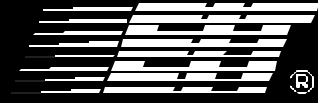


# Online UV Intensity Display Module



## Features

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

## Application

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

## Introduction

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, 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 UV output. The module has a 2½-digit LED display that shows the lamp's relative intensity at a 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, electrodeless, deuterium, or any lamps which produce UV light. Sensors are ordered with 250-260 nm, 280-320 nm, 320-390 nm, or 395-445 nm 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 in or switch out an indicating circuit of the user's design.

## Installation

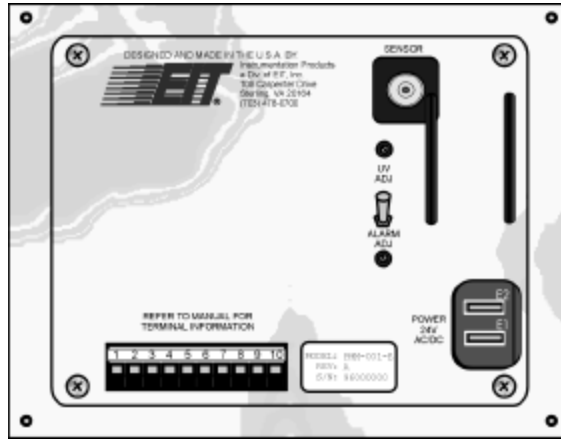
The Online UV Intensity Display Module is easy to install. The module can be mounted directly into a panel near or on a UV system - a cut and drill template is supplied to help. The module also comes with hardware so the user can mount it externally.

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 are 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. If the UV is above the Alarm Set Point, the green 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.



**Online UV Intensity Display Module – Rear View**

**Specifications:**

**Online UV Intensity Display Module**

Power Source	20-28 Volts AC or DC; 500mA maximum
Output	0-10 Volt DC- proportional to UV intensity; Display indication of 100% = 5V; Relay outputs for normally open or normally closed
Accuracy	+/-3% of full scale (10 volts = 200%); Relay Trip Point: +/-5%
Display	2½ digit, 0.5” high digits; Green above limit LED; Red below limit LED
Display Range	0-199%
Operating Temperature Range	0-50° C
Front Plate Dimensions	5.0”H x 6.5”W (12.7 x 16.5cm)
Weight	4.60 oz. (115 g)

**UVISENSOR**

Spectral Range	250-260nm, 280-320nm, 320-390nm, or 395-445nm
Dimensions	0.75"OD x 1.5"L (1.9 x 3.8cm)
Material	Aluminum housing
Cable	Teflon insulated, shielded, 10' (3m) long
Connector	BNC
Operating Temperature Range	0-75° C

**Compact Sensor**

Spectral Range	250-260nm, 280-320nm, 320-390nm, or 395-445nm
Dimensions	0.57" x 1.09" x 0.92" (1.45 x 2.77 x 2.34cm)
Material	Aluminum housing
Cable	Teflon insulated, shielded, 10' (3m) long
Connector	BNC
Operating Temperature Range	0-100° C