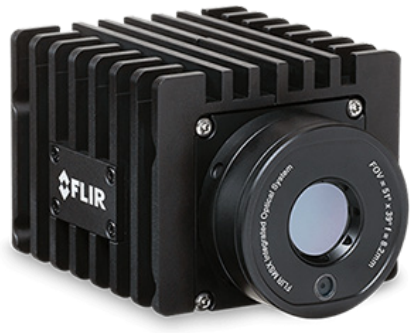
FLIR A40™

Compact Thermal Smart Sensor Camera

www.flir.com/products/A40



Key Features

- Accurate and stable temperature measurement for 24/7 monitoring, when higher resolution is not required
- Narrow field of view option for system integrators
- Easy integration to existing IT systems with support for Industrial protocols, such as modbus TCP, EtherNet/IP, MQTT and REST API
- Small and rugged with various connections including: M12 Ethernet, Digital I/O, RS-232/485
- IP66 rated with diamond-like carbon coating on the lens for durability.

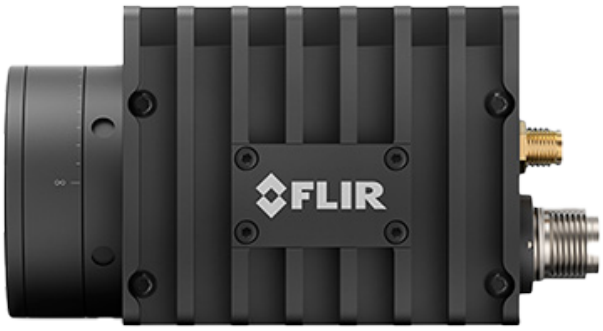
Main Applications

- On-camera analytics and alarm capabilities for condition monitoring and early fire detection
- Quickly access thermal characteristics to catch potential failures, and detect fires before signs of smoke or flames
- Simplify integration efforts with thermal smart sensors that communicate with standard industrial protocols and video management systems

SPECIFICATIONS

Image and Optical Data	
IR Resolution	320 × 240
Visual Resolution	1280 × 960
Thermal Resolution	29°: <35 mK, 51°: <35 mK, 95°: <35 mK
Focus	Fixed, adjustable with included focus tool
Spatial Resolution (IFOV)	29°: 1.7 mrad/pixel, 51°: 3.0 mrad/pixel, 95°: 5.8 mrad/pixel
FOV Options	29°, 51°, 95°
Detector Pitch	25 µm
Spectral Range	7.5–14.0 µm
Frame Rate	30 Hz
Measurement	
Object temperature range	-20°C to 175°C (-4°F to 347°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading, for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)
Measurement Analysis	
Standard Functions	10 Spotmeters, 10 Boxes or Polygons, 3 Deltas (difference any value/reference/external lock), 2 Isotherm (above/below/interval), 2 Iso-coverage, 2 Lines, 1 Polyline, 1 Reference temperature

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



For technical or sales support, please visit:
www.flir.com/about/general-inquiries

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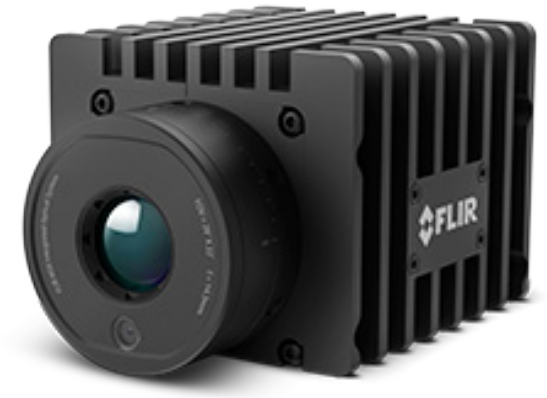
Measurement Analysis Continued	
Automatic Hot/Cold Detection	Max./Min. temperature value and position shown within Box
Measurement Frequency	Up to 10 Hz
Measurement Result Read-out	EtherNet/IP (pull), Modbus TCP server/client (pull), MQTT (push), Query over REST API (pull), Measurements and still image (radiometric JPEG, visual 640 × 480, visual 1280 × 960), read access only, Web interface
Alarm	
Alarm Function	On any selected measurement function, digital in, and internal camera temperature
Alarm Output	Digital out, e-mail (SMTP) (push), EtherNet/IP (pull), file transfer (FTP) (push), Modbus TCP server (pull), MQTT (push), Query over RESTful API (pull), and store image or video
Video Streaming, RTSP	
Unicast	Yes
Multicast	Yes
Radiometric RTSP	Compressed JPEG-LS (FLIR Radiometric)
Multiple Image Streams	Yes
Video Stream 0	
Streaming Resolution	320 × 240
Source	Visual / IR / MSX® (*Not available in the 95°) / FSX®
Contrast Enhancement	FSX® / Histogram equalization (IR only)
Overlay	With/Without
Encoding	H.264, MPEG4, or MJPEG
Video Stream 1	
Streaming Resolution	1280 × 960
Source	Visual
Overlay	No
Encoding	H.264, MPEG4, or MJPEG
Ethernet	
Interface	Wired
Ethernet Connector Types	M12 8-pin X-coded, female
Ethernet Type & Standard	1000 Mbps, IEEE 802.3
Ethernet Power	Power over Ethernet, PoE IEEE 802.3af class 3
Ethernet Protocols	EtherNet/IP, Modbus TCP Server, MQTT, SNMP, TCP UDP, SNTP, RTSP, RTP, HTTP, HTTPS, ICMP, IGMP, sftp (server), FTP (client), SMTP, DHCP, MDNS (Bonjour), uPnP

Digital Input/Output	
Connector Type	M12 Male 12-pin A-coded (shared with external power)
Digital Input	2× opto-isolated, Vin (low) = 0 to 1.5 V, Vin (high) = 3 to 25 V
Digital Output	3× opto-isolated , 0 to 48 V DC, max. 350 mA (derated to 200 mA at 60°C). Solid-state opto relay, 1× dedicated as fault output (NC)
Power	
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
External Power Operation	24/48 V DC 8 W max
External Voltage	Allowed range 18 V to 56 V DC



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