Flir IR6

Wide Dynamic Range Infrared Machine Vision Camera



Key Features:

- Wide temperature range and unparalleled sensitivity that accurately measures temperatures from -20˚C to 1500˚C (-4˚F to 2732˚F) without manual subrange switching
- High 60 Hz frame rate and advanced windowing allow for sharp capture of fast-moving objects
- Plug-and-play integration via GigE Vision and GenICam, with Atlas and Spinnaker SDK support for image streaming and camera control
- Ultra-compact form factor enables installation in tight spaces and small enclosures, while reliable operation in high-temperature environments provides integrators with flexibility and confidence in demanding conditions

Main Applications:

- Industrial Process Monitoring: real-time detection of subtle temperature variations for quality assurance and condition monitoring in manufacturing lines
- OEM integration: featuring a compact form factor and industry-standard interfaces, the IR6 simplifies system design and product development

Specifications

Model	IR6
Imaging and Optical	
Infrared resolution	640 × 480 pixels
Thermal sensitivity (NETD)	≤40 mK; f/1.0, 25°C (77°F) object, 22°C (71.6°F), ambient, spatial, and temporal filtering applied
Lens options	VGA Focal Length: 7 mm, 8.5 mm, 14 mm, 19 mm, 25 mm
Lens mount	VGA - M25
F-number	1.2
Image frequency	60 Hz
Focus	Manual
Calibration range	-20°C to 1500°C (-4°F to 2732°F)*
Accuracy, typical	±5°C or ±5% of reading, whichever is greater**
Accuracy, controlled conditions	±3°C or ±2% of reading, whichever is greater, at 21°C ambient, fixed distance, target ≥70 × 70 pixels

**600°C to 1500°C (-1048°F to 2732°F) with burn-in management*

***Field accuracy depends on system integration and scene conditions. Very small or cold targets next to much hotter backgrounds may read less accurately*

Model	IR6
Detector Data	
Spectral range	7.3–14 µm (LWIR)
Detector pitch	17 µm
Ethernet	
Interface	Wired
Connector type	RJ-45
Ethernet	Control, image, and power
Ethernet, type	Gigabit Ethernet
Ethernet, standard	IEEE 802.3
Communication	GigE Vision / GenICam
Power	Power over Ethernet (PoE)
Protocols	GigE Vision
Power System	
Power consumption, typical	12 V: 2.8 W 24 V: 2.8 W PoE (48 V) 3.5 W
Power consumption, maximum	12 V: 4.4 W 24 V: 4.4 W PoE (48 V) 4.8 W

Specifications subject to change. For the most up-to-date specifications, visit flir.com.

For technical or sales support, please visit:

www.flir.com

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Revised 10/29/26

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Specifications, continued

MODEL	IR6
Environmental Data	
Operating temperature range	-20°C to 60°C (-4°F to 140°F) *To avoid possible damage during storage, ensure that the sensor is not exposed to air. Use a lens cap or lens to cover the sensor
Humidity (operating and storage)	Maximum 80% relative humidity, non-condensating
Sun exposure	Designed to withstand direct sunlight without permanent damage
Physical Data	
Weight (without lens)	65 g (2.47 oz)
Size (L × W × H, without lens)	29 mm × 37 mm × 56 mm
Tripod mounting	UNC ¼″-20

Flir IR6 640 × 480 (VGA)

EFL (mm)	HFOV (Degrees)	VFOV (Degrees)	Working Distance
7.0	82°	63°	0.1 m to ∞
8.5	67°	52°	0.6 m to ∞
14.0	46°	34°	0.6 m to ∞
19.0	32°	24°	1.4 m to ∞
25.0	24°	18°	1.0 m to ∞

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