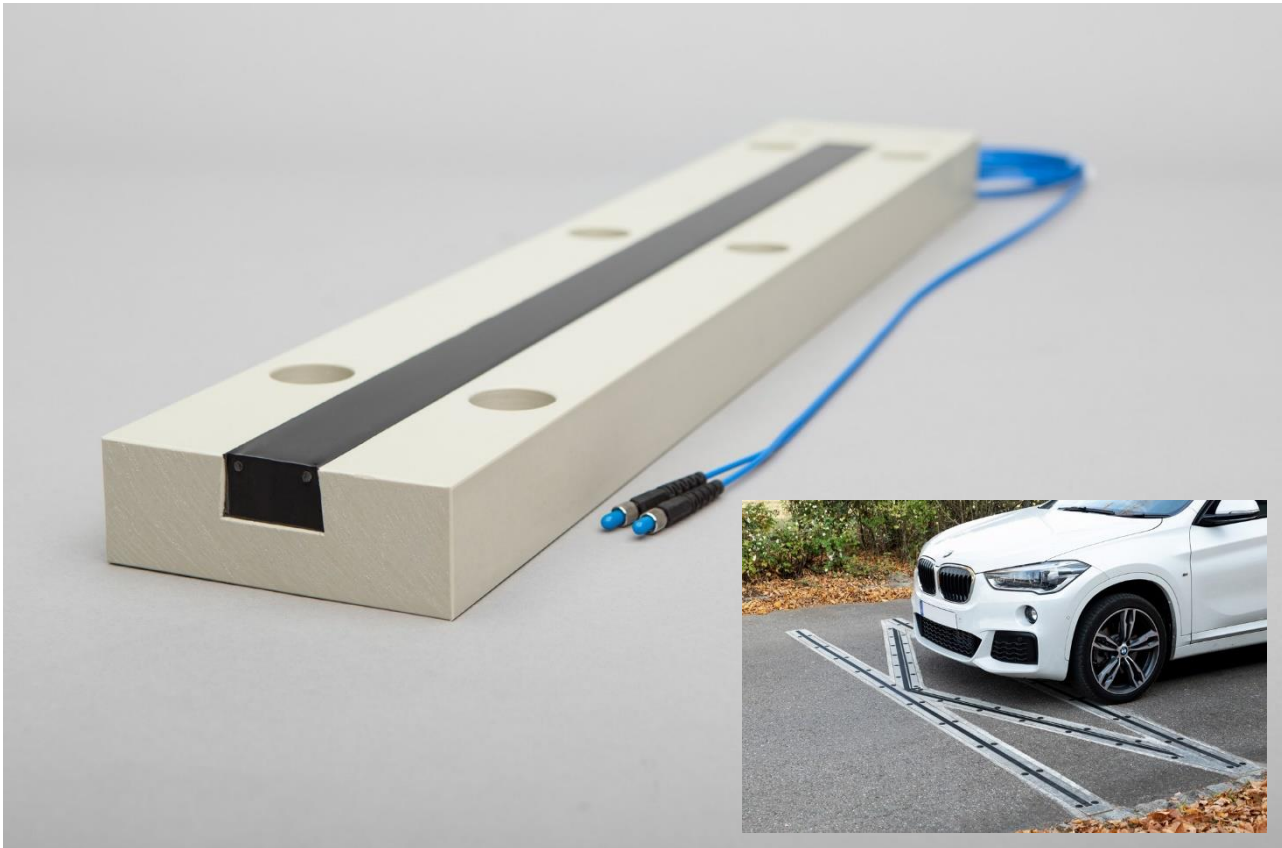


# Sensor Line EZ SENSOR

## Easy Install Fiber Optic Sensor for Road Traffic



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### Product Description

The SL EZ sensor detects vehicles in road traffic surveillance like axle counting, speed measurement, headway measurement, vehicle classification and cyclist counting. The SL EZ sensor is designed for permanent installation in concrete or asphalt roads. It is a PU-based reinforced fiber optic traffic sensor that is implemented in a frame of high-density polymer and can be fast and easy replaced without additional road works.

The operating principle of the sensor is very simple. The pressure of a wheel deforms the elastic SL EZ sensor. This deformation decreases the optical transmittance of the fiber inside the sensor. The transmittance change is detected by our opto-electronic analyzer and is transformed into signals for traffic data processing.

### Advantages

- 100% vehicle detection rate
- Visibility independent
- EMV immune
- Noise free signal
- Highly reliable and maintenance free

### References

- New York Thruway
- Istanbul Bosphorus bridge
- Bangkok toll station organisation
- Bogota traffic control
- Pakistan toll stations

# Sensor Line EZ SENSOR

## Easy Install Fiber Optic Sensor for Road Traffic

### Characteristics

- From one up to four SL fiber optic sensors are preinstalled in a frame of high-density polymer.
- The sensor does not include any metal parts. It is immune against electromagnetic disturbances, corrosion and lightning.
- A ready to install SL EZ sensor consists of a frame, the sensor element itself and a fiber optic feeder cable with a variable length.
- The SL EZ sensor is connected to a SL opto-electronic analyser with fiber optic plugs.
- SL EZ sensor detects vehicles such as cars and trucks.
- Typical applications are axle counting, dual tire and direction detection, speed measuring and vehicle classification.

### Benefits

- Easy and fast installation at lowest risk.
- 100 % detection rate - all vehicles are detected independent of poor visibility like 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.
- Adapts smooth to asphalt or concrete path surface
- No maintenance or calibration needed at or after installation
- Customized sensor length possible - up to 4.5 m and cable length up to 250 m reinforcement against lateral strain for a longer lifetime.
- Unique strip lifetime ensures low maintenance costs.
- Easy and quick replacement if needed

# Sensor Line EZ SENSOR

## Easy Install Fiber Optic Sensor for Road Traffic

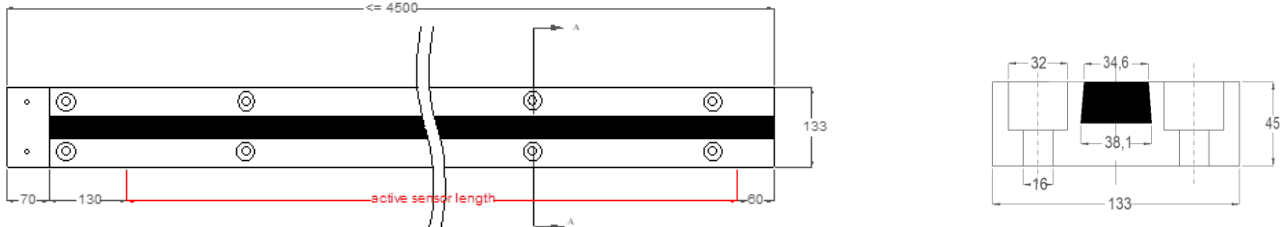
### Specifications

Sensor Element	Length	up to 4,5 m	
	Width / Weight	1 Slot Frame	133 mm / 6 kg/m
		2 Slot Frame	187 mm / 8.2 kg/m
		3 Slot Frame	240 mm / 9.5 kg/m
		4 Slot Frame	295 mm / 12.5 kg/m
	Sensor distance	Centre-to-centre	54 mm
	Standard slot gap		19 mm
	Insensitive zones		tip 60 mm / feeder joint 200 mm
	Height		45 mm
Shore hardness		86	
Fiber optic feeder cable	Outer dimension	2.5 x 5 mm	
	Length	up to 250 m	
	Weight	12 g/m	
	Maximum short term pull tension	20 N	
	Minimum bending radius	25 mm	
Optional: PE enforced feeder cable	Outer dimension	4 x 6.6 mm	
	Length	up to 250 m	
	Weight	12 g/m	
	Maximum short term pull tension	60 N	
	Minimum bending radius	25 mm	
Fiber Connectors (plastic / metal)	Length	34 mm	
	Max. diameter	8.5 mm	
Performance	Maximum speed	up to 250 km/h	
	Operating / storage temperature	-30°C to 85°C	
	Humidity	No limitation	
	Warranty	2 years	
Accompanying Products	SL MA-X10 - Electronic Interface with 1-3 channels		
	SL MD-220 - Electronic Interface		
	SL BOLT SET – Mounting material		

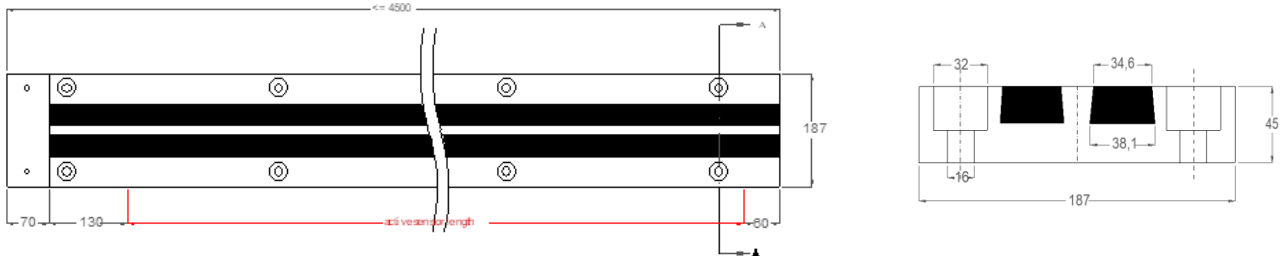
# Sensor Line EZ SENSOR

## Easy Install Fiber Optic Sensor for Road Traffic

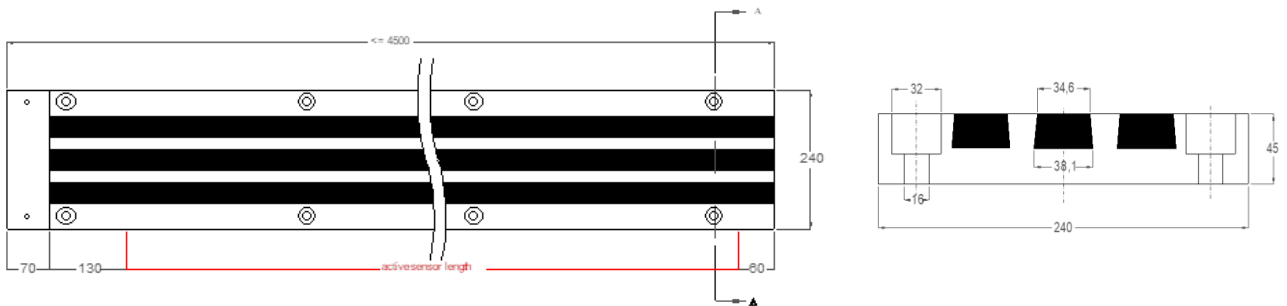
### SL 1EZ: One-Strip Sensor



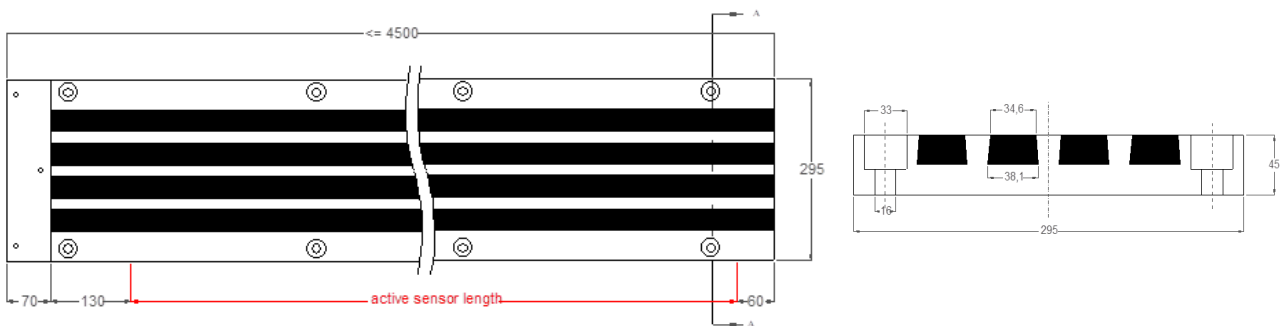
### SL 2EZ: Two-Strip Sensor



### SL 3EZ: Three-Strip Sensor



### SL 4EZ: Four-Strip Sensor



# Sensor Line EZ SENSOR

## Easy Install Fiber Optic Sensor for Road Traffic

### Typical Signal Output

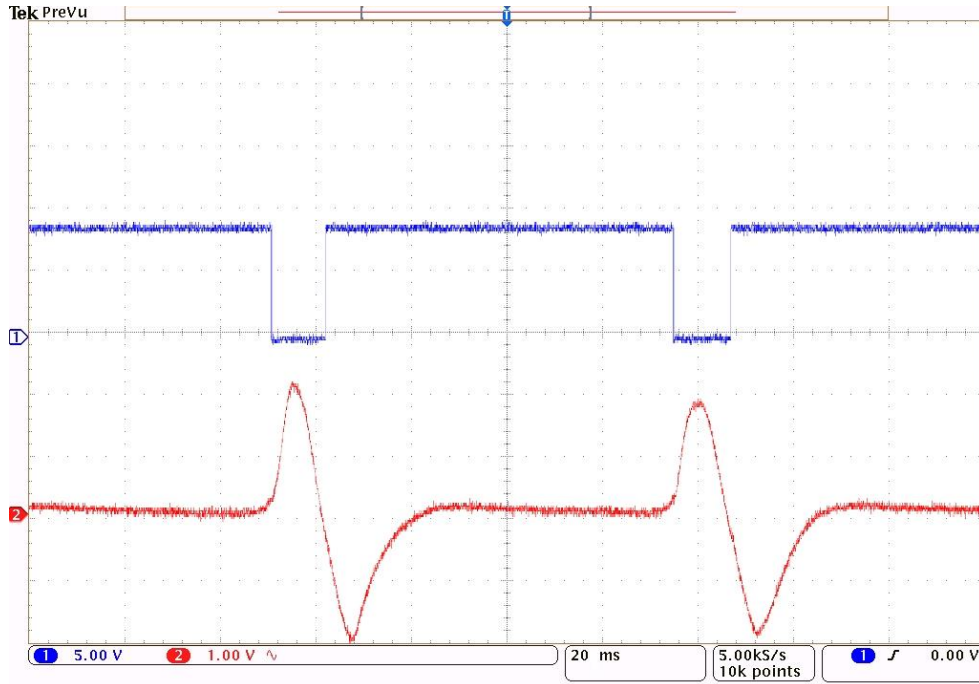
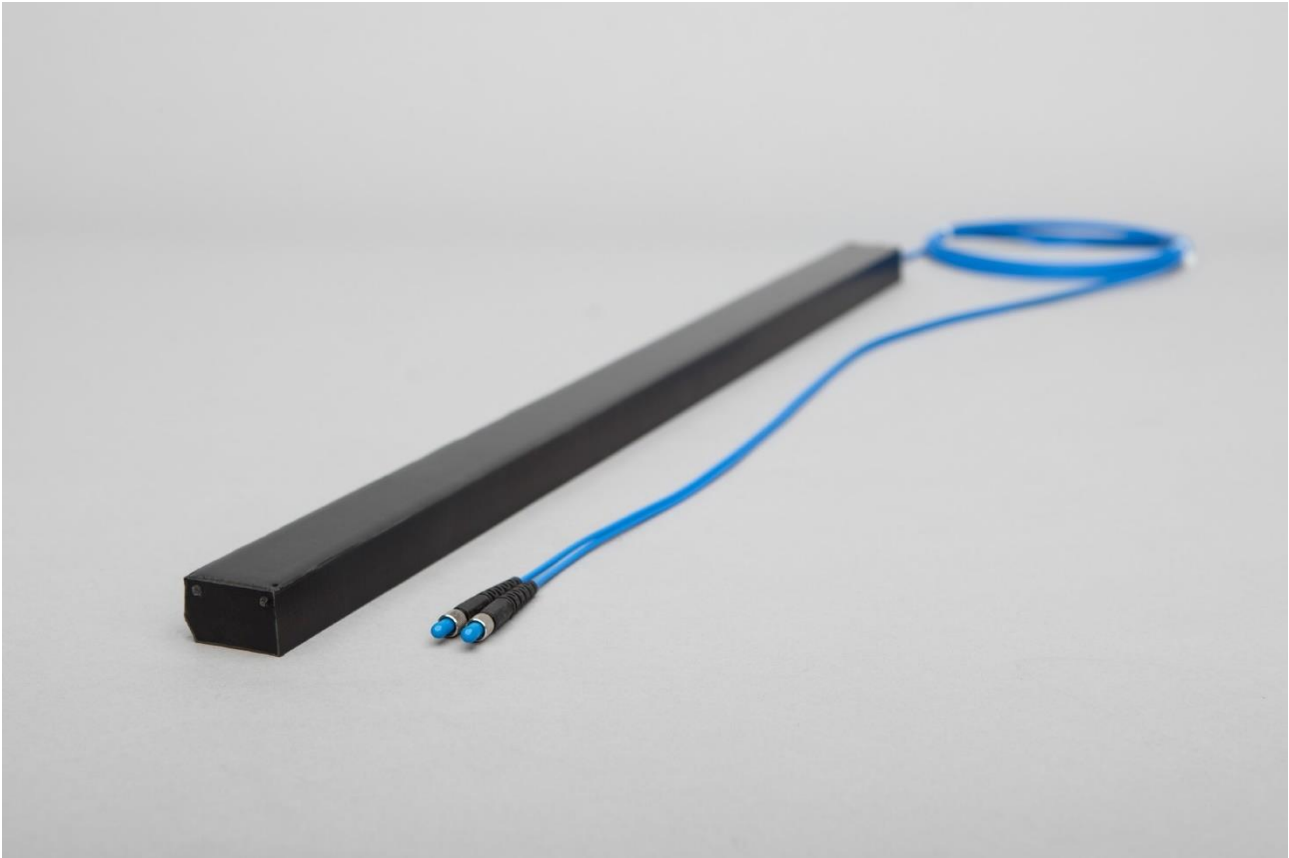


Fig. 1: SL EZ Sensor operated by analyser SL MA-110

Trigger signal output (blue, 5V/div) and analog voltage output (red, 1V/div).

# SL EZR STRIP

## Easy Replace Fiber Optic Strip for SL EZ Frame



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### Product Description

The SL EZR Strip is a polyurethane-based reinforced fiber optic traffic sensor replacement strip designed for permanent installation in SL EZ frames. Its special chamfered shape ensures a fast and simple replacement into an existing frame. The SL EZR Strip has a double-sided adhesive tape on the underside to guarantee a tight fit even in diagonal configurations for dual tire detection and heavy traffic.

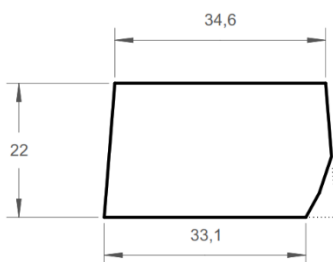


Fig. 2: Cross section SL EZR