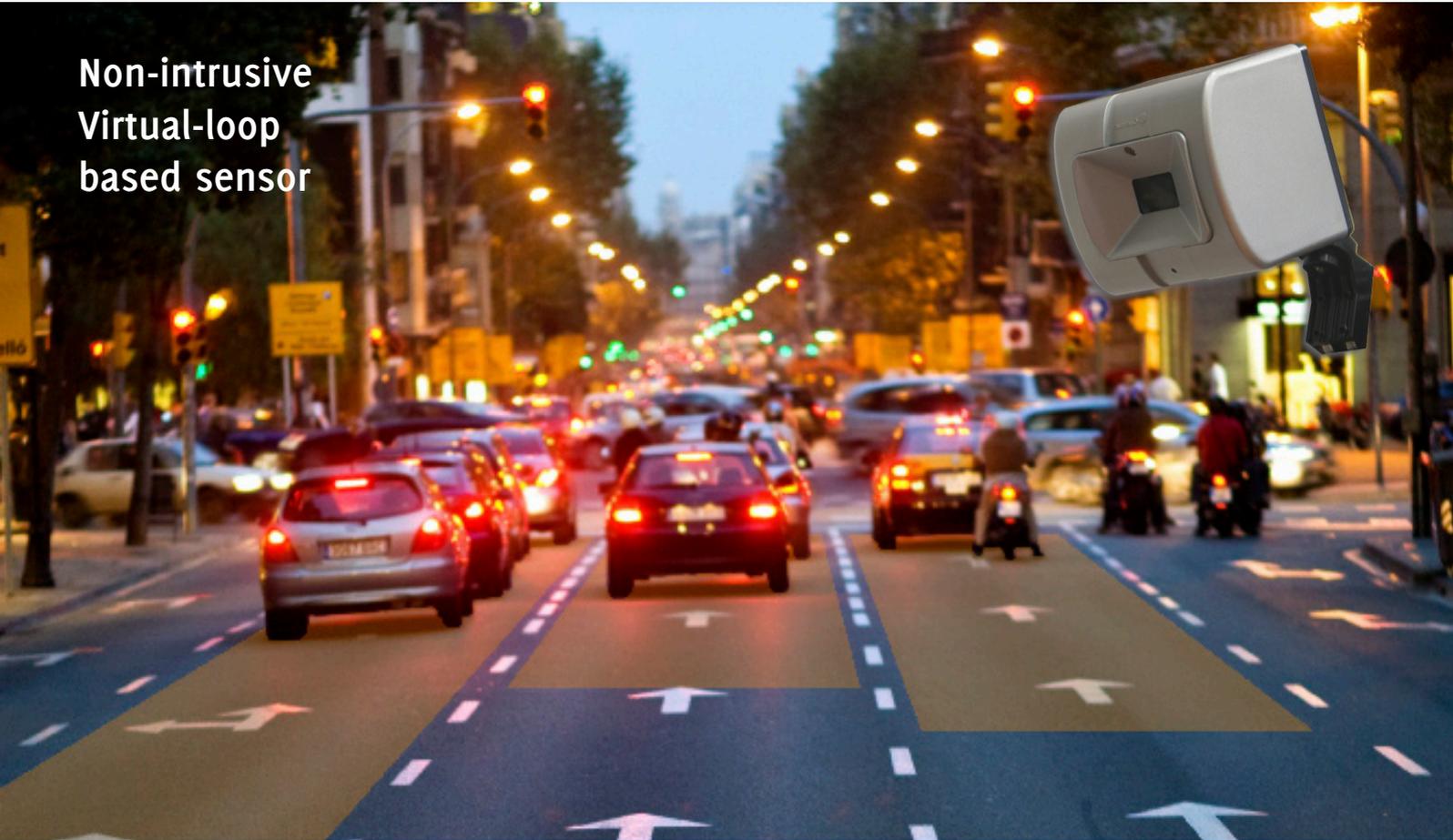# Smart**Loop**®
TS

Quercus
smart detection

**Non-intrusive
Virtual-loop
based sensor**

Latest generation vehicle presence sensor and traffic data collector

Detection at its best
Configure up to 35 loops to obtain the maximum information about vehicle presence, queue occupancy rate and traffic data at intersections.

Shadow elimination
This feature enables **SmartLoop® TS** to distinguish between cars and shadows, increasing result reliability.

Queue effect
The system is designed to distinguish cars from the background and avoid possible confusion in the event of queues of vehicles halted for long periods.

Day & Night optimum performance
SmartLoop® TS operating conditions are not affected by sudden light changes, thus ensuring optimum results at any time of the day.

Built-in and external outputs
SmartLoop® TS is available in several models that provide either integrated digital outputs in the unit or the possibility of extending it with an external module of up to 16 outputs.

Easy installation and setup
There is no need to open the unit to install it as it is sealed and includes special connectors that make installation easy and smooth.

Setup wizard
SmartLoop® TS comes with an easy-to-use assistance tool that facilitates setup in few clicks.

Quercus
smart detection

SmartLoop® TS is an **All-in-One vehicle presence sensor based on non-intrusive virtual loops** that are easy to edit. One unit can cover up to 4 lanes. It detects vehicle presence, provides queue occupancy rates and collects traffic data at traffic light intersections and motorways without the need to install physical loops in the road.

Easy installation

SmartLoop® TS includes different output possibilities to facilitate installation in any situation. It is available as an All-in-One unit including built-in digital outputs that can be extended with an external module of up to 16 outputs. Users can also check in advance the optimum place and position for the installation through the unit's **3D previewer tool**.

Fast configuration

Configuration can be done via web system from any web browser or via fast setup wizard. The wizard is a user-friendly **assistance tool** that searches automatically the units, provides a direct detector menu (presence, queue, speed) and allows easy setup of outputs and logical functions.

Small and sealed housing

Everything needed for the vehicle presence detection and traffic data collection is included in a **small hermetic housing** (IP67) that does not need to be open when installing it. Its discreet design makes it the ideal solution for any type of urban environment.

SmartLoop® TS Plus

SmartLoop® TS Plus is a version that provides complete information on real time traffic as well as statistics.

		SmartLoop® TS	SmartLoop® TS Plus
Performance	Detection	Vehicle presence, queues	Presence, queues, speed
	Statistics	—	Traffic volume, headway, flow rate, density, average speed, average length, length distribution and speed distribution
	Lanes per unit	Up to 4 lanes	
Operating conditions	Operability	24 hours a day, 365 days a year	
	Operation modes	Offline & online	
	Working temperatures	From -25ºC to +60ºC	
Housing	Protection	Water resistant with IP67 protection	
	Dimensions (H x W x D)	12,6 x 12,6 x 16,1 cm	
Camera	Sensor resolution	752 x 480	
	Focal distance	Wide angle (SmartLoop® TS City) / Narrow angle (SmartLoop® TS Road)	
	Frame rate	70 FPS	
	Sensor size	1/3"	
Power	Consumption	2,5 W	
	Power input	12 V DC	
Connectivity	Communication ports	Ethernet 100 Mbps	
	Outputs	6 dry contact (DO models) / External module of 16 outputs (optional)	
Regulatory issues	CE	EMC 2004/108/EC - Class B	
	FCC	Part15 Subpart B - Class A	

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