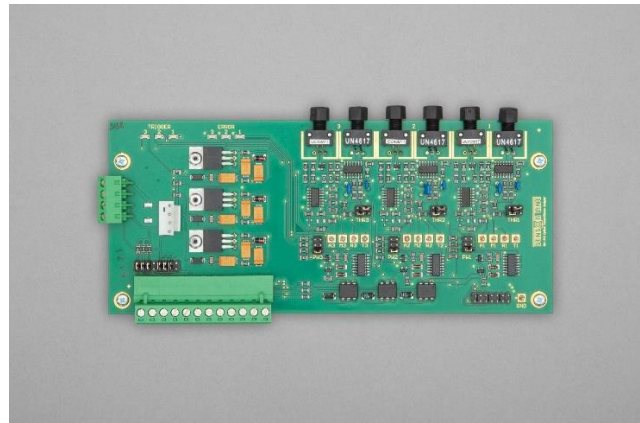


SENSOR LINE MA-X10

Electronic Interface with 1-3 Channels



Product Description

The Sensor Line MA-X10 interface operates one or more Sensor Line fiber optic road traffic sensors responding to changes of their optical transmittance and provides respective electrical output signals that can be retrieved by other devices for traffic data processing. The unit comprises a high power infrared LED transmitter, a PIN diode photodetector, and the optical transmission analysis electronic. All of our fiber optic road traffic sensors (like PUR, EZ, SPZ, SMS) can directly be connected to the Sensor Line MA-X10. There are three versions named MA-110, MA-210 and MA-310 available with one, two and three channels, respectively.

Interface Type	No. of sensors	Application
SL MA-110	1	Standard Road Edition, Bike Edition
SL MA-210	2	
SL MA-310	3	

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Charakteristics

- Dynamic analog voltage output (0-10V) for automatic long term signal adaptation
- Static analog monitor output (0-10V), e.g. for normalizing of the analog signal
- Optocoupler digital outputs enable free definition of any logical polarity and level
- Adjustable trigger threshold (MA-210, MA-310)
- Adjustable minimum trigger pulse duration (MA-210, MA-310)
- Pre-wired output circuits configurable through jumper settings (MA-210, MA-310)
- Sensor failure indication
- Reverse power protection
- Outputs short circuit protection
- RoHS conform

Typical Signal Output

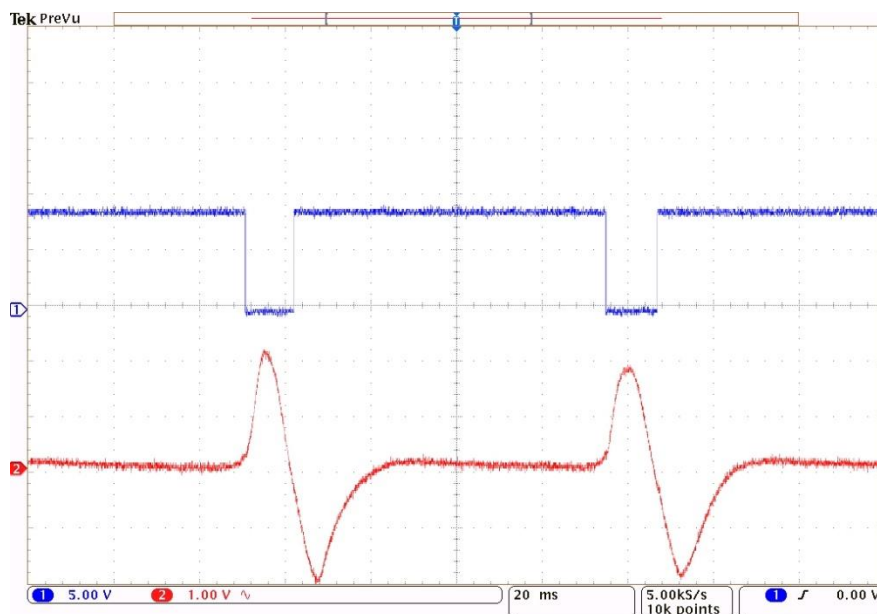


Fig. 1: SL PUR sensor operated by SL MA-110.

Digital trigger output (blue), analog voltage output in (red)

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Specifications

Order Name	SL MA-110	SL MA-210	SL MA-310
Housing material	ABS black	x	x
Dimensions in mm	67 x 58 x 25	130 x 100 x 17	208 x 93 x 17
Protection class	IP 30	IP 00	
Main Connection	Screw clip	Pluggable screw clip	
Board Supply Voltage:	+12 to +24 VDC		
Board Supply Current (continuous):	< 100mA	< 210mA	< 330mA
Output Supply Voltage:	+ 5 to +24 VDC		
Supply for Optocouplers:	60V / 25mA max.		
Trigger Thresholds:	0.30% (0.16%)	0.04% / 0.16% / 0.32% / 1.00%	
Minimum Trigger Pulse Duration:		1 ms / 22 ms / 47 ms	
Operating / Storing Temperatures	-40°C to 85°C		
Relative Humidity:	< 80% at 25°C		
Sensor Attenuation	3 – 25 dB		
Speed Range:	5 to 250 km/h		
Feeder Length:	up to 250 meters		
Certification:	RoHS		
LED Risk Group:	RG 0 (safe)		

Sketches

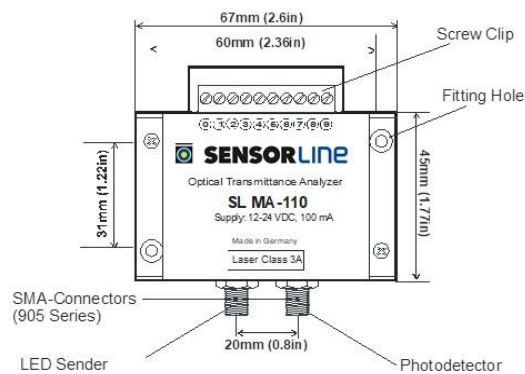


Fig. 2: SL MA-110 Dimensions

SENSOR LINE MA-X10

Electronic Interface with 1-3 Channels

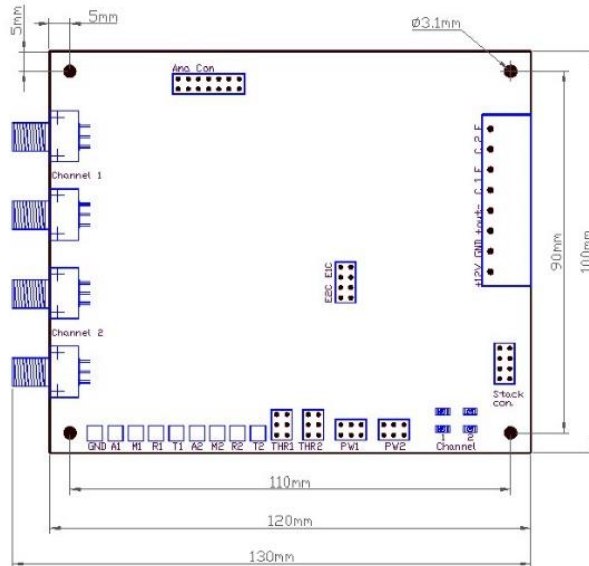


Fig. 3: SL MA-210 Dimensions

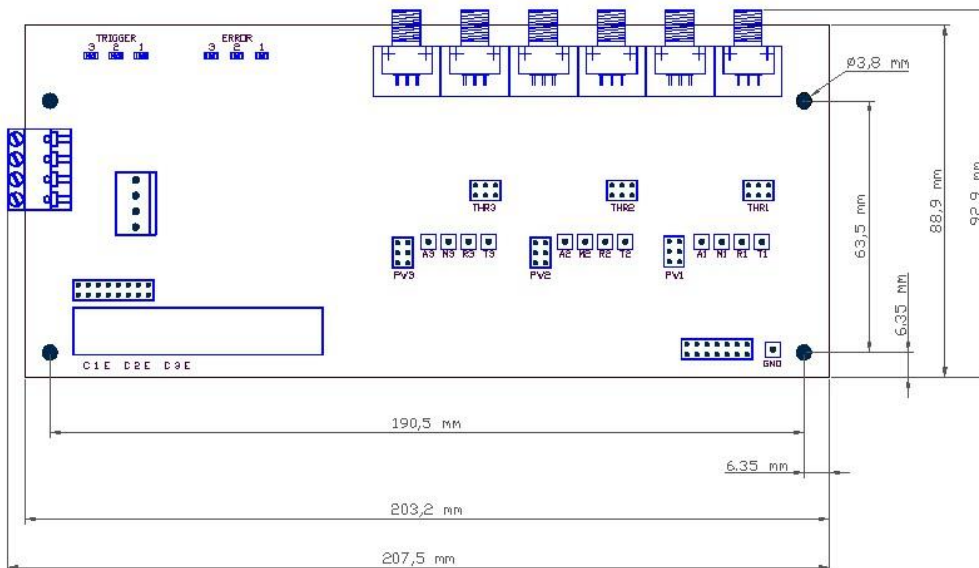


Fig. 4: SL MA-310 Dimensions