

Product Highlights

- The IC Inline Controller (ICS 2.0) provides steady and optimal current to lights from a small package when larger, more versatile discrete controllers are not necessary.
- Provides continuous-on and DC gating on/off control as well as 0-10 volt analog dimming. 30 uSec response time.



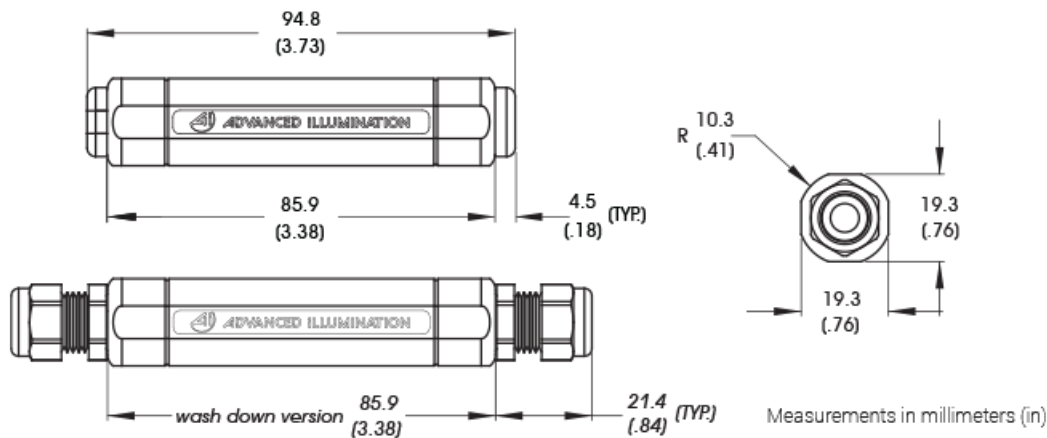
General Specifications

| | |
|---------------------------|---|
| Controller Style | Inline Control System (Cable Inline, Permanently Affixed) |
| Operating Modes | Gated Continuous, Continuous |
| Input Connection | Flying Tinned Leads or Optional A-coded 5-pin Male M12 Connector |
| Input Supply Requirements | 24V DC Nominal, 1.25A Recommended 21V Min - 30V Max; Power Inputs Reverse-Polarity Protected |
| Output Channels | 1 Inline Channel |
| Output Power | Continuous: 25W Max* |
| Output Current | Continuous: 1.25A Max* |
| Output Voltage | V _{in} - 1V |
| Gate Control | 2.5V Min, 30V Max, <=5mA |
| Gate Protection | Protected up to 30V |
| Gate Delay | 20µs + 10µs LED rise-time |
| Gate Frequency Limit | 2KHz |
| Analog Dimming | 0V - 10V (0% - 100%); <=5mA |

| | |
|-----------------------------|--|
| Operating Temperature Range | 0°C to +40°C |
| Storage Temperature Range | -25°C to +85°C |
| IP Rating | Non-sealed: Not Rated Sealed: IP67 |
| Dimensions | Non-sealed: 3.73" x 0.82" DIA (94.6mm x 20.6mm DIA) Sealed: 5.06" x 0.82 DIA (128.7mm x 20.6mm DIA) |
| Weight | Approx. 0.106lb (48g) |
| Mounting | N/A (In-line) |
| Case Material | Polycarbonate |
| Warranty | 5 Years |
| Compliance | CE, RoHS |

*Values shown are based on controller component limitations. Actual limitations will vary depending on the limits set for the connected light head. These limits are hardcoded into each in-line controller to prevent LED failure from occurring when driven beyond the light's acceptable range.

Mechanical Specs



The ICS is not detachable. Standard location is 254mm (10") from the light head. Standard cable length (include the ICS) is 1.5m (59")

Control Specs

3-in-1 Dimming Modes

Reference resistance value for output current adjustment (typical)

Example Shown

| Resistance Value | <100KΩ | 100KΩ | 200KΩ | 300KΩ | 400KΩ | 500KΩ | 600KΩ | 700KΩ | 800KΩ | 900KΩ | 1MΩ |
|-----------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Percentage of Rated Current | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

1 ~ 10V dimming function for output current adjustment (typical)

1-10V Fed Directly to CTRL wire

| Dimming Value | 0V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V |
|-----------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Percentage of Rated Current | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

10V PWM signmar for output current adjustment (typical): Frequency range 100Hz ~3KHz

PWM Fed Directly to CTRL wire

| DutyValue | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
|-----------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Percentage of Rated Current | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

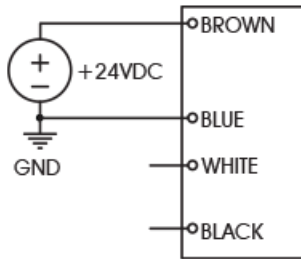
NOTE: When using the PWM dimming method, the device does not provide any filtering of the PWM signal. This means the PWM frequency could potentially be seen by high speed cameras and/or cameras with short exposure periods.

Electrical Specs

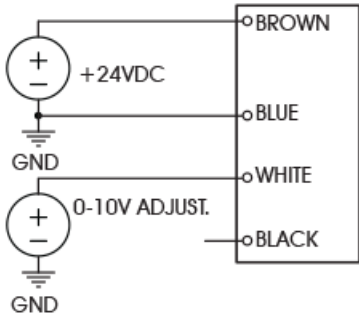
ICS 2 (IC)

| PIN (M12) | FUNCTION | WIRE COLOR |
|-----------|----------------------|------------|
| 1 | 24V DC | BROWN |
| 2 | 0-10V ANALOG CONTROL | WHITE |
| 3 | DC GND | BLUE |
| 4 | GLO | BLACK |
| 5 | N/A | GRAY |

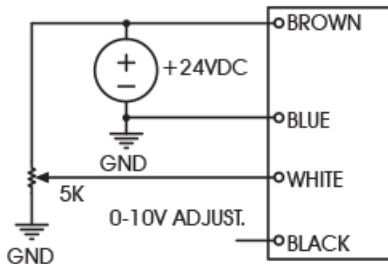
STANDARD OPERATION
LIGHT IS ALWAYS ON



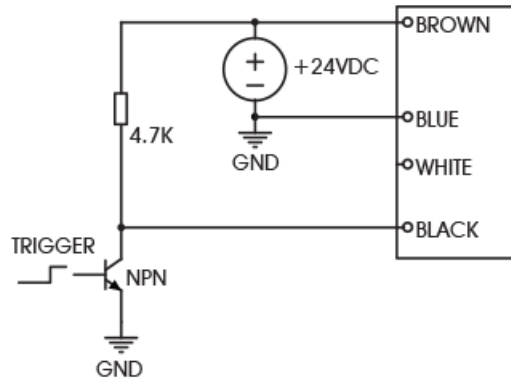
0-10V ANALOG CONTROL
LINEAR OUTPUT ADJUST



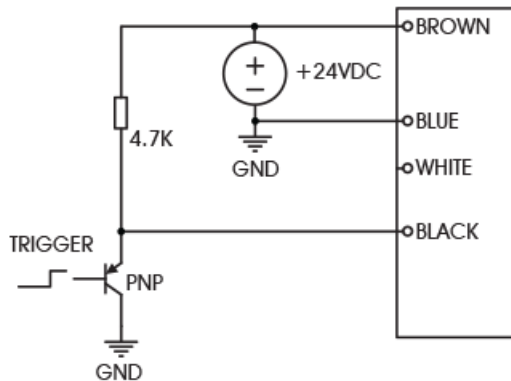
0-10V ANALOG CONTROL
LINEAR OUTPUT ADJUST WITH EXTERNAL POTENTIOMETER



ACTIVE LOW GATE
LOW TRIGGER SHUTS LIGHT OFF



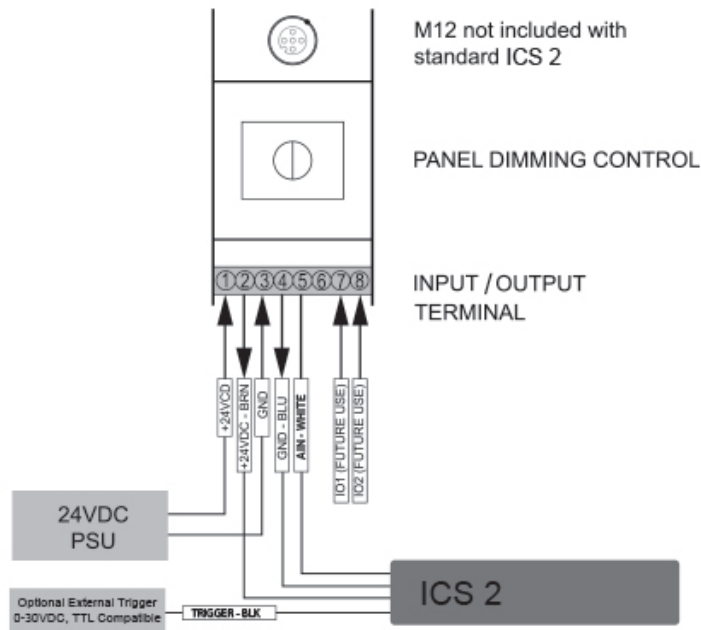
ACTIVE HIGH GATE
HIGH TRIGGER SHUTS LIGHT OFF



Connection and Wiring Information

DCS-MP Manual Dimming Control Wiring Diagram for ICS 2

- All ICS 2 connections must only be made at the input/output terminal via flying leads.
- The DCS-MP is compatible only with lights built with the ICS 2 or ICS 3 wiring option after 3/1/2012. It cannot be used with 24v voltage drive lights, or the ICS 1.0.



IC-M12

Please note that IC-M12 ordering option is not directly compatible with DCS-MP control due to the different pin assignments between ICS 2 and ICS 3. In order to use an IC-M12 with the DCS-MP, you must remove the M12 connector and wire the flying leads to the input/output terminal as shown. It is also possible, however to replace the molded IC-M12 with a field-wireable 5-pin male M12 – please contact Ai for more detail and proper pin assignments.

Warranty Information

Every Advanced illumination, Inc. (Ai) product is thoroughly inspected and tested before leaving the factory. Products are warranted to be free of defects in workmanship and materials for a period of FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.

No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Electromagnetic Compatibility

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the product specifications. These requirements and limits are designed to provide reasonable protection against harmful interference only when the product is operated in its intended industrial electromagnetic environment. To minimize the potential for electromagnetic interference or unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

Customer Service

For information on existing orders, or to make an order adjustment, contact us Monday through Friday 8:00 am to 5:00 pm ET or send an email to orders@advancedillumination.com.

Company Information

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