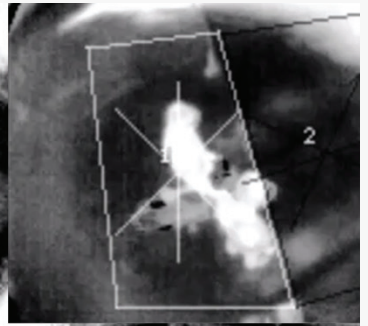
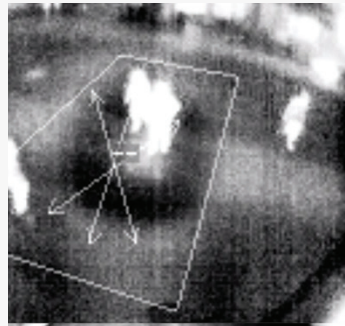


TRAFIONE

Smart City Sensor



TrafiOne is an all-round detection sensor for traffic monitoring and dynamic traffic signal control. Offered in a compact and affordable package, the TrafiOne uses thermal imaging and Wi-Fi technology to adapt traffic signals based on the presence detection of vehicles, bicycles and pedestrians, while also generating high resolution data at intersections and in urban environments. As a result, TrafiOne helps traffic engineers improve traffic flows, monitor congestion, enhance safety for vehicles and vulnerable road users, collect data, and measure travel and delay times for different transport modes.

www.flir.com/Traffic

THERMAL IMAGING SENSOR

TrafiOne allows for more dynamic control of traffic signals, 24/7

- Sees traffic in total darkness, through shadows and sun glare
- Detects the presence of vehicles and bicyclists at the stopbar
- Detects pedestrians and bicyclists in the crossing or on the curb
- Connects to traffic signal controller via dry contact outputs or TCP/IP network communication

WI-FI TECHNOLOGY

Secure wireless communication allows for quick and easy configuration of detection zones

- Monitors Mac addresses of Wi-Fi enabled devices, such as smartphones
- Determines travel and route times along road segments
- Measures queue delay times at intersections via Wi-Fi signal strength

FLIR ITS-IQ

TrafiOne information is processed using cloudbased data analysis.

- FLIR ITS-IQ provides critical understanding of road network performance
- Smart analytics transform information into useful traffic insights
- User-friendly dashboard lets traffic engineers generate reports and take measures, when needed

SPECIFICATIONS

System Overview

Functionalities	Curbside and on-crossing pedestrian and bicycle presence detection Stopbar vehicle and bicycle presence detection Visual HD streaming video (optional license) Wi-Fi monitoring (optional license) Pedestrian counting (optional license)
Number of detection zones	8 vehicle presence zones 8 pedestrian presence zones
Configuration	Web page via secure Wi-Fi or Ethernet

Thermal Sensor

Resolution	160 × 120 pixels
Frame rate	9 FPS
Detector type	Focal Plane Array (FPA) uncooled VOx microbolometer LWIR sensor, 8–14 μm wavelength
Streaming video	RTSP
Compression	H.264, MPEG-4

Visual Sensor

Resolution	1080 × 1920 pixel HD color CMOS
Frame rate	30 fps
Lens HFOV	95°
Streaming video	RTSP
Compression	h.264, MPEG-4, MJPEG

Housing

Material	Aluminum housing with PC GF10 sunshield
Bracket	PA GF30 mounting clamps and aluminum tube

Power, Outputs, & Communication

Input power	12 – 42 V AC/DC
Power consumption	Average 6 W, peak 7 W
Outputs	1 N/O and 1 N/C dry contacts direct 16 N/C dry contacts via TI BPL2 or TI BPL2 EDGE interface
Ethernet	10/100 MBps
PoE	PoE A and PoE B
Powerline Communication	Up to 2 MBps via TI BPL2 or TI BPL2 EDGE interface
Wi-Fi	IEEE 802.11 type b,g,n EIRP <100 mW

Environmental

Shock and Vibration	NEMA TS2 specs
Materials	All weatherproof UV-resistant
IP Rating	IP67
Temperature range	-40°C to 60°C (-40°F to 140°F)
FCC	FCC part 15 class A

Regulatory

EU Directives	EMC 2014/30/EU, RoHS 2011/65/EU
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Product-specific

	TrafiOne 195	TrafiOne 156
Part number	10-7070	10-7075
HFOV	95°	56°
Detection distance (depending on installation height)	Stop-Bar Detection*: 0–15 m (0–49.2 ft) Pedestrian & bicycle presence: 0–12 m (0–39 ft)	Stop-Bar Detection*: 10–25 m (33–82 ft) Pedestrian & bicycle presence: 10–20 m (33–65.5 ft)
Installation height	3.5–6 m (11.4–19.6 ft)	5.5–8 m (18–26 ft)

*recommended for 2 lanes only

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

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TrafiOne_Datasheet-LTR