

LSR2001 AXLES

Laser + Photocells



Laser scanner accuracy with axle detection

The LSR-2001-AXLES sensor uses laser technology to detect vehicles and infrared photocells to detect axles. The emitted laser beam is used to scan on 1 plane on a 96° angle.

Along the plane the sensor detects 274 points and is able to precisely identify the profile of the vehicle.

The maximum sensing distance is 30 m and the emitted beam is on the infrared field, thus it is not visible.

The photocells couple consist of an emitter and a receiver and work on the infrared range. They are able to accurately detect the presence of axles thanks to the interruption of the emitted beam.

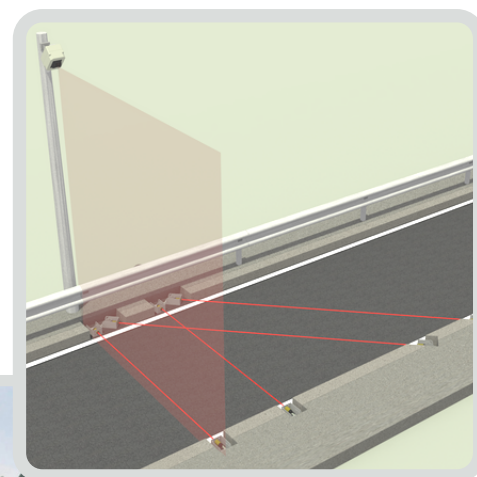
LSR-2001-AXLES is able to provide the speed and the length of the vehicle. Thanks to its laser scanner, the detector can measure the vehicles profiles and their presence. For this reason, it is very accurate in classifying and counting vehicles even in "heavy" traffic conditions, stop & go and in queue situations.

In order to create a complete set of data about the transit, the CPU collects the information both from the laser sensor and from the photocells.

LSR-2001-AXLES should be installed at toll stations or in places where there is a physical separation between adjacent lanes to install the photocells on the ground.

The detector has been designed both from the mechanical and firmware point of view to work outdoor with bad weather conditions.

The firmware has specific rain and snow filters.



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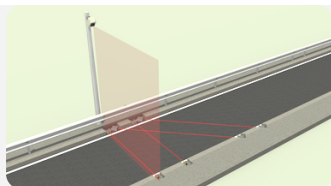
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Technology	Laser scanner, time of flight measurement
Emitted Light	905 nm not visible
Laser class	Class 1
Max. Detection range	30 m
Scan angle	96°
Scan period	16 ms
Transmission power	16 dB
Communication line	Ethernet
Power consumption	< 5 W
Power supply	12 ÷ 28 Vdc
Photocells	Infrared
Protection	IP65 Laser, IP69 photocells
Temperature range	LSR2001: -20°C ÷ +50°C LSR2001T: -40°C ÷ +60°C



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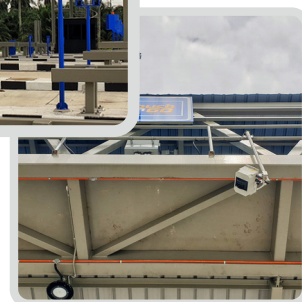
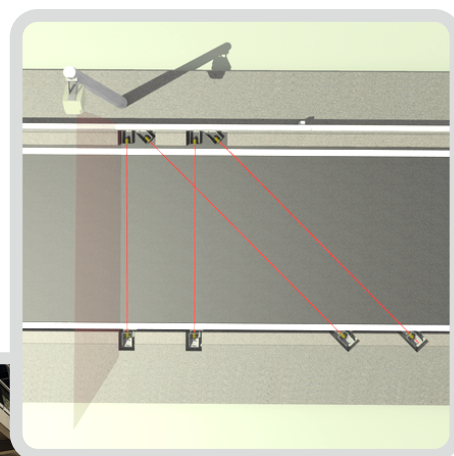
Axle detection	✓
Counting	✓
Speed	✓
Length	✓
Height	✓
Vehicle class	✓
Gap	✓
Headway	✓
Trigger for cameras	✓

APPLICATIONS

- Toll
- Traffic monitoring (ITS)
- Axle detection
- Maximum height relief
- Vehicle classification
- Trigger for cameras

ACCESSORIES

- Mounting Brackets
- Environmental Protections
- Stainless steel Casing
- Router
- CO1010 Control Unit



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