

# Melles Griot Electronic Shutter Controller 04 ISC 850

## Operating Instructions

This unit is for use only with Melles Griot 12-volt electronic shutters. It must be used with a Melles Griot power supply shown in the specifications section.

**WARNING: Use with other shutters or power supplies may cause damage to the controller and the shutter. It may also create a fire hazard.**

### Local Operation

#### Manual Trigger

Push the **MANUAL TRIGGER** button to energize the shutter. It remains energized for the time indicated by the rotary switch. The rotary switch provides the following shutter opening times: 2, 1, 1/2, 1/4, 1/8, 1/15, 1/30 and 1/60 seconds. (Large aperture shutters, with product numbers ending in XX4 or XX5, will not open fully at 1/60 second.)

The rotary switch includes 4 additional settings:

“ \* ” Shutter is energized for a brief (<1/60 second) uncalibrated time.

“ \* - 1 Adjustable ” Shutter is energized for time set by R3<sup>\*\*</sup>, up to 1 second.

“ 1 – 30 Adjustable ” Shutter is energized for time set by R4<sup>\*\*</sup>, 1 - 30 seconds.

“TTL ” Sets Controller in ‘TTL’ mode.

<sup>\*\*</sup>Locations of R3 and R4 are shown in the specifications section.

#### B/T Switch

Hold the switch in the B position to energize the shutter for as long as the switch is held. Set the switch in the T position to energize the shutter continuously until the switch is reset to its normal (middle) position. These functions are useful for shutter setup and test.

### TTL (Remote) Operation

A TTL pulse (see specifications) at the TTL input energizes the shutter. If the rotary switch is set to TTL, the shutter is energized when the TTL signal goes high and remains energized until the signal returns to zero. If the rotary switch is set to a timed setting, the shutter remains energized until the opening time has elapsed, or until the TTL signal returns to zero, *whichever is longer*. For reliable timed operation with the TTL input, use short (~10 ms) trigger pulses which will not cause prolonged shutter open times.

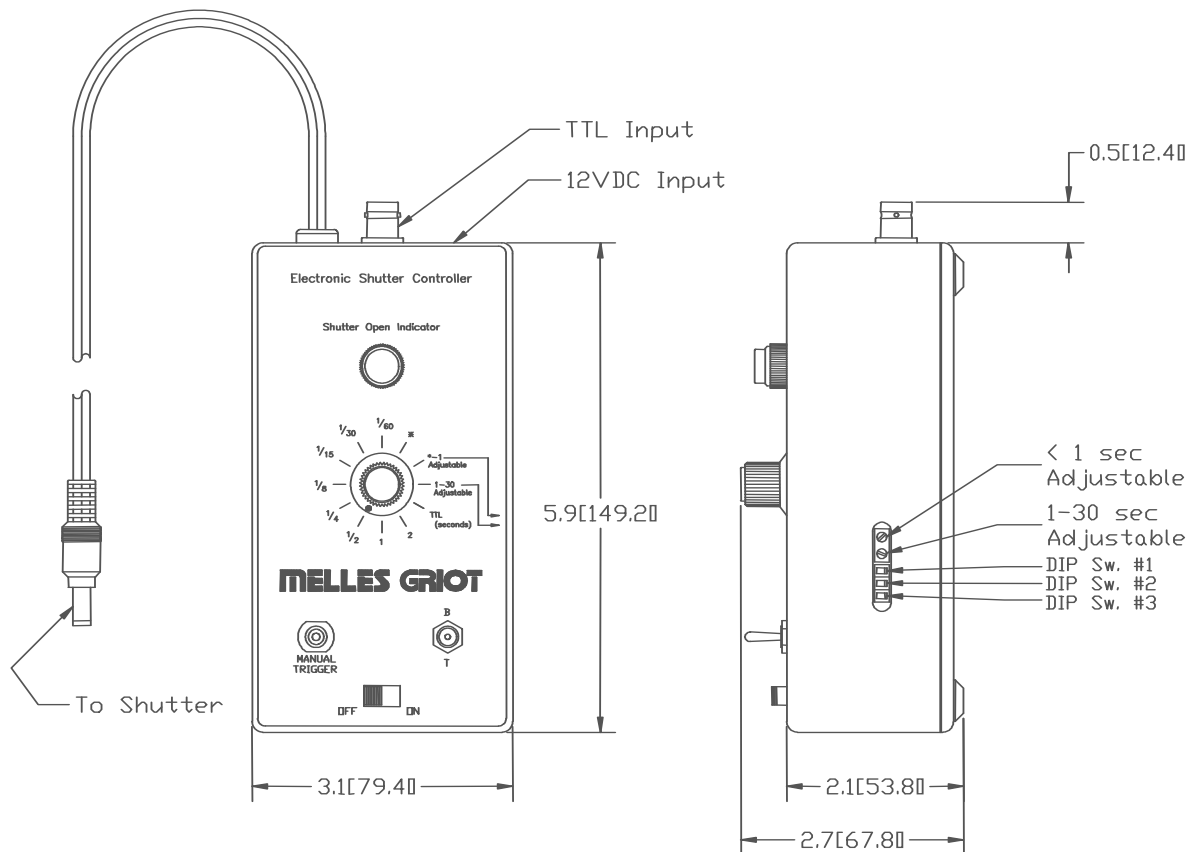
NOTE: Disconnect cables to the TTL input when not in use to prevent unwanted shutter opening due to electrical noise.

### Shutter Open Indicator

This LED is illuminated whenever the controller is providing voltage to the shutter. It does not sense whether a shutter is connected, or whether the shutter is operating properly.

### DIP Switches

Three DIP switches allow for special pulse timing configurations (see specifications). For standard conditions, all switches should be left in the ON position with switch poles towards bottom of the controller enclosure.



## Specifications:

**Input Voltage:** 12 Vdc

**Input Current:** 2.5 A maximum

**Output Voltage:** 48 Vdc pulse / 6 Vdc hold

**TTL:** +3 to 7Vdc, 15 mA (opto-isolated, floating ground) Input via standard BNC jack

**Maximum Repetition:** 2 Hz

**Minimum Recharge Time:** 200 msec (from de-energized to next actuation)

**Weight:** 13 oz (370 g)

## Dip Switches

Factory settings - all dip switches **ON** (toward bottom of enclosure)

**#1 - OFF** reduces starting pulse duration by ~5 ms (useful for small aperture shutters)

**#2 - OFF** increases all opening times by ~10 ms (useful for large aperture shutters)

**#3 - OFF** increases opening time at 1/30 sec by an additional 7 ms (useful for large aperture shutters)

## Power Supplies (CE marked, one required)

<b>US</b>	90-264 V, 47-63 Hz	3 prong North American plug	<b>04 IPS 833</b>
<b>EU</b>	90-264 V, 47-63 Hz	2 prong European (CEE7/7) plug	<b>04 IPS 835</b>
<b>Pacific Rim</b>	90-264 V, 47-63 Hz	Japanese plug	<b>04 IPS 837</b>