

One Range. No Switching.

FLIR IR6 Wide Dynamic Range Thermal Machine Vision Camera for Industrial Automation

-20°C to 1500°C

Calibration Range

Measure hot and cold materials, components, and surfaces in the same frame without switching temperature ranges— maintaining thermal visibility throughout the process.

640 × 480

Thermal Resolution

Capture detailed temperature variations across the entire scene to automate inspections, detect thermal anomalies, and flag temperatures outside predefined limits.

60 Hz

Full-Frame Imaging

Capture real-time thermal changes across high-speed production lines to identify potential quality issues during manufacturing.

Consistent thermal measurement across changing processes

Industrial processes rarely involve one temperature. Hot materials, cooler components, and changing process conditions can all occur within the same field of view. Switching measurement ranges to accommodate these differences can complicate inspection and disrupt consistent monitoring. By capturing different temperatures within the same frame, the IR6 gives manufacturers a consistent view of thermal conditions as materials and processes change, without the need to switch measurement ranges.

Designed for machine vision integration, the compact Flir IR6 combines radiometric measurement with GigE Vision, GenICam, and PoE connectivity for seamless integration into compatible machine vision, robotics, and automation systems.

Key Values

Maintain Consistent Thermal Inspection

Measure hot and cold materials within the same image without switching temperature ranges, ensuring reliable thermal monitoring across processes with varying temperatures.

Keep Pace with Production

Capture thermal data at 60 Hz to monitor moving products, detect temperature deviations, and support real-time quality inspections without interrupting production.

Extend Machine Vision Capabilities

Add thermal measurement to existing machine vision and automation systems with GigE Vision, GenICam, and PoE connectivity, enabling more comprehensive inspections and process control.

Key Applications

Improve Process and Quality Inspection

Detect temperature variations that may affect product quality during sealing, welding, adhesive application, electronics manufacturing, and battery production. With full-frame thermal imaging at 60 Hz, the IR6 enables automated systems to identify potential defects and monitor quality without slowing production.

Expand OEM Inspection Capabilities

The IR6 combines calibrated thermal measurement, compact design, and flexible connectivity for easy integration into compatible machine vision, robotics, and automated inspection systems to enhance temperature-based inspection and process control.

Identify Abnormal Heat Buildup

The IR6 provides continuous thermal monitoring across battery energy storage (BESS) facilities, recycling plants, warehouses, flare monitoring applications, and other high-risk environments to detect abnormal heat buildup, identify potential fire hazards, and enable earlier intervention.

Monitor Critical Assets for Developing Faults

The IR6 provides continuous, non-contact thermal monitoring of electrical cabinets, motors, transformers, bearings, and other critical equipment to detect developing faults, support condition-based maintenance, and reduce the risk of unplanned downtime.