

CAIMAN DETECTOR OVERVIEW

WIDE BEAM STOP+MOTION RADAR DETECTOR

SWARCO TRAFFIC SYSTEMS GmbH is a member of the internationally active SWARCO group, the one-stop shop for road markings, signage, signalisation and traffic management – your reliable partner for traffic solutions.

The Caiman wide beam Stop+Motion radar detector is suited for lane discrimination over multiple lanes. It detects and tracks moving and stopped objects within the entire detection area delivering the following data: volume, occupancy, speed, vehicle presence, headway, gap and wrong way detection trigger, classification. Due to its forward firing position it offers a wide range of applications, detection points and mounting positions. The detection areas vary from 20 m up to 160 m, depending on the application and model.

CAIMAN-PRO

The CAIMAN-PRO is an advancement with a considerable improvement of performance and detection quality. This is accomplished by additionally measuring the horizontal and vertical angles allowing to distinguish even objects with identical speeds. Additionally, the PRO version can now detect up to 126 objects (instead of 64 objects) at the same time.

TYPICAL APPLICATIONS



Urban Traffic Management with Caiman B(asic) and Caiman M(ulti):

Intersection application with stop-bar-detection, advanced detection, vehicle counting, ETA (estimated time of arrival) / dilemma zone detection. In addition to the basic functions the Caiman M detector includes statistic data, speed measurement and detection on up to 6 lanes.



Interrurban Traffic Management with Caiman I(nterurban):

Traffic data acquisition and traffic management with detection of vehicle speed, counting and occupancy. Special applications such as wrong way driver, traffic jam detection. Acquisition of single vehicle data with classification in 2 vehicle classes acc. to TLS or in 4+1 vehicle classes (Pedestrians, motorcycle, car, truck, undefined).



Traffic Management in the Tunnel with Caiman T(unnel):

Lane discrimination in the tunnel over multiple lanes simultaneously delivering data such as vehicle speed, length, net time gap, direction and classification.

STOP+MOTION FUNCTION

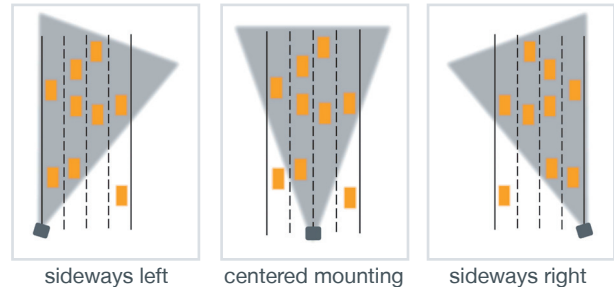
Due to its proven and tested Stop+Motion function, the Caiman not only detects and tracks moving objects but also determines stopped objects. The sophisticated algorithm "remembers" static objects until they start moving again thus providing an additional presence detection.

CAIMAN DETECTOR OVERVIEW

FEATURES

- Wide beam over multiple lanes
- Stop+Motion function (moving and stopped objects)
- Accurate vehicle speed measurement
- Data provided: Volume, occupancy, speed, vehicle presence, headway, gap, wrong way detection trigger
- Multiple choice of detection points and mounting positions (e.g. mast arm, vertical pole)
- 100 % independent of time of the day and light conditions (bright sunlight, shadow, dawn, night)

DETECTION POINTS (EXAMPLES)



CAIMAN / CAIMAN-PRO VERSIONS AND APPLICATIONS

Functions and features	Urban traffic management		Interurban traffic management	Tunnel traffic management
	Version B(asic)	Version M(ulti)	Version I(nterurban)	Version T(unnel)
Stop bar detection	√	√	√	√
Advanced detection	√	√	√	√
Vehicle counting	√	√	√	√
Vehicle speed	—	√	√	√
Estimated time of arrival ETA	—	√	√	√
Dilemma zone detection	—	√	√	√
Max. number of lanes	up to 3	up to 6	up to 6	up to 3*
Measurement lines	up to 2	up to 4	up to 4	up to 4
Statistic data	—	√	√	√
Occupancy	—	√	√	√
Wrong way driver	—	√	√	√
Congestion	—	√	√	√
Classes: pedestrian, bicycle ¹ /motor-bike ² , car, truck	—	√ ¹	√ ²	√ ²
Classes: car-similar / truck-similar**	—	—	√	√
Recommended mounting (for best classification results)	sideways or centered	sideways or centered	sideways	sideways

* depending on the mounting height and tunnel tube

** on the basis of German TLS-BASt, in versions including PRIMOS IOC



SWARCO TRAFFIC SYSTEMS GMBH

SWARCO TRAFFIC SYSTEMS GMBH is one of the leading suppliers of intelligent traffic systems in Germany. Building on many decades of experience, it offers a wide range of innovative solutions for urban and interurban traffic management, including parking and traffic detection. Its nationwide service and maintenance network guarantees highest possible system availability and improved road safety. With economical, sustainable, and environmentally friendly technologies we help ensure smooth and safe traffic flows.

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