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THERMICAM AI

ThermiCam AI is a cutting-edge sensor that combines a high-sensitivity LWIR thermal camera with powerful artificial intelligence algorithms for advanced real-time detection and classification of vehicles, pedestrians, and cyclists.

Designed for urban traffic monitoring and signal control, it operates reliably in all lighting and weather conditions, delivering continuous and accurate 24/7 data even in complete darkness.

On-board Artificial Intelligence

- Real-time tracking of multiple objects simultaneously;
- Intelligent classification of vehicles, bicycles, and pedestrians;
- Optimized traffic signal control: call, extension, and presence detection;
- Advanced cloud analytics via Acyclica: heatmaps, counts, and turn movement data.

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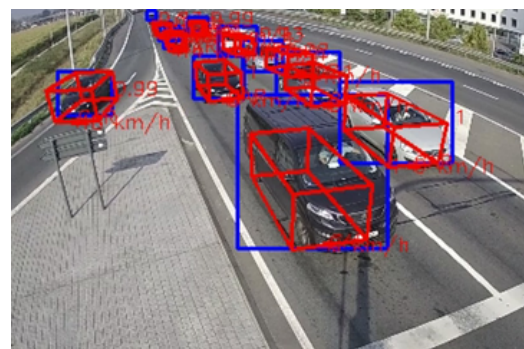


Technical Specifications

Specification	Value
Detection	Vehicles, pedestrians, bicycles (with AI)
Configurable zones	24 virtual loops, 8 traffic zones, 8 pedestrian/bicycle zones
IR Technology	Uncooled VOx microbolometer
Wavelength	7 – 14 μm (LWIR)
Thermal resolution	QVGA (320 × 240 px)
Frame rate	30 FPS
Field of view	25° horizontal × 19° vertical
Video streaming	RTSP – H.264, MJPEG

Product Specifications:

- Power supply: 24–42 VAC / 24–48 VDC;
- Power consumption: 10.5 W (average) / 15 W (peak);
- PoE: Mode A;
- Powerline (BPL): 80 Mbps via TI BPL3;
- Wi-Fi: IEEE 802.11 b/g/n;
- Outputs: 1 N/O + 1 N/C direct – 16 N/C via TI BPL3;
- Ingress protection: IP67;
- Operating temperature: -34°C to $+74^{\circ}\text{C}$;
- Materials: Aluminum body with UV-resistant polycarbonate sunshield;
- Mechanical resistance: Compliant with NEMA TS2;
- Mounting dimensions: Vertical: 25 × 16 × 12 cm
Horizontal: 41 × 18 × 12 cm;
- Certifications: EMC, RoHS, LVD, FCC Part 15 Class A.



Key Applications:

- Monitoring of complex intersections;
- Dynamic traffic signal control;
- High-resolution traffic data collection;
- Wrong-way detection, queue monitoring, congestion analysis;
- Data-driven urban and mobility planning.



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Cap. Soc. € 3.000.000,00 i.v. Reg. Imprese MI 679633 C.F. e P. IVA 00857000152
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