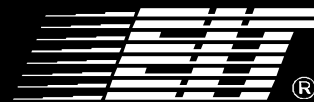


4-Channel UV Monitoring System MULTIBRITE®



Features

- Monitors output of 4 UV lamp sources simultaneously
- Provides timely relamping information
- Audible and visual alarms
- Digital readout
- Low output alarm
- Standard linear outputs for remote monitoring
- Cascadable remote alarm output
- Individual channel alarm lockout
- Programmable alarm delay

Applications

- Monitor UV lamp intensity
- Reliable lamp replacement indicator
- Indication of when to clean lamp reflectors
- Process control measurement



Introduction

To obtain consistently good curing results, it is important to know when to perform UV system maintenance. Maintaining the cleanliness of the reflector is important in order 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. MULTIBRITE can help eliminate guesswork, reduce waste, and assure consistent product quality to save time and money.

The MULTIBRITE, when used in conjunction with EIT Compact Sensors, forms an electro-optic system designed to track up to four lamps simultaneously. 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 in 250-260nm, 280-320nm, 320-390nm, or 395-445nm spectral ranges. The MULTIBRITE displays the relative output of each lamp's intensity and sounds an alarm if the output of a lamp falls below a percentage set by the user.

Installation

MULTIBRITE is easy to install. The enclosure can be wall, panel, or rack mounted, or simply set on a surface.

Each sensor is mounted on the UV system where it can receive a sufficient amount of UV light. The sensor has a 10' cable (custom lengths available) to connect to the MULTIBRITE. Hardware is provided to simplify sensor mounting.

Operation

After installation, the user calibrates the MULTIBRITE. When the lamps are new and the irradiators are clean, the MULTIBRITE is set to read 100% on each channel used. The user then determines a Lower Limit percentage for the alarms and sets it. Front panel switches select which channel (or Lower Limit) is displayed.

Low-level signals from the individual sensors are converted to a voltage level for signal monitoring and display. A 4-20mA/0-10V output for each channel allows interfacing to a programmable logic controller, personal computer or other data collection device.

If a channel's output falls below the Lower Limit setting, a comparator circuit drives the alarm outputs. The internal audible/visual alarm is enabled or disabled by a switch on the front panel.

When a lamp needs to be replaced or has been removed, the channel can be put on standby. The MULTIBRITE will continue to monitor the other channels and ignore the standby channel.

An alarm delay function allows time for the lamp(s) to turn on before the monitor to prevent a false alarm. MULTIBRITEs can be cascaded so that more than four lamps can be monitored by several MULTIBRITE systems – each interconnected so that any lamp dropping below the Lower Limit will trigger a common alarm.

Specifications

| MULTIBRITE DISPLAY MODULE | |
|----------------------------------|---|
| Display | 3 digit LED, 0.5" high digits. Front panel switches select channel to display |
| Display Range | 0 - 199% |
| Power Source | 90-132 VAC, 47- 440 Hz, 200 mA |
| Input Current Range | 0.2 - 2.0 microamperes adjustable for 100% full scale reading |
| Output Current Range | 4 - 20 mA into a maximum impedance of 250 ohms |
| Output Voltage Range | 0 - 10 VDC into a minimum impedance of 10K ohms 0 - 5 VDC into a minimum impedance of 5K ohms |
| Alarm Outputs | Dry contacts rated for 500 mA at 125VAC driving a resistive load |
| Accuracy | +/-3% as compared to full scale (10 volts, 200%); Relay Trip Point: +/-5% |
| Overall Dimensions | Enclosure: 7.0"W x 3.5"H x 5.9"D (17.8 x 8.9 x 15.0cm). Front Panel: 8.4"W x 3.5"H (21.3 x 8.9cm) |
| Mounting | Panel mounted (1/2 rack dimensions) |
| Material | Painted aluminum |
| Weight | 3 lbs. (1.35 Kg) |
| Operating Temperature Range | 0-50°C |
| Features | Green above limit LED, red below limit LED; Relay contacts – normally open or normally closed |

| 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 |
| | HP-2 Tinned Leads | for DIN Rail Mount UV Intensity Monitor |
| | HP-3 3-pin Molex | for Battery Powered Display Module |
| Temperature Range | 0-100°C | |

Specifications subject to change