

# ALPHA (AES) PYROCOUPLE CONTACTLESS TEMPERATURE MEASUREMENT

## Smartphone Configurable Infrared Temperature Sensor



- Non-contact industrial temperature sensor
- Fully configurable via iOS / Android app
- Choice of voltage or thermocouple outputs
- Simultaneous open collector alarm output
- Measures from 0°C to 1000°C, accurately and consistently
- Extremely small, with side-entry cable: ideal for mounting in tight spaces
- Fast response time: 125 ms
- Low cost, high performance
- Operates in ambient temperatures up to 80°C without cooling
- Form factor optimised for brake testing applications, plus many others

### APP FEATURES



- Read the measured temperature from PyroNFC sensors
- Instantly configure PyroNFC sensors without powering them
- Simply touch the sensor with the device to communicate
- Compatible with NFC-equipped Android and iOS devices
- Get the app free from Google Play Store or Apple App Store (search "PyroNFC")

### GENERAL SPECIFICATIONS

#### Temperature Range Output

0 to 1000°C (rescalable on model PN151)

**Model AES151:** 0-5 V DC, 1-5 V DC or 0-10 V DC, linear with measured temperature, configurable and rescalable via app

**Model AES151K:** Type K Thermocouple

#### Alarm Output

Open collector alarm output with temperature threshold and hysteresis, configurable via app

#### Field of View

15:1 (see OPTICS)

#### Accuracy

± 1.5% of reading or ± 1.5°C, whichever is greater

#### Repeatability

± 0.5% of reading or ± 0.5°C, whichever is greater

#### Response Time

125 ms (90% response)

#### Configuration

Via iOS/Android app using NFC-equipped smartphone/tablet

#### Emissivity Setting

Adjustable 0.2 to 1.0 via app

#### Max Span (Voltage Output Range)

1000°C

#### Min Span (Voltage Output Range)

100°C

#### Spectral Range

8-14 μm

#### Max. Supply Voltage

28 V DC

#### Min. Supply Voltage (at Sensor)

12 V DC (for 10 V output)  
6 V DC (for 5 V or thermocouple output)

#### Max Current Draw

7 mA

### ENVIRONMENTAL & CONFORMITY SPECIFICATIONS

#### Environmental Rating

IP65

#### Ambient Temperature Range

0°C to 80°C

#### Relative Humidity

95% max. non-condensing

#### Electromagnetic Compatibility

EN61326-1, EN61326-2-3 (Electrical Equipment for Measurement, Control and Laboratory Use - EMC Requirements - Industrial)

#### RoHS Compliant

Yes

### APP SPECIFICATIONS

#### Configurable Parameters

Temperature range (linear output)  
Linear voltage output type and scale  
Alarm output threshold and hysteresis  
Emissivity setting  
Reflected temperature

#### Temperature Units

°C / °F

#### Signal Processing

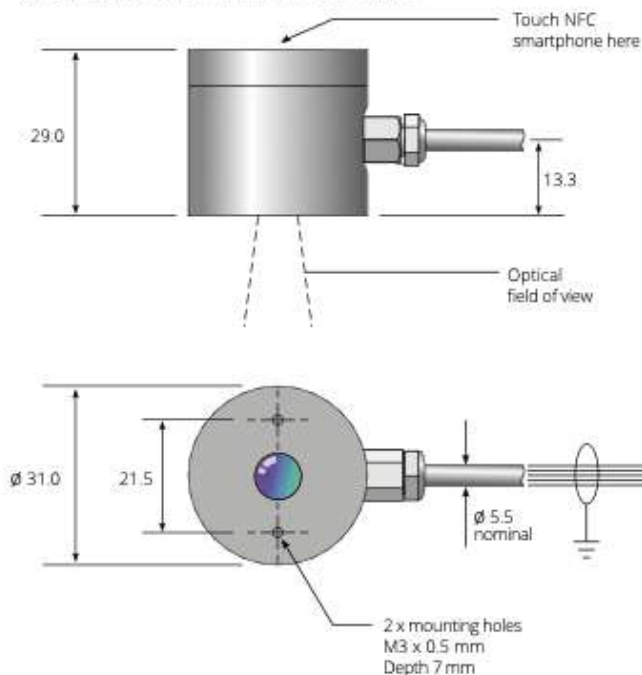
Averaging Period (0.125 to 60 seconds)  
Peak / Valley Hold  
Hold Period (0.125 to 1200 seconds)

#### Temperature Measurement

Touch NFC device against sensor for in-app temperature updates (updates continuously on Android)

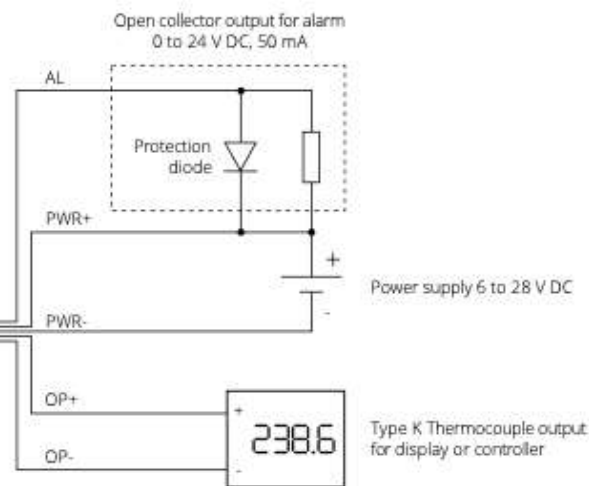
## DIMENSIONS AND CONNECTIONS

### MODELS WITH TYPE K THERMOCOUPLE OUTPUT

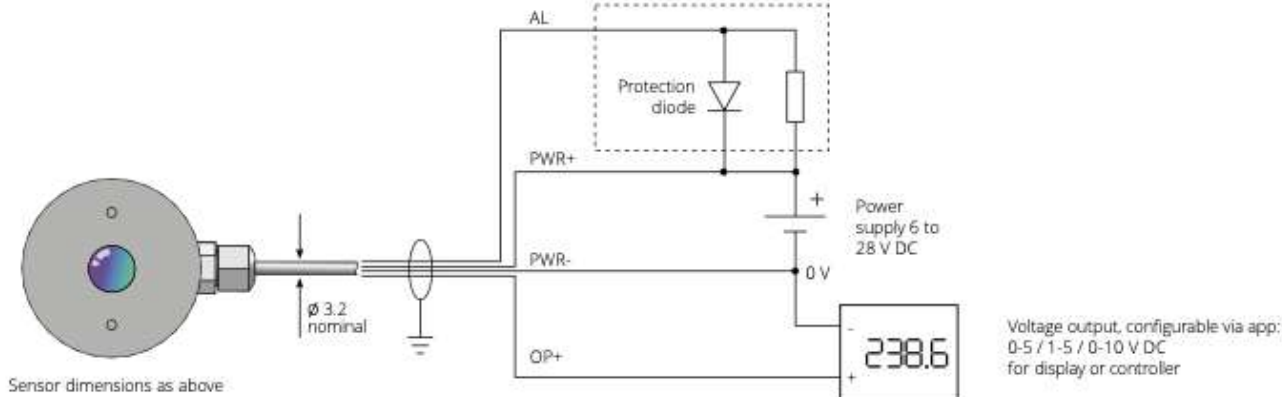


## MECHANICAL SPECIFICATIONS

<b>Construction</b>	Black anodised aluminium and ABS
<b>Cable Length</b>	1 metre standard (longer lengths available to order)
<b>Weight</b>	65 g including 1 m cable

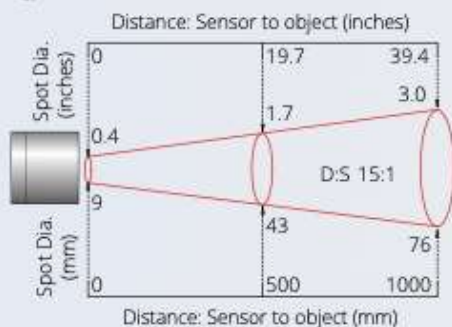


### MODELS WITH VOLTAGE OUTPUT



## OPTICS

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



## ACCESSORIES

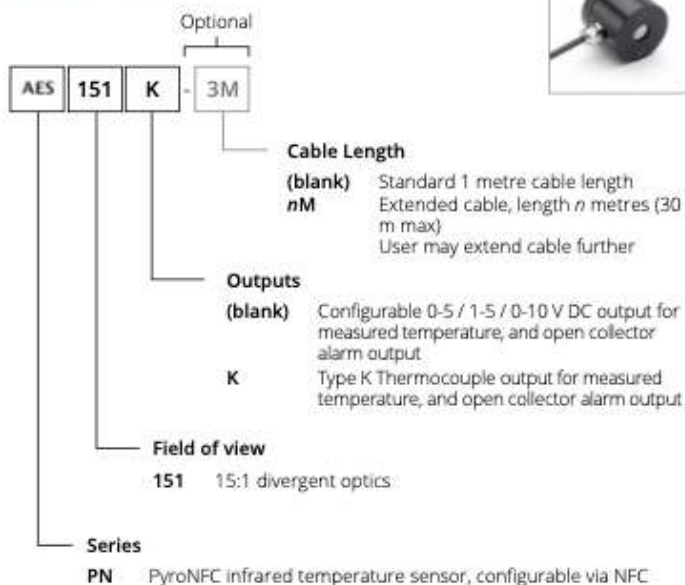
Fixed mounting bracket **FBN**

Adjustable mounting bracket **ABN**

Air purge collar **APN**

3-point UKAS traceable calibration certificate **CALCERTA**

## MODEL NUMBERS



ALPHA ENGINEERING AND SYSTEMS