶ 2:1, 15:1, 30:1 CF optics
- ▶ Stainless steel IP 65 housing
- ▶ Optional touch screen terminal (Digimax 180) for configuration, indication, alarm generation and data logging from multiple sensors
- ▶ Optional air/water cooled housing, air purge collar, laser sighting tool, dual laser sighting bracket, mounting brackets...



AOIP SAS

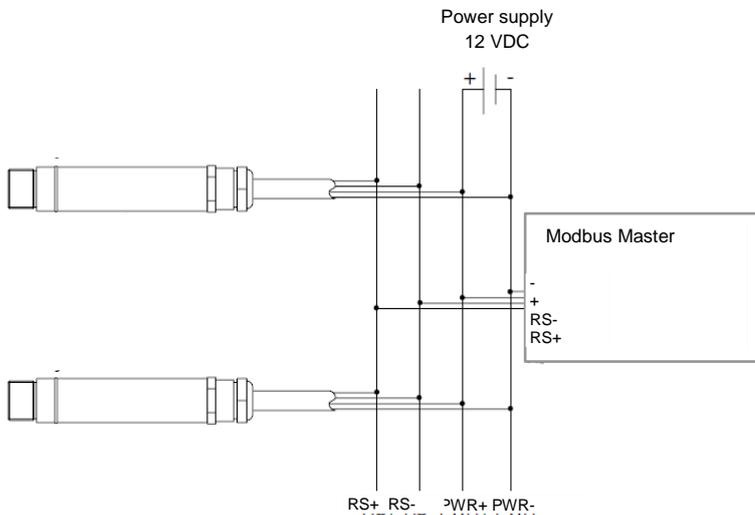
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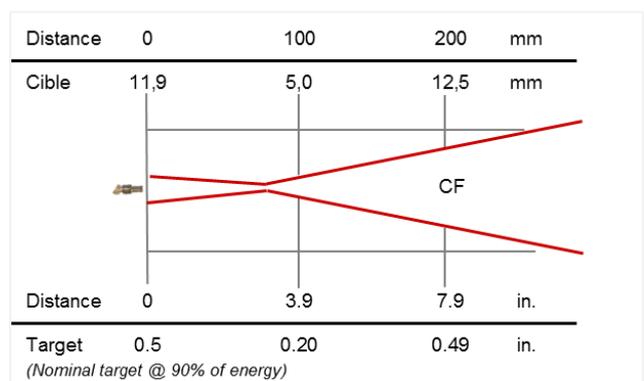
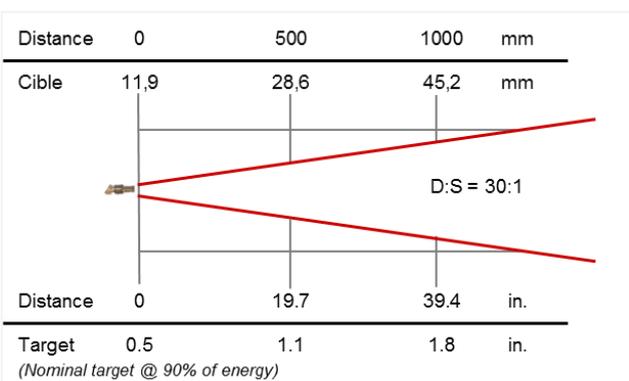
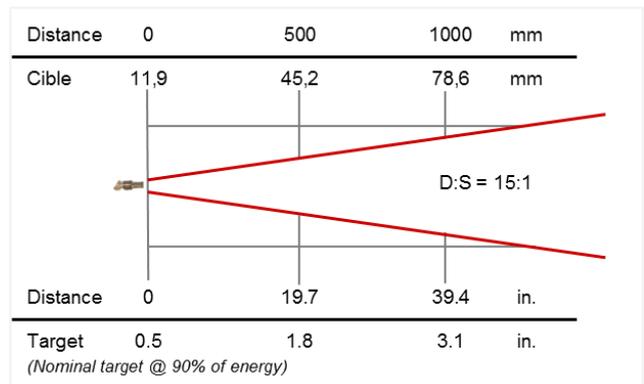
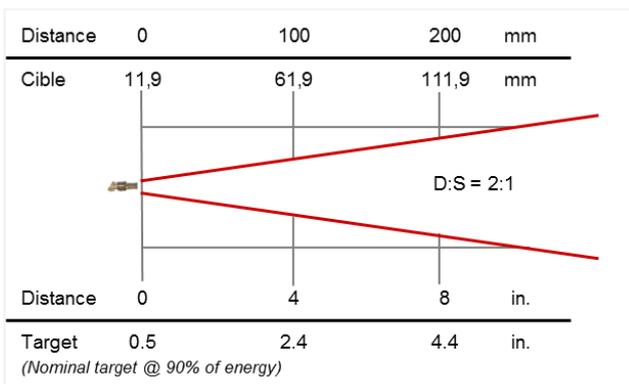
Output connections



Technical specifications

Range	-20 to 500°C
Optics	2:1, 15:1, 30:1, CF
Interface	RS485 Modbus RTU
Accuracy	±1% RDG or 1°C
Repeatability	±0.5% RDG or 0.5°C
Emissivity	From 0.2 to 1.0
Response time	240 ms (90%)
Spectral band	8 – 14 μm
Supply voltage	12 VDC (Max 6 - 13 VDC) 50 mA max
Baud rate	9600°
Format	8 bits, no parity, 1 stop bit (Further formats upon request)
Construction	Stainless steel
Size	Ø 18 x 103 mm
Thread mounting	M16 x 1 mm
Weight with cable	95 g
Cable length	1 m in standard (further in option)
Environmental rating	IP65
Working temperature	0 to 70°C
Relative humidity	95% non-condensing

Optics



Accessories



FBS Fixed mounting bracket
ABS Adjustable mounting bracket



LSTS Laser sighting tool



DLSBFS Dual laser sighting bracket, fixed
DLSBAS Dual laser sighting bracket, adjustable
DLSBCE Extended cable - 1 m



APSW Air purge collar (2:1)
APSN Air purge collar (15:1, 30:1, CF)



WJ Air / Water cooled jacket + air purge collar

Ordering instructions

NET-AA-BB-C/MAN

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
WJ	Air / Water cooled jacket and air purge collar

Table C	Calibration certificate
0	None
1	Factory traceable calibration certificate with data



PWS Protective plastic window in stainless steel holder

Extended cable, up to 29 m extension
PBCE For sensor without WJ option - 1 m
PBCEHT For sensor without WJ option - 1 m

MSD 2 Gb MicroSD card with SD card adapter
DigiMax 180 6-channel touch screen hub
Digimax 240 Panel-mount touch screen terminal, up to 8 sensors
Digimax 240E Same + 4 0-10 VDC + 16 alarm outputs
MBAC Change of Modbus address in factory