

PyroPen

Handheld Infrared Thermometer



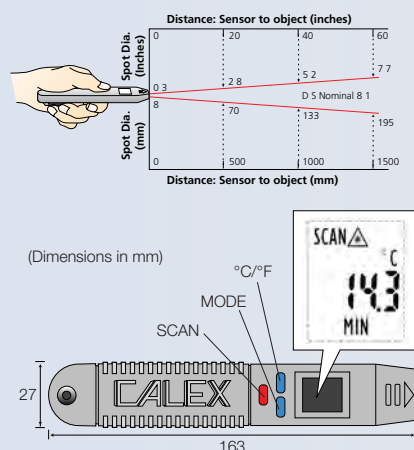
- Conveniently clips into your pocket just like a pen
- Unique ultra compact design
- Wide temperature range
- High accuracy and repeatability
- Fast response
- Displays maximum, minimum, average and current temperatures
- Narrow field of view
- Optional laser sighting
- Optional USB data logging & data acquisition

GENERAL SPECIFICATIONS

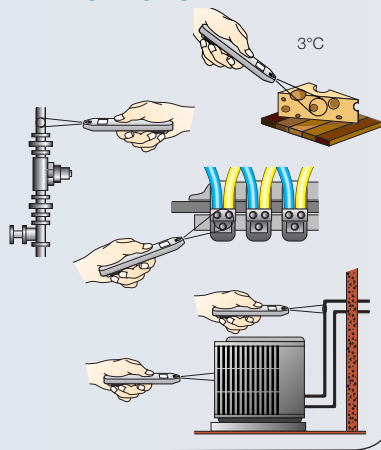
Temperature Range	-20°C to +500°C
Accuracy	+/-1% of reading or +/-1°C whichever is greater
Repeatability	+/-0.5% of reading or +/-0.5°C whichever is greater
Response Time, t_{90}	500 ms (90% response)
Spectral Range	8 to 14µm
Ambient Temp Range	0°C to +50°C
Housing	Pen style
Display	3.5 digit LCD
Power	2 x AAA batteries
Reading	°C or °F SCAN/HOLD/LOCK/MAX/MIN/AVG
Display Resolution	0.1°
Field-of-view	8:1
Relative Humidity	10 to 95% non-condensing
Dimensions	163 mm x 27 mm x 16 mm

	PyroPen E	PyroPen L	PyroPen U
Emissivity	Fixed at 0.95	Adjustable 0.3 to 1.0	Adjustable 0.3 to 1.0
Sighting	None	Laser	Laser
Data Logging	None	None	100 memory locations
Data Acquisition	None	None	Via USB cable and CalexSoft software supplied
Weight	50g	60g	60g

TARGET SIGHTING AND SPOT SIZES



APPLICATIONS



Designed to be simple, safe and convenient to use. The ultra compact PyroPen has been specifically designed to fit into your pocket, just like a pen, so that you can carry it with you anywhere you go.

You simply aim, press the SCAN button and read the temperature immediately. No fuss. No need to focus and no special training.

The non-contact nature of the measurement means that you can take the temperature of moving, rotating, inaccessible or hazardous objects. This makes the PyroPen particularly useful for test, inspection and maintenance applications in industries such as food & beverage, automotive, plastics & rubber, textiles, paper & packaging, chemicals & pharmaceuticals, HVAC, electrical, asphaltting, plus many others.

The PyroPen L has all the features of the PyroPen E, plus laser sighting for small or distant targets and adjustable emissivity.

The PyroPen U has all the features of the PyroPen L, plus a built-in memory for logging up to 100 temperatures and the ability to perform PC based data acquisition via USB. It is supplied complete with USB interface cable and CalexSoft software disk.

High performance, low cost. The Calex design team have taken advantage of the latest technology, not only to provide an ultra slim design but to incorporate reliability with high accuracy.

Advanced manufacturing techniques are used to ensure that the PyroPen meets the highest quality standards at low cost.

Each PyroPen comes with additional functions such as maximum, minimum and average temperature measurements. The PyroPen can be LOCKED into the ON position if continuous measurements are required. The last measured value can also be held for those situations where it is not easy to see the display whilst measuring.

Issue E - Nov 08
Specifications subject to change without notice

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: info@calex.co.uk Online: <http://www.calex.co.uk>

CALEX
ELECTRONICS LIMITED

ST680 Series

Handheld Infrared Thermometer



- Wide temperature range, -50°C to 1000°C
- Narrow 50:1 field of view
- USB Data Output (ST689)
- Input for type K thermocouple (ST689)
- Built-in laser pointer to improve aim
- Adjustable emissivity
- Adjustable high and low alarms
- Backlit LCD display
- °C/°F switchable
- Fast sampling time
- Auto-hold and power off
- High quality construction

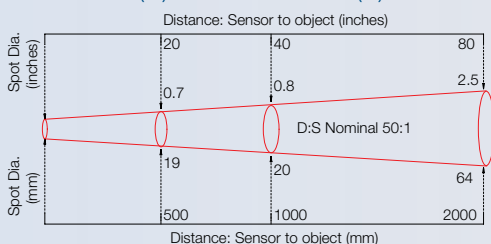
GENERAL SPECIFICATIONS

Field-of-view	50:1
Temperature Range	-50°C to 1000°C (-58°F to 1832°F)
Accuracy*	±3°C (±5°F) from -50°C to -20°C (-58°F to -4°F) ±2°C (±3°F) from -20°C to 100°C (-4°F to 212°F) ±2% above 100°C (212°F)
Spectral Range	8 to 14µm
Repeatability	±1°C (±2°F)
Resolution	0.1°C (0.1°F)
Response Time	500ms
Ambient Range	0°C to 50°C (32°F to 122°F), 10% to 90%RH
Power OFF	Automatic after approx. 6s
Display	4-digit LCD with backlighting
Battery Type	9V, PP3
Dimensions	200mm x 127mm x 47mm
Weight	330g

*Accuracy is given at ambient temperature of 25°C (77°F)

	ST688	ST689
Emissivity	Adjustable 0.1 to 1.0	Adjustable 0.1 to 1.0
Type K Thermocouple Input	NO	YES
USB Data Output	NO	YES
10 point memory	YES	YES
Audible Alarm	YES	YES
°C/°F Switchable	YES	YES
Backlight	YES	YES
Laser Sight Switchable	YES	YES
Max/Min/Avg/ΔT	YES	YES
Carrying case	YES	YES

DISTANCE (D) TO SPOT SIZE (S)



The ST680 Series is a range of high quality, handheld infrared thermometers with laser sighting and large backlit LCD displays.

Each unit measures from -50°C to 1000°C with 0.1°C resolution. They also offer a superior 50:1 field of view, which helps to minimise errors by producing a small diameter measurement area.

Model ST689 has a USB data output.

The emissivity setting is adjustable from 0.1 to 1.0 and both models provide adjustable audible alarms.

Readings can be taken in °C or °F, and when the trigger is released the last measurement is held for approximately 6 seconds before the unit automatically turns off.

ST680 series thermometers will operate in ambient temperatures from 0°C to 50°C and are powered by a standard PP3, 9V battery.

Each unit is supplied complete with a soft carrying case.

Issue A - Nov 08

Specifications subject to change without notice

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: info@calex.co.uk Online: <http://www.calex.co.uk>

CALEX
ELECTRONICS LIMITED

ST640 Series

Low Cost Handheld Infrared Thermometer



- Wide temperature range
- Built-in laser pointer to improve aim
- Narrow field of view
- Input for type K thermocouple (ST642)
- Adjustable emissivity (ST642)
- Adjustable high and low alarms, audible and visual
- Backlit display with Data Hold
- °C/°F switchable
- Fast sampling time
- Auto-hold and power off
- High quality construction

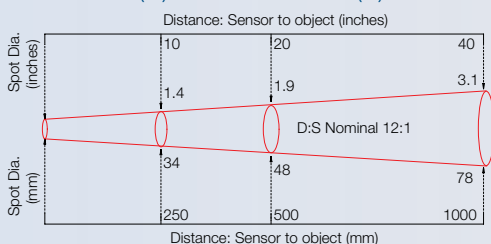
GENERAL SPECIFICATIONS

Field-of-view	12:1
Temperature Range	-32°C to 535°C (-25°F to 999°F)
Accuracy*	±3°C (±5°F) from -32°C to -20°C (-25°F to -4°F) ±2°C (±3°F) from -20°C to 100°C (-4°F to 212°F) ±2% above 100°C (212°F)
Spectral Range	5 to 14µm
Repeatability	±1°C (±2°F)
Resolution	0.1°C (0.1°F)
Response Time	500ms
Ambient Range	0°C to 50°C (32°F to 122°F), 10% to 90%RH
Power OFF	Automatic after approx. 7s
Display	LCD with backlighting
Battery Type	9V, PP3
Dimensions	180mm x 130mm x 40mm
Weight	195g

*Accuracy is given at ambient temperature of 25°C (77°F)

	ST640	ST642
Emissivity	Fixed at 0.95	Adjustable 0.1 to 1.0
Type K Thermocouple Input	NO	YES
eSmart Emissivity Correction	NO	YES
Audible Alarm	YES	YES
CIS Visual Alarm	YES	YES
°C/°F Switchable	YES	YES
Backlight	YES	YES
Laser Sight Switchable	YES	YES
Max/Min/Avg/ΔT	YES	YES
Carrying case	YES	YES

DISTANCE (D) TO SPOT SIZE (S)



The ST640 Series is a range of low cost, handheld infrared thermometers with laser sighting and large backlit LCD displays.

Each unit measures from -32°C to 535°C with 0.1°C resolution. They also offer a superior 12:1 field of view, which helps to minimise errors by producing a small diameter measurement area.

The emissivity setting on the ST640 is fixed at 0.95, making it ideal for most organic materials and non-shiny (painted, corroded or anodised) metals. The emissivity setting on the ST642 is adjustable from 0.1 to 1.0 and can be set automatically by using the thermocouple input and eSmart feature.

Both models provide adjustable audible and visual alarms in which the colour of the display changes when the target temperature exceeds the alarm set point.

Readings can be taken in °C or °F, and when the trigger is released the last measurement is held for approximately 7 seconds before the unit automatically turns off.

ST640 series thermometers will operate in ambient temperatures from 0°C to 50°C and are powered by a standard PP3, 9V battery.

Each unit is supplied complete with a soft carrying case.

Issue A - July 08
Specifications subject to change without notice

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: info@calex.co.uk Online: <http://www.calex.co.uk>



