

FLIR A310

AISMET 101-9

P/N: 48201-1101



Imaging and optical data

Field of view (FOV) / Minimum focus distance	25° x 18.8° / 0.4 m (1.31 ft.)
Focal length	18 mm (0.7 in.)
Spatial resolution (IFOV)	1.36 mrad
Lens identification	Automatic
F-number	1.3
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Image frequency	30 Hz
Focus	Automatic or manual (built in motor)
Zoom	1-8x continuous, digital, interpolating zooming on images

Detector data

Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 μm
IR resolution	320 x 240 pixels
Detector pitch	25 μm
Detector time constant	Typical 12 ms

Measurement

Object temperature range	-20 to +120°C (-4 to +248°F) 0 to +350°C (+32 to +662°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading

Measurement analysis

Spotmeter	10
Area	10 boxes with max./min./average/position
Isotherm	1 with above/below/interval
Measurement option	Measurement Mask Filter Schedule response: File sending (ftp), email (SMTP)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity
Optics transmission correction	Automatic, based on signals from internal sensors
Emissivity correction	Variable from 0.01 to 1.0
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
External optics/windows correction	Automatic, based on input of optics/window transmission and temperature
Measurement corrections	Global and individual object parameters
Alarm	
Alarm functions	6 automatic alarms on any selected measurement function, Digital In, Camera temperature, timer
Alarm output	Digital Out, log, store image, file sending (ftp), email (SMTP), notification
Set-up	
Color palettes	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/time, Temperature°C/F

Storage of images

Image storage type	Built-in memory for image storage
File formats	Standard JPEG, 16-bit measurement data included
Ethernet	
Ethernet	Control, result and image
Ethernet, type	100 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary
Ethernet, video streaming	MPEG-4, ISO/IEC 14496-1 MPEG-4 ASP@L5
Ethernet, image streaming	16-bit 320 x 240 pixels @ 7-8 Hz - Radiometric
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 0
Ethernet, protocols	Ethernet/IP, Modbus TCP, TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP

Digital input/output

Digital input, purpose	Image tag (start/stop/general), Input ext. device (programmatically read)
Digital input	2 opto-isolated, 10-30 VDC
Digital output, purpose	As function of ALARM, Output to ext. device (programmatically set)
Digital output	2 opto-isolated, 10-30 VDC, max 100 mA
Digital I/O, isolation voltage	500 VRMS
Digital I/O, supply voltage	12/24 VDC, max 200 mA
Digital I/O, connector type	6-pole jackable screw terminal

Composite video

Video out	Composite video output, PAL and NTSC compatible
Video, standard	CVBS (ITU-R-BT.470 PAL/SMPTE 170M NTSC)

Power system

External power operation	12/24 VDC, 24 W absolute max
External power, connector type	2-pole jackable screw terminal
Voltage	Allowed range 10-30 VDC

Environmental data

Operating temperature range	-15°C to +50°C (+5°F to +122°F)
Storage temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
EMC	<ul style="list-style-type: none"> • EN 61000-6-2:2001 (Immunity) • EN 61000-6-3:2001 (Emission) • FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP 40 (IEC 60529)

Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)

Physical data

Weight	0.7 kg (1.54 lb.)
Camera size (L x W x H)	170 x 70 x 70 mm (6.7 x 2.8 x 2.8 in.)
Tripod mounting	UNC 1/4"-20 (on three sides)
Base mounting	2 x M4 thread mounting holes (on three sides)
Housing material	Aluminium

Scope of delivery

- Hard transport case or cardboard box
- Infrared camera with lens
- Calibration certificate
- Ethernet™ cable
- Mains cable
- Power cable, pig-tailed
- Power supply
- Printed Getting Started Guide
- Printed Important Information Guide
- User documentation CD-ROM
- Utility CD-ROM
- Warranty extension card or Registration card