

# LAND

## High Resolution Portable Thermometers

Designed for use as a Transfer Standard instrument  
in calibration laboratories

### CYCLOPS 100B+

Designed to measure and display  
temperatures in the range  
550 to 3000°C at a resolution of 0.1°C.

The Cyclops 100B+ and 160B+ are the latest evolution in the Cyclops range. They are visually very similar to any other Cyclops instrument. However, additional work has gone into each of these instruments with updated firmware and a more rigorous calibration. The results are an instrument with the required stability to resolve temperatures in 0.1°C increments. The certification required to be used as a transfer standard instrument to enable calibration of your on site process IR thermometers is then met (certification is optional).

#### Using Cyclops as a transfer standard.

All Cyclops thermometers have proven themselves to be the ideal instrument for use as a transfer standard. They are hand-held, battery powered and are ready to make measurements immediately after switch on (no warm-up time period). High-resolution continuously focusable optics help to target the furnace sweet spot accurately, a tripod mount ensures you can keep everything steady.

#### Transfer data using Bluetooth®

Data logging is straight forward with integrated Bluetooth serial communications and onboard digital processing - easily capturing the temperature you require. Two models are available the Cyclops 100B+ (1µm) and the Cyclops 160B+ (1.6µm).

#### Calibrate your Land products

These are designed for calibration of other Cyclops portable thermometers plus System 4 M1 and M2, UNO U1 and U2, SOLOnet SN11 and SN21 thermometers; and the FTI-E 1000 thermal imaging cameras and LANDSCAN short wave infrared scanners. Importantly, Cyclops+ instruments can be used with any commercially available non-contact infrared thermometers that use a comparable waveband.

### CYCLOPS 160B+

Designed to measure and display  
temperatures in the range  
200 to 1400°C to a resolution of 0.1°C.



## Specifications:

### CYCLOPS 100B+

Measurement range:	550 to 3000°C (operating) / 600 to 3000°C (specified)
Indication:	5-digit LCD in viewfinder; external backlit LCD display
Measuring modes:	Continuous, Average, Peak, Valley
Data logging:	To PDA or laptop / PC running DL-1000v2 software. Wireless connection via Bluetooth®
Data logging modes:	Classic, Historical, Burst
Optical system:	9° field of view; 1/3° measurement area (180:1 to 98 % energy); eyepiece adjustable -3.75 to +2.5 diopters
Focusing range:	1m / 39.3in to infinity 450 to 620mm / 17.7 to 24.5in and 215mm / 8.5in fixed focus - with optional close-up lens
Minimum target size:	5mm at 1m / 0.19in at 39.3in, 1.8mm / 0.07in and 0.4mm / 0.016in - with optional close-up lens
Spectral response:	1µm with advanced spectral filtering
Emissivity adjustment:	0.10 to 1.20 in 0.01 step graduations
Response time:	30 ms
Display update time:	0.5 s
Accuracy:	≤0.25%(K) of reading
Repeatability:	≤1 °C
Operating temp. range:	0 to 50 °C
Temp. resolution:	0.1C
Power requirement:	One MN1604 / 6LR61 / PP3 battery
Output:	Bluetooth®
Weight:	0.83 kg / 1.8 lb
Sealing:	IP51
Standard accessories:	Lens cap, protection window / filter, battery, wrist strap
Optional accessories:	Close-up lenses, Data Logger DL-1000, HP PDA, rugged waterproof carry case, Neutral Density Filters: <i>Options 1F or 2F</i> , the filters darken the image to provide better image contrast on bright targets, use two for higher temperature applications

### CYCLOPS 160B+

Measurement range:	200 to 1400°C (operating) / 200 to 1300°C (specified)
Indication:	5-digit LCD in viewfinder; external backlit LCD display
Measuring modes:	Continuous, Average, Peak, Valley
Data logging:	To PDA or laptop / PC running DL-1000v2 software. Wireless connection via Bluetooth®
Data logging modes:	Classic, Historic, Burst
Optical system:	9° field of view; 1/3° measurement area (180:1 to 98 % energy); eyepiece adjustable -3.75 to +2.5 diopters
Focusing range:	1m / 39.3in to infinity 460 to 630mm / 18.1 to 24.8in and 217mm / 8.5in fixed focus - with optional close-up lens
Minimum target size:	5mm at 1m / 0.19in at 39.3in 2.0mm / 0.08in and 0.5mm / 0.2in - with optional close-up lens
Spectral response:	1.6µm with advanced spectral filtering
Emissivity adjustment:	0.10 to 1.20in 0.01 step graduations
Response time:	30 ms
Display update time:	0.5 s
Accuracy:	≤0.25% + 2°C
Repeatability:	≤1°C
Operating temp. range:	0 to 50 °C
Temp. resolution:	0.1C
Power requirement:	One MN1604 / 6LR61 / PP3 battery
Output:	Bluetooth®
Weight:	0.83 kg / 1.8 lb
Sealing:	IP51
Standard accessories:	Lens cap, protection window / filter, battery, wrist strap
Optional accessories:	Close-up lenses, Data Logger DL-1000, HP PDA, rugged waterproof carry case,

The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by LAND is under license. Other trademarks and trade names are those of their respective owners.

# LAND

Land Instruments International Ltd • Dronfield S18 1DJ • England  
Email: land.infrared@ametek.co.uk • [www.landinst.com](http://www.landinst.com) • Tel: +44 (0) 1246 417691 • Fax: +44 (0) 1246 410585

AMETEK Land, Inc. • 150 Freeport Rd • Pittsburgh, PA 15238 • U.S.A.  
Email: irsales@ametek.com • [www.ametek-land.com](http://www.ametek-land.com) • Tel: +1 (412) 826 4444 • Fax: +1 (412) 826 4460

For a full list of international offices, please visit [www.landinst.com](http://www.landinst.com)

**Non-Contact Temperature Measurement Solutions**



**LABORATORY ACCREDITATION BUREAU**  
**ACCREDITED**  
ISO/IEC 17025:2005

REGISTERED  
**ISO 9001**  
MANAGEMENT SYSTEM

An **AMETEK** Company

Applies in the UK

Applies in the USA