

DIN Rail UV Intensity Monitor



Features

- Signal output device for use with EIT Compact Sensors
- Continuously monitors output of a single UV lamp
- 0-10 volt analog output
- Relay output connections
- Snap-in DIN rail mounting convenience
- User-settable alarm points
- Works with EIT Compact Sensor

Applications

- Provide a conditioned output signal from a compact sensor when used to monitor UV lamp intensity
- Process control measurement
- Collect data for process and quality control
- Industry standard analog output signal is compatible with data acquisition systems, integrated or distributed control systems

Introduction

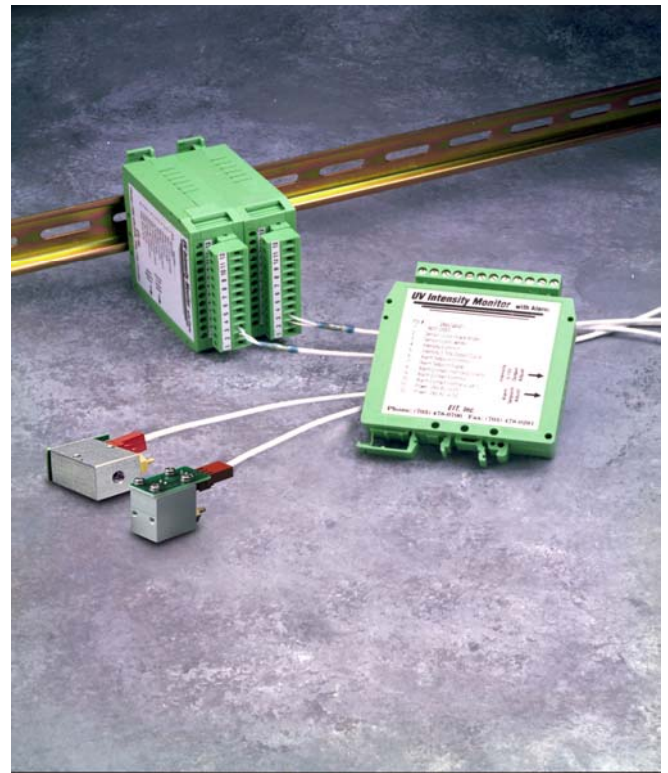
To get good curing results consistently, it is important to know when to perform UV system maintenance. Maintaining the cleanliness of the reflector is important to operate your UV system effectively and efficiently. If the lamps are only replaced at set time intervals, they may be replaced too soon 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 specified bandwidth. An intensity monitor with a specific sensor will detect the output of a UV lamp continuously.

The DIN Rail UV Intensity Monitor, when used in conjunction with EIT Compact Sensors, forms an electro-optical system designed to track a single UV lamp. The system consists of a signal conditioning module and a sensor. The module snaps into a DIN type rail, which, in turn, can be mounted on the UV system. Because of the module's size, many of them can be installed in a small area.

The DIN Rail UV Intensity Monitor can be used in integrated monitoring and control systems with analog signal processing and shared display capabilities.

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

The sensors work with arc (electrode) and microwave (electrodeless) systems equipped with a variety of lamps – mercury vapor and mercury additive lamps. 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 relay circuit connections. If the UV lamp's intensity goes below a set intensity, these outputs will switch in an indicating circuit of the user's design.

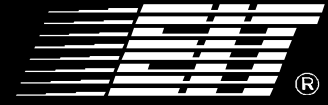
Installation

The DIN Rail Mount UV Intensity Monitor is easy to install. The DIN Rail can be mounted practically anywhere around or on the UV system and the module simply snapped onto it. Each sensor is permanently mounted to the system to receive light from the UV source. Mounting hardware for the sensor is supplied to make installation easier. Once the module and sensor are installed, the electrical connections are made via 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. The Alarm Set Point is then adjusted to a level the user determines. If the UV goes below this level, the relay outputs trigger. These outputs activate an external alarm.

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Specifications

DIN RAIL MOUNT UV INTENSITY MONITOR	
Power Source	20-28 Volts AC or DC; 70mA maximum
Output	0-10 VCD – proportional to UV intensity
Accuracy	Intensity: +/-3% of full scale (10 volts); Alarm Set Points: +/-5% from threshold setting
Overall Dimensions	3.56”H x 3.11”W x 0.98”D (9.04 x 7.90 x 2.49cm)
Weight	3.6 oz (101 g)
Operating Temperature Range	0-50°C

COMPACT SENSOR		
Dimensions	CS-1 Type	0.57” x 1.10” x 0.75” (1.45 x 2.78 x 1.91 cm)
	CS-2 Type	0.57” x 0.60” x 0.75” (1.45 x 1.52 x 1.91 cm)
Spectral Range	250-260nm; 280-320nm; 320-390nm; 395-445nm	
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 BNC	For Online UV Intensity Display Module or Multibrite
	HP2 Tinned Leads	For DIN Rail Mount UV Intensity Monitor
	HP3 3pin Molex	For Battery Powered Display Module
Temperature Range	0-100°C	

Specifications subject to change