

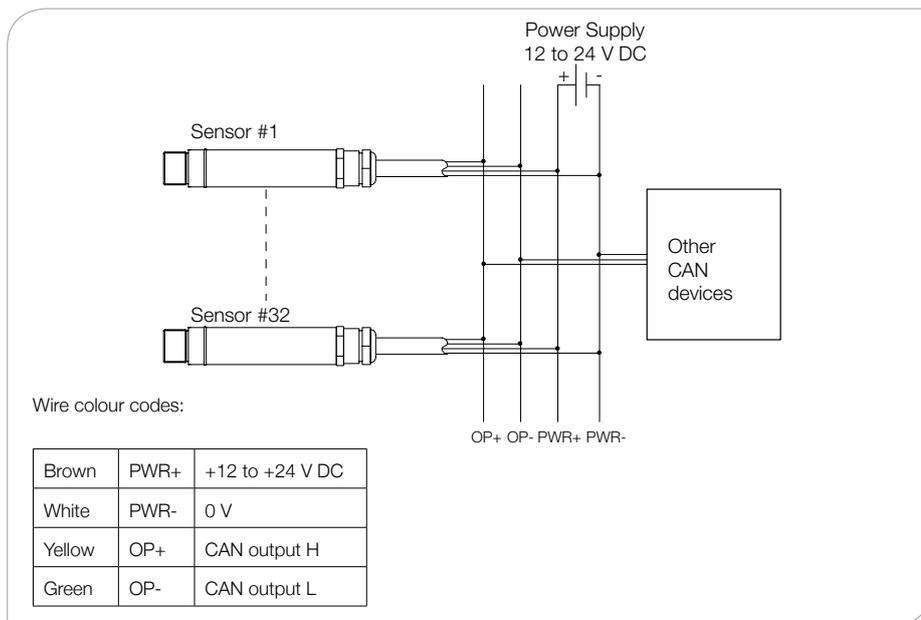
PyroCAN

Infrared Temperature Sensor with CAN Bus Interface



shown actual size

- Temperature range: -20°C to 1000°C
- Raw CAN communications
- Adjustable emissivity setting for measuring a variety of materials
- Fast 200 ms sample rate with high stability
- Stainless steel housing, sealed to IP65
- Ideal for onboard vehicle temperature monitoring, and many other applications



The PyroCAN series is a range of general-purpose infrared temperature sensors (pyrometers) that measure the temperature of surfaces without contact.

The temperature is transmitted digitally every 200 ms via a CAN interface. The sensor's CAN ID and emissivity setting may be changed via a CAN command.

The sensor is suitable for measuring a variety of non-metal surfaces, including painted materials, rubber, plastics, asphalt, soil, plants, organic materials, food and pharmaceuticals. Metals can be measured if they are painted or heavily oxidised.

The PyroCAN is easily connected to existing networks with other CAN devices. It is ideal for vehicle-based applications in automotive testing, motorsport testing, industry and agriculture, among many others.

All PyroCAN sensors have precision silicon optics, with a well-defined measurement area. The sensor measures the average temperature within the measured spot shown above. A larger spot is measured at longer distances. The sensor is capable of measuring at longer distances than shown, with a larger measurement area.

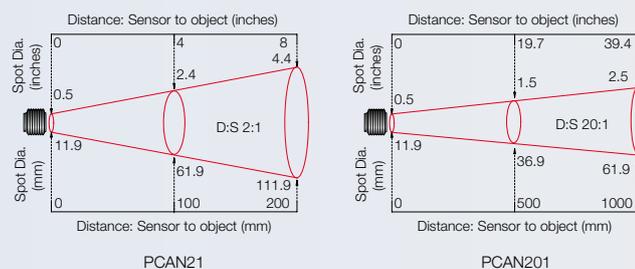
The wide-angle 2:1 optics of model PCAN21 provide a relatively large measurement area. They are ideal if the target is large, or the sensor is positioned very close to the measured surface.

The general-purpose 20:1 optics of model PCAN201 provide a small, precise measurement area.

Accessories for laser sighting are available, either to aid aiming during installation, or for continuous indication of the measurement area.

OPTICS

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



GENERAL SPECIFICATIONS

Temperature Range	-20°C to 1000°C
Interface	Raw CAN
Accuracy	±1% of reading or ±1°C whichever is greater
Repeatability	± 0.5% of reading or ± 0.5°C whichever is greater
Emissivity	0.2 to 1.0, adjustable via CAN
Response Time, t₉₀	< 200 ms (90% response)
Spectral Range	8 to 14 µm
Supply Voltage	12 to 24 V DC
Supply Current	50 mA max.
Baud Rate	250 kbps

MECHANICAL

Construction	Stainless Steel
Dimensions	18 mm diameter x 103 mm long
Thread Mounting	M16 x 1 mm pitch
Cable Length	1 m
Weight with Cable	95 g

ENVIRONMENTAL

Environmental Rating	IP65
Ambient Temperature	0°C to 90°C
Relative Humidity	95% max. non-condensing

ACCESSORIES

FIXED MOUNTING BRACKET



The L-shaped fixed mounting bracket offers a rigid support for the sensor and allows fine adjustment in a single plane.

ADJUSTABLE MOUNTING BRACKETS



The adjustable mounting bracket consists of a fixed mounting bracket plus another L-shaped bracket. When assembled as shown the adjustable mounting bracket offers a rigid support for the sensor

and allows fine adjustment in two planes.

AIR PURGE COLLAR



The air purge collar is used to keep dust, fumes, moisture and other contaminants away from the lens. Air flows into the fitting on the side and out of the aperture at the front.

AIR/WATER COOLED HOUSING



The air/water cooled housing allows the sensor to withstand ambient temperatures which exceed the normal 90°C limit. Air or water (depending on the degree of cooling

required) flows into one of the fittings on the side and out of the other. To prevent condensation forming on the lens, the air/water cooled housing is supplied complete with an air purge collar. Please note, the air/water cooled housing must be ordered with the sensor and cannot be fitted by the user.

LASER SIGHTING TOOL



The Laser Sighting Tool screws onto the front of the sensor during installation and indicates precisely where the sensor is aiming. Once the sensor has been aimed at the centre

of the target and locked in position the Laser Sighting Tool can be removed. The laser is activated by means of a push button on the front of the tool which has a latching mechanism.

DUAL LASER SIGHTING BRACKET



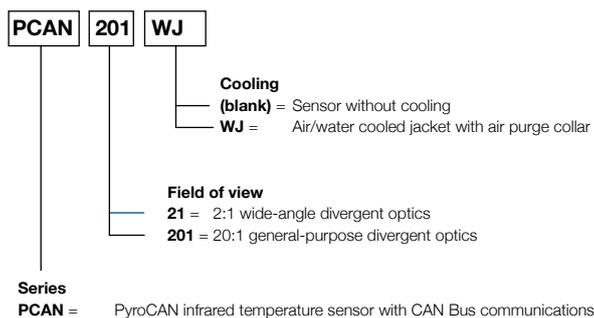
Provides a rigid mounting for the sensor. Two parallel lasers continuously indicate the centre of the measured spot, while measurements are being taken.

PROTECTIVE WINDOW



Plastic window in stainless steel holder. Provides mechanical protection for the sensor lens.

MODEL NUMBERS



Calex Electronics Limited

PO Box 2, Leighton Buzzard, Bedfordshire, England LU7 4AZ
 Tel: +44 (0)1525 373178/853800 Fax: +44 (0)1525 851319 Lo-call Tel: 0845 3108053
 E-mail: mail@calex.co.uk Online: <http://www.calex.co.uk>

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