

## Załącznik 4. Przykładowy detektor rowerowy.

# FLIR TafiOne

### Smart City Sensor

FLIR TafiOne is an all-round detection sensor for traffic monitoring and dynamic traffic signal control. Offered in a compact and affordable package, the FLIR TafiOne uses thermal imaging and Wi-Fi technology to provide high-resolution data on vehicles, bicycles and pedestrians at intersections and in urban environments.

FLIR TafiOne helps traffic engineers to improve traffic flows, reduce vehicle idling time, monitor congestion, enhance safety for vulnerable road users, collect data and measure travel & delay times for different transport modes.

### THERMAL IMAGING SENSOR

FLIR TafiOne uses thermal imaging to detect the presence of pedestrians and bicyclists that are approaching or waiting at the curbside or on the crossing. Thermal imaging cameras can see in total darkness, through shadows and sun glare, and thus provide reliable traffic detection 24/7. FLIR TafiOne is connected to the traffic signal controller via dry contact outputs or via TCP/IP network communication to allow for a more dynamic control of traffic signals based on presence or volume information.

### WI-FI TECHNOLOGY

Secure wireless communication via Wi-Fi allows for quick and easy configuration of detection zones. By monitoring Mac addresses of Wi-Fi enabled devices such as smartphones, TafiOne can determine travel & route times along road segments. Via Wi-Fi signal strength information, TafiOne can also measure queue delay times at intersections.

### FLIR ITS-IQ

The information collected by TafiOne can be accessed for further analysis by the FLIR ITS-IQ, a cloud-based data analysis solution. Smart analytics transform the data into useful traffic insights, critical to understand the road network performance. Traffic engineers can use the user-friendly dashboard to generate reports and start taking measures where they are needed.

### KEY BENEFITS:

- 24/7 PEDESTRIAN & BICYCLE DETECTION AND IN VARIOUS WEATHER CONDITIONS, NO NEED FOR ADDITIONAL LIGHTING
- LOW MAINTENANCE
- SIMPLE AND QUICK CONFIGURATION OVER SECURE WI-FI CONNECTION
- WI-FI MONITORING CAPABILITIES
- VISUAL HD STREAM



FLIR TafiOne uses thermal imaging to detect the presence of pedestrians and bicyclists at intersections and urban environments.

## SPECIFICATIONS

System Overview		
Functionalities	Curbside and on-crossing Pedestrian and bicycle presence detection Wi-Fi monitoring (optional license) Visual HD streaming video (optional license)	
# detection zones	8 Pedestrian presence zones	
Configuration	Webpage via secure Wi-Fi or Ethernet	
Thermal Sensor		
Resolution	160 x 120	
Frame rate	9 FPS	
Detector type	Focal Plane Array (FPA), uncooled VOx microbolometer, LWIR sensor, 8 to 14 μm wavelength	
Streaming Video	RTSP	
Compression	H.264, MPEG-4, MJPEG	
Visual Sensor		
Resolution	1080 x 1920 HD color CMOS	
Frame rate	30 fps	
Lens HFOV	95°	
Streaming Video	RTSP	
Compression	H.264, MPEG-4, MJPEG	
Product types		
Product name	TrafiOne 195	TrafiOne 156
Part number	10-7070	10-7075
HFOV x VFOV	95° x 69°	56°x 45°
Detection distance (depending on installation height)	0 – 12m	10 – 25m
Installation height	3.5 - 6m	5.5 - 8m
Housing		
Material	AL 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	3 Watt	
outputs	1 N/O and 1 N/C dry contacts direct 16 N/C dry contacts via TI BPL2 interface	
Ethernet	10/100 MBps	
PoE	PoE A and PoE B	
Powerline Communication	Up to 2 MBps via TI BPL2 interface	
Wi-Fi	IEEE 802.11	
Environmental		
Shock & Vibration	NEMA TS2 specs	
Materials	All weatherproof UV-resistant	
IP Rating	IP67	
Temperature Range	-40°C to +80°C (-40°F to +176°F)	
FCC	FCC part 15 class A	
Regulatory		
EU Directives	EMC 2004/108/EC, ROHS 2011/65/EU	

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