

OPERATING INSTRUCTIONS

Electronic Module System Photocell No. 32397

1. Purpose

The Photocell can be used with the 32382 Six-Decade Counter-Timer and the 32386 12VAC/DC Amplifier Power Supply for a variety of timing experiments including measuring the period of a pendulum; or, if two photocells are wired in series, calculating free-fall acceleration.

2. Description

The photocell consists of a silicon phototransistor mounted inside a tube for the purpose of providing a directional sensitivity to light. Two banana plugs are included.

Specifications:

Turn-On/Turn-Off Time	1 ms, approx.
Optimum Distance(From Light Source)	3 inches

To make the best use of the photocell's design we suggest that you use it in these and other experiments with the following equipment:

<u>Description</u>	<u>Catalog No.</u>
Light Source	32395
Photogate	32401

3. Setup

Connect the red banana plug of the photocell to the electronic hold jack of the six-decade counter-timer and the black banana plug to the negative 6VDC terminal on the amplifier power supply

4. Operation

Shine a beam of light from the 32395 Light Source onto the photocell. The counter will record beam interruption time when the hold mode switch is set to "gate". With the hold mode switch in the "pulse" position, the counter will start and stop each time the light beam is interrupted. If two photocells are connected in series, the counter will start when the first beam is interrupted and stop when the second beam is interrupted.

For more detailed information on experiments for the photocell see the 30195-02 The Student Lab Manual for The Cenco Electronic Module System.

5. Maintenance

The Photocell requires no special maintenance, except to guard against breakage and extreme temperature changes. (Silicon becomes brittle from radical temperature differences.) If you should experience any difficulty with a Photocell, please contact Central Scientific Company, giving details of the problem. To ensure better service, please do not return any equipment to Central Scientific Company until you have received authorization.

Written 7/89