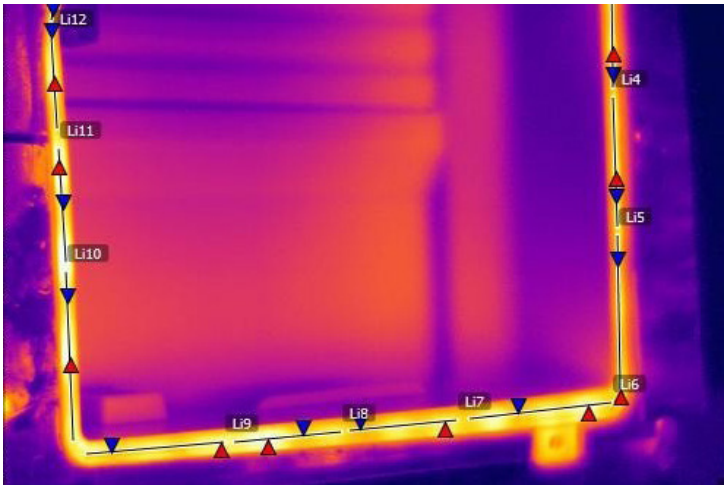
FLIR A38/A68

Thermal Cameras for
Machine Vision



FLIR A38/A68 thermal cameras are Teledyne FLIR's smallest uncooled long-wave infrared cameras for industrial automation and machine vision applications. Designed for use in process control and quality assurance, these thermal imaging temperature sensors provide visual temperature information to support key decision-making in applications where detecting small temperature variations is critical.

Standard vision camera protocols allow the cameras to integrate seamlessly into GenICam™ compliant software resulting in accelerated system development and solution deployment. The compact size and uncomplicated camera design deliver reliable and robust thermal imaging data. While straightforward connections with Power over Ethernet (PoE) and expanded operating temperature range make them ideal thermal cameras for easy installations in industrial environments.

www.flir.com/A38_A68

SIMPLIFIED SETUP FOR COMPLEX APPLICATIONS

Uncomplicated design results in reliable and robust thermal imaging data

- GigE Vision provides a simple image streaming interface
- GenICam compliance makes is easy to integrate camera into user-built software
- Compatible with 3rd party SDKs allows user to work in their preferred environment

EASY INTEGRATION INTO EXISTING SYSTEMS

Standard vision camera protocols accelerate development and solution deployment

- 60 Hz imaging frequency provides the high frame rates needed for numerous in-process applications
- 8- and 16-bit video streams meet the needs of most machine vision integrators
- Power over Ethernet (PoE) reduces cabling and installation complexity

SWaP-C OPTIMIZED

FLIR A38/A68 cameras are small, rugged, and affordable

- Compact 29 × 36 × 59 mm form factor allows the camera to fit into tight spaces and small enclosures
- Expanded operating temperature range ensures the cameras can function in a wider range of environments

SPECIFICATIONS

Model	A38 (24° or 42° lens)	A68 (24° or 42° lens)
Infrared resolution	320 × 240 pixels	640 × 480 pixels
Thermal sensitivity (NETD)	<50 mK @ 25°C ambient	<50 mK @ 25°C ambient
Field of view (FOV)	24° × 18.1° or 40.1° × 29°	24.2° × 18.4° or 42.1° × 31.9°
Minimum focus distance	0.4 m (1.3 ft) or 1.5 m (4.9 ft)	2.0 m (6.6 ft) or 1.3 m (4.3 ft)
Focal length	13 mm (0.51 in) or 8.1 mm (0.32 in)	25 mm (0.98 in) or 14.2 mm (0.56 in)
f-number	1.0 or 1.1	1.2 or 1.24
Image frequency	60 Hz	30 Hz
Focus	Fixed	Fixed
Spectral range	8–14 µm (LWIR)	8–14 µm (LWIR)
Detector pitch	17 µm	17 µm
Ethernet		
Interface	Wired	Wired
Connector type	RJ-45	RJ-45
Ethernet, purpose	Control, image, and power	Control, image, and power
Ethernet, type	Gigabit Ethernet	Gigabit Ethernet
Ethernet, communication	GigE Vision / GenICam	GigE Vision / GenICam
Ethernet, power	Power over Ethernet (PoE)	Power over Ethernet (PoE)
Ethernet, standard	IEEE 802.3	IEEE 802.3
Ethernet, protocols	GigEVision	GigEVision
Pixel format	Mono8 or 16-bit/pixel	Mono8 or 16-bit/pixel
Power		
Power consumption, typical	12 V: 2.8 W 24 V: 2.8 W PoE (48 V): 3.5 W	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	12 V: 4.4 W 24 V: 4.4 W PoE (48 V): 4.8 W

Environmental		
Operating temperature range	-35°C to 60°C (-31°F to 140°F)	-35°C to 60°C (-31°F to 140°F)
Storage temperature range	-40°C to 80°C (-40°F to 176°F)*	-40°C to 80°C (-40°F to 176°F)*
Humidity (operating and storage)	Maximum 80% relative humidity, non-condensating	Maximum 80% relative humidity, non-condensating
General		
Weight (without lens)	67 g (2.4 oz)	67 g (2.4 oz)
Size (without lens, L/W/H)	59 × 29 × 36 mm (2.32 × 1.14 × 1.42 in)	59 × 29 × 36 mm (2.32 × 1.14 × 1.42 in)
Tripod mounting	UNC ¼"-20	UNC ¼"-20
Color	Black	Black

*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.

Specifications are subject to change without notice.
For the most up-to-date specs, go to www.teledyneflir.com

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For more information contact: **Sales@TeledyneFLIR.com**
or to find your local support number, visit: **flir.com/contactsupport**