RAYOMATIC USB 2.2

2.2 µm non-contact process sensor with 4-20 mA output and USB connection

Rayomatic USB 2.2 non-contact process sensor measures temperatures from 45°C to 2000°C. The non-contact thermometer is especially suited to low-emissivity targets such as steel rollers and other metal surfaces, even at low temperatures.

- 2.0 to 2.4 µm
- Two-wire 4-20 mA or 0-20 mA selectable output
- Temperature range, emissivity setting... configurable by PC via IRConfig software and USB cable
- Emissivity from 0.1 to 1.0
- 15:1, 25:1, 75:1 and CF optics
- OPC server capabilities
- Data acquisition, alarms and scrolling graphical display
- IP65 stainless steel housing

Description

Rayomatic USB 2.2 non-contact process sensor measures temperatures from 45°C to 2000°C. The 4-20 mA or 0-20 mA output is compatible with almost any indicator, controller, recorder, data logger etc., without the need for special interfacing or signal conditioning.

They are especially suited to low-emissivity targets such as steel rollers and other metal surfaces, even at low temperatures.

Fully configurable by PC, Rayomatic USB 2.2 is supplied with IRConfig software and USB cable. The emissivity and range can be set with the software or adjusted by OPC client.

The sensor can be either connected with the 4-20 mA cable, the USB cable or both.

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Specifications

Infrared temperature measurement

Model	LT	PT	MT	HT
Temperature range	45 to 300°C	100 to 400°C	250 to 1000°C	450 to 2000°C
Spectral response	2.0 - 2.4 µm			
Emissivity	Adjustable from 0.1 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

Datalogging	Data acquisition, alarms and scrolling graphical display
Output	2-wire 4-20 mA or 0-20 mA

General specifications

Size L x l x h	Electronic module: Ø 25 x 106.5 mm Thread mounting: M20 x 1 mm
Weight	175 g with cable
Construction	Stainless steel
Power supply	24 VDC (Max 26 VDC)
Sensor voltage	11 VDC Min
Loop impedance	900 Ω Max
Interfaces	USB

Environmental specifications

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

Models and accessories

Instrument:

Ordering code structure: USB-AA-BB-2.2-CC-D/MAN

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

USB 2.2 Rayomatic USB 2.2

Delivered in standard with:

- IRConfig software
- USB cable
- Output cable
- Instruction manual in English

Table AA Optics - Distance to target

15 Optics 15:1, 100 mm @ 1500 mm (LT & PT only)

25 Optics 25:1, 60 mm @ 1500 mm (MT & HT only)

75 Optics 75:1, 20 mm @ 1500 mm (MT & HT only)

CF Close focus lens, 7.5 mm @ 500 mm (MT & HT only)

Table BB Temperature range

LT 45°C – 300°C (optics 15:1 only)

PT 100°C – 400°C (optics 15:1 only)

MT 250 – 1000°C

HT 450°C – 2000°C

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

Accessories:

FBL Fixed mounting bracket for Rayomatic USB 2.2

ABL Adjustable mounting bracket for Rayomatic USB 2.2

APL Air purge collar for Rayomatic USB 2.2

LSTL	Laser sighting tool for Rayomatic USB 2.2
DLSBFL	Dual laser sighting bracket, fixed, for RAYOMATIC USB 2.2
DLSBAL	Dual laser sighting bracket, adjustable, for RAYOMATIC USB 2.2
DLSBCE	Extended cable for Dual Laser Sighting Bracket - Price for 1 m
PU2.2CE extension	Extended 4-20 mA output cable for uncooled Rayomatic USB 2.2, 1 m, up to 29 m
CALCERT A	Calibration certificate
CALCERT B	Re-calibration and certificate