

# FLIR FC-T2 Series

*Thermal Imaging Sensors for Traffic Monitoring*



FLIR FC-T2 Sensors deliver superior accuracy and reliability for any traffic monitoring application. Using FLIR's advanced thermal imaging sensors, the FC-T2 can detect vehicles in a wider variety of conditions than traditional color-only sensors. By detecting the heat of all objects in the scene, the FC-T2 Series operates in broad daylight or total darkness, poor weather and even light fog.

Because they are not hindered by reflections from sun glare, shadows, or headlights on wet pavement, FLIR's thermal traffic solutions deliver more reliable information with fewer false counts. Whatever road you're watching, see everything more clearly with the FLIR FC-T2.

- VEHICLE DETECTION AT INTERSECTIONS
- ROAD SIDE MONITORING
- MONITORING TRAFFIC IN TUNNELS
- HIGHWAY TRAFFIC MANAGEMENT



Normal vision



Thermal vision

## HIGH IMAGE QUALITY

The FLIR FC-T2 Series are equipped with an uncooled microbolometer detector that produces high quality thermal images on which the smallest of details can be seen.

## DIFFERENT LENS OPTIONS

FLIR Systems offers the FLIR FC T-Series with different lens options. They are available with a 13mm or 19mm lens.

## EASY TO INSTALL

FLIR FC-T2 Series thermal imaging sensors can be easily installed and integrated into existing infrastructure, adding 24/7 detection and without major civil works projects. Multiple video output connector options (BNC and Connector-less) also make installation simple and fast.

## DESIGNED FOR USE IN HARSH ENVIRONMENTS

The FC-T2 Series are extremely rugged systems, built to rigorous IP66 standards and protected from dust and water ingress. Their broad operational temperature range (-50°C to +75°C) makes them ideal for any climate.

## VIDEO ANALYTICS

The FLIR FC-T2 Series works perfectly together with video analytics, such as FLIR's VIP 3D Detection Boards. Thermal images are often used for vehicle presence detection at signalized intersections, and for 24/7 traffic monitoring



## FC-T2 Series: version specific specifications

Sensor resolution	320 x 240	640 x 480
Name/Focal length/ Field of view	FC-334 T2: 13 mm lens – FOV : 44° (H) x 36° (V) FC-332 T2: 19 mm lens – FOV : 32° (H) x 26° (V) FC-324 T2: 13 mm lens – FOV : 24° (H) x 18° (V) FC-317 T2: 19 mm lens – FOV : 17° (H) x 13° (V)	FC-644 T2: 13 mm lens – FOV : 44° (H) x 36° (V) FC-632 T2: 19 mm lens – FOV : 32° (H) x 26° (V)

## Imaging Specifications

System Overview	FLIR FC-T2 Series	
Detector type	Focal Plane Array (FPA), uncooled Vanadium Oxide (Vox) microbolometer	
Spectral range	7.5 to 13.5µm	
Thermal sensitivity	<50 mK f/1.0	
Image frequency	NTSC: 30Hz	
Focus	Focus free, athermal lens	
Image processing	Automatic Gain Control (AGC), Digital Detail Enhancement (DDE)	
System features		
Automatic heater	Clears up to 4mm of ice from windows Automatic deicing, tested according to MIL-STD-810F Method 521.1	
Image presentation		
Video output	NTSC, analog	
Image Uniformity Optimization	Automatic Flat Field Correction (FFC)	
Power*		
Requirements	90-240VAC, single phase 50-60Hz	
Consumption	5.5 W nominal at 110 VAC 23 W peak with heaters	
Environmental specifications		
Operating temperature range	-50°C to +75°C (Cold start: -40°C to +70°C) -58°F to +167°F (Cold start: -40°F to +158°F)	
Storage temperature range	-55°C to +85°C (-67°F to +185°F)	
Encapsulation	IP66 + IP 67 (IEC 60529)	
Shock	Mil-Std-810F	
Vibration	IEC 60068-2-27	
Physical characteristics		
Sensor Weight	1.8 kg (3.97 lbs.) without sunshield 2.2 kg (4.85 lbs.) with sun shield	
Sensor Size (L x W x H)	259 mm x 114 mm x 106 mm without sunshield 10.2 in. x 4.49 in. x 4.17 in. without sunshield 282 mm x 129 mm x 115 mm with sun shield 11.1 in. x 5.08 in. x 4.53 in. with sun shield	
Shipping weight (sensor + packaging)	2.8 kg (6.18 lbs.)	
Shipping size (sensor + packaging) (L x W x H)	366 mm x 188 mm x 178 mm 14.41 in. x 7.40 in. x 7.01 in.	
Approvals		
EN55022:2010, Class B		
EN 61000-3-3: 2008		
EN 61000-3-2: 2006+A1: 2009 & A2 2009		
EN55024:2010		
EN51030-4: 2011		
FCC Part 15, Subpart B, Class A		
IP 66 + IP 67 (IEC 60529)		
IEC 60068-2-27		
EN60950-1		
EN60950-22		
Standard package		
Thermal imaging sensor, sun shield, operator manual		

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