



ThermaCAM™ P25

High performance, affordable infrared camera with basic analysis capability

The ThermaCAM P25 is a rugged, compact and affordable infrared camera. It produces fully radiometric images, allowing you to measure the temperature of objects in a non-contact mode. The ThermaCAM P25 captures images at a speed of 50 Hz making it possible to scan moving targets. Lightweight and portable, the ThermaCAM P25 detects, verifies and documents a wide range of predictive maintenance problems.



- **HIGH QUALITY THERMAL IMAGES (320x240 PIXELS)**
- **ACCURATE TEMPERATURE MEASUREMENT CAPABILITIES: ONE FIXED SPOT IN THE MIDDLE OF THE IMAGE**
- **RUGGED (IP54), LIGHTWEIGHT AND PORTABLE**
- **ERGONOMIC CARRYING HANDLE**
- **INTEGRATED LASER LOCATIR**
- **FLEXIBLE JPEG IMAGE STORAGE**
- **INTEGRATED SOFTWARE AVAILABLE FOR PRODUCING PROFESSIONAL INSPECTION REPORTS**
- **AFFORDABLE AND UPGRADEABLE SOLUTION**

PRECISION TEMPERATURE MEASUREMENT AND EXTRAORDINARY IMAGE QUALITY

A state-of-the-art uncooled microbolometer allows you to measure temperature differences as small as 0.08°C. It produces outstanding noise-free, high resolution images (320x240 pixels) offering more than 76,000 individual measurement points per image at a refresh rate of 50/60 Hz.

LOCATE PROBLEMS QUICKLY AND ACCURATELY

View thermal images in the high-resolution viewfinder. Optional optics, including telescopic and wide angle lenses, make the ThermaCAM P25 a good choice for the most demanding applications.

INTEGRATED LASER LOCATIR

The integrated Laser LocatIR, activated at the touch of a button, helps you to safely and quickly associate a hot spot shown on the IR image with the real physical target in the field.

EASY-TO-OPERATE

Conveniently placed buttons and a joystick control all the features of the camera. Functions like autofocus, freezing and storing images are just a button away.

ERGONOMIC CARRYING HANDLE

The ThermaCAM P25 comes standard with an ergonomic handle to carry the camera around. This handle can optionally be equipped with an LCD screen, with remote control buttons, which makes the P25 even more flexible.

LCD DATA PANEL

An LCD screen gives you continuous information about the status of specific camera functions. It provides you with information on battery usage, storage capacity, communication status and more.

EASY CONNECTIVITY FOR DOWNLOADING AND DOCUMENTING

Enhanced connectivity options for high-speed image transfer include USB digital link and standard RS-232 connections.

FLEXIBLE JPEG IMAGE STORAGE

The ThermaCAM P25 saves images as fully radiometric JPEGs. These images are stored on a removable FLASH PC card (128 MB).

AUTOMATED REPORT GENERATION

Full radiometric images can easily be downloaded and integrated in the new ThermaCAM Reporter™ software, allowing you to do post-analysis and to create professional inspection reports easily.

BASIC SOLUTION

The ThermaCAM P25 offers you full non-contact measurement and basic analysis capability. It is upgradeable to the full-featured ThermaCAM P65.



TECHNICAL SPECIFICATIONS

IMAGING PERFORMANCE

| | |
|----------------------------------|---|
| Field of view/min focus distance | 24°x18° /0.3 m (with 35 mm lens) |
| Spatial resolution (IFOV) | 1.3 mrad |
| Thermal sensitivity | 0.08°C at 30°C |
| Image frequency | 50/60 Hz non-interlaced |
| Focus | Automatic or manual |
| Electronic zoom function | 2,4 interpolating |
| Detector type | Focal Plane Array (FPA), uncooled microbolometer 320 x 240 pixels |
| Spectral range | 7.5 to 13µm |
| Digital image enhancement | Standard |

IMAGE PRESENTATION

| | |
|--------------|--|
| Video output | RS170 EIA/NTSC or CCIR/PAL composite video |
| Viewfinder | Built-in, high-resolution color LCD (TFT) |

MEASUREMENT

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|--|--|
| Temperature range | -40°C to +500°C, (-40°F to +932°F) Up to +1000°C, optional |
| Accuracy | ±2°C, ±2% of reading |
| Measurement mode | 1 fixed spot in the middle of the image |
| Atmospheric transmission correction | Automatic, based on inputs for distance, atmospheric temperature and relative humidity |
| Optics transmission correction | Automatic, based on signals from internal sensors |
| Emissivity correction | Variable from 0.1 to 1.0 |
| Reflected ambient temperature correction | Automatic, based on input of reflected temperature |
| External optics/window correction | Automatic, based on input of optics/window transmission and temperature |

IMAGE STORAGE

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|--------------|---|
| Type | Removable Flash-card (128 MB) |
| File formats | Standard JPEG, 14 bit measurement data included |

LENSES (OPTIONAL)

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|----------------------------------|--|
| Field of view/min focus distance | 7°x5.3°/4 m (with 122 mm lens) 12°x 9°/1.2 m (with 71 mm lens) 45°x 34°/0.1 m (with 18 mm lens) 80°x 60°/0.1 m (with 9 mm lens) 200µm close-up (64 mm x 48 mm/150 mm) 100µm close-up (34 mm x 25 mm/80 mm) 50µm close-up (15 mm x 11 mm/19 mm) |
| Lens identification | Automatic |

SYSTEM STATUS INDICATOR

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|-------------|---|
| LCD Display | Shows status of battery and storage media. Indication of power, communication and storage modes |
|-------------|---|

LASER LOCATOR

| | |
|----------------|---|
| Classification | Class 2 |
| Type | Semiconductor AlGaInP Diode Laser: 1mW/635 nm red |

BATTERY SYSTEM

| | |
|--------------------------|--|
| Type | Li-Ion, rechargeable, field replaceable |
| Operating time | 2 hours continuous operation |
| Charging system | in camera (AC adapter or 12 V from car) or 2 bay intelligent charger |
| External power operation | AC adapter 110/220 V AC, 50/60 Hz or 12 V from car (cable with Std plug: optional) |
| Power saving | Automatic shutdown and sleep mode (user selectable) |

ENVIRONMENTAL SPECIFICATION

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|-----------------------------|--|
| Operating temperature range | -15°C to +50°C (5°F to 122°F) |
| Storage temperature range | -40°C to +70°C (-40°F to 158°F) |
| Humidity | Operating and storage 10% to 95%, non-condensing |
| Encapsulation | IP 54 IEC 529 |
| Shock | Operational: 25G, IEC 68-2-29 |
| Vibration | Operational: 2G, IEC 68-2-6 |

PHYSICAL CHARACTERISTICS

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|-----------------|-------------------------------------|
| Weight | 1.7 kg incl. Battery |
| Size | 100mm x 120mm x 220mm (camera body) |
| Tripod mounting | 1/4" - 20 |

INTERFACES

| | |
|--------------|-----------------------------------|
| USB / RS-232 | Image, measurement transfer to PC |
|--------------|-----------------------------------|

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Equipped with the optionally available
LCD display, with remote control buttons,
the P25 becomes even more flexible.