

## IRI 1002

### Multipoint Radiometer

The IRI 1002 Multipoint radiometer provides real time temperature monitoring of 256 data points for use in process control and remote monitoring systems. With its light weight and small size coupled with ease of set up, it provides the ideal solution for such applications. As with all IRISYS infrared detection and imaging products the emphasis is on affordability.

Typical applications for the IRI 1002 include:

- Process Control
- Remote Condition Monitoring
- Critical Vessel Monitoring
- Security/Safety
- Research and Development



**The IRI 1002 Multipoint Radiometer**

### Product Description

The IRI 1002 Radiometer is housed in a robust metal case. The imaging optics, detector, drive electronics and optical modulator are all enclosed in this case. Data output is provided in RS232 or can be converted into Ethernet formats allowing for simple communication with PCs, PLCs and other controller products.

### Operation

The detector used in the IRI 1002 is an IRISYS proprietary pyroelectric array. This views the external scene via a rotating disc modulator and imaging optics. Temperature values from each of the 256 elements of the detector are sent via an RS232 or Ethernet (optional) link to the controller or PC for processing. Ethernet (or equivalent) enables a number of units to transmit data on a common data bus.

Whilst it is envisaged that users and system integrators will often devise specific software routines to provide a total control or monitoring system, the unit can be operated immediately with industry standard virtual instrumentation software and industry standard programmable operator control stations.

### SPECIFICATION

#### PERFORMANCE

Temperature range: -10°C to +150°C (Standard)  
-10°C to +300°C (Extended)

(High temperature option: 600°C)

Accuracy: ±2K or ±2% from +10°C to +150°C (Std)  
±5K or ±5% from +30°C to +300°C (Ext)

Field of view (FOV): 20° x 20°  
(optional 10° x 10°)  
(optional 40° x 40°)

Spectral Response: 8 to 14 micrometres

Temperature sensitivity: ~0.5K @ 30°C (Std)

Temperature readout: All 256 pixels via  
RS232

Detector: 16 x 16 pixel array

Frame rate: 8Hz

#### INTERFACE

RS232

A 2 metre cable is supplied as standard.

#### IMAGER POWER SUPPLY

12V DC @ 300mA.

#### MECHANICAL

Housing: Die-cast aluminium

Dimensions: 100mm x 110mm x 60mm

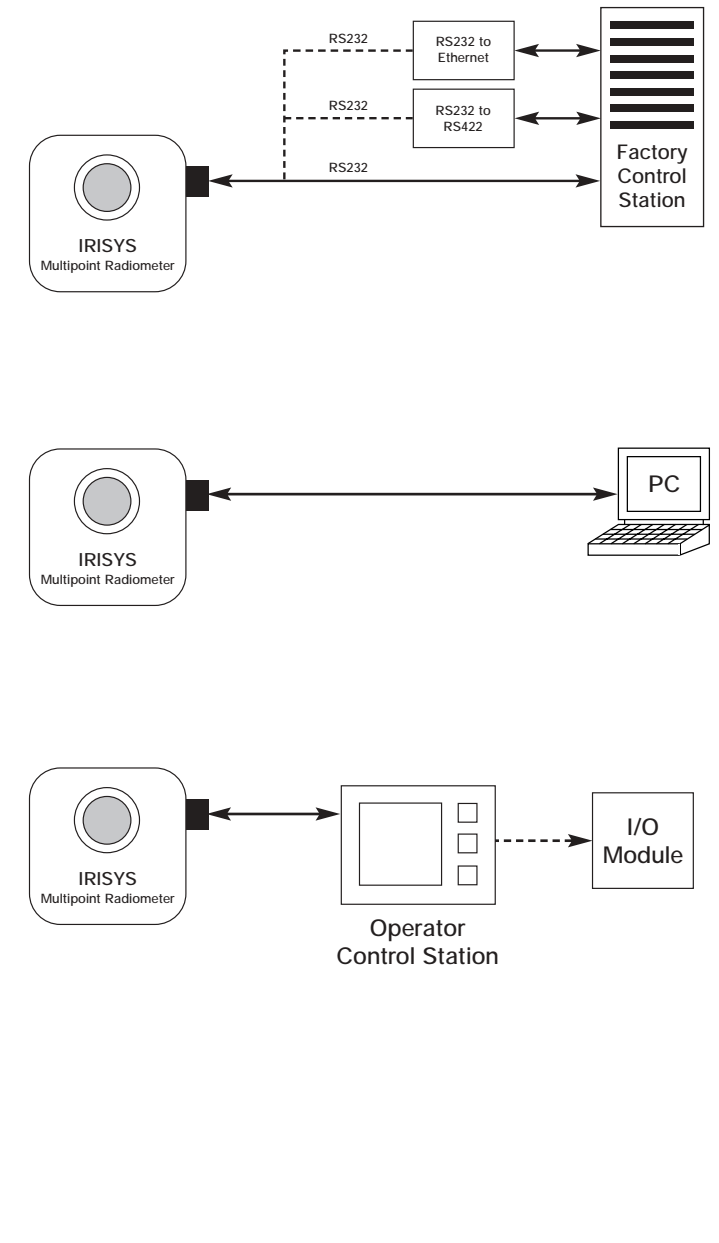
Weight: ≤ 0.7kg

Mounting: Mounting brackets supplied.

#### OPTIONS

- 10° x 10° FOV, 40° x 40° FOV.
- High temperature filter and calibration.
- Rugged carrying case.
- RS232 to Ethernet conversion unit

### TYPICAL CONFIGURATIONS



#### ENVIRONMENT

IP rating: IP64

Temp. operating range: -5°C to +50°C

Temp. storage range: -20°C to +80°C

Humidity: 10% to 100% non condensing

CE Mark (Europe): Complies with EMC directive

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