

Sensor Line SL SCV

Maximize the availability of your road traffic management system with SL SCV sensors — enjoy a reliable vehicle detection solution that promises maintenance-free longevity and unparalleled accuracy.

Product Description

The SL SCV sensor detects vehicles in road traffic for applications like axle counting, speed measurement, headway measurement, vehicle classification and cyclist counting.

The SL SCV-R and SL SCV-T sensors are designed to fit exactly in pre-installed rectangular or trapezoidal metal frames and replace the contact sensors often used in South America.

The pressure of a wheel deforms the SL SCV sensor. This deformation decreases the optical transmittance inside the sensor. This transmittance change is detected by our opto-electronic interfaces like the dynamic or static optical transmittance analyzer and is transformed into signals for traffic data processing.



SL SCV-R sensor

Advantages

- Excellent service life
- Highest accuracy
- Easy replacement
- Noise free signal
- Maintenance free

References

- Mexico axle detection
- Chile traffic control

SL SCV sensor: Fiber-optic sensor for axle detection

Characteristics

- SL SCV sensor detects vehicles such as cars, trucks, busses, motorbikes, bicycles and strollers by pressure on the sensor
- Typical applications are axle counting, speed measurement, headway measurement, vehicle classification and cyclist counting
- A ready to install SL SCV sensor comprises the sensor element itself, a fiber optic feeder cable spliced directly to it and terminated with fiber optic connectors
- Its special shape fits in existing metal frames often used in South America and replaces contact sensors
- To operate the SL SCV sensor, it is connected to a Sensor Line opto-electronic interface

Benefits

- 99,99+% detection rate - all vehicles are detected independent of poor visibility caused by smoke, rain, fog or snow
- Excellent service life - no material fatigue and no mechanical parts
- Fits exactly in pre-installed rectangular and trapezoidal metal frame. Easy installation and electrical integration.
- No maintenance or calibration needed during or after installation
- Customized sensor length possible - up to 4.5 m (15 ft) and cable length up to 250 m (820 ft)
- Customized sensor profiles possible



SL SCV sensor: Technical Data

Dimensions

Sensor element SCV-R	Length	1.60 m (63.0 in) and 2.00 m (78.7)
	Insensitive zones	tip 60 mm (2.7 in) feeder joint 130 mm (5.1 in)
	Width	36.5 mm (1.44 in)
	Height	20 mm (0.79 in)

Sensor element SCV-T	Length	1.60 m (63.0 in) and 2.00 m (78.7)
	Insensitive zones	tip 60 mm (2.7 in) feeder joint 130 mm (5.1 in)
	Width	Top 34 mm (1.34 in) Bottom 37 mm (1.46 in)
	Height	20 mm (0.79 in)

Fiber optic feeder cable	Outer dimension	2.5 x 5 mm (0.10 in x 0.20 in)
	Length	up to 250 m (820 ft)
	Weight	12 g/m (0.39 oz/yd)
	Maximum short term pull tension	20 N
	Minimum bending radius	25 mm (0.98 in)

PE enforced feeder cable	Outer dimension	4 x 6.6 mm (0.16 in x 0.26 in)
	Length	up to 250 m (820 ft)
	Weight	25 g/m (0.81 oz/yd)
	Maximum short term pull tension	60 N
	Minimum bending radius	25 mm (0.98 in)

Fiber connectors (plastic / metal)	Length	34 mm (1.34 in)
	Max. diameter	8.5 mm (0.33 in)

Performance

Average Life (MTTF)	5+ years or 10+ million axles
Maximum speed	up to 250 km/h (155 mph)
Operating / storage temperature	-30 °C to 85 °C (-22 °F to 185 °F)
Humidity	No limitation
Warranty	24 months

Accompanying Products

Electronic interface

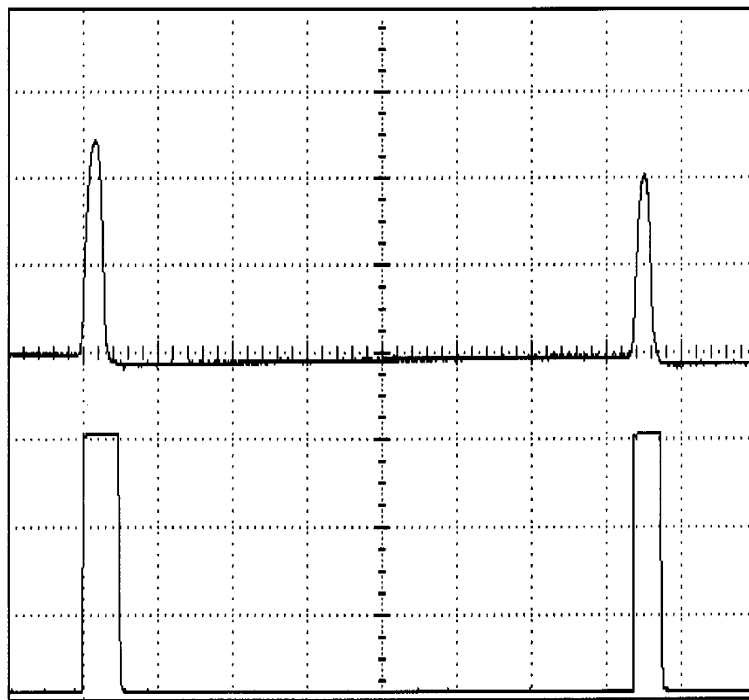
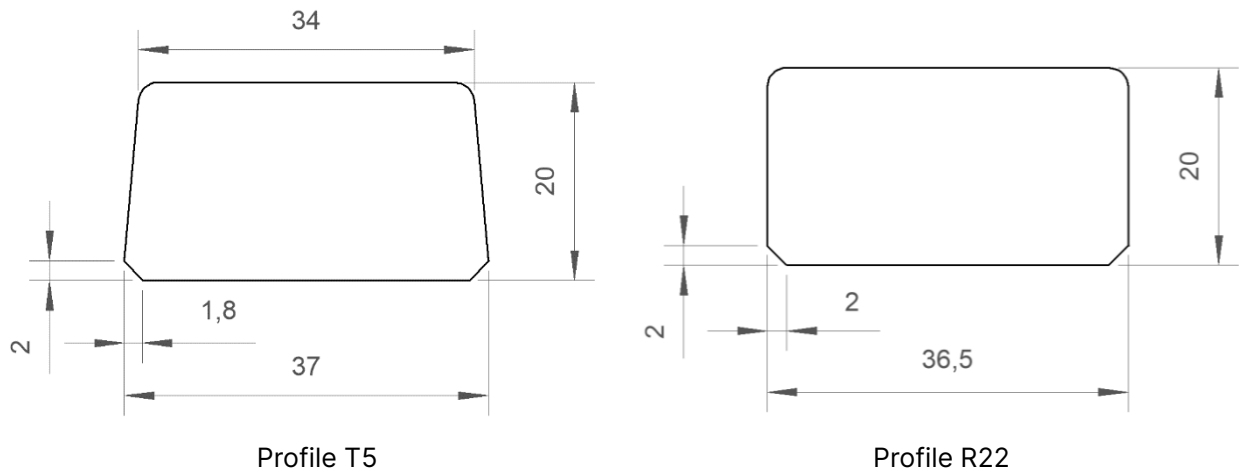
SL MA-110: Analog Electronic Interface with 1 channel

SL MA-210: Analog Electronic Interface with 2 channels

SL MA-310: Analog Electronic Interface with 3 channels

SL MD-220: Digital Electronic Interface with 2 channels

SL SCV Drawings



Typical signal output of SL MA/MD interfaces and SL sensors