

Sensor Line SL MTA and SL KEY

Maximize the availability of your road traffic management system with SL MTA and SL KEY sensors — enjoy a reliable vehicle detection solution that promises maintenance-free longevity and easy replacement.

Product Description

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

The SL MTA and SL KEY strips are polyurethane-based reinforced fiber optic traffic sensors designed to replace T-shaped and keystone-shaped DYNAX® treadles in steel frames.

The pressure of a wheel deforms the SL MTA and SL KEY 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.

Advantages

- Excellent service life
- 99.99+% vehicle detection rate
- Easy replacement
- Speed independent
- Highly reliable and maintenance free

References

- Throgs Neck Bridge in New York City
- Lee County, Florida
- Halifax Bridges, Nova Scotia
- Strait Crossing



SL MTA sensor



SL KEY sensor

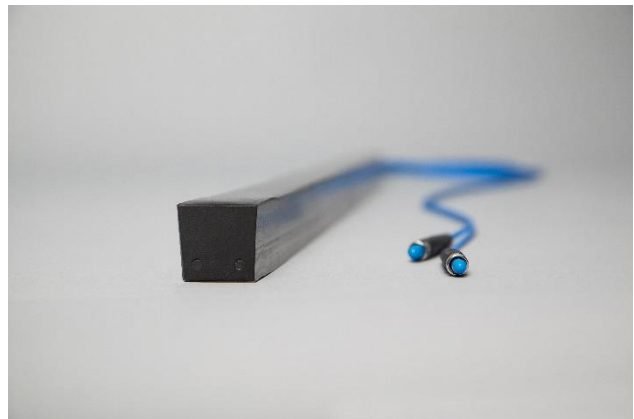
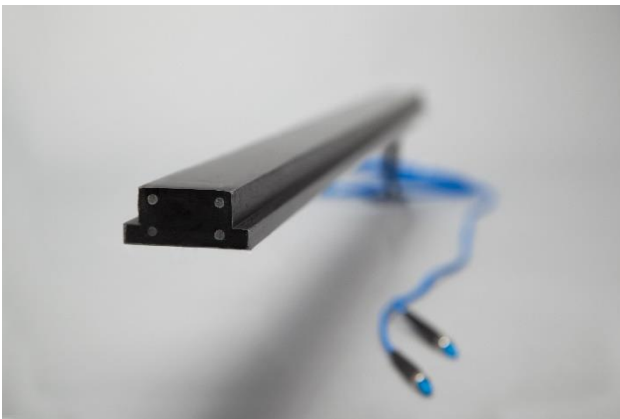
SL MTA and SL KEY sensor: Fiber-optic sensor for axle detection

Characteristics

- SL MTA and SL KEY sensor detect vehicles such as cars, trucks, buses and motorbikes.
- Typical applications are axle counting, vehicle classification, speed and headway measurement.
- A ready to install SL MTA and SL KEY 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 installed T-shaped and keystone-shaped metal frames often used in North America and replaces DYNAX® treadles.
- To operate the SL MTA and SL KEY 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.
- Easy and fast replacement
- Speed-independent, works with stop-and-go traffic
- No maintenance or calibration needed at or after installation.
- Customized sensor length possible - up to 4.5 m (15 ft) and cable length up to 250 m (820 ft).



SL MTA and SL KEY sensor: Technical Data

Dimensions

Sensor element MTA	Length	up to 4.5m (15 ft)
	Insensitive zones	tip 60 mm (2.7 in) feeder joint 130 mm (5.1 in)
	Width	Top 35 mm (1.38 in) Bottom 47 mm (1.85 in)
	Height	21 mm (0.83 in)
Sensor element KEY	Length	up to 4.5m (15 ft)
	Insensitive zones	tip 60 mm (2.7 in) feeder joint 130 mm (5.1 in)
	Width	Top 25.4 mm (1 in) Bottom 28.6 mm (1.13 in)
	Height	26.6 mm (1.05 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

Ordering Information

SL MTA XXX-Y-ZZ PE

XXX: Sensor length 2.430 m and 2.872 m

Y: Connector type (1: Plastic FSMA, 2: Metal FSMA reusable)

ZZ: Cable length 7.5, 15, 20 and 35 m

PE: Blue sensor cable with reinforced PE sheath

SL KEY XXX-Y-ZZ PE

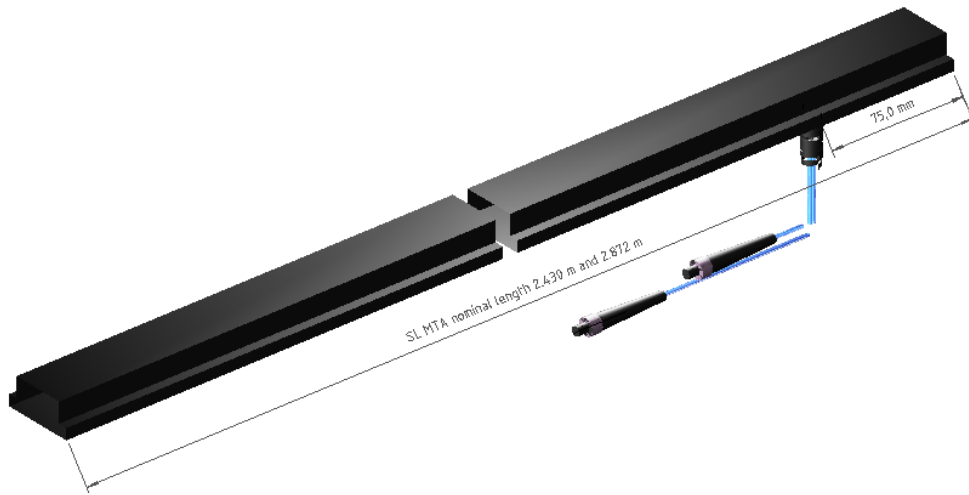
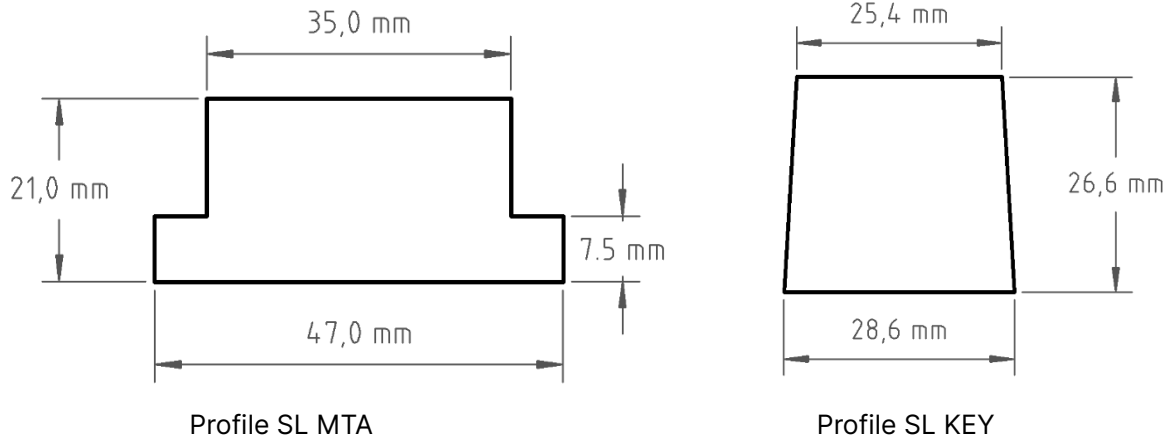
XXX: Sensor length 2.432 m and 2.917 m

Y: Connector type (1: Plastic FSMA, 2: Metal FSMA reusable)

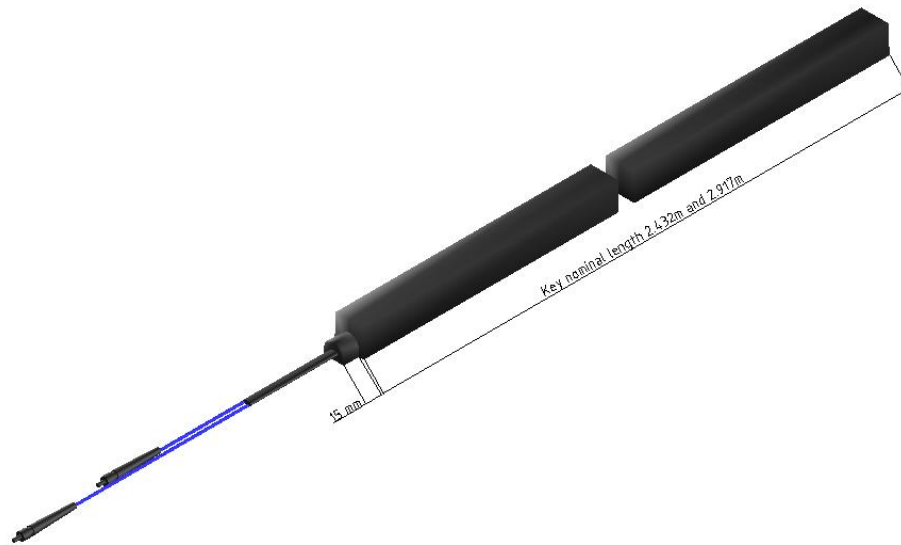
ZZ: Cable length 7.5, 15, 20 and 35 m

PE: Blue sensor cable with reinforced PE sheath

SL MTA and SL KEY Drawings



3D Drawing SL MTA



3D Drawing SL KEY

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