

# ThermaCAM® P60 Infrared Camera By FLIR



High performance portable infrared camera system:  
The Professional Thermographer's Choice

The ThermaCAM™ P60 takes high-definition 14-bit thermal images. At the same time, it records visual images with its built-in digital camera

FLIR Systems has recognized the importance of having a visual image as a reference against the thermal image

Engineers who detect problems with the infrared camera are often not the same people as those who have to repair the defects. The ability to view the environment in which a problem is located on a visual image makes the job a lot easier. With the ThermaCAM P60, all this is done automatically. There is no need to carry separately a digital camera.

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 problem area on the physical target

## Ti Thermal Imaging

### IMAGING PERFORMANCE

|   |                     |
|---|---------------------|
| <i>Field of view/min focus distance</i> | 24° X 18°/0.3m      |
| <i>Spatial resolution (IFOV)</i>        | 1.3 mrad            |
| <i>Thermal sensitivity</i>              | 0.08 °C             |
| <i>Frame rate</i>                       | 50Hz/60 Hz          |
| <i>Focus</i>                            | Automatic or manual |

### DETECTOR

|                              |                              |
|------------------------------|------------------------------|
| <i>Type</i>                  | Uncooled microbolometer      |
| <i>Array format</i>          | 320 x 240                    |
| <i>Spectral response</i>     | 7.5 -13 microns              |
| <i>Visual digital camera</i> | 640 X 480 pixels, full color |

### IMAGE PRESENTATION

|                           |  |
|---------------------------|--|
| <i>Viewfinder</i>         | High-resolution colour LCD (TFT)   |
| <i>External display</i>   | Detachable 4" LCD with integrated remote control   |
| <i>Video output</i>       | NTSC/PAL, S-video, composite phono   |
| <i>Auto/manual adjust</i> | Continuous auto adjust for level, level & span<br>Auto adjust with scale lock for level max, level min or span<br>Manual adjust for level and span |

### MEASUREMENT

|                          |  |
|--------------------------|--|
| <i>Accuracy</i>          | +/- 2 °C, +/- 2% of reading  |
| <i>Temperature range</i> | -40 °C to +120 °C and 0 °C to +500 °C<br>Up to +1500 °C / +2000 °C (optional)  |
| <i>Measurement mode</i>  | Spot/manual (up to 10 movable), Spot/automatic placement and reading max and min within area<br>Area (up to 5 circles and 5 boxes, movable )<br>Isotherms, Profile and Delta T |

|                                |  |
|--------------------------------|--|
| <i>Emissivity correction</i>   | Variable from 0.1 to 1.0 or selected from predefined material list |
| <i>Measurement corrections</i> | Reflected ambient, distance, relative humidity, external optics    |

### IMAGE STORAGE

|                              |  |
|------------------------------|--|
| <i>Type</i>                  | Built-in flash memory (50 images)<br>Removable compact flash PC card (128MB)   |
| <i>File format - Thermal</i> | JPEG with 14 bit measurement data<br>Burst and AVI                             |
| <i>File format - Visual</i>  | JPEG with movable marker, linked with corresponding thermal image              |
| <i>Voice annotation</i>      | Up to 30 sec digital voice stored with each image, Bluetooth wireless earpiece |
| <i>Text annotation</i>       | Predefined text selected or beamed from PDA, stored with the image             |

**LENSES (OPTIONAL)**

|  |   |
|--|---|
| <i>Field of view/min. focus distance</i> | 7° x 5.3°/4m; 12° x 9°/1.2m;<br>45° x 34°/0.1m; 80° x 60°/0.1m<br>200 micron close-up (64 mm x 48 mm/150mm)<br>100 micron close-up (34 mm x 25 mm/80 mm)<br>50 micron close-up (15 mm x 11 mm/19 mm)<br>18 micron close-up (6 mm x 4 mm/7 mm) |
|--|---|

**SYSTEM STATUS INDICATOR**

|                    |   |
|--------------------|---|
| <i>LCD Display</i> | Battery and storage media status<br>Power, communication and storage modes indication |
|--------------------|---|

**Laser LocatIR™**

|                       |                                |
|-----------------------|--------------------------------|
| <i>Type</i>           | 1 mW, 635 nm (red) diode laser |
| <i>Classification</i> | Class 2                        |

**POWER SOURCE**

|                               |   |
|-------------------------------|---|
| <i>Battery type</i>           | Rechargeable Li-Ion   |
| <i>Battery operating time</i> | 2 hours continuous operation  |
| <i>Battery recharge</i>       | In camera with AC adapter or car battery<br>2-bay intelligent charger |
| <i>External power</i>         | 110/220VAC, 50/60Hz adapter or car battery with optional cable        |
| <i>Power saving</i>           | Automatic shutdown and sleep mode                                     |

**ENVIRONMENTAL SPECIFICATION**

|                                    |                                |
|------------------------------------|--------------------------------|
| <i>Humidity</i>                    | 10% to 95% non-condensing      |
| <i>Operating temperature range</i> | -15 °C to 50 °C                |
| <i>Storage temperature range</i>   | -40 °C to +70 °C               |
| <i>Encapsulation</i>               | IP 54 IEC 529                  |
| <i>Operational Vibration/Shock</i> | 2G, IEC 68-2-6/25G IEC-68-2-29 |

**PHYSICAL CHARACTERISTICS**

|                        |  |
|------------------------|--|
| <i>Weight</i>          | 2.0 Kg with battery, LCD/remote control unit, video camera and laser |
| <i>Size</i>            | 100 mm x 120 mm 220 mm   |
| <i>Tripod mounting</i> | 1/4" - 20  |

**INTERFACE**

|                       |   |
|-----------------------|---|
| <i>PC interface</i>   | USB/RS-232, S-video and composite phono   |
| <i>Remote control</i> | Detachable 4" LCD and remote control unit |