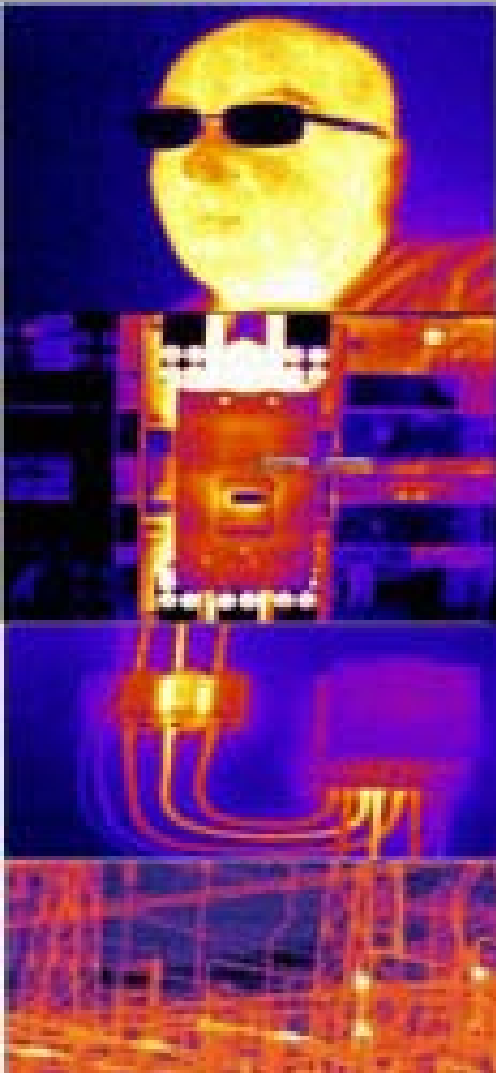


# Seeing is believing...

# IRISYS®

## IRI-4010

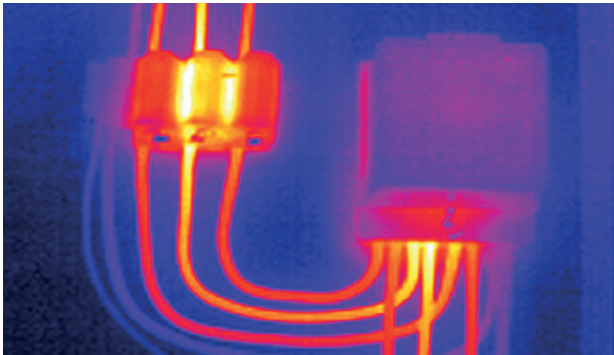
less than .08C  
thermal sensitivity!



Save \$1500 by purchasing IRI-4010 + Level I or Level Thermography Training for a total price of \$4995. Financing available. Email sales@pembrokeinstruments.com to order your camera and training or call 650-616-4202

The IRI 4010 is an innovative hand held thermal imager which offers outstanding imaging and temperature measurement performance together with the traditional IRISYS features of flexibility, ease of use and minimal cost. Features include:

- Only 0.75 kg
- 160 x 120 image
- Simple operation
- Large, clear display
- Multiple temperature measurements
- Lowest cost high definition imager on the market

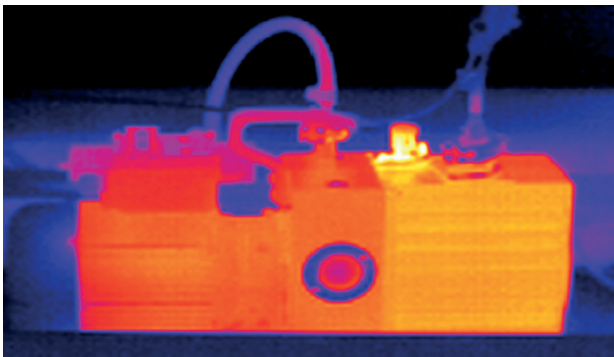


## ELECTRICAL

Among the many common faults in electrical systems are:-

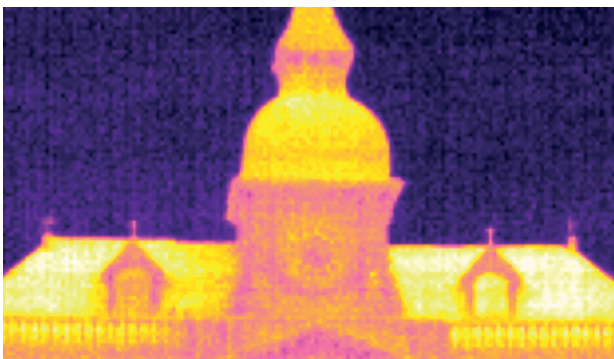
- Loose/over tight connections
- Over-twisted wires
- Overloaded components
- Uneven voltage distribution
- Failed/fatigued components

Faults such as these can cause the temperature of a component or connection to change. IRISYS thermal imagers can be used to obtain a thermal profile; this facilitates condition monitoring and fault diagnosis.



## MECHANICAL

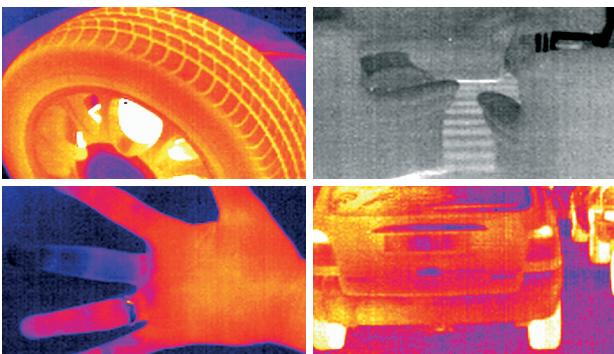
Many faults in bearings and motors are due to poor lubrication and/or shaft alignment. These result in excessive friction which leads to a rise in temperature. There can also be faulty or loose electrical connections. Whatever the fault, the result is a change in the temperature profile of the equipment. This can be detected and monitored using an IRISYS thermal imager.



## BUILDING INSULATION

The twin drivers of energy costs and legislation are leading to improvement in building insulation. The quality of the insulation, however, is difficult to assess by purely visible means.

An IRISYS thermal imager will identify both missing insulation in new buildings and deteriorating insulation in older buildings.



## GENERAL

Thermal imaging technology has traditionally been prohibitively expensive for many applications. However, with the introduction of low cost thermal imagers from IRISYS, it is becoming more generally relevant. Examples of these emerging applications include:-

- Monitoring of tyre temperatures and other parts on a car.
- Checking of domestic central heating and under floor heating systems.
- Monitoring of injuries in horses and other animals, where the difference in blood flow will create a temperature difference that can be identified by an IRISYS thermal imager.

## IRI 4010

### **SPECIFICATION**

#### **PERFORMANCE**

|                      |   |
|----------------------|---|
| Field of view (FOV): | 20° x 15°   |
| Focus:               | Manual  |
| Minimum Focus:       | 30cm  |
| Spectral Response:   | 8µm to 14µm   |
| Thermal Sensitivity: | NETD ≤80mK (0.08°C) @ 23°C ambient and 25°C scene temperature |
| Detector:            | 160 x 120 pixels<br>uncooled microbolometer                   |

#### **IMAGE STORAGE**

|         |                                      |
|---------|--------------------------------------|
| Number: | Over 1000 images on SD card supplied |
| Medium: | MMC/SD card                          |

#### **DISPLAY**

3½" colour LCD with LED backlight  
4 colour palettes

#### **LASER POINTER**

A built in Class 2 laser is supplied to highlight the central measurement area

#### **MEASUREMENT**

|                        |  |
|------------------------|--|
| Temperature range:     | -10°C to +250°C  |
| Radiometry:            | Two movable temperature measurement cursors<br>Temperature difference measurement  |
| Emissivity Correction: | User selectable 0.1 to 1.0 in steps of 0.01 with reflected ambient temperature compensation  |
| Accuracy:              | The greater of ±2°C or ±2% of reading in °C for ambient temperature -15°C to +45°C<br><br>±10°C for ambient temperature range of +45°C to +50°C and for scene temperatures of +50°C to +250°C Not specified for scene temperatures below +50°C |

#### **IMAGER POWER SUPPLY**

|                 |   |
|-----------------|---|
| Battery:        | Lithium-ion field rechargeable, replaceable batteries |
| Operation time: | 6 hours continuous operation                          |
| AC operation:   | AC adaptor supplied                                   |

#### **MECHANICAL**

|             |                            |
|-------------|----------------------------|
| Housing:    | Impact Resistant Plastic   |
| Dimensions: | 230mm x 120mm x 110mm      |
| Weight:     | 0.75kg including battery   |
| Mounting:   | Handheld & Tripod mounting |

#### **IRI 4010 INCLUDES**

IR Camera, Battery, AC adaptor, USB Cable, CD with user manual and software (PC analysis and Report writer), carrying case, wrist strap, rubber protector, SD card and SD card reader.

#### **OPTIONAL ACCESSORIES**

Desktop charger; 12V car charger; additional battery; light shade.

#### **INTERFACES**

USB type B

#### **SETTINGS AND CONTROLS**

- On/Off soft power control
- User selectable span control
- User selectable level control
- Auto adjust span and level
- Display palettes: rainbow, ironbow, high contrast and greyscale
- Laser trigger switch
- Readout in °C, °F or K
- Image capture, time and date
- 2 x digital zoom

#### **FEATURES**

- Real time image and temperature measurement display
- Auto hot/cold seeker
- Area analysis
- Crisp high resolution images
- Large 3½" inch display
- Simple operation
- Multiple temperature measurement
- Multiple image storage and retrieval at full digital resolution
- Image browser with full image adjustment
- Battery Charge indicator
- Lightweight

#### **ENVIRONMENT**

|                        |                           |
|------------------------|---------------------------|
| Temp. operating range: | -15°C to +50°C            |
| Temp. storage range:   | -20°C to +70°C            |
| Humidity:              | 10% to 90% non condensing |
| CE Mark (Europe)       |                           |

Vibration: MIL-PRF-28800F  
class 2 section 4.5.5.3.1

Shock: MIL-PRF-28800F  
class 2 section 4.5.5.4.1

Drop Test: MIL-PRF-28800F  
class 2 section 4.5.5.4.2

IP rating: IP42