

CompactVision-AI

AI-Powered High-Definition Smart City Sensor

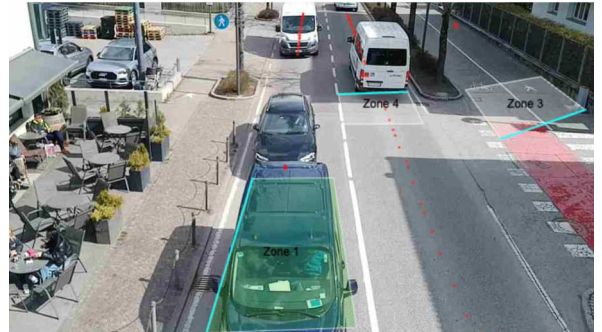


CompactVision-AI is a camera-based detection sensor for traffic monitoring and dynamic traffic signal control, based on 10+ years of experience in advanced AI technology.

Offered in several versions to fit all needs, its main application is to adapt traffic signal phases based on presence detection at the stop line and green phase extension at advance zones.

CompactVision-AI also provides a high-resolution HD video stream to be used in GDPR compliant closed IP networks for intersection monitoring, and vehicle by vehicle data to feed traffic signal control algorithms running in the control center, or for data collection applications.

As a result, CompactVision-AI helps traffic engineers improve traffic flows, monitor congestion, enhance safety for vehicles and vulnerable road users, collect basic data, and measure travel and delay times for different transport modes.



AI powered VISUAL IMAGING SENSOR

CompactVision-AI is the perfect choice for dynamic control of traffic signals, 24/7

- Non-intrusive, above-ground installation
- Proven detection in all environmental conditions
- Stop bar vehicle presence detection
- Advance detection for green extension
- Adaptive traffic control
- Bicycle and pedestrian detection
- Road users and vehicle classification
- Measures queue

BEST PRICE/PERFORMANCE

Unbeatable combination of right price, features and performance

- One camera does both stop line and advance detection
- Classifies pedestrians, bicycles, e-scooters, motorbikes, cars, utility vehicles, trucks, buses, vulnerable road users
- Wi-Fi enabled, quick and easy configuration of detection zones
- Choice of interfaces to traffic controllers
- GDPR compliant RTSP video feed
- Smart priced

EASY TO INSTALL, FLEXIBLE INTERFACE

CompactVision-AI easily mounts on existing and new infrastructure

- Interface options:
 - Power over Ethernet (POE)
 - Optional 2 wires Ethernet (Ethernet data + 48VDC power supply)
- Connects to traffic signal controller via dry contact outputs or TCP/IP network communication (API)



CompactVision-AI

AI-Powered High-Definition Smart City Sensor

System Overview		Outputs	
Functionalities and applications	<ul style="list-style-type: none"> Classification of pedestrians, bicycles, motorcycles, vehicles, buses Ped., 2-wheelers & vehicle Presence Detection Advance detection, green extension Pedestrian green extension 	Network	JSON API
		Physical	- 8 dry contacts via Flex-CC interface card (Ethernet) (16-24-32 contacts with multiple cards)
		Communication	
Number of zones		Ethernet PoE	10/100/1000 Mbit/s
Configuration		Environmental	
Cable		Materials	
Visual Sensor		IP Rating	
Resolution	12MP sensor, 1920x1080 video resolution	Temperature range	
AI Frame rate	Up to 16 fps, depending on AI model size	Operating Humidity	
Streaming video	N/A	Dimensions	
Compression	N/A	Weight	
Housing		Regulatory	
Materials	Aluminum	Certification	
Color	Silver	EU Directives	
Bracket	Mounting clamps with extension. RAM-MOUNT optional		
Power, Outputs, & Communication			
Input power	POE 48 VDC		
Power consumption	Average 5 W		
Lenses			
	<i>Standard</i>	<i>Wide Lens</i>	
HFOV	70°	100°	
Detection distance (depending on installation height and installation angle)	1 to 80 m	1 to 60m	
Installation height	3.5 to 9 m	3.5 to 9 m	
Lanes covered	Up to 3 lanes	Up to 4 lanes	

FLEX-CC-CV INTERFACE CARD

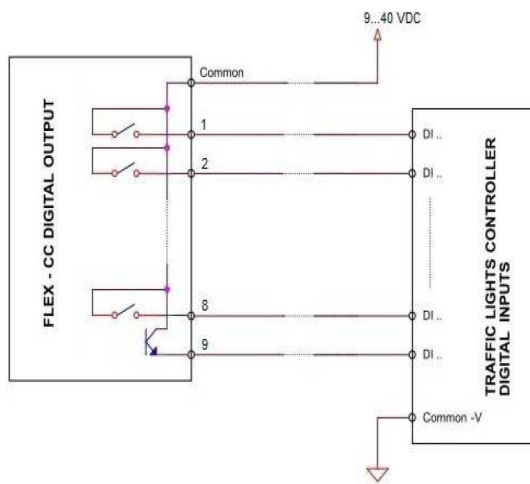
For all CompactVision-AI models

The Flex-CC-CV interface card provides 8 dry contacts to interface CompactVision-AI to a traffic controller.

Having both Ethernet and RS485 interfaces on board, a Flex-CC-CV can connect to all CompactVision models.

CompactVision FVE (Ethernet PoE) additionally requires a PoE+ (25W minimum per port) switch to provide power.

CompactVision FV2 (2-wire Ethernet) additionally requires a PoE+ (25W minimum per port) switch and one Flex-CC-EP unit per device to provide power.



Digital outputs	8 + 1 Solid State Relays (3,5 mm terminal blocks) Blocking voltage: 48Vdc Max current/channel: 40mA
Power supply	9-30 Vdc, 10 Watt. 5,08 mm terminal blocks
Weight	125 g
Dimensions	100 x 120 x 25 mm
Operating temperature	-20 °C to ~ +70 °C ambient
Mounting	DIN mount
Compliance	EN 50293:2012
Camera unit interface	10/100Base-T Ethernet port, RJ45 connector

TRAFFIC MEASUREMENT AND DATA COLLECTION

For CompactVision-AI FV2 and FVE

Cloud based analytics tool, with a clear overview of data collection points and real-time interactive reports, provides a comprehensive view and understanding of the traffic data.

It enables cities, municipalities and other organizations working with traffic data to collect and analyze all their data in one system. The user interface is web based, supports most equipment on the market and is both interactive and intuitive, which gives traffic engineers and decision makers completely new opportunities to understand their traffic and create actionable reports.

Monitor locations in real-time or create detailed reports with a wide selection of filter options.

