Designed to reliably detect and classify road users, TrafiSense AI is an intelligent thermal imaging sensor for traffic monitoring in complex urban environments. Featuring AI algorithms built on 25+ years of traffic detection and best-in-class thermal imaging, TrafiSense AI delivers continuous vision and data collection for safer, more efficient cities. Capable of tracking multiple objects in any lighting condition, the advanced edge-based AI technology effectively controls intersections, helps protect vulnerable road users, and gathers detailed traffic data for better city planning decisions.

www.flir.com/Traffic
**TECHNICAL SPECIFICATIONS**

**System Overview**

**Functionality**
- Vehicle, Bicycle and Pedestrian Presence Detection
- Traffic Data Collection (Integrated Data)
- Queue Length Monitoring
- Premium Traffic Data Collection (Individual Data) - optional license
- Wrong Way Driver Detection - optional license

**Services**
- FLIR VSO data - optional Acyclica license
- Wi-Fi Travel Time analytics - optional Acyclica license
- Modules (Reporting Module, Planning Module, Signal Timing Tools) - optional Acyclica licenses

**Detection Zones**
- 24 virtual loops for presence detection
- 8 traffic data zones for classification and counting
- 8 Bicycle & Pedestrian detection zones
- 4 Queue Length Monitoring zones
- 8 Wrong Way Driver detection zones

**Configuration**
- Local/remote web page setup via Wi-Fi, PoE or BPL

**Imaging & Optical**

**Type**
- Focal Plane Array (FPA)
- Uncooled VOx microbolometer Long wave Infrared (7 – 14 µm)

**Resolution**
- VGA (640 x 480)

**Frame Rate**
- 30 fps

**Compression**
- H.264, MJPEG

**Streaming Video**
- RTSP

**Product Types**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Part Number</th>
<th>Field of View</th>
<th>Detection Distance for Vehicle Presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>TrafiSense AI - 690</td>
<td>10-7750</td>
<td>90°H x 69°V</td>
<td>5 - 100 ft</td>
</tr>
<tr>
<td>TrafiSense AI - 644</td>
<td>10-7754</td>
<td>44°H x 35°V</td>
<td>30 - 245 ft</td>
</tr>
<tr>
<td>TrafiSense AI - 632</td>
<td>10-7756</td>
<td>32°H x 26°V</td>
<td>100 - 300 ft</td>
</tr>
</tbody>
</table>

**Mechanical**

**Material**
- Aluminum housing with integrated polycarbonate sunshield

**Dimensions (incl. mounting bracket)**
- Vertically mounted: 9.8 in x 6.3 in x 4.7 in
- Horizontally mounted: 16.2 in x 7.1 in x 4.7 in

**Electrical**

**Input power**
- 24-42 VAC / 24-48 VDC

**Power consumption**
- Avg 10.5 W / Peak 15 W

**Communication**

**Output contacts**
- 1 N/O and 1 N/C dry contact direct
- 4 N/C dry contacts via TI BPL2 EDGE interface (more with additional 4 I/O USB expansion boards)
- SDLC to traffic light controller via TI BPL2 EDGE interface and PIM module

**PoE**
- PoE mode A for configuration, video streaming and data communication

**BPL**
- 80 Mbps Broadband over Powerline communication via TI BPL2 Edge interface

**Wi-Fi**
- IEEE 802.11 type b,g,n EIRP < 100mW

**Environmental**

**Shock & Vibration**
- NEMA TS2 specs

**Materials**
- All weatherproof UV resistant

**IP Rating**
- IP 67

**Temperature Range**
- -29°F to +165°F

**Regulatory**

**FCC / EU Directives**
- FCC part 15 class A, EMC 2014/30/EU
- RoHS 2011/65/EU, LVD 2014/35/EU

Specifications are subject to change without notice. For the most up-to-date specs, go to www.flir.com