

# Online Intensity Display Module



To get good curing results consistently, it is important to know when to replace the lamps. If the lamps are only replaced at set time intervals, they may be replaced too soon or too late. Money is wasted if the lamps are still good.

Product is wasted if the lamps are overdue for replacement. The human eye is unable to detect UV light, must rely on an instrument designed to monitor only UV within a specific bandwidth. An intensity monitor with a specific sensor will detect the output of a UV lamp continuously.

The Online UV Intensity display Module is an electro-optical instrument designed to track a single UV lamp. The system consists of a signal conditioning module and a sensor.

Each module is designed to give the user information regarding the lamp's relative intensity at glance. The analog output that tracks UV intensity is an industry standard signal compatible with any data acquisition system, integrated control system, or distributed control system.

The sensors work with mercury vapor, electrodes, deuterium, or any lamps which produce UV light. Sensors are ordered with 250-260nm, 280-320nm, 320-390nm, or 395-445nm spectral responses, and they come with 10' cables (custom lengths are available).

The user also has the use of two alarm relay connections. If the UV lamp's intensity goes below a set level, these connections either switch 1n or switch out an indicating circuit of the user's design.

## Installation

The Online UV Intensity Display Module is easy to install. The module can be mounted directly into a panel near or on a UV system - a cut and drill template is supplied to help. The module also comes with hardware so the user can mount it extremely.

The sensor is permanently mounted to the system to receive light from the UV source. The sensor comes with its own hardware for easier installation

Once the module and sensor is installed, the electrical connections are made via a convenient terminal strip in the module.

## Operation

First, the user sets the module's output to reflect 100% UV intensity when the lamp is new and the irradiator is in optimal condition. Then the user determines and adjusts the Alarm Set Point. The module continuously displays the percentage of UV light. The UV is above the Alarm Set Point, the LED stays on. If the UV goes below the Alarm Set Point, the alarm relay triggers and the red LED comes on. The relay activates an external alarm.

## Features

- Continuously monitors output of a single UV lamp
- 0-10 volt analog output
- Relay output connections
- Panel mount convenience

## Applications

- Monitor UV lamp intensity
- Reliable lamp replacement indicator
- Determine when to clean lamp irradiator
- Process control measurement
- Collect data for process and quality control

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**EPOXY AND EQUIPMENT TECHNOLOGY PTE LTD**  
No 51 Bukit Batok Crescent #07-04 Unity Centre Singapore 658077  
Tel: (65) 6 899 3839 Fax: (65) 6 899 3536 Email: info@eet.com.sg  
Website: www.eet.com.sg  
Malaysia | Thailand



### Specifications

ONLINE UV INTENSITY DISPLAY MODULE	
Power Source	20 - 28 VAC or DC at 500mA maximum
Output	0 - 10 Volt DC - proportional to UV intensity; display indication of 100% = 5V
Accuracy	Typically within +/- 3% as compared to full scale (10 volts, 200%) Relay Trip Point: typically within +/- 5% from threshold setting as compared to 200%
Overall Dimensions	Front plate 6.5" x 5" (16.51cm x 12.70cm)
Weight	4.60 oz. (115 grams)
Display	2 ½ digit, 0.5" high digits
Display Range	0 - 199%
Operating Temperature Range	0 - 50 degrees C
Features	Green above limit indicator Red below limit indicator Relay contacts, normally open or normally closed
UVISENSOR	
Dimensions	¾" OD x 1 ½" long (1.91cm x 3.8cm)
Spectral Range	250-260nm; 280-320nm; 320-390nm; or 395-445nm
Material	Aluminum Housing
Weight	4 ounces (113 grams)
Cable	Teflon insulated, shielded, 10" (3 meters) long
Connector	BNC for Online UV Intensity Display Module
Temperature Range	Sensor: 0-75°C Sensor Cable: -55°C to 200°
COMPACT SENSOR	
Dimensions	0.57 x 1.09 x 0.92(inches) 1.45 x 2.77 x 2.34(cm) Sensor Housing
Spectral Range	250-260nm; 280-320nm; 320-390nm; or 395-445nm
Material	Aluminum Housing
Weight	.8 ounces (22.68 grams)
Cable	Teflon insulated, shielded, 10" (3 meters) long
Connector	BNC for Online UV Intensity Display Module
Temperature Range	Sensor: 0-100°C Sensor Cable: -55°C to 200°C

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