# PyroEpsilon

## Pyrometer with 4-20 mA Output and Adjustable Emissivity Setting



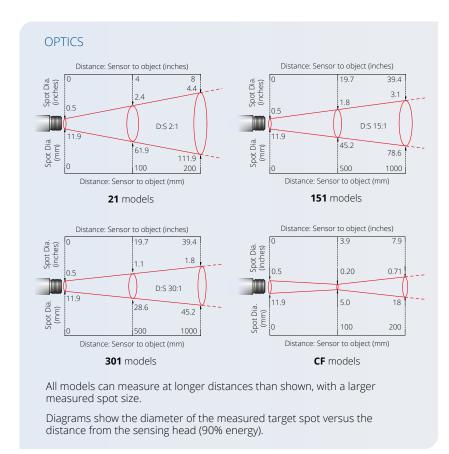
- Temperature ranges from -20°C to 500°C
- Two-wire 4-20 mA output
- Adjustable emissivity via continuously variable 4-20 mA input - measure a wide range of target materials
- Choice of precision optics for large or small targets
- Fast response with high stability
- Stainless steel housing, sealed to IP65
- Quick and easy installation
- Wide range of accessories
- Conforms to industrial EMC standards

The PyroEpsilon is a simple infrared temperature sensor with an adjustable emissivity setting. It is ideal if the target is partially reflective.

The emissivity setting is adjustable via a two-wire 4-20 mA input, and can be adjusted continuously using a variable 4-20 mA source.

To set the emissivity manually, the optional PyroTune emissivity adjuster is available. The sensor is also compatible with PLC outputs or indicating controllers that can provide a 4-20 mA signal.

If no 4-20 mA input is provided, the emissivity setting will revert to 0.95, making the sensor suitable for measuring non-reflective non-metal materials (or painted metals) out of the box.



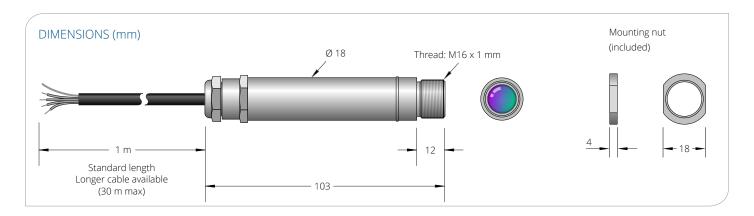
#### **SPECIFICATIONS**

General	
Output	Two-wire 4-20 mA
Temperature Range	LT = -20 to 100 °C MT = 0 to 250 °C HT = 0 to 500 °C
Accuracy	±1% of reading or ±1°C, whichever is greater
Repeatability	± 0.5% of reading or ± 0.5°C, whichever is greater
Emissivity Setting	Variable 0.2 to 1.0 via continuous 4-20 mA input
Response Time	240 ms (90% response)
Spectral Range	8 to 14 μm
Supply Voltage (at Sensor)	6 V DC to 28 V DC
Max. Loop Impedance	900 Ω (output loop)
Input Impedance	50 Ω (input loop)
Max. Current Draw	20 mA

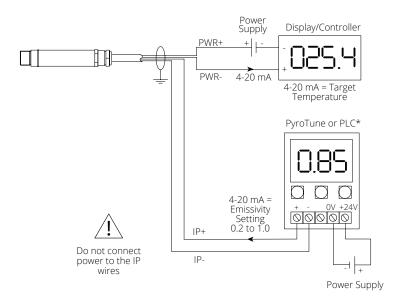
Mechanical	
Construction	Stainless Steel
Dimensions	18 mm diameter x 103 mm long
Thread Mounting	M16 x 1 mm pitch
Cable Length	1m (longer lengths available to order)
Weight with Cable	95 g

Environmental	
Environmental (IP) Rating	IP65
Ambient (Operating) Temperature Range	0°C to 70°C
Ambient (Operating) Humidity	95% max. non-condensing





#### **CONNECTIONS**



\* A choice of indicating controllers, providing emissivity adjustment for the PyroEpsilon sensor, as well as temperature display and relay outputs, is also available. Contact Calex for more information.

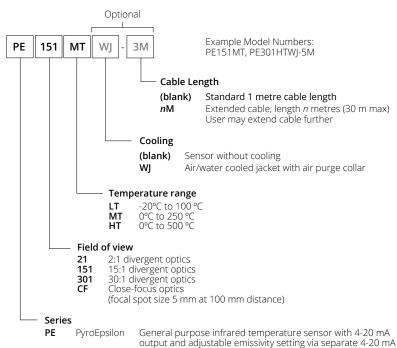
#### **PYROTUNE**



The optional PyroTune emissivity adjuster provides a continuous 4-20 mA current signal to the PyroEpsilon sensor. Simple push-button controls allow the emissivity setting to be adjusted. The built-in LCD display shows the emissivity or mA value.

PyroTune Specifications	
Output	4-20 mA for emissivity adjustment of PyroEpsilon sensor
Supply Voltage	24 V DC (13 to 28 V DC)
Display Format	3.5 Digit LCD
Display Units	Emissivity (0.2 to 1.0) or current (4-20 mA)
Adjustment	Push buttons (raise, lower, set)
Construction	Polycarbonate with gasket
Dimensions	65 (h) x 50 (w) x 35 (d) mm
Weight	72 g
IP Rating	IP65
Ambient Temp.	0°C to 70°C (operating temperature)
Relative Humidity	95% max (non condensing)

#### **MODEL NUMBERS**



### ACCESSORIES



Laser sighting tool  ${\bf LSTS}$ 



Fixed mounting bracket **FBS** 



Air or water cooled jacket with air purge collar **WJ** (factory-fitted - see Model Numbers)



Dual laser sighting bracket, adjustable **DLSBAS** or fixed **DLSBFS** 



Adjustable mounting bracket **ABS** 



Air purge collar for 2:1 optics **APSW** or for all other optics (shown above) **APSN** 

