



IRCAM 82

Infrared Camera for Thermography

INTRODUCTION

IRCAM 82 is an infrared camera system which enables accurate non-contact temperature measurements. The system can measure up to 82 000 temperature points on the object as opposed to a pyrometer which only reads one single point. The IRCAM design is modular so that it can be adapted to a multitude of industrial processes such as glass, plastic, steel, paper, cement. A high resolution two-dimension image is formed, enabling detection of tiny hot spots and temperature non-uniformity.

IRCAM is available with different fields of view and measurement temperature range. The user friendly software provides great flexibility in accessing and displaying various data for fast display of anomalies in the field of view. It has been designed to give immediate presentation of data with a simple and intuitive interface. Operating in the familiar Windows environment, button and icon tool selection with point and click operation ensures clear display of the temperature cartography as well as zoom on area of interest.

ADVANTAGES

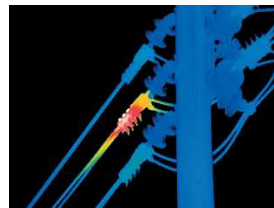
- Non contact temperature measurement
- High spatial resolution (320 x 256 points)
- High temperature measurement accuracy
- Real time digital image output
- Remote control through PC

APPLICATION

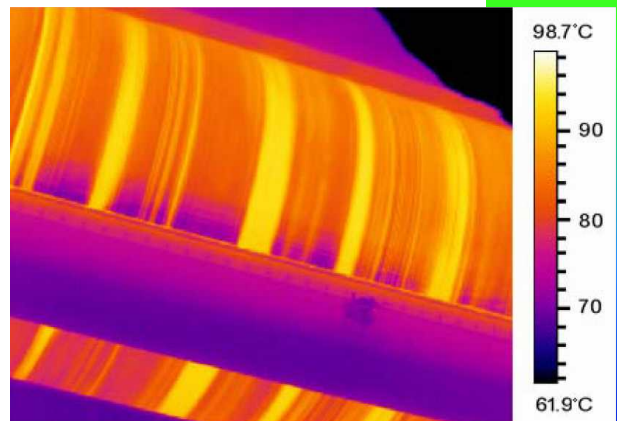
- Process control monitoring (glass, plastic, paper, steel)
- Printed circuit board inspection
- Thermal design of electronic products
- Electrical power lines/ insulators inspection
- Hot spot detection on power distribution panel
- Medical (rheumatoid arthritis, arteriosclerosis)
- Car industry (heating, air conditioning, engine, brakes)
- Early detection of forest fire
- Pollution monitoring



IRCAM optical sensor head



Electrical line to line jumper



Moisture on paper ribbon

TECHNICAL DATA

OPTICAL SENSOR HEAD

FOV (horizontal x vertical) :	15° x 12°
Image resolution :	0.8 mrad
Frame rate :	50 frames per second
Spectral range :	2 to 5 µm or 8 to 10 µm
Detector type :	HgCdTe 320 x 256 FPA
Detector cooling :	Stirling cooler
Temperature measurement range :	-20°C to 300°C
Temperature measurement resolution :	0.05°C at 20°C
Temperature measurement accuracy :	+/- 0.4% of full scale
Temperature calibration :	Internal blackbody
Video output :	RS-422 14 bits digital
Control interface :	RS-422
Dimensions (excluding lens) :	160 mm (H) x 150 mm (W) x 350 mm (L)
Weight (excluding lens):	5 kg
Operating temperature :	+5°C to +40°C
Power supply :	230 VAC/ 50 Hz

DISPLAY AND ANALYSIS SOFTWARE

Operating system:	PC Windows 2000 / XP
Software functions:	Remote sensor control and set-up False colour display (3 colour palettes) Adjustment of temperature scale Selection of emissivity Display of image min and max temperatures Automatic contrast/brightness control Storage of images on hard disk (BMP format)

OPTIONS

FOV (horizontal x vertical) :	6°x4°, 2.8°x2.2°, 1.8°x1.5°
Temperature range :	-20°C to 900°C

Above information is subject to changes without notice



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