IC-083

THERMAL CAMERA

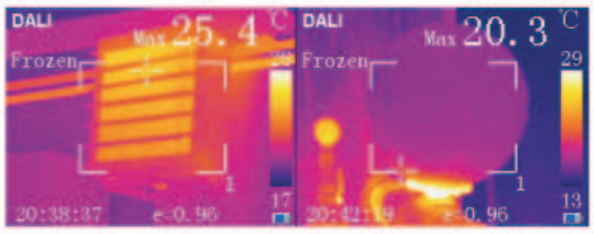
The **IC-083** is a thermal imaging camera very versatile that can be used in countless applications such as industrial maintenance, energy efficiency, non-destructive controls, medicine and veterinary, security and fire fighting, petrochemical, research, etc. It has a built-in LCD screen which displays the captured images in real time. It is the most economical solution for beginners in infrared thermography issues.

- ✓ *Uncooled FPA detector*
- ✓ *160 x 120 pixels resolution*
- ✓ *Operating temperature range -20 to +350 °C*
- ✓ *Recording visible and thermal images in JPEG format*
- ✓ *60 seconds of audio recording*
- ✓ *Recording on micro-SD card*
- ✓ *Video output*
- ✓ *Up to 3 hours of continuous operation*

Multiple applications in the field of Industry

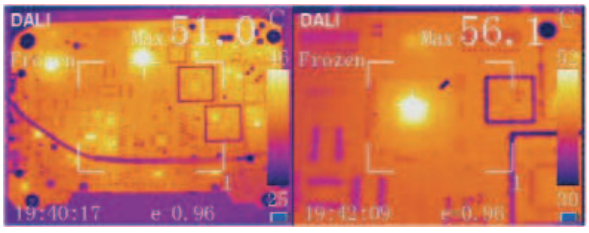
Industrial maintenance

Detection of hot spots in electrical panels, engines and machines of any kind. This information can be crucial to avoid service interruption or accidents.



Design, manufacture and maintenance of electronic circuits

The identification of hot spots in a circuit can help to detect faults and anticipate operational problems.



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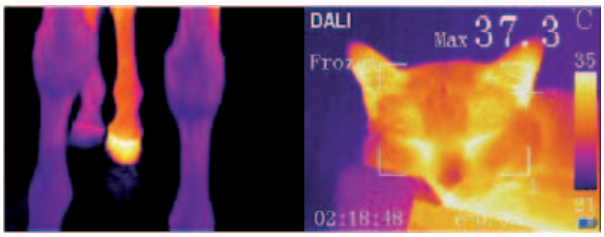
Many applications in the field of Medicine

Medicine and Veterinary

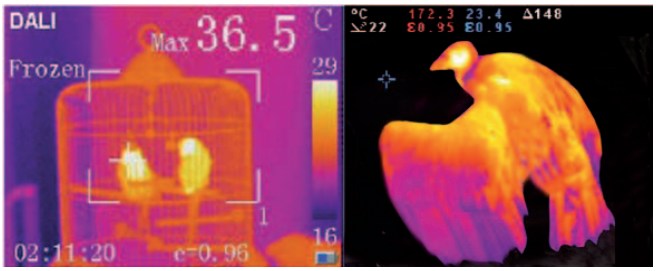
The use of thermography in veterinary medicine is very effective to detect different types of injuries since, in general, injuries usually have associated an increase in blood flow and therefore an increase of temperature in the affected area.



Applications in the field of Search and Rescue

Location of living beings in the dark

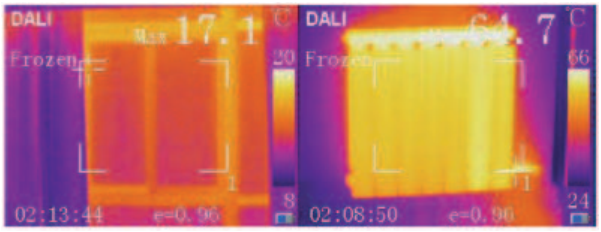
Because of living beings generally have a body temperature above ambient temperature it is possible to locate them in the dark.



Multiple applications in the field of Construction and Maintenance

Construction and Maintenance

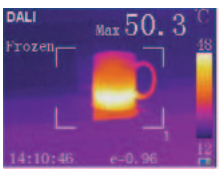
Insulation and energy saving. The thermal infrared cameras identify those points of a construction whose insulation is poor and therefore allow heat loss. They can also be used to detect leaks in pipes, detect moisture, check the operation of heating systems, etc...



Multiple applications in the field of Petrochemicals

Chemistry and derivatives

Verification of the contents of containers. In industry, for example, it allows knowing how much gas is left in a cylinder pressure, to which acces is difficult.



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THERMAL CAMERA

Specifications	IC-083
Detector	
Detector type	Uncooled FPA micro-bolometer. CCD 1.3 mpix., COMS camera modules
Array size/format	160×120
Image management	
Field of view / min focus distance	25º x 19º / 0.1m
Spatial resolution (IFOV)	2.725 mrad
Thermal sensitivity	≤ 0.07 ºC @ 30 ºC
Frame frequency	50 / 60 Hz
Focus	Manual
Spectral range	8 ~ 14 µm
Built-in visible light	Yes
Image display	
LCD display	2.7” color TFT LCD, 320x240 pixels
Image adjustment	Auto or manual gain and brightness
Color palette	11 changeable palettes
Measurement	
Temperature ranges	From -20 ºC to +350 ºC (expandable up to 650 ºC)
Accuracy	±2ºC or ± 2% of reading, whichever is greater
Measurement correction	Automatic or manual
Measurement mode	Up to 4 movable spots. Up to 3 movable areas (maximum, minimum and average temperatures) Up to 2 movable lines. Line profile. Isotherms. Temperature difference. Alarm (voice, color)
Setup functions	Date / time, temperature unit, language
Emissivity correction	Variable from 0.01 a 1.0
Background temperature correction	Automatic corrections according to user input
Atmospheric transmission correction	Automatic correction according to user input object distance, humidity and temperature
Image storage	
Storage card	2 GB SD card, max. 16 GB
Storage mode	Manual or Automatic single file saving, IR and visual image link saving
Thermal file format	JPEG format, with original thermal measurement data included
Visible spectrum file format	JPEG format
Voice annotation	Built-in microphone up to 60 seconds of digital voice clip with each cared thermal imaging
Laser pointer	Class 2,1 mw / 635 nm (red) IEC 60 285
Power source	Rechargeable Li-Ion battery
Battery operating time	3 hours, continuous operation
Battery charging mode	Intelligent charger or power adaptor 12V (optional) to random charge
Power saving	Auto standby and auto-shut down
Mechanical features	
Dimensions and weight	230 mm × 105 mm × 245mm, 0.98 Kg
Handrail	Can be installed on both sides
Tripod	1/4″-20-UNC
Interface	Image and measurement data transfer via USB port (mini-USB), Micro SD (TF) cards slot, external DC input, video output

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