FLIR Axxx-SERIES SMART SENSOR

Fixed-Mount Thermal Camera

Key Features:

- On-camera temperature measurement and alarming tools provide immediate results
- Unrivaled connectivity and on-the-edge computing for easy integration into web applications
- Robust and reliable thermal imaging for applications where temperature accuracy matters

Main Applications:

- Continuous thermal monitoring of critical infrastructure
- Early fire detection for fast response
- Temperature-based machine and process control

SPECIFICATIONS

Detector Data	Standard Configuration	Advanced Configuration
IR resolution	320 × 240 (A400), 464 × 348 (A500), or 640 × 480 (A700)	
Visual resolution	1280 × 960	
Focal plane array/spectral range	<30 mK to <50 mK, lens dependent	
Lenses	°, 14°, 24°, 42°, 80°, FlexView® Dual FOV (24°/14°), FlexView® Dual FOV (42°/24°) lenses	
IR camera focus	One-shot contrast, motorized, manual	
Measurement		
Object temperatures	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F) A400/A500: 300°C to 1500°C (572°F to 2732°F) A700: 300°C to 2000°C (572°F to 3632°F)	
Accuracy	±2°C (±3.6°F) or ±2% of reading	
Measurement analysis		
Standard functions	10 spotmeters, 10 boxes, 3 Deltas, 1 isotherm, 1 iso-coverage, 1 reference temperature	10 spotmeters, 10 boxes & mask polygons, 3 Deltas, 2 isotherm, 2 iso-coverage, 1 reference temperature, 2 lines, 1 polyline
Automatic hot/cold detection	Max./min. temperature value and position shown within box	
Scheduled response	SFTP (image), SMTP (image and/or measurement data/result)	
Measurement frequency	Up to 10 Hz	
Measurement result read-out	Yes; common protocols include EtherNet/IP, Modbus TCP, MQTT, and REST API	
Dynamic Range	16-bit	

Alarm	Standard Configuration	Advanced Configuration
Alarm function	On any selected measurement function; digital in; internal camera temperature	
Alarm output	Yes: common output includes e-mail, EtherNet/IP, Modbus TCP, RESTful API, and ONVIF (advanced only)	
Video streaming, RTSP protocol		
Unicast	Yes	
Multicast	Yes	
Multiple image streams	Yes	
RTSP protocol - video stream 0		
Source	Visual, IR, MSX®	
Contrast enhancement	FSX®, histogram equalization (IR only)	
Overlay	With, without	
Pixel format	YUV411	
Encoding	H.264/MPEG4/MJPEG	
RTSP protocol - video stream 1		
Source	Visual	
Overlay	No	
Pixel format	YUV411	
Encoding	H.264/MPEG4/MJPEG	
Radiometric streaming		
Source	-	IR
Pixel format	-	MONO 16
Encoding	-	Compressed JPEG-LS; FLIR radiometric

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SPECIFICATIONS, CONT.

Ethernet	Standard Configuration	Advanced Configuration
Interface	Wired; Wi-Fi*	
Connector types	M12 8-pin X-coded, female; RP-SMA, female	
Ethernet type & standard	1000 Mbps, IEEE 802.3	
Ethernet power	Power over Ethernet, PoE IEEE 802.3af class 3	
Ethernet protocols	Include EtherNet/IP, Modbus TCP, and MQTT	
Digital input/output		
Connector type	M12 Male 12-pin A-coded (shared with ext. power)	
Digital input	2× opto-isolated, Vin (low) = 0-1.5 V, Vin (high) = 3-25 V	
Digital output	3× opto-isolated, 0–48 V DC, max. 350 mA (derated to 200 mA at 60°C). Solid-state opto relay, 1× dedicated as fault output (NC)	
Power system		
Connector type	M12 Male 12-pin A-coded (shared with Digital I/O)	
Power consumption	7.5 W at 24 V DC typical; 7.8 W at 48 V DC typical; 8.1 W at 48 V PoE typical	
Wi-Fi*		
Connector type	Female RP-SMA	

*Optional feature

The FLIR A-Series cameras are designed for configuration to your specific needs.

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