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 don't 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

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)

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

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

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

PyroCAN
Pyrometer with CAN Bus communications

-20°C to 1000°C

Raw CAN protocol
Ideal for vehicle-based applications in industry, agriculture and automotive testing

Choose this sensor if:
You need a sensor with CAN Bus communications

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 while taking measurements

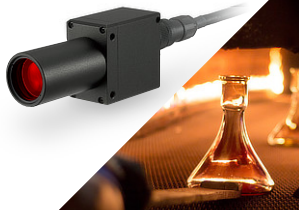## PyroCube XS
For extremely small targets

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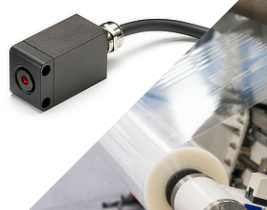You need an extremely small measured spot size (smaller than 1.6 mm)

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
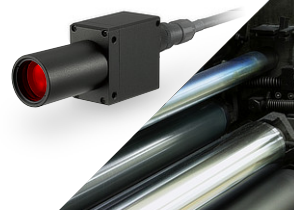
You need to know where the sensor is being aimed

PyroCube P
For thin plastic film

Specialised measurement wavelength for plastic film

Fast reponse 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 to know where the sensor is being aimed

Excelog 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

ST642
Handheld IR thermometer with Type K thermocouple input

-35°C to 550°C

Laser sighting

Type K thermocouple input

Tripod mounting thread

Adjustable emissivity

Choose this thermometer if:

You need an IR thermometer with a thermocouple input

You need a fully adjustable emissivity setting

ST633
Low-cost pocket-sized IR thermometer

-32°C to 535°C

10-point memory

Backlit display

Three selectable emissivity settings

Choose this thermometer if:

You need the lowest-cost thermometer

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

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

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

DRR244
DIN rail mounted indicating PID controller

Dual 4-digit displays, DIN rail or wall mounted

Relay, analogue, SSR outputs, RS485 Modbus

Easy configuration via app

Emissivity adjustment for PyroEpsilon

Choose this indicating controller if:

You need a DIN rail or wall mounted device

You need analogue retransmission of the process value

ATR121
Panel-mounted indicating PID controller

3-digit display, panel mounted
Relay, SSR outputs

Time-proportioned open/close logic for PID

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

Relay, analogue, SSR outputs
RS485 Modbus and NFC comms

Choose this indicating controller if:

You need 3 relay outputs

You need a quick, easy way to configure the controller

You need analogue retransmission of the process value

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