AI-Powered Thermal Traffic Sensor
ThermiCam AI

Designed to reliably detect and classify road users, ThermiCam 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, ThermiCam 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.

UNMATCHED DETECTION AND CONTROL
Edge-based AI and 24/7 thermal detection offer advanced intersection control that outperforms other technologies.

FUTUREPROOF TRAFFIC INSIGHT
ThermiCamAI captures advanced and high-resolution traffic data for better-informed city planning decisions.

COMPREHENSIVE REPORTING
Generate sophisticated reports with Acyclica, including heatmaps and turning movement counts, to identify bottlenecks.

SPECIFICATION

System Overview	
Detection Zones	24 virtual loops for presence detection 8 traffic data zones for classification and counting 8 Bicycle & Pedestrian detection zones
Functionality	Vehicle, Bicycle and Pedestrian Presence Detection Traffic Data Collection (Integrated Data) Queue Length Monitoring; Premium traffic Data Collection (Individual Data) - optional license
Detection zones	24 virtual vehicle presence detection loops; 8 traffic data zones for vehicle classification and counting
Services	FLIR VSO data - opcional Acyclica license Modules (Reporting Module, Planning Module, Signal Timing Tools) - optional Acyclica licenses Wi-Fi Travel Time analytics - optional Acyclica license (only Wi-Fi version)
Configuration	Local/remote web page configuration via Wi-Fi, PoE or BPL

Imaging & Optical	
Type	Focal Plane Array (FPA)Uncooled VOx microbolometer long wave infrared (7 – 14 μm)
Resolution	QVGA (320 x 240)
Frame Rate	30 fps
Compression	H.264, MPJEG
Streaming Video	RTSP

Product Types				
	Part Number (Wi-Fi)	Part Number (Non Wi-Fi)	Field of view	Det. Of Vehicle Presence
ThermiCamAI - 390	10–7730	10–7731	90°H x 69°V	0–60m
ThermiCamAI - 345	10–7732	10–7733	45°H x 35°V	10-80m
ThermiCamAI - 335	10–7734	10–7735	35°H x 27°V	20–100 m
ThermiCamAI - 325	10–7736	10–7737	29°H x 19°V	30-125m

Mechanical	
Material	Aluminum housing with integrated polycarbonate sunshield
Dimensions (including mounting bracket)	Vertically mounted: 45 cm x 16 cm x 12 cm. Horizontally mounted: 41 cm x 18 cm x 12 cm

Electrical	
Input power	24-42 VAC / 24-48 VDC
Power consumption	Average 10.5 W / Peak 15 W

Communication	
Output contacts	1 N/O and 1 N/C dry contact direct; 16 N/C dry contacts via TI BPL3 interface
PoE	PoE mode A for configuration, video streaming and data communication
BPL	80 Mbps Broadband over Powerline communication via TI BPL3 interface
Wi-Fi	IEEE 802.11 type b.g.n. EIRP < 100mW (only Wi-Fi version)

Environmental and Regulatory	
Shock & Vibration	NEMA TS2 specs
Materials	All weatherproof UV resistant
IR Rating	IP67
Temperature Range	-34°C to +74°