

Infrared thermometer with controllable emissivity across 4-20 mA signal

IRtec Rayomatic PE non-contact infrared sensors measure temperatures from -20°C to 500°C and provide a linear 4 to 20mA output. This output signal is compatible with almost any indicator, controller, recorder, data logger etc., without the need for special interfacing or signal conditioning.

The sensor's emissivity setting can be adjusted from 0.2 to 1.0 to cope with different target materials and is controlled by a 4-20 mA input. This gives the opportunity to adjust the emissivity setting automatically from a programmable logic controller (PLC).

Alternatively the emissivity setting can be adjusted manually using the optional DigiMax module. If the 4-20 mA input is left open or short-circuit the emissivity setting defaults to 0.95.

INFRARED
THERMOMETERS



- ▶ Range from -20°C to 500°C
- ▶ 8 to 14 μm
- ▶ 2-wire 4-20 mA output
- ▶ 4-20 mA input to control emissivity setting from 0.2 to 1.0 (Digimax option)
- ▶ 2:1, 15:1, 30:1 and CF optics
- ▶ Stainless steel housing
- ▶ IP65 rating
- ▶ Optional air/water cooled housing, air purge collar, laser sighting tool, dual laser sighting bracket, mounting brackets...



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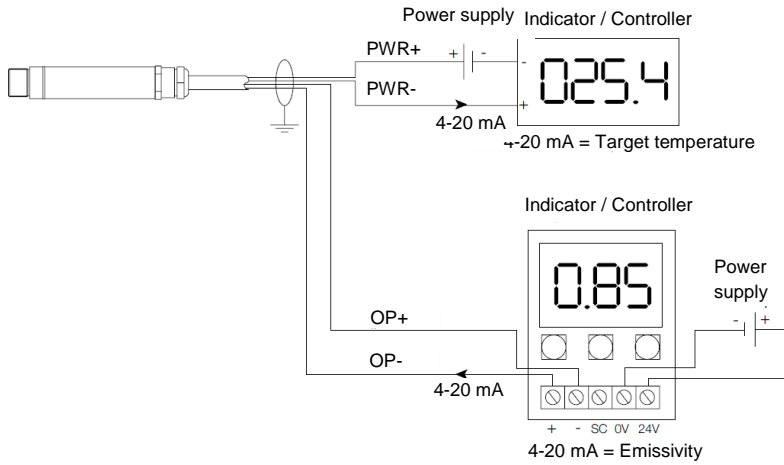
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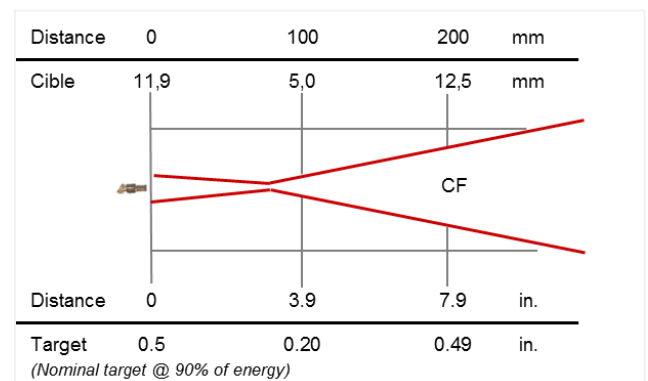
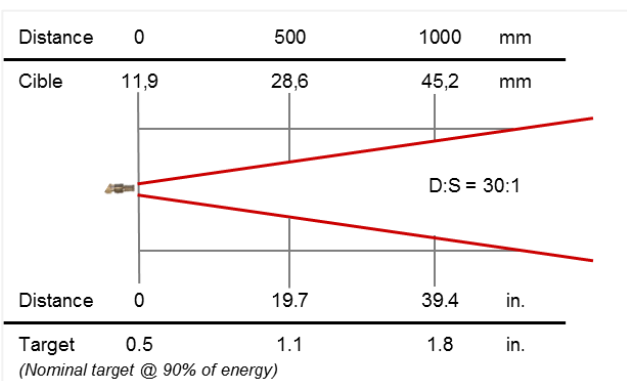
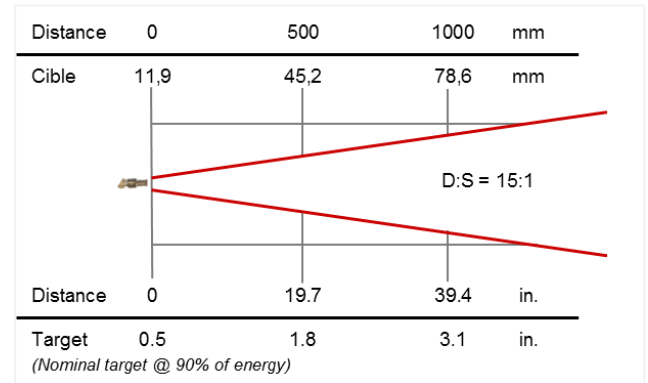
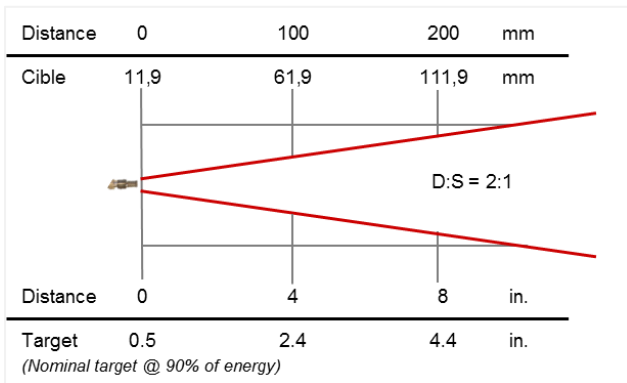
Output connections



Technical specifications

Range	LT: -20 to 100°C MT: 0 to 250°C HT: 0 to 500°C
Optics	2:1, 15:1, 30:1, CF
Output	4-20 mA
Accuracy	±1% RDG or 1°C
Repeatability	±0.5% RDG or 0.5°C
Emissivity	0.2 to 1.0 across 4-20 mA input
Response time	240 ms (90%)
Spectral band	8 – 14 μm
Supply voltage	24 VDC (Max 28 VDC)
Sensor voltage	Min 6 VDC
Loop impedance	900 Ω Max (4-20 mA OUT)
Output impedance	50 Ω
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

PE-AA-BB-CC-D/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	Temperature range
LT	-20°C - 100°C
MT	0 - 250°C
HT	0 - 500°C (not for 2:1 optics)

Table CC	Accessories
NO	None
WJ	Air / Water cooled jacket and air purge collar

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



PWS Protective plastic window in stainless steel holder



DigiMax PE Manual emissivity adjuster
24 VDC supply – 4-20 mA signal

Extended cable, up to 29 m extension
PECE For sensor without WJ option - 1 m
PCCEHT For sensor without WJ option - 1 m