irisys
Red Hot Intelligence

IRI 4030

HIGH TEMPERATURE RANGE THERMAL IMAGER

The IRI 4030 is an innovative thermal imager product, which offers outstanding imaging and temperature measurement performance together with the traditional Irisys features of flexibility, ease of use, and minimal cost of ownership.

Irisys has produced an imager that is ideal for the thermographer and maintenance engineer alike; high quality images may be captured and manipulated offline or problems can be resolved on the spot. The camera comes with an industry leading 3½" display and delivers price and performance that are unique to Irisys.

The IRI 4030 is especially suitable for use where high temperature measurement is required, such as in the petro-chemical, glass, cement, metal and refractory industries.

Typical applications for the IRI4030 include:

- Refactories: Kilns, Reactor vessels, Ladles
- Predictive and preventative maintenance electrical and mechanical
- Process Monitoring
- HVAC & R troubleshooting and Maintenance

Product Description

The ergonomically designed imager houses the complete uncooled microbolometer-based camera core together with a long life Li-ion battery pack. For ease of use the image is displayed on a large 3½" colour LCD with LED backlight. Images can be captured using an MMC or SD card for recall and further analysis if required. Images can also be downloaded to a PC from the memory card for analysis, report generation and printing.

Operation

Designed for self-contained use, the camera is the ideal tool for all maintenance engineers. The high capacity, field replaceable, rechargeable Li-ion battery allows continuous operation for a full working shift. The IRI 4030 is fully radiometric; temperature measurements can be made over the entire image, and hot spots can be identified by use of a trigger activated laser pointer.

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SPECIFICATION

PERFORMANCE

Field of view (FOV):	20º x 15º
Focus:	Manual
Minimum working distance:	30cm
Spectral Response:	8µm to 14µm
Thermal Sensitivity	
Without Filter:	NETD ≤80mK @ 23°C ambient and 25ºC scene
With Filter:	NETD ≤400mK @ 23°C ambient and 25ºC scene
Detector:	160x120 pixels 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

Without Filter:

Temperature range:	-10°C to +250°C
Accuracy:	The greater of ±2°C or ±2% of reading in °C for ambient temperature range -15°C to +45°C ±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

With Filter:

Temperature range:	+200°C to +900°C
Accuracy:	The greater of ±20°C or ±5% of reading in °C
Radiometry:	Two movable temperature measurement cursors Temperature difference measurement
Emissivity Correction:	User selectable 0.1 to 1.0 in steps of 0.01 with reflected ambient temperature compensation

IMAGER POWER SUPPLY

Battery:	Lithium-ion field rechargeable, replaceable batteries
Operation time:	Up to 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 4030 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 and 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)	
Operating temperature for stated accuracy with filter:	23°C
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

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CAUTION
LASER RADIATION
DO NOT STARE INTO BEAM
635nm 0.9mW
CLASS 2 LASER PRODUCT