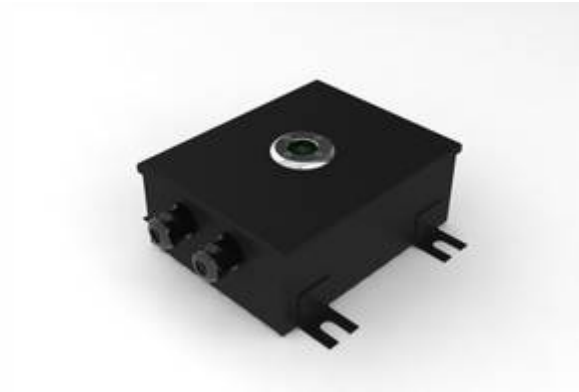




TUNNEL SENSORS

ILLIOS

Tunnel Illuminance Photometer



- CIE Approved measurement technology
- Accurate measurement of illuminance within the tunnel bore
- Designed specifically for tunnels
- Rugged construction
- Simple installation/operation
- Isolated 4-20mA analogue outputs
- Alarm relay contacts
- ModBus serial comms

The ILLIOS measures the level of illuminance within the tunnel bore to ensure interior illumination levels are being continuously maintained in order to affect safe lighting conditions for drivers. Illuminance, or incident lighting, determines the amount of light that covers a specific surface or area within the tunnel.

Designed specifically for the tunnel environment, the ILLIOS continuously measures cosine corrected planar illuminance within the tunnel thus allowing elimination of directional error. The ILLIOS measures the illuminance over a standard range of 0 - 20,000 lux.

Like the LUMIOS, the ILLIOS uses a specially designed, highly light-sensitive photocell, filtered to provide a spectral response close to that of the average human eye, to react to changes in light levels within the tunnel environment.

The ILLIOS is a self contained intelligent analyser and the measurements are converted into an output signal of 4-20 mA (directly proportional to the illuminance measurement) for hard wire connection and signal transmission to a host controller. The ILLIOS also comes with alarm relay contacts and ModBus serial communications protocol.

Having been designed for tunnel environments, the ILLIOS is of rugged construction using powder coated stainless steel and flame retardant polycarbonate to achieve an IP67 / NEMA 4X protection rating. The ILLIOS is able to withstand the corrosive atmosphere and regular tunnel washing that the tunnel environment endures.

The ILLIOS has an operating temperature range from -30° - +70°C which ensures stable readings across all prevailing ambient temperature conditions.



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ILLIOS Tunnel Illuminance Photometer

Specification:

Measurement Performance

No.	Parameter	Units	Min	Max	Comment
1	Detector				Silicon photo diode, V _i filtered
2	Measurement Range	lx	0	20,000	
3	Resolution	lx		1	Relative to display
4	Accuracy	%	-1	+1	

Power

5	Voltage	VAC	90	265	50/60Hz
6	Power Consumption	W		TBC	

Interface Options

7	Serial Outputs				ModBus RTU (RS485)
8	Analogue Outputs (1 output)	mA	4.0	20.0	Isolated
		V	0	10.0	
9	Relay Contacts			4	**A@240VAC

Physical

10	Ingress Protection			IP66	
11	Operating Temperature	°C	-30	+70	
12	Storage Temperature	°C	-30	+70	
13	Operating Humidity	%	0	100	
14	Materials				Powder coated steel, (option for stainless steel)
15	Dimensions	mm			L x W x H
16	Weight (each)	Kg			Approx.
17	Warranty	Months	24		Return to base warranty



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