Introducing the new affordable, full featured thermal imaging camera

**LAND CYCLOPS Ti 814**

This full featured, high performance thermal imaging camera has a temperature measurement range from -20 to 1500°C/-4 to 2732°F and a high quality aspherical lens with motorised focus and digital zoom. Thermal images are displayed in the viewfinder and bright LCD display. They can be displayed and captured for later use in reports. Images and sound files are saved on to a CompactFlash memory card for download and further analysis.

The right camera for predictive maintenance and production processes.
Detect the symptom before the problem occurs. High resolution image quality helps you quickly find the problem. The Cyclops TI 814 imaging camera is used in plant condition monitoring, structural integrity inspection, quality control, and research and development in industries such as:

- **Power generation, transmission and distribution**
  Overheating of switchgear, transformers, bus-bars, overhead power lines and substations can be easily detected . . .
- **Electrical and electronics**
  Faulty components in electronic equipment quickly identified . . .
- **Energy management and thermal surveys**
  Building leaks, air infiltration, missing boiler insulation, blocked pipework and steamtraps can be easily monitored . . .
- **Steel and glass**
  Refractory wear can be determined in furnaces, ladles and torpedo cars . . .
- **Petrochemical and plastics**
  Detect tank levels, blockages, missing insulation, motors, pumps and bearings . . .
- **Construction and civil engineering**
  Integrity of cladding on buildings, faulty construction methods, cold storage units and asphalt surfacing . . .

**KEY FEATURES**
- On board colour digital camera option
- Motorised focus and electronic zoom
- On board image processing
- Laser pointer
- Extended temperature range option to 1500°C/2732°F
- Extended ambient operating temperature range option down to -40°C/-40°F
- Standard camcorder battery lasting ~3 hours
- Tele lens option
- Live video transmission option to 0.75km/0.46 miles
- High-resolution image with very low spatial noise
- Accurate temperature measurement
- Low cost
- Real time images
- Store images to CF memory card
- Long wavelength detector (ideal for outdoor applications)

The Cyclops TI 814 thermal imaging camera is complemented by the Land Image Processing Software - LIPS, which provides thermal and visual image manipulation and storage together with report writing facilities. LIPS is easy to use, highly flexible, and greatly enhances the versatility of the Cyclops TI 814.
**TI 814 Portable Thermal Imaging Camera - Specifications**

### Imaging Performance
- **Field of View/Min Focus Distance:** 21° x 16°/0.38m/15.0 in (11° x 8°/1.8m/71.0 in optional)
- **Spatial Resolution:** 1.2mrad (IFOV)
- **Thermal Sensitivity:** 0.08°C at 30°C (at 50/60Hz)
- **Electronic Zoom Function:** x2, x4
- **Focus:** Motorised
- **Detector:** 320 x 240 Uncooled Amorphous Silicon Microbolometer (FPA)
- **Spectral Range:** 8 to 14µm
- **Visual Image:** On board digital colour video, 640 x 480 pixels (optional)

### Image Presentation
- **Viewfinder:** Built-in high resolution colour LCD (TFT)
- **External Display:** 10.2mm/4.0in LCD
- **Video Output:** PAL/NTSC Composite Video

### Measurement
- **Temperature Ranges:** -20 to 500°C/-4 to 932°F (up to 1500°C/2732°F optional)
- **Accuracy:** ±2°C or ±2%
- **Measurement Modes:** Spot/manual (up to 4 moveable), spot/automatic placement at max, area (up to 4 moveable) displaying either max, min, or average, isotherm, line profile (up to 3)
- **Display Colour:** 8 palettes available
- **Emissivity Correction:** Variable 0.1 to 1.0 (in 0.01 increments)
- **Measurement Features:** Automatic corrections based on user input for ambient temp, distance, relative humidity, atmospheric transmission and external optics

### Image Storage
- **Type:** Removable CompactFlash Memory Card (256Mb)
- **Image Storage:** 1000 images
- **Voice Annotation:** 8 seconds of digital voice clip stored with each image

### Interface
- **Video Output:** PAL/NTSC
- **Live Video Transmission:** Transmit live video up to 750m to a remote monitor
- **Laser Locator:** Class 2, semiconductor A1GaInP diode laser: 1mW/635nm (red)

### Power Source
- **Power Supply:** Rechargeable Lithium-ion Camcorder battery, field-replaceable
- **Battery Operation:** Over 3 hours continuous operation
- **External Power Operation:** a.c. adapter, 110/220V, 50/60Hz
- **Power Requirement:** 7.2V d.c.

### Environmental
- **Operating Temperature:** -25 to 60°C/-13 to 140°F (-40 to 60°C/-40 to 140°F optional)
- **Storage Temperature:** -40 to 60°C/-40 to 140°F
- **Humidity:** Operating and storage 10% to 95% non-condensing
- **Enclosure:** IP54 IEC 529
- **Shock:** Operational - 25G, IEC 68-2-29
- **Vibration:** Operational - 2G, IEC 68-2-2

### Physical Characteristics
- **Camera Dimensions:** 104mm x 107mm x 148mm/4.1 x 4.2 x 5.8 in (camera only)
- **Camera Weight:** 1.5kg/3.3lb (including battery and LCD)
- **Tripod Mounting:** 1/4in

**TI 814 System Includes:**
- IR camera with laser locator
- LIPS software
- Wrist strap
- Battery charger and 2 batteries
- 256Mb CompactFlash memory card
- Carrying case and strap
- Lens cap
- A.C. power supply
- Video cable
- USB CF memory card reader

---

**Infrared Temperature Measurement**

---

**Land Instruments International • Droxford S18 1DJ • England • Tel: (01246) 417691 • Fax: (01246) 410585**

Email: infrared.sales@landinst.com • Internet: www.landinst.com

**Land Instruments International • 10 Friends Lane • Newtown, PA 18940-1804 • U.S.A. • Tel: (215) 504-8000**

Fax: (215) 504-0879 • Email: irsales@landinstruments.net • Internet: www.landinstruments.net

**France**
- Land Instruments Sàrl
  - Tel: (33) 492 24 45 45 • Fax: (33) 30 56 31 12
  - Email: commercial@landinst.fr

**Germany**
- Land Instruments GmbH
  - Tel: 02171/7673-0 • Fax: 02171/7673-9
  - Email: infra@landinst.de

**Spain**
- Land Instruments International
  - Tel: 91 630 0928 • Fax: 91 630 2918
  - Email: land-infrared@landinst.es

**Japan**
- Land Instruments Ltd
  - Tel: 06 630 5153 • Fax: 06 630 3338
  - Email: info@landinst.jp

**Italy**
- Land Instruments Srl
  - Tel: 02/99040423 • Fax: 02/99040418
  - Email: info@landinst.it

**Mexico**
- Land Instruments International
  - Tel: 52 55 5281 1165 • Fax: 52 55 5281 5364
  - Email: ventas@landinstruments.net

---

Continuous product development may make it necessary to change these details without notice.

PDS017_TI8140805