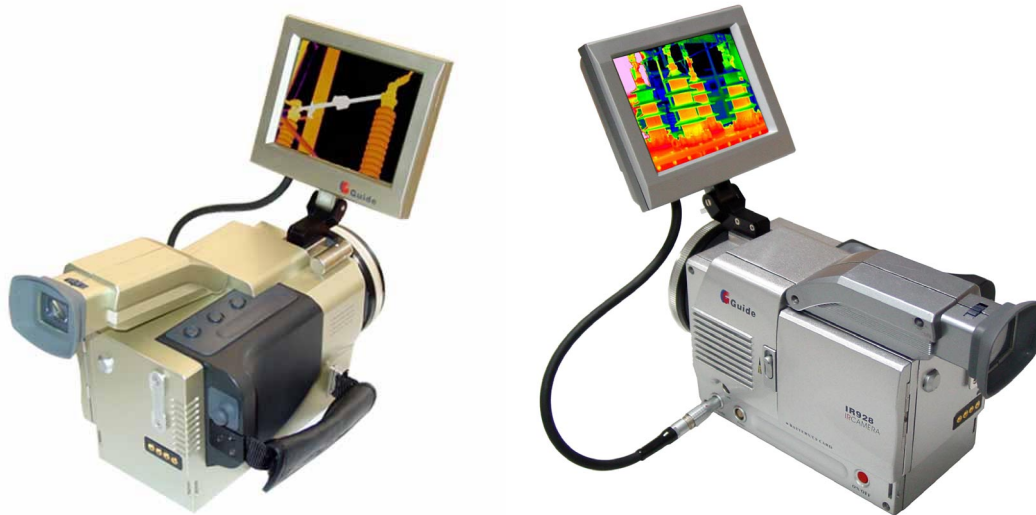


armstrong optical

IR928+



IR Thermography Camera IR928+

As a development from the powerful handheld IR thermal camera **IR928**, the integration of a high-resolution visible camera into the system provides enhanced performance and more reliable functionality at an unparalleled price. Working in conjunction with the bundled post-analysis software the **IR928+** greatly enhances efficiency and productivity of inspection programs providing professional thermographers with a truly useful tool.

Rugged and durable:

User- friendly controls, extremely light weight and rugged portability enable maintenance professionals to use the camera throughout a working day. The cameras rugged construction and **IP54** industrial rating mean that it is able to withstand shock and vibration and is suitable for inspection tasks in the harshest environments.

Intuitive user interface & easy operation:

Control is via three direct access buttons, a joystick and a Windows style menu, providing easy access to all functions and allowing “*point-and-shoot*” operation.

Efficient thermal and visual imaging:

With a thermal sensitivity of 0.08°C, the camera can detect and capture extremely small temperature differences in high-resolution, noise-free 16-bit thermal images. Sharp digital visual images provided by the built-in visible camera allow for direct comparison with the thermal image.

Precise reliable temperature measurement:

The camera is configured to automatically indicate hot spots and show the temperature at the centre of the image. Multiple cursors can be set to automatically indicate the position and temperature of the hottest spot within the image. A cursor can also be set to remain at the image centre showing its temperature, providing a reference for inspection analysis.

Multiple measurement modes:

The built-in analysis software is able to show simultaneous four-spot and/or four-area analysis, line profile, isotherm analysis and an electronic zoom function. This can expedite a comprehensive pinpointing of potential problems.

Audible and visible alarms:

An audio alarm can be set that will automatically trigger on discovery of a hotspot with temperature exceeding a preset value. Additionally, both audio and video alarms can be set to warn of low battery power.

IR locator & interfaces:

An integrated laser locator helps operators accurately associate a hot spot shown in the thermal image with the real physical target. Remote control of the camera is enabled via a built-in RS232 interface. A standard ¼" mount is located under the camera for use with a tripod.

Auto memory of customized setting and easy recover of default setting:

Preferred camera settings can be saved to memory and easily recalled. Pressing only one button will reset all the default settings of the camera if necessary.

Large capacity radiometric image storage:

A compact flash memory card stores the fully radiometric images together with temperature measurement and voice annotations. Images can be easily and rapidly downloaded from camera to PC via the built-in interfaces.

Live video transmission:

An optional communication interface allows the transfer of live video output via wireless transmission up to 750m to a remote monitor, enabling the sharing of real-time findings with a base-station.

Professional inspection and reporting software:

Offering an extensive range of temperature measuring, image processing and report generating functions, the easy-to-operate Windows-based software highly automates the process of reporting and archiving infrared images, improving the productivity and efficiency professional thermographers.

License free and rapid delivery:

By utilizing European microbolometer FPA detector technology, the camera avoids the requirement of End-User licensing often seen with other systems; this significantly improves the access and delivery time to our customers throughout the world.



Specification:

Thermal channel:

Detector type: uncooled FPA silicon microbolometer (320x240 pixel, 45um)
Spectral range: 8-14 micron
FOV: 21° x 15°
Frame rate: 50Hz PAL, 60Hz NTSC, non-interlaced
Thermal sensitivity: 80mK at 30°C
Electronic zoom: x2, x4, interpolating

Visible channel:

Built-in digital video: CMOS, 640x480 pixel, 2²⁴ colours

Image presentation:

External display: 4" high-resolution colour LCD (TFT)
Viewfinder: 0.25" built-in high-resolution colour LCD (TFT)
Video output: PAL/NTSC, composite video

Measurement:

Temperature range: -20 to +500°C (up to +1500°C optional)
Accuracy: +/- 1°C or +/- 1% of reading
Measurement modes: Spot/manual (up to 4 moveable), spot/automatic placement at max, min, or average, isotherm, line profile, auto alarm.
Measurement features: Automatic correction based on user input for emissivity, reflected ambient temperature, distance, relative humidity, atmospheric transmission and external optics.

Image storage:

Type: Removable 256Mb Compact Flash memory card
File format: IRI (an individual file consists of IR image, visual image and voice annotation – if any)
Voice annotation: up to 360s per file

Laser locator:

Classification type: Class 2 semiconductor laser

Power system:

Battery type: Rechargeable Li-Ion Camcorder-style battery, field replaceable
Operating time: > 3hrs continuous operation

External power:

Operation: AC adapter 110/220 VAC, 50/60Hz

Environmental specification:

Operating temperature: -20 to +60°C
Storage temperature: -20 to +60°C
Humidity: Operating & storage 10 to 95%, non-condensing
Encapsulation: IP54 IEC 529 housing
Shock: Operational 25G, IEC 68-2-29
Vibration: Operational 2G, IEC 68-2-6

Interfaces:

Remote control: RS232 serial communication
Live video transmission: >750m to a remote monitor (optional)

Physical characteristics:

Weight: 1.6kg (including battery)
Size: 148x104x108mm (standard model)
Tripod mounting: 1/4"

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