





# FLIR A50 Thermal Core 29°

P/N: 89829-0101

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#89829-0101; r. 76225;

<b>Measurement</b>	
Camera temperature range	<ul style="list-style-type: none"> <li>-20 to 175°C (-4 to 347°F)</li> <li>175 to 1000°C (347 to 1832°F)</li> </ul>
Object temperature range and accuracy (for ambient temperature 15–35°C (59–95°F))	<ul style="list-style-type: none"> <li>Range -20 to 175°C (-4 to 347°F):               <ul style="list-style-type: none"> <li>-20 to 100°C (-4 to 212°F), accuracy ±2°C (±3.6°F)</li> <li>100 to 175°C (212 to 347°F), accuracy ±2%</li> </ul> </li> <li>Range 175 to 1000°C (347 to 1832°F): accuracy ±2%</li> </ul>
<b>Ethernet</b>	
Interface	<ul style="list-style-type: none"> <li>Wired</li> <li>Wi-Fi (option)</li> </ul>
Connector type	<ul style="list-style-type: none"> <li>M12 8-pin X-coded, Female</li> <li>RP-SMA, Female</li> </ul>
Ethernet, purpose	Control, result, image, and power
Ethernet, type	1000 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, communication	<i>See Smart Sensor and Image Streaming configurations</i>
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 3
Ethernet, protocols	<i>See Smart Sensor and Image Streaming configurations</i>
<b>Digital Input/output</b>	
Connector type	M12 12-pin A-coded, Male (shared with external power)
Digital input	2x opto-isolated Vin(low)= 0–1.5 V, Vin(high)= 3–25 V
Digital input, purpose	<i>See Smart Sensor and Image Streaming configurations</i>
Digital output	<ul style="list-style-type: none"> <li>3x opto-isolated, 0–30 V DC, max. 300 mA (derated to 200 mA at 60C)</li> <li>Solid state opto relay</li> <li>1x dedicated as Fault output (NC)</li> </ul>
Digital output, purpose	<i>See Smart Sensor and Image Streaming configurations</i>
Digital I/O, isolation voltage	500 VRMS
<b>Power system</b>	
External power	18 VDC – 56 VDC, Max 8 W
Power over Ethernet (PoE)	44 VDC – 56 VDC, Max 8.1 W
Connector type	External power: <ul style="list-style-type: none"> <li>M12 12-pin A-coded, Max 450 mA (shared with Digital I/O)</li> </ul> PoE: <ul style="list-style-type: none"> <li>M12 8-pin X-coded, Max 350 mA</li> </ul>
<b>Wi-Fi (Option)</b>	
Connector type	RP-SMA, Female
Standard	<i>See Wi-Fi option</i>



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<b>Wi-Fi (Option)</b>	
Antenna	See <i>Wi-Fi option</i>
Connection type	See <i>Wi-Fi option</i>
<b>Environmental data</b>	
Operating temperature range	-20 to 50°C (-4 to 122°F), internal temperature should be kept below 70°C (158°F), all included cooling plates are recommended to be kept mounted.
Storage temperature range	IEC 68-2-1 and IEC 68-2-2, -40 to 70°C (-40 to 158°F) for 16 hours
Humidity (operating and storage)	IEC 60068-2-30/24 hours, 95% relative humidity, 25-40°C (77-104°F)/2 cycles EN60068-2-38
EMC	<ul style="list-style-type: none"> <li>• ETSI EN 301 489-1 (radio)</li> <li>• ETSI EN 301 489-17 (radio)</li> <li>• EN 61000-4-8 (magnetic field)</li> <li>• FCC 47 CFR Part 15 Class B (emission US)</li> <li>• ISO 13766-1 (EMC - Earth-moving and building construction machinery)</li> <li>• EN ISO 14982 (EMC - Agricultural and forestry machinery)</li> </ul>
Radio spectrum	<ul style="list-style-type: none"> <li>• FCC 47 CFR Part 15 Class C (2.4 GHz band US)</li> <li>• FCC 47 CFR Part 15 Class E (5 GHz band US)</li> <li>• RSS-247 (2.4 GHz and 5 GHz band Canada)</li> <li>• ETSI EN 300 328 V2.1.1 (2.4 GHz band EU)</li> <li>• ETSI EN 301 893 V2.1.1 (5 GHz band EU)</li> </ul>
Encapsulation	IEC 60529, IP66
Shock	IEC 60068-2-27, 25 g
Vibration	<ul style="list-style-type: none"> <li>• IEC 60068-2-6, 0.15 mm at 10-58 Hz and 2 g at 58-500 Hz, sinusoidal</li> <li>• IEC 61373 Cat 1 (Railway)</li> </ul>
Safety	IEC 62368-1 (IT equipment audio-visual products)
Corrosion	<ul style="list-style-type: none"> <li>• ISO 12944 C4 G or H</li> <li>• EN60068-2-11</li> </ul>
<b>Physical data</b>	
Weight (including lens)	0.52 kg (1.1 lb)
Size (L x W x H)	107 x 67 x 57 mm (4.21 x 2.64 x 2.24 in)
Base mount	4 x M2.5 directly onto camera or 4 x 10-32 UNF onto bottom cooling plate
Tripod mounting	UNC ¼"-20 on 2 sides
Housing material	Aluminium
Color	Black
<b>Warranty and service</b>	
Warranty	<a href="http://www.flir.com/warranty/">http://www.flir.com/warranty/</a>



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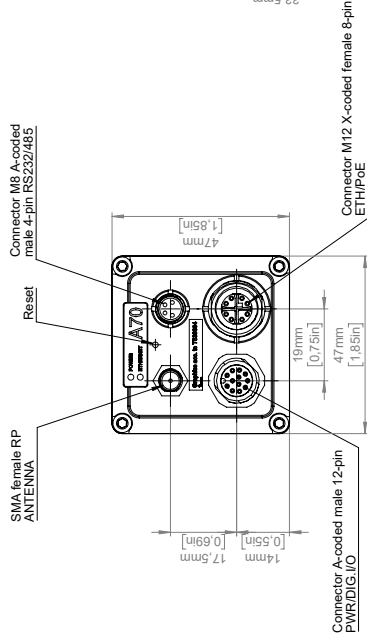
Shipping information	
Packaging, type	Cardboard box
Packaging, contents	<ul style="list-style-type: none"><li>• Infrared camera</li><li>• Cooling plate</li><li>• Focus adjustment tool</li><li>• Ethernet cable M12 to RJ45F (0.3 m), P/N T911869ACC</li><li>• Printed documentation including the username and password for log in to the web interface of the camera</li></ul>
Packaging, weight	0.92 kg (2.0 lb)
Packaging, size	182 × 128 × 109 mm (7.16 × 5.04 × 4.29 in)
EAN-13	7332558027905
UPC-12	845188024147
Country of origin	Sweden

### Supplies & accessories:

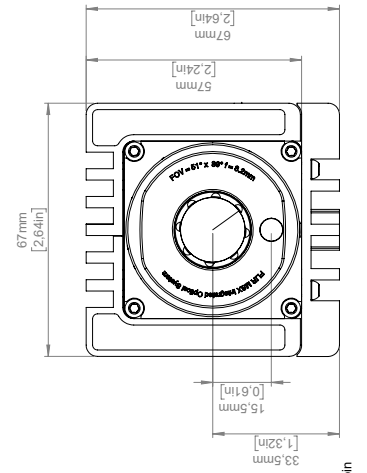
- T951004ACC; Ethernet cable CAT6, 2 m/6.6 ft.
- T130665ACC; Cooling plate
- T300075ACC; IP hood for lens
- T300202; Connector cap kit
- T300268ACC; A-series connection board
- T911850ACC; Antenna for WLAN 2.4/5 GHz
- T911852ACC; Cable M12 to pigtail, 2 m
- T911853ACC; Cable M12 to pigtail, 10 m
- T911854ACC; Ethernet cable M12 to RJ45, 2 m
- T911855ACC; Ethernet cable M12 to RJ45, 10 m
- T911869ACC; Ethernet cable M12 to RJ45F, 0.3 m
- T911183; Gigabit PoE injector 16 W, with multi-plugs
- T911997; Tripod
- T199507; Gigabit PoE injector 15 W
- T199870; Extended Calibration Certificate for A7xx
- T300292; Advanced Image Streaming configuration
- T300293; Advanced Smart Sensor configuration
- T300295; Option, Visual camera including MSX
- T911850; Antenna WLAN 2.4/5 GHz + Wi-Fi
- INST-EW-0185; Extended Warranty 1 Year for A7xx
- INST-EWGM-0160; Premium Service Package for A7xx
- INST-GM-0135; General Maintenance Package for A7xx
- T199865; Standard Smart Sensor to Standard Image Streamer
- T199866; WiFi Option, excluding Antenna

# Generic dimensions for all FOV

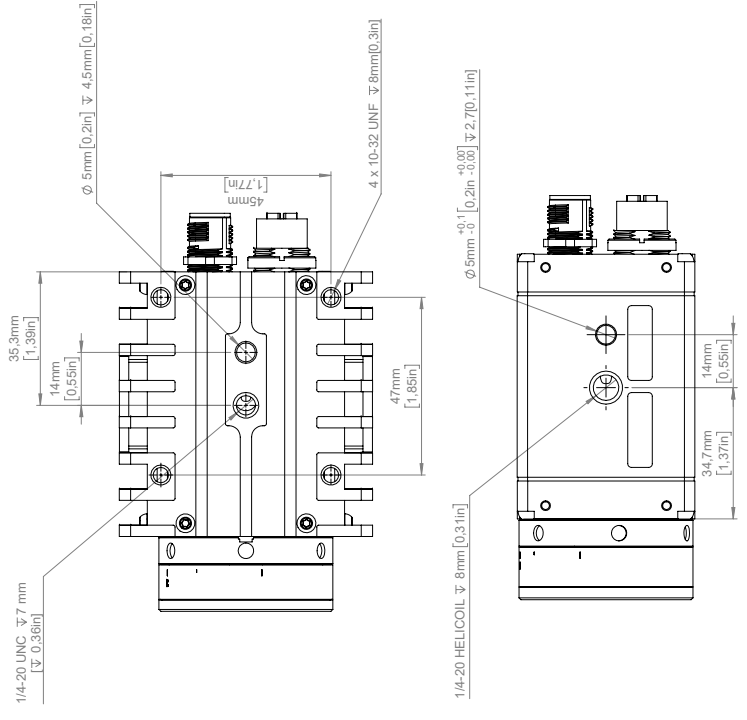
## Back View



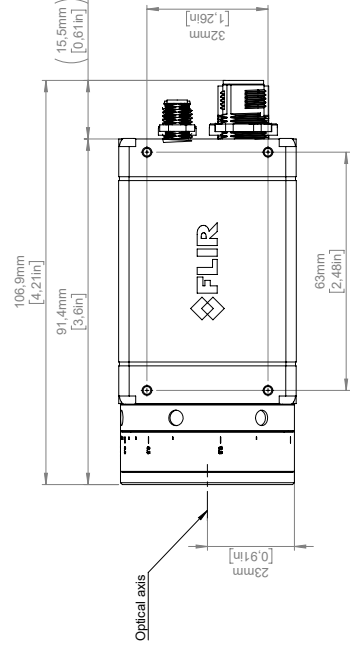
## Front View



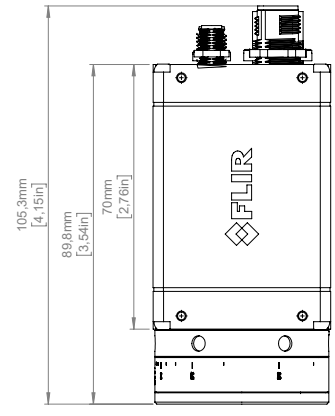
## Bottom View



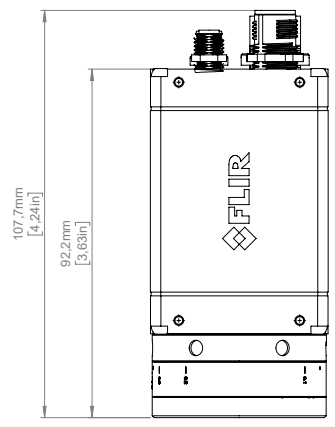
## IR Lens 29 deg



## IR Lens 51 deg



## IR Lens 95 deg



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Täby, Sweden March 26, 2021

AQ320438

## CE Declaration of Conformity – EU Declaration of Conformity

**Product:** FLIR AXX series including A50 and A70

**Name and address of the manufacturer:** FLIR Systems AB  
PO Box 7376  
SE-187 15 Täby, Sweden

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration: FLIR AXX series (Product Model Name FLIR-A8990).

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

### Directives

Directive	2011/65/EU	RoHS and 2015/830/EU (Phtalates)
Directive	2014/53/EU	Radio Equipment Directive (RED)

### Standards

Emission:	EN 55032:2015	Electromagnetic Compatibility multimedia
Immunity:	EN 55035:2017	Electromagnetic Compatibility multimedia
RoHS:	EN 50581:2012	Technical documentation
Radio:	ETSI EN 300 328 v2.1.2	Wideband transmission systems
	ETSI EN 301 893 V2.1.1	5 GHz RLAN
	ETSI EN 301 489-1 V2.2.3	EMC for radio equipment compatibility
	ETSI EN 301 489-17 V3.2.4	Broadband data transmission systems
Safety:	IEC 62368-1:2014 (2nd Edition) + Cor.1: 2015 + Cor.2: 2015 and EN62368-1: 2014 + AC: 2015 + A11: 2017 + AC: 2017	Audio/video Information technology equipment

**FLIR Systems AB**  
Quality Assurance



Lea Dabiri  
Quality Manager