

# PyroSigma

## Miniature Pyrometer with Built-In Display



- Industrial infrared temperature sensor
- Temperature range 0°C to 1000°C
- Built-in OLED temperature display
- Fully configurable via push-button controls
- Voltage and alarm outputs
- Precision optics with narrow viewing angle
- Fast 125ms response with high stability
- Rugged aluminium and ABS housing
- Extremely small size: 30 x Ø31 mm
- Low cost and high performance

### SPECIFICATIONS

General	
Measurement Temperature Range	0°C to 1000 °C
Analogue Output	Selectable 0-5, 1-5 or 0-10 V DC, linear with measured temperature, rescalable via display & controls
Alarm Output	Open collector alarm output with adjustable temperature threshold and hysteresis
Accuracy	± 1.5% of reading or ± 1.5°C, whichever is greater
Repeatability	± 0.5% of reading or ± 0.5°C, whichever is greater
Emissivity Setting	Adjustable 0.20 to 1.00 via display & controls
Response Time	125 ms
Spectral Range	8 to 14 µm
Supply Voltage (at Sensor)	24 V DC 6 V DC to 28 V DC (12 V DC minimum if using 0-10 V output)
Max. Supply Voltage (at Sensor)	28 V DC
Min. Supply Voltage (at Sensor)	6 V DC
Max. Current Draw	30 mA
Max Temperature Span (Linear Output)	1000°C (full temperature range)
Min Temperature Span (Linear Output)	100°C
Open Collector Alarm Output	6 to 24 V DC, 50 mA max (see Connections)

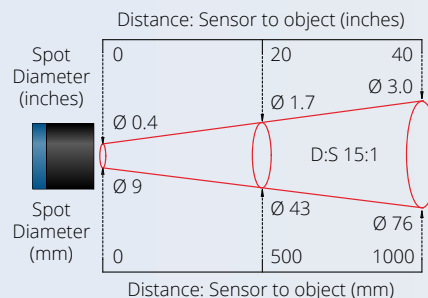
Mechanical	
Construction	Black anodised aluminium and blue ABS
Cable Length	1 m as standard (longer lengths available to order)
Weight with 1 m Cable	65 g

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

Configuration	
Configurable Parameters	<ul style="list-style-type: none"> <li>• Temperature range (linear output)</li> <li>• Alarm output threshold and hysteresis</li> <li>• Emissivity setting</li> <li>• Reflected temperature</li> </ul>
Temperature Units	°C / °F
Signal Processing	Averaging Period (0.25 to 60 seconds)
Peak/Valley Hold	Hold Period (0.25 to 1200 seconds)

Configuration	
Electromagnetic Compatibility (EMC)	EN61326-1, EN61326-2-3 (Electrical Equipment for Measurement, Control and Laboratory Use - EMC Requirements)
RoHS Compliant	Yes

### OPTICS

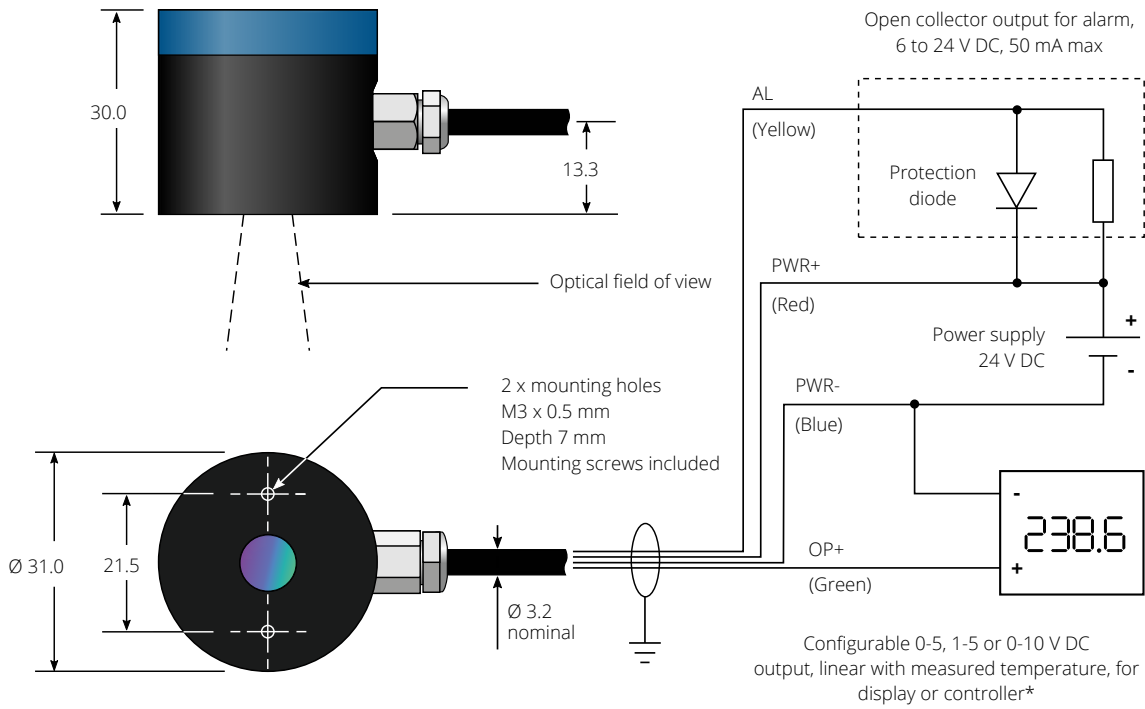


The sensor can measure at longer distances than shown, with a larger measured spot size.

Spot sizes shown are for 90% energy.



## DIMENSIONS AND CONNECTIONS

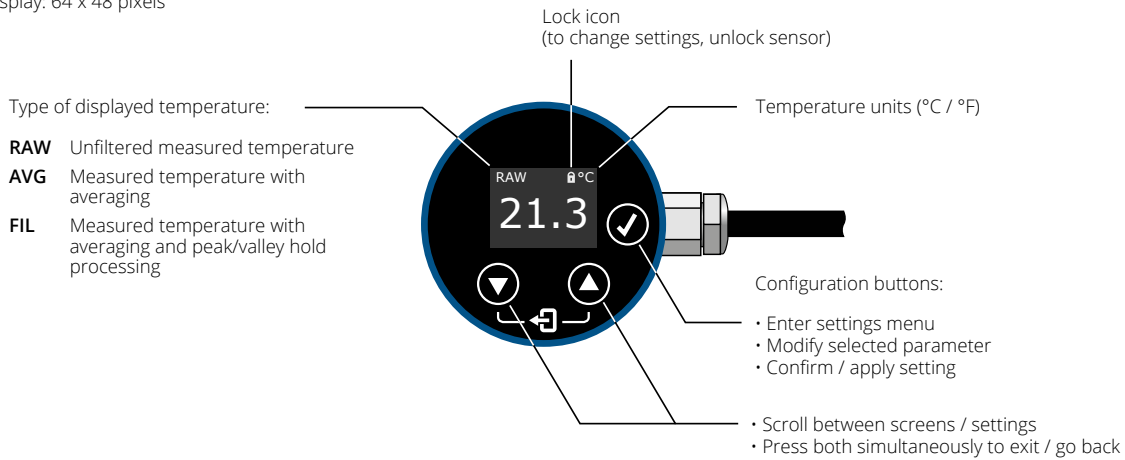


\* A choice of indicating controllers, providing temperature display and relay outputs, is also available. Contact Calex for more information.

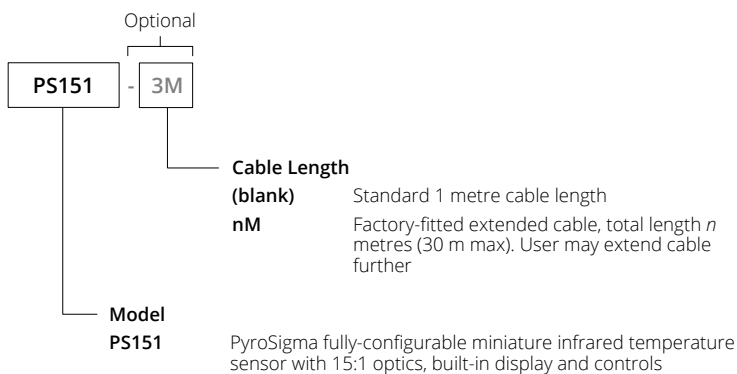
All dimensions in mm

## DISPLAY AND CONTROLS

OLED display: 64 x 48 pixels



## MODEL NUMBERS



## ACCESSORIES



Adjustable mounting bracket **ABN** (pictured)

Fixed mounting bracket **FBN**



Air purge collar **APN**



**thermo-electra**  
temperature sensor solutions

Weteringweg 10, 2641 KM Pijnacker, The Netherlands  
Phone: +31 15 362 12 00, E-mail: mail@thermo.nl  
www.thermo-electra.com