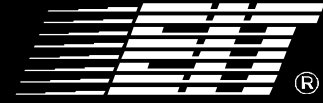


# Advanced UV Monitoring System Compact Sensor



## Features

- Improved optics virtually eliminate solarization
- Small size for installation in tight spaces
- Squared body design for easy mounting
- For use with most lamp makes and types
- Sealed optics to prevent contamination
- Ported for air purge to keep optical path clear
- Compatible with all EIT monitoring equipment

## Applications

- Monitor UV lamp intensity
- Establish preventive maintenance schedules for lamp systems
- Determine when to replace lamps
- Collect data for statistical process and quality control

## Introduction

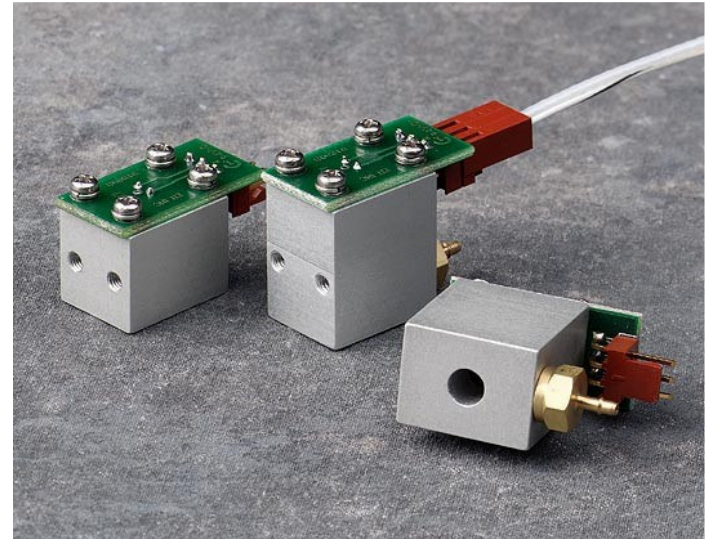
The Compact Sensor from EIT is a breakthrough in UV sensor technology. It is extremely resistant to UV solarization in even the most intense UV fields. Solarization - the degradation of optical components caused by intense UV light - is virtually eliminated in the new design.

Innovative design and improved materials in the sensor make it possible to monitor an intense UV source for thousands of hours without perceptible solarization.

The Compact Sensors is very small in size; ruggedness and hermetic sealing make it ideal for use in many industrial applications.

The Compact Sensor generates a signal proportional to the intensity of UV light impinging on the face of the sensor. This signal is fed via a 10' shielded cable to one of four display options - EIT's Multibrite, Online UV Intensity Display Module, DIN Rail Mount UV Intensity Monitor, or Battery-Powered Display Module. When the UV lamps and reflectors are new, the display is set to show a 100% relative intensity. A decrease in the displayed percentage shows the gradual degradation in the UV lamp's output compared to its output when new. The relative intensity values can be converted to absolute values in watts per square centimeter by comparing the percentage to an intensity reading from an EIT radiometer.

The sensor offers great flexibility in installation (see diagram on possible mounting locations or contact EIT for help). Since solarization is no longer a major concern, the sensor can be mounted to directly view any section of the lamp. Many applications allow



installation where the sensor can monitor the UV light either directly from the lamp or from its reflector. In space-limited applications, the sensor can even be mounted behind the reflector. The sensor package is sealed to protect its optics from humidity and harmful vapors.

The Compact Sensor is available in two standard housing sizes described below. Each sensor is available in EIT's UVA, UVB, UVC or UVV bandwidths. Spectral response curves are located on the back of this sheet. Contact EIT if you have questions.

### 1. Compact Sensor-Dash 1 Assembly (CS-1)

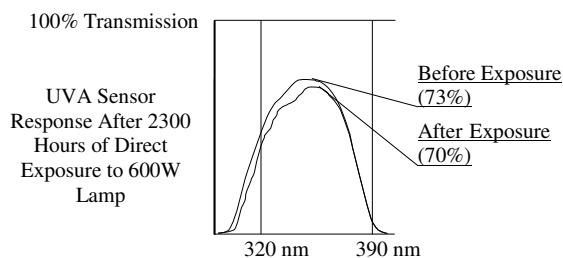
Housing Size (without purge assembly, connector or board): 0.57" x 1.10" x 0.75" (1.45 x 2.78 x 1.891 cm)

The Compact Sensor (CS-1) comes with an optional air/nitrogen purge, which allows operation in less than ideal environments. Slight positive pressure (few PSI) of either air or nitrogen flowing through the purge assembly will keep the sensor window clean in dirty or hostile environments. A screw is provided in the kit if the user elects to not use the purge. The approximate acceptance angle of the CS-1 UVA sensor is 5° degrees.

### 2. Compact Sensor-Dash 2 Assembly (CS-2)

Housing Size (without connector or board): 0.57" x 0.60" x 0.75" (1.45 x 1.52 x 1.91 cm)

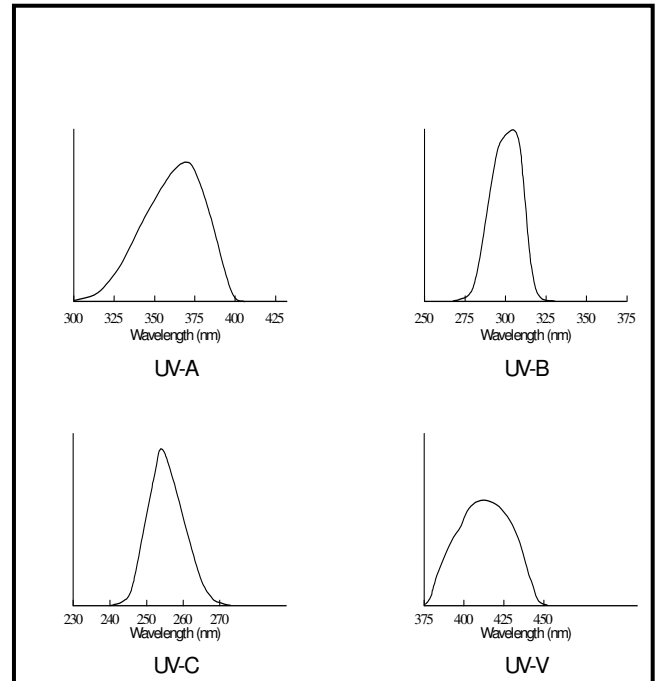
The CS-2 housing is a height-reduced version of the CS-1 sensor. The purge assembly that is present in the CS-1 sensor has been removed making the CS-2 version of the sensor truly compact. The approximate acceptance angle of the CS-2 UVA sensor is 13° degrees.



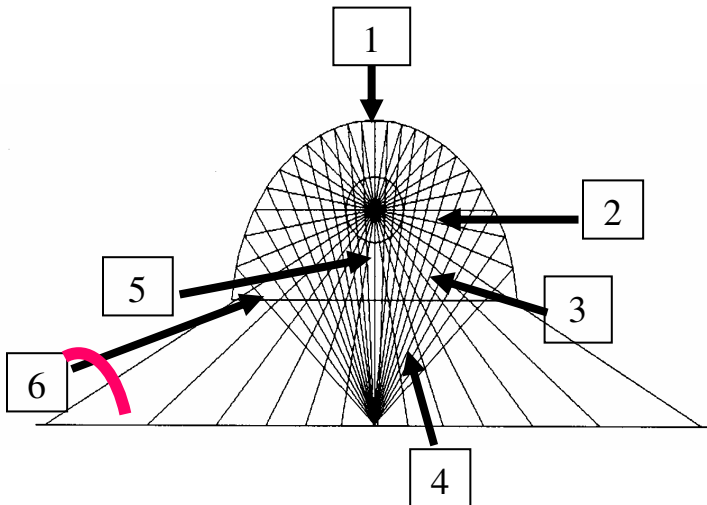
**Spectral Response**

## Specifications

Dimensions:	CS-1	0.57" x 1.10" x 0.75"
	Type	(1.45 x 2.78 x 1.91 cm)
	CS-2	0.57" x 0.60" x 0.75"
	Type	(1.45 x 1.52 x 1.91 cm)
UV Bandwidth:	UVA, UVB, UVC or UVV (see chart)	
Housing Material:	Aluminum	
Weight:	CS-1	0.8 oz. (22.68 g)
	CS-2	0.7 oz (19.86 g)
Cable:	Teflon, shielded, 10' (3 meters)	
Connector:	HP-1	for Online UV Intensity Display Module or Multibrite
	BNC	
	HP-2	for DIN Rail Mount UV Intensity Monitor
	Tinned Leads	
	HP-3	For Battery Powered Display Module
	3-pin Molex	
Temperature Range:	0-100°C	



UVA 320- 390 nm	UVB 280- 320 nm	UVC 250- 260 nm	UVV 390- 445 nm
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## Possible Compact Sensor Mounting Locations

Ideally, Compact Sensors should be mounted to monitor the reflected UV energy. This will help to show a change in lamp condition caused, for example, by dirty reflectors, aging bulbs.

**NOTE:** By monitoring only the UV bulb, certain conditions may be missed that can cause drop-off in lamp performance.

1. Behind reflector (see above note)
2. Behind reflector look at bulb and reflected energy
3. Looking up at bulb and reflector from below
4. Under system and or quartz plate
5. From end of lamp housing
6. Through IR/dichroic filter material