UVR

UV RESOURCES

CU2™ with UVRepeat™

BENEFITS

- Simple Go/No Go "real-time" verification of both lamp and ballast operation
- Provides a highly visible green Status LED indicator locally
- Offers a 0–5 Vdc signal that's easily monitored by most Building Management Systems
- Solid state, needs no power and lasts for 50,000 hours or more
- No need to shut lights off, enter a plenum or trigger a door switch
- Rated up to 5 Amps per connection
- **5-year product warranty**
- Very affordable and reliable

The CU2™ is a "first of its kind" lamp monitoring system for UV-C lamps and ballasts. A feature long desired by both consulting engineers and facility engineers, the CU2 provides a local and/or remote signal to monitor and confirm the proper operation of every UV-C lamp and ballast in a facility.

The CU2™ is a continuous current monitoring device that can also act as a power on/off indicator. It provides a direct readout green LED locally that informs the on/off state of an installed UV-C lamp and corresponding ballast. It's no longer necessary to directly access and look at UV-C lamps in use.

It is additionally equipped with a 0–5Vdc analogue output connection point that provides the building operator with a signal for monitoring the on/off performance of a UV-C system remotely, such as a building management system. The signal informs the Building Management System as to whether each ballast and lamp is operational. CU2 is warranted for 5 years.

Application

The CU2 can be used with virtually any lamp/ballast combination. When installed between a lamp and ballast the CU2 produces a 0–5 Volt signal that alerts the BMS instantly if the lamp or ballast fails. Through its unique design, when installed the level of current flowing between the ballast and lamp is inductively converted to a linear 0–5 Volt output signal with no moving parts or components to fail. The signal can be monitored by any system capable of accepting it. It instantly, accurately and reliably instructs the BMS or other device as to whether a lamp or ballast is on or off.

The CU2 is a solid state, instantaneous and consistently accurate device that provides a signal of from 1 to 100% of full output, and because of its affordability, the CU2 is typically installed at each lamp/ballast installation to provide both a direct and remote indication of lamp/ballast performance, thus eliminating the necessity of having to access the UV system directly, or having to go to the UV system installation to see if the lamps are lit.

Unlike other monitoring devices, the CU2 does not require separate power to provide its lamp/ballast monitoring capability. It simply and reliably provides continuous monitoring of the current flowing from the ballasts to the installed lamps and fixtures.

In applications where multiple CU2s are used, a UVRepeat™ replicator can be combined with up to (8) lamps/ballast combinations to result in only one output signal to the BMS.   he distinct advantage of the UVRepeat is the minimizing number of direct connections made to a BMS.

CU2

REPRESENTED BY:

UVR
UV RESOURCES

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SPECIFICATIONS

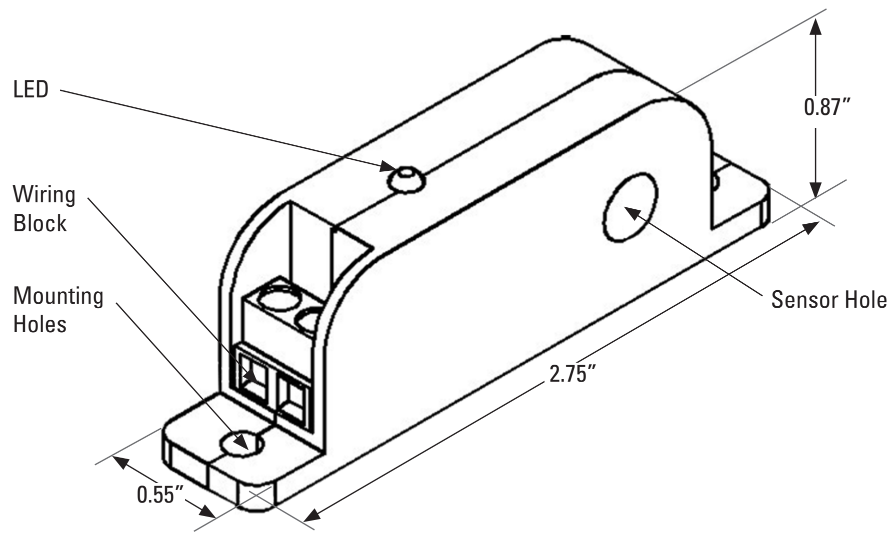
HOUSING AND COMPONENTS are factory-assembled and tested. They consist of a housing, PC board and wire block. Construction is designed to withstand HVACR environments.

HOUSING is constructed of industrial grade plastic and equipped with a direct reading high output green LED. It features two mounting holes and an external wiring block for wiring to a remote sensing or input device.

PC BOARD facilitates the conversion of an inductive field to a regulated electromotive force of 1–5 V maximum.

WIRING BLOCK consists of one positive and one negative screw-down terminals capable of accommodating wire sizes of up to 18 ga.

CU2 Lamp/Ballast Monitor



ORDERING INFORMATION

Model #	P/N	Description	Electrical
CU2-4	90004044	CU2 Lamp/Ballast Sensing Monitor	—
CU2-RPT	90004048	UVRepeat™ – CU2 Port Replicator	—

The UVR website contains tools that let you select, specify, and/or purchase complete UV-C systems. You'll also find valuable content that will help simplify installation, operation, and maintenance of UV-C systems. For more information, go to **www.uvresources.com**

Specifications subject to change without notice.

CU2

GENERAL INSTALLATION INSTRUCTIONS
UVR – CU2™ UV lamp/ballast Sensing Monitor

CAUTION! Never Expose Eyes or Skin to UV-C light – Completely Read all Materials before Starting

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause fire, electrical shock, or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your supplier for information or assistance. The qualified installer or agency must use factory kits or accessories when installing this product. Refer to the individual instructions packaged with kits or accessories when installing them. Follow all safety codes, wear safety glasses and work gloves. Read all instructions thoroughly and follow any warnings or cautions attached to any accessed area. Consult local building codes and the National Electrical Code (NEC) for all applicable requirements.

Understand the signal words DANGER, WARNING or CAUTION. These words are universally used for overall safety. DANGER identifies the most serious hazards, which will result in severe personal injury or death. WARNING signifies hazards, which could result in personal injury or death. CAUTION is used to identify unsafe practices, which would result in minor personal injury or product and property damage.

WARNING: Before installing or servicing this unit, turn off and lock-out all power, there may be more than one (1) switch.

General:
The CU2 is a continuous monitoring device that will provide a direct on/off LED display lamp, and a 5V on/off signal, which may be used to signal a Building Management System or Alarm, etc. that the monitored UV-C ballast and/or lamp is/are operational.

Power Input / Output:
The CU2 is designed for a line power current input of 300mA – 1A and will produce an induced low voltage output of 5V DC.

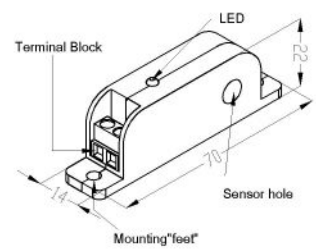
NOTE: The CU2 sensor **does NOT require an external power source.** Power is self-induced through lamp line power inductance.

CAUTION: **Using the CU2 in any other method than shown voids product warranty and may do damage to the entire system.**
Installation:

Proper mounting on Lamp side of power supply allows for two **similar** Loom lamp conductors (e.g. both reds) through the CU2's inductor (shown);

1. Consult all applicable NEC and local codes before installing.
2. The CU2 is for use with **Insulated Wires Only –** no bare wires**;**
3. Power supply lamp wires (2- each 18 AWG insulated (e.g. red)) is needed for current sensing;
4. The CU2 sensor should be mounted perpendicular to the Loom wires, and made visible where needed;
5. Once the proper location is found, mount the CU2 sensor using the two hex head screws provided;
6. Run two (e.g. two red) wires from the four conductor Loom through the CU2 sensor hole and connect to the Power Supply as shown in its IOM or on the Power Supply itself;

CU2 Output Options:



1. When the Power Supply and Lamp are working properly the CU2's LED will illuminate;
2. In addition, the CU2 will provide a 5V signal to its terminal block for remote reporting;
3. When either the Lamp or the Power Supply are off the 5V signal will be absent;
4. Most building management systems can accept this "on 5V" or "off 0V" - it provides a positive signal that the Lamp and Power Supply are either on or off.

EQUIPMENT WARRANTY

UV Resources™ (UVR) warrants to the original buyer that its Products shall be free from defects in material or workmanship under normal use and service for the periods of time set forth below. This warranty is contingent upon proper use of Products and will not apply if adjustment, repair or parts replacement is required because of an accident, unusual physical, electrical or electro-mechanical stress, neglect, misuse, failure of electric power, humidity control, transportation, unauthorized repair actions, or not installed or maintained in accordance with UVRs' specifications hereunder, or where Product serial numbers have been altered, defaced, or removed. UVRs' obligation under this warranty shall not arise until the Purchaser of the Product returns the defective part to UVR. This warranty is limited to the repair and/or replacement of parts. This warranty does not cover any labor or subsequent damage incurred as the result of Product failure or indirectly arising from the design, construction, installation, servicing, or operation of Products. UVR and its resellers' liability under this warranty shall in no event exceed the cost of goods sold under the original sale contract.

Under the conditions specified above, UV Resources warrants the CU2 for a period of five (5) years from date of purchase provided that it is installed within 3 months from date of purchase. Buyer must provide proof of purchase. This is UVRs' sole warranty. No warranties are extended beyond those described herein and it is expressly agreed that this warranty will be in lieu of all warranties of fitness and merchantability. UVR neither assumes, nor authorizes any person to assume for it, any obligation in connection with the Products. Buyer shall not return to UVR any allegedly defective goods without UVRs' prior written authorization. This warranty may not be assigned or transferred.

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