

CALEX
ELECTRONICS LIMITED

Product Summary



innovative infrared **temperature sensors**
and **instrumentation**



PyroSigma

Miniature pyrometer with built-in display

0°C to 1000°C

Selectable voltage output

Fully configurable via built-in display and controls

Choose this sensor if:

Available space is limited

You need a small, low-cost sensor

You want to see the measured temperature in-situ



PyroCouple, PyroEpsilon

Small, one-piece pyrometers

-20°C to 500°C

Simple, low-cost

Choice of digital or analogue outputs, including thermocouple

Choose these sensors if:

You do not need any special features

Your target is a non-reflective non-metal, or is painted



PyroNFC

Smartphone-configurable pyrometer

0°C to 1000°C

Voltage, thermocouple and alarm outputs for process instrumentation

Read the temperature and configure the sensor via Android app

Choose this sensor if:

You need a very small, low-cost sensor

You need a voltage output

You want to perform spot checks on the sensors



PyroEpsilon

Pyrometer with 4-20 mA output and adjustable emissivity setting

-20°C to 500°C

Two-wire, 4-20 mA output

Adjustable emissivity via continuously variable 4-20 mA input

Choose these sensors if:

You would like to adjust the emissivity via a 4-20 mA signal

Your target is partially reflective



PyroUSB

PC configurable, with 4-20 mA output

-40°C to 2000°C

Wide temperature ranges

Analogue and USB outputs

Choose this sensor if:

You need to measure below -20°C

You need to measure bare metals below 100°C

You need to measure the temperature of glass, or measure through a glass window



PyroMiniUSB

For PC based data acquisition

-20°C to 1000°C

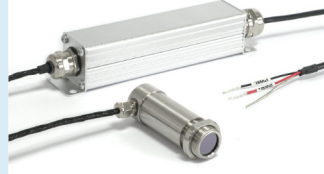
Use the included software, or use your own

Ideal for benchtop, laboratory and education

Choose this sensor if:

You need a small, low-cost benchtop sensor

You need to connect the sensor directly to your own software



PyroMini OEM

Low-cost pyrometer for machine manufacturers

Miniature sensing head with right-angled cable entry and separate electronics module

Sensing head withstands 120°C ambient temperature

Choice of current, voltage or thermocouple outputs

Choose this sensor if:

You need a small, low-cost sensor

You are measuring a non-reflective non-metal surface



PyroMiniBus

Pyrometer with RS485 Modbus for multi-channel systems

-20°C to 1000°C

RS485 Modbus RTU direct to sensor
Optional display, analogue and relay output modules

Install as a standalone system or connect to a Modbus network
Ideal for continuous process temperature monitoring

Choose this system if:

You need to monitor multiple points

You need a simple, all-in-one solution, or you have an existing Modbus PLC or SCADA



PyroMini

Touch screen, data logging and more

-20°C to 2000°C

Miniature sensing head and optional touch screen

Optional high-ambient sensing heads

Choose this sensor if:

You need alarm relay outputs

You need to view the temperature or log data

The air temperature is hot (up to 180°C)



ExTemp

Safe in hazardous areas

-20°C to 1000°C

Certified Intrinsically Safe for explosive atmospheres

4-20 mA two-wire output, USB configuration

Optional USB configuration tool and RS485 network adapter

Choose this sensor if:

You need an ATEX, IECEx or TIIS certified sensor



PyroCV

For construction vehicles

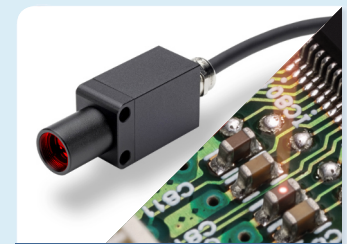
-20°C to 500°C

CAN communications or a 0-5 V DC output

Conforms to EMC standards for construction machinery

Choose this sensor if:

You need a sensor for construction vehicles



PyroCube XS

For extremely small targets

0°C to 500°C

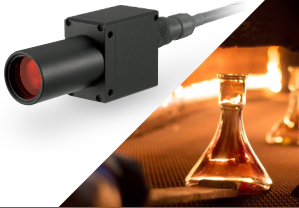
Extremely small measured spot size (0.7 mm or 1.0 mm)

Built-in LED aiming light

Choose this sensor if:

You need an extremely small measured spot size (smaller than 1.6 mm)

You need continuous aiming



PyroCube G

For fast, precise measurements of glass surface temperature

Specialised measurement wavelength for glass

Fast response time and small measurement area

Built-in LED aiming light

Choose this sensor if:

You need a faster response time than 200 ms

You need to measure a small area on the surface of glass

You need continuous aiming



PyroCube P

For thin plastic film

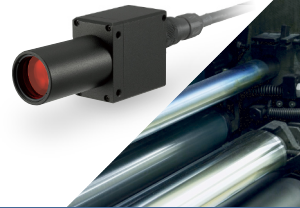
Specialised measurement wavelength for plastic film

Fast response time and small measurement area

Built-in LED aiming light

Choose this sensor if:

You need to measure the temperature of plastic film



PyroCube M

For measuring metals with a small spot size and fast response

Specialised measurement wavelength for metals

Fast response time and small measurement area

Built-in LED aiming light

Choose this sensor if:

You need to measure a small area on a bare metal surface

You need a faster response than 200 ms

You need continuous aiming



PyroCube S, F

For small targets and fast measurements

0°C to 500°C

Small measured spot size (from 1.6 mm)

Fast response time (1 ms / 10 ms)

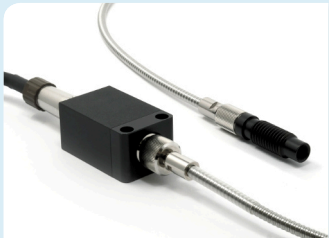
Built-in LED aiming light

Choose this sensor if:

You need a faster response time than 240 ms

You need to measure an area smaller than 10 mm

You need continuous aiming



FibreCube

High-performance fibre optic pyrometer

100°C to 2000°C

Specialised for measuring metals and high temperatures

Fast 1 ms response time and choice of precision optics for small or large targets

Choose this thermometer if:

You need to measure high-temperature bare metal surfaces with an aiming light and fast response time, or if the ambient temperature is high (up to 150°C)



Excellog One

Miniature data logger and simulator

1 x Thermocouple input

Miniature, single-channel, dual-function thermocouple data logger and simulator

Choose this data logger if:

You need to measure, log and calibrate thermocouple equipment with one compact device



Excellog 6

Data logger with SD Card storage

4 x thermocouple inputs

2 x RTD inputs

Touch screen display

Built-in rechargeable battery

USB connection for live logging

Mains power adapter/charger

On-screen alarms

Choose this data logger if:

You need to log data from sensors with thermocouple output, or RTDs



BB976 and BB982

Blackbody calibration sources

Variable temperature:

-20°C to 125°C (BB982)

30°C to 550°C (BB976)

Extremely high emissivity > 0.995

Built-in temperature indicator

Choose this blackbody if:

You need the highest possible temperature accuracy



FTK

Portable infrared temperature checker

Choice of fixed temperatures from 35°C to 150°C

Quick, accurate way to check calibration of IR sensors

Compact and portable

Choose this blackbody if:

You need a small, portable calibration device

You need the lowest-cost option



PM180

6-channel Modbus indicator for Calex sensors

Temperature display and configuration for up to 6 sensors

Optional relay and analogue output modules

Connect as a slave device to another network

Data logging to MicroSD Card

Compatible with PyroMiniBus, PyroMini BB/BRT, FibreMini BRT

Choose this indicator if:

You need local display for multiple infrared temperature sensors



ATR124

Panel-mounted indicating PID controller

3-digit white LED display, panel mounted

Universal input for thermocouple, RTD, mA or V

Relay, SSR outputs, dual setpoints

RS485 Modbus

Configurable via buttons or NFC

Choose this indicating controller if:

You need the lowest-cost indicator or controller



ATR244

Multi-function indicating PID controller

Dual 4-digit displays, panel mounted

Universal input for thermocouple, RTD, mA or V

Relay, analogue, SSR outputs

RS485 Modbus

Configurable via buttons or NFC

Choose this indicating controller if:

You need 3 relay outputs

You need analogue retransmission of the process value

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