

SOFTWARE

Easy simple, touch-friendly software, compatible with versions of Windows from Vista onwards. It is supplied with each sensor.

Alternatively, the sensor's Modbus protocol allows it to be used with other Modbus software.

FEATURES

Temperature display

Scrolling temperature chart

Data logging to comma-separated text file, compatible with Excel

Sensor configuration:

- Emissivity setting

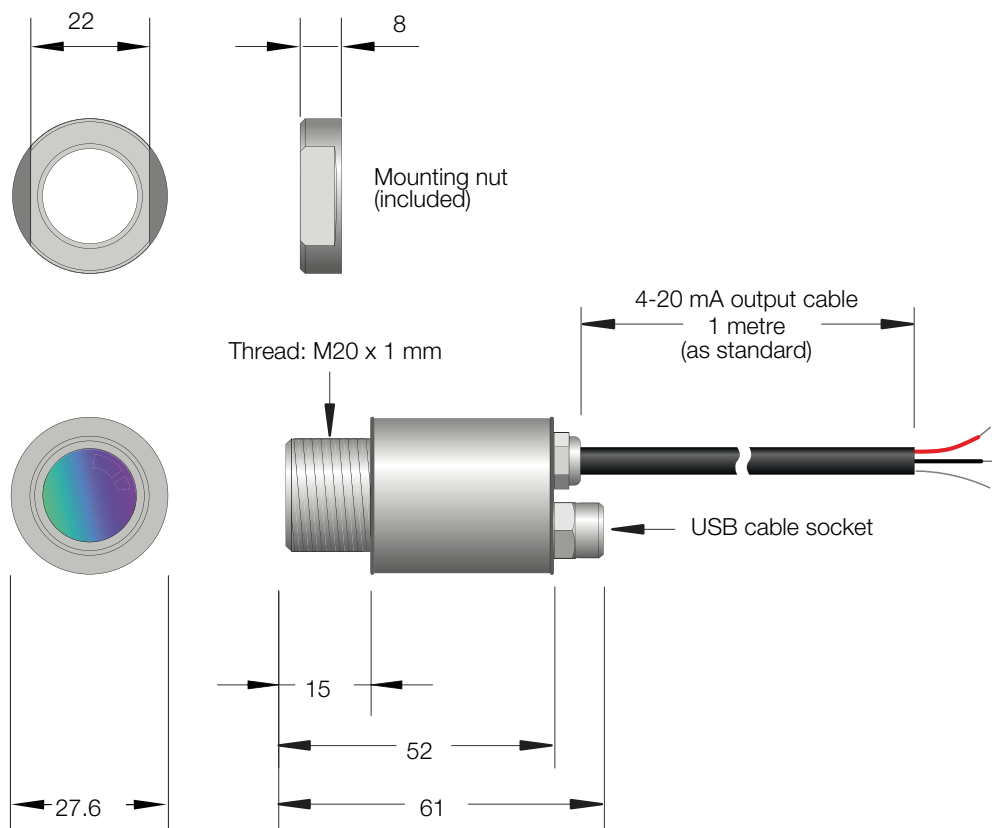
- Averaging

- Peak/valley hold processing

- Reflected energy compensation

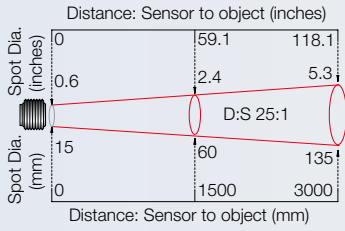
- 4-20 mA output temperature scale

DIMENSIONS



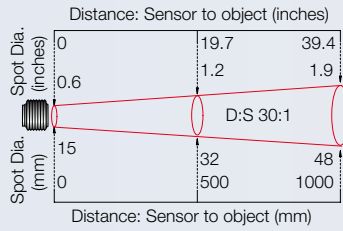
OPTICS Diameter of target spot measured versus distance from sensing head (90% energy)

Optics (PUA2 and PUA5)

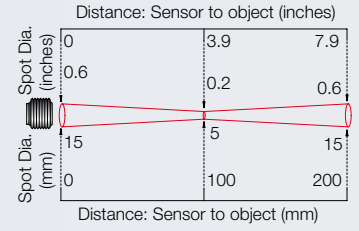


251

Optics (PUA8)

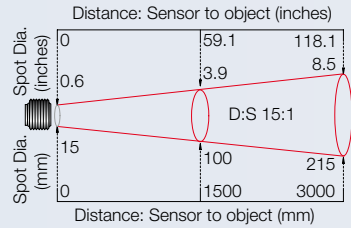


301

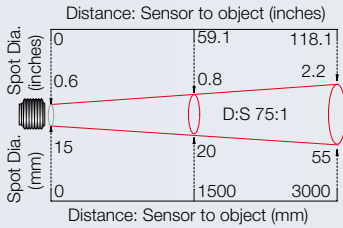


CF

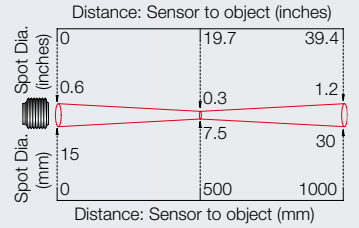
Optics (PUA2)



151



751



CF

GENERAL SPECIFICATIONS

Model	PUA2	PUA5	PUA8
Spectral Response	2.2 μm	5 μm	8 to 14 μm
Application	Ferrous metals and high-temperature targets	Glass	General purpose
Temperature range	Choice of ranges from 45°C to 2000°C	200°C to 1650°C	-40°C to 1000°C
Response time	200 ms		
Output	2-wire, 4-20 mA, linear with measured temperature		
Communications	USB 2.0 (removable USB cable and software included) using the Modbus protocol		
Optics	Choice of divergent or focused optics for small or large targets at short or long distances (see Optics)		
Accuracy	± 2°C or 1% of reading, whichever is greater	± 1°C or 1% of reading, whichever is greater	
Repeatability	± 0.5°C or 0.5% of reading, whichever is greater		
Emissivity Setting	0.1 to 1.0		
Minimum Span (4-20 mA output)	Full temperature range		
Minimum Span (4-20 mA output)	100°C		

ELECTRICAL

Supply Voltage	24 V DC (28 V DC max)
Sensor Voltage (minimum)	6 V DC
Maximum Loop Impedance	900 Ω @ 24 V DC

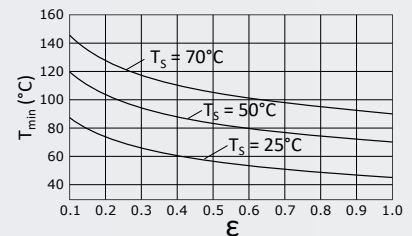
MECHANICAL

Construction	Stainless Steel
Dimensions	Ø 27.6 x length 61 mm including cable glands
Thread mounting	M20 x 1 mm pitch, length 15 mm
4-20 mA Output Cable Length	1 m (standard), up to 30 m (optional)
Weight with 1 m Output Cable	155 g
USB Cable Length	1.8 m

ENVIRONMENTAL

Environmental Rating	IP65
Ambient (Operating) Temperature	0°C to 70°C (cooled models are available for higher temperatures)
Relative Humidity	95% max. non-condensing

MINIMUM MEASURABLE TEMPERATURE
(PUA2-151-LT ONLY)



Graph showing the minimum measurable object temperature (T_{min}), determined by surface emissivity (ε) and sensor temperature (T_s).

MODEL NUMBERS

Short Wavelength	PUA2	-	251	-	MT	-	WJ
Glass	PUA5	-	251	-	GHT	-	WJ
General Purpose	PUA8	-	301	-		-	WJ



Cooling

(blank) Sensor without cooling
WJ Air/water cooled jacket with air purge collar

Temperature range

PUA2

LT 45°C to 300°C
(151 models only)

PT 100°C to 400°C
(151 models only)

MT 250°C to 1000°C
HT 450°C to 2000°C

PUA5

GHT 200°C to 1650°C

PUA8

(blank) All models:
-40°C to 1000°C

Field of view

PUA2

151 15:1 divergent optics (LT & PT models only)

251 25:1 divergent optics

751 75:1 divergent optics

CF Close-focus optics (focal spot size 7.5 mm at 500mm distance)

PUA5

251 25:1 divergent optics

PUA8

301 30:1 divergent optics

CF Close-focus optics (focal spot size 5 mm at 100mm distance)

Spectral response

PUA2 2.2 μm, for measuring reflective metals and high-temperature objects

PUA5 5 μm, for measuring glass surface temperature

PUA8 8 to 14 μm, general-purpose, for most other applications

ACCESSORIES



Laser Sighting Tool **LSTL**



Adjustable mounting bracket **ABL**



Air/water cooled housing **WJ**



Air purge **APL**



Dual laser sighting bracket **DLSBFL/DLSBAL**



Protective Window **PWL**

ACCESSORIES ALSO AVAILABLE

Fixed mounting bracket **FBL**

Extended analogue output cable (30 m max):

- for PyroUSB models without cooling **PUACE**

- for PyroUSB WJ models **PUACEHT**

3-point calibration certificate **CALCERTA**