

SL SMS SENSOR

The SL SMS sensor is a flat fiber-optic traffic sensor for temporary installations. It offers easy installation, superior traffic data processing, and a flawless vehicle detection rate.

Product Description

The surface mounted SL SMS sensor is a flat fiber optic traffic sensor designed for temporary installations in a road pocket tape (e.g. self-adhesive reinforced mastic membrane pocket tape) which is sticking on the pavement. This type of sensor allows an easy and fast installation on the road.

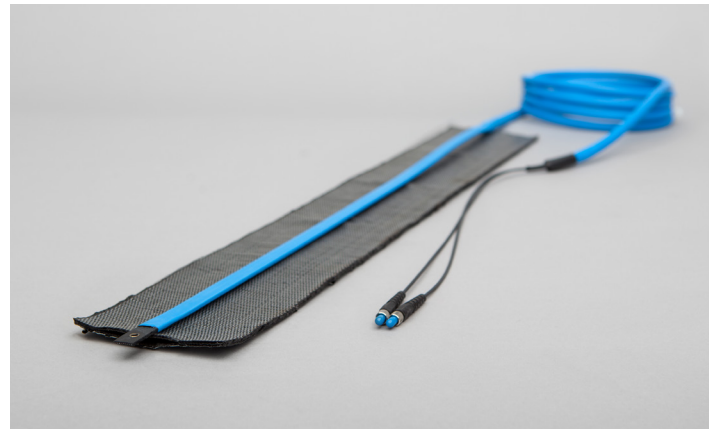
The pressure of a wheel deforms the SL SMS sensor. This deformation decreases the optical transmittance inside the sensor. This transmittance change is detected by our opto-electronic interfaces like our dynamic or static optical transmittance analyzer and is transformed into signals for traffic data processing. Sensitive and insensitive zones of the sensor can be defined on customer request.

Advantages

- 100% vehicle detection rate
- Visibility independent
- EMV immune
- Noise free signal

References

- Netherland Westerscheldetunnel
- New Zealand bicycle detection
- USA temporary traffic control



SL SMS sensor

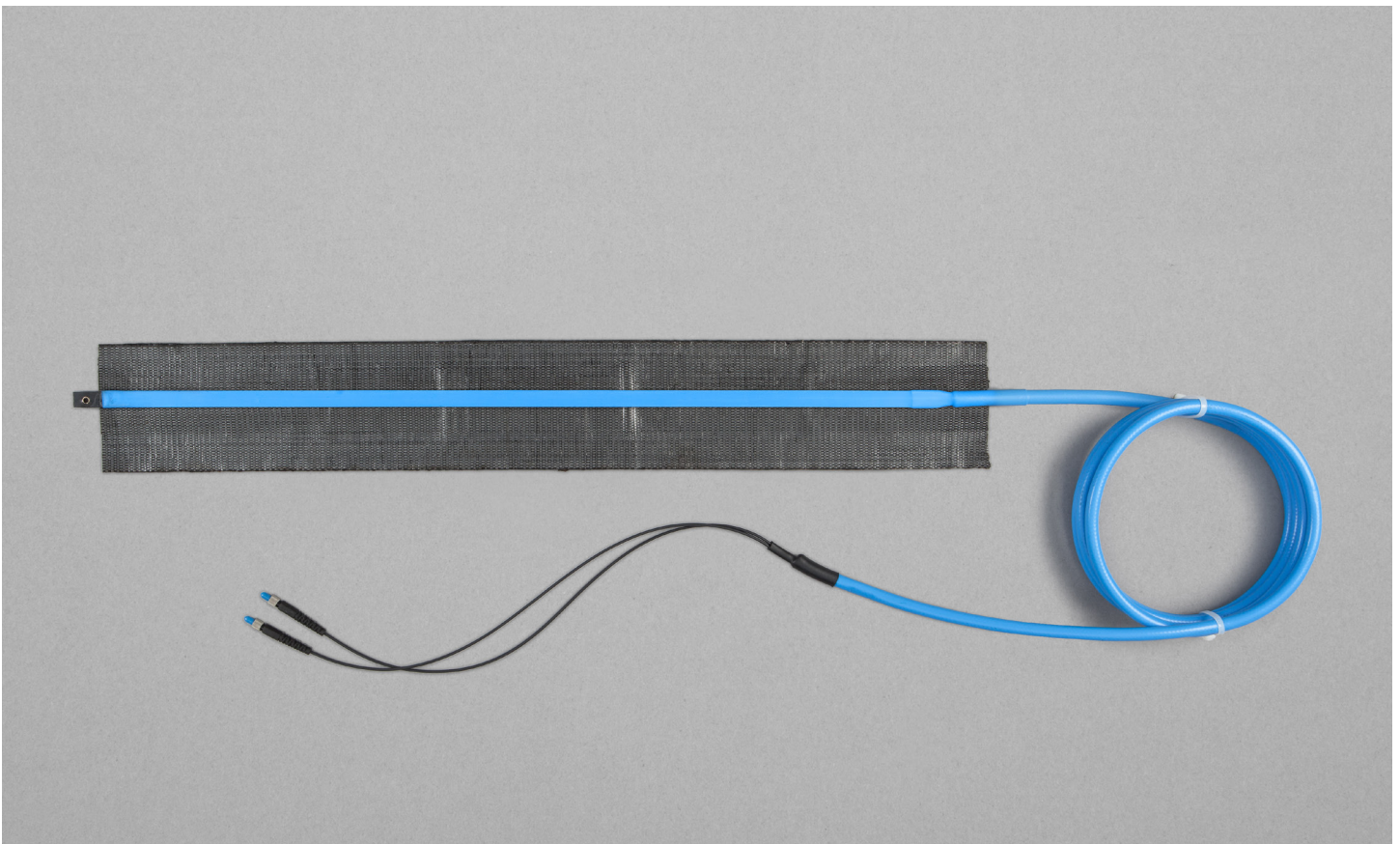
SL SMS sensor: fiber-optic sensor for temporary installations

Characteristics

- SL SMS sensor detects vehicles such as cars, trucks, buses and motorbikes by pressure on the Sensor
- SL SMS sensor is used for temporary installations e.g. construction sites or temporary vehicle counting stations
- A ready to install SL SMS sensor comprises the sensor element itself, a fiber optic feeder cable spliced directly to it and terminated with fiber optic connectors
- The sensor installation is done in a pocket tape on the road surface
- To operate the SL SMS sensor, it is connected to a Sensor Line opto-electronic interface
- Typical applications are axle counting and direction detection

Benefits

- 100 % detection rate—all vehicles are detected independent of poor visibility caused by smoke, rain, fog or snow
- Fiber optic cable is EMV immune—no impact by electric vehicles, any other magnetic fields or lightning
- Fiber optic cable is noise free—clear analog or digital trigger output
- Corrosion free as the sensor does not include any metal parts
- Adapts to asphalt or concrete path surface
- No calibration needed at or after installation



SL SMS sensor: Technical Data

Dimensions

Sensor element	Length	up to 4.0 m (13.12 ft)
	Insensitive zones	tip 50 mm (2 in) / feeder joint 100 mm (4 in)
	Width	14 mm (0.55 in)
	Height	3.7 mm (0.15 in)
	Weight (without feeder cable)	25 g/m (0.81 oz/yd)
Fiber optic feeder cable	Outer dimension	2.5 x 5 mm (0.10 in x 0.20 in)
	Length	up to 15 m (49.21 ft)
	Weight	12 g/m (0.39 oz/yd)
	Maximum short term pull tension	20 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)

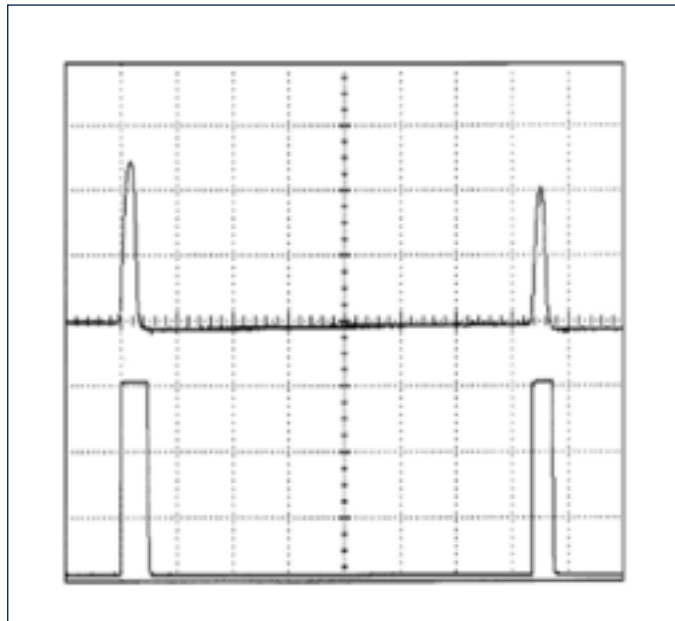
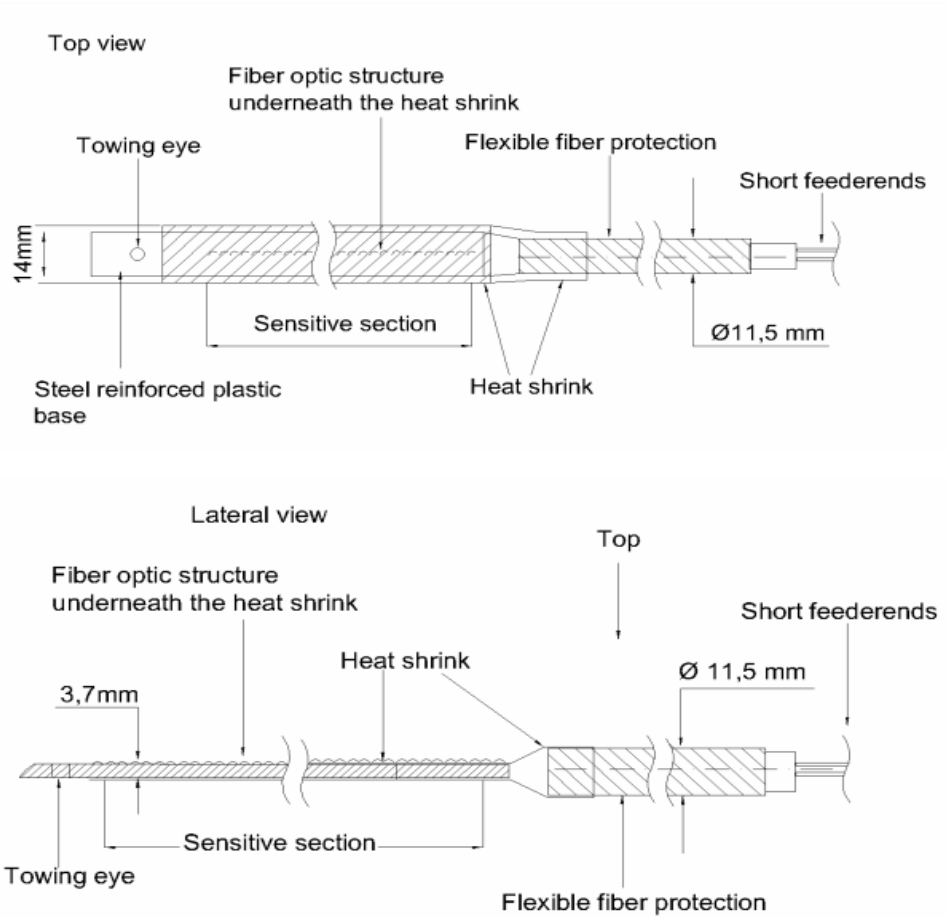
Performance

	Maximum speed	up to 100 km/h (62 mph)
	Humidity	no limitation
	Warranty	No warranty

Accompanying Products

SL MA-X10 - Electronic Interface with 1-3 channels
SL MD-220 - Electronic Interface
SL Pocket Tape

SL SMS sensor drawings



Typical signal output of SL MA-110 and SL PUR sensor. Sensor upper trace analog output 500 mv / div, lower trace digital output 5 V / div

