

In|Sync

THE TRAFFIC BOT

IN|SYNC: THERMAL CAMERA

(FLIR FC-344-T2, FC-332-T2, FC-324-T2, AND FC-317-T2)



- REAL-TIME IMAGE ACQUISITION
- STATE-OF-THE-ART DETECTION ACCURACY EVEN IN HARSH WEATHER CONDITIONS
- SENSOR NOT HINDERED BY SUN GLARE, SHADOWS, HEADLIGHTS, OR WET PAVEMENT REFLECTION
- VIDEO STREAMING OVER IP NETWORK
- HEAT SIGNATURES ON WHICH THE SMALLEST OF DETAILS CAN BE SEEN
- FOUR CAMERA MODELS FOR DIFFERENT FOCAL LENGTHS AND FIELD OF VIEW
- HIGH-PERFORMANCE FIXED LENSES
- RUGGED CONSTRUCTION WITH AUTOMATIC HEATER

In|Sync:Thermal brings mission-critical military technology to adaptive traffic signal solutions. Even in poor visibility conditions, including low light, fog, glare, rain, shadows and low vehicle-to-pavement contrast, **In|Sync:Thermal** provides accurate and reliable imaging to help improve traffic flow. By using heat signatures, the system can detect vehicles that might escape traditional video detection. **In|Sync:Thermal** cameras detect vehicles out to 200 ft. from the stop bar when mounted at 25 to 30 ft. height. Installation employs a standard mounting bracket and a pole attached to the traffic signal mast arm with a cable clamp bracket.

PHYSICAL SPECIFICATIONS

Dimensions (H x W x D)

- With sunshield: 11.1" x 5.08" x 4.53" / 282 x 129 x 115 mm
- No sunshield: 10.2" x 4.49" x 4.17" / 259 x 114 x 106 mm

Weight

- 4.85 lbs. (2.2 kg) with sun shield

Temperature

- Operating: -58°F to +167°F (-50°C to +75°C)
- Non-operating: -58°F to +185°F (-50°C to +85°C)
- Storage: -67°F to +185°F (-55°C to +85°C)

Humidity

- 0% to 95% relative humidity (non-condensing)

TECHNICAL SPECIFICATIONS

High-End Lenses

Several lens options are available for **In|Sync:Thermal**'s detectors, from 13 mm to 19 mm, depending on the needs at each intersection and approach. Longer lenses offer a narrower field of view for better long-distance detection. A remote field study is performed per approach, to select the appropriate camera that can capture all lanes of traffic.

Sensor Type

- Vanadium Oxide (VOx) uncooled microbolometers

Lens

- Focal Length: 13-19mm
- Focusing Range: Athermalized, Focus-Free
- Field of View – Variations:
 - › Min: 17°(H) x 13°(V) horizontal/vertical
 - › Max: 44°(H) x 36°(V) horizontal/vertical

Image

- Graphical Processing: Automatic Gain Control; Digital Detail Enhancement; Automatic Flat Field Correction
- Image Frequency: NTSC: 30Hz

Power

- Input Voltage: 24 VDC
- Power Consumption: 5.5 W nominal at 110 VAC
- 23 W with heaters on

Fit for the Harshest Environments

In|Sync:Thermal's cameras meet all NEMA temperature specifications and protect against vibration, dust and water. The sensors are designed for long-term exposure to the sun by means of shortpass filters. Each detector has an anti-reflective coating on its surface and comes with an optional sunshield.

Ethernet Interface

- 10/100 Mbps

Video Streaming

- Streaming Resolution: 320 x 240 Pixels
- Video Output: Analog/NTSC and Digital

Certifications

- FCC Part 15, Subpart B, Class A
- IP 66 + IP 67 (IEC 60529)
- EN55022:2010, Class B
- IEC 60068-2-27

Note: *The FLIR camera can be powered over PoE, but we recommend pulling a dedicated 14-3 power cable and supplying 24 VDC directly. Communications occur over Ethernet using a minimum of a shielded Cat5e, outdoor/UV, burial rated cable.*

If powering over PoE, we recommend a passive 48 VDC PoE solution using a minimum of shielded Cat6 (23 AWG) outdoor/UV, burial rated cable.