

Specifications - CYCLOPS 055B

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|------------------------|--|
| Measurement range: | 1000 to 2000 °C / 1832 to 3632 °F |
| Indication: | 4-digit LCD in viewfinder; external backlit LCD display |
| Measuring modes: | Continuous, Peak, Valley and advanced MeltMaster processing functions |
| Data logging: | To PDA or laptop / PC running DL-1000v2 software. Wireless connection via Bluetooth® |
| 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: | Fixed Focus, nominally at 5 m / 197 in. from thermometer body datum |
| Target size: | Parallel 28 mm / 1.1 in target spot diameter from lens to 5 m / 197 in. |
| Spectral response: | Nominally 0.55 µm |
| Emissivity adjustment: | 0.10 to 1.20 in 0.01 step graduations |
| Response time: | 30 ms |
| Display update time: | 0.5 s |
| Accuracy: | <0.5 % (K) of reading |
| Repeatability: | <1 °C / 2 °F |
| Operating temp. range: | 0 to 50 °C / 32 to 122 °F |
| Power requirement: | One MN1604 / 6LR61 / PP3 battery |
| Output: | Bluetooth® |
| Weight: | 0.83 kg / 1.8 lb |
| Sealing: | IP51 |
| Standard accessories: | Lens cap, protection window, battery, wrist strap, heat protection jacket |
| Optional accessories: | Data Logger DL-1000, HP PDA, rugged IP67 PDA, Long eye relief eyepiece, waterproof carry case |

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Other models available



Non-Contact Temperature Measurement Solutions

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

AMETEK Land, Inc. • 150 Freeport Road • Pittsburgh, PA 15238 • U.S.A.
 Email: irsales@ametek.com • 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



An **AMETEK**® Company

Applies in the UK

Applies in the USA

1000-2000°C

1832-3632°F

LAND



High precision portable infrared thermometers for Liquid Metals

CYCLOPS 055B
Meltmaster



CYCLOPS 055B Meltmaster

Land Cyclops 055 Meltmaster is a dedicated high precision, portable infrared thermometer, designed for accurate measurement of liquid metal temperatures in the range 1000 to 2000°C / 1832 to 3632°F.

Features

| Features | Benefits |
|--|---|
| Non-contact measurement technology | No contamination, interference or damage to process or material |
| Unique Meltmaster Measurement Mode | An advanced, noise rejection processing mode which locks onto the true Liquid metal temperature |
| High accuracy liquid metal measurement and repeatability | Confidence in the measurement for process control applications |
| Long term drift-free measurement | Long term confidence in the measurement |
| Single handed operation, contact free measurement | Better Safety in hazardous environments |
| Standard Bluetooth | No twisted or broken cables, link straight to a PDA device |
| Rugged instrument casing | Can withstand harsh environments for extended periods |
| Calibrated and traceable to National Standards | Your guarantee of measurement accuracy |
| Four Measurement modes - Meltmaster, Continuous, Peak, Valley | Measurement to exactly meet your own specific requirements |
| Advanced Spectral Filtering | Enhance instrument performance |
| Digital signal processing, output for data logging | Access your measurement information and record it |
| Range of Accessories including a DL-1000 Data Logger, Long Eye Relief eye piece adapter, Rugged IP67 PDA, Heat resistant jacket, Waterproof carry case | Customize to your measurement needs |

The measured temperature is displayed in four simultaneous modes including the new, advanced 'Meltmaster' mode.

Accurate sighting is ensured by the clear, wide angle (9°) field of view and small, clearly defined (1/3°) measurement area. Focusing is fixed at 5m / 16ft.

Emissivity compensation is provided via the icon-based menu system.

The operating waveband has been carefully chosen to minimize errors due to uncertainty in emissivity and the effects of atmospheric vapor components.

Significantly reduces the use and cost of disposable 'dip' type thermocouples.

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Taking a Measurement

All four processed temperature values are displayed continuously on the graphics panel when the trigger is pressed.

- Meltmaster temperature**
 An advanced, noise-rejection processing mode which locks-onto the real liquid metal temperature. Updates while the trigger is pressed.
- Continuous temperature**
 0.5s display / serial updates when the trigger is pressed.
- Peak temperature**
 Maximum from when trigger pressed.
- Valley temperature**
 Minimum from when trigger pressed

The user can select the measurement type, which is also displayed in the viewfinder. Once the trigger is released the measurement is taken. This data can be stored on the optional DL-1000 Data logger, or via wireless connection to an PDA.

Accessories

A range of standard and optional accessories is available including:

Heat resistant jackets to provide protection against excessive heat and dust.

A waterproof carry case is available as an optional accessory.

Long Eye Relief Eye piece adapter - where you are wearing protective goggles or a hard hat with face shield, e.g. when you cannot directly see through the eyepiece.



Heat resistant jacket



Long eye relief (LER) Eye piece adapter



Waterproof carry case

Data Logger DL-1000

The Pocket PC based Cyclops DL-1000 Data Logging System provides a fast and simple method for logging temperature readings taken using Land Cyclops portable infrared thermometers, with a data point being logged upon each trigger release.

If a PDA is being used, stored readings can then be easily transferred using a docking station to a PC.

The logged data can then be used for further analysis and trending purposes. Datasheet PDS018 provides further details.

Wireless communications using Bluetooth®

Wireless data logging to Bluetooth® equipped PDA (safely in your pocket) or PC / laptop with connections typically over several feet.



Rugged IP67 PDA Pocket PC (optional)



Optics

Single through the lens reflex optical system gives a precise definition of the target spot and simultaneous backlit display of user selected values in the viewfinder.

Connectivity

C055B offers data logging to DL-1000 via Bluetooth®



Menu Controls

Simple, easy to use controls to select required mode from the icon based menu.

Multi-function Display

The bright, back-lit external display panel provides an indication of status and configuration of the thermometer together with four simultaneous live measurement modes.

The panel displays an intuitive, icon-driven, language-free menu system navigated via key pad controls.

Mode selection

Emissivity

Window Compensation

Communication Status

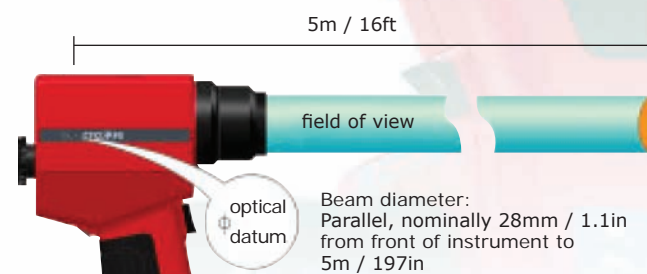
Battery Status

Alarm Status

The user highlights the mode to be displayed in the viewfinder.

Field of View

The 5m / 16ft focusing distance ensures non-hazardous measurement for the operator, the field of view enables use in applications with a restricted view or access.



Accurate and repeatable readings can be taken from a safe distance throughout the plant