

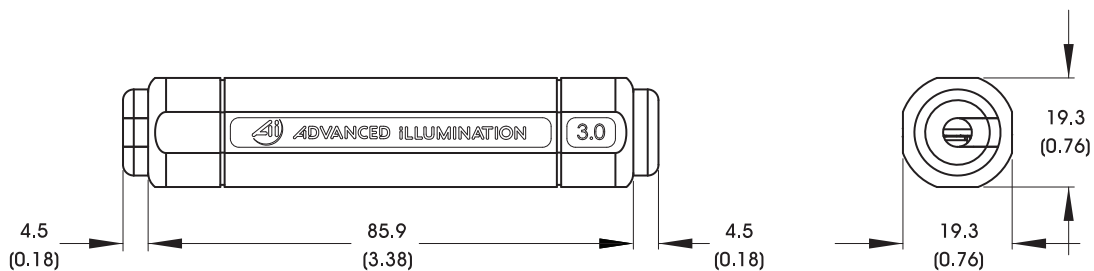
### Product Highlights

- Continuous and strobe operation in one package and built into the power cable
- Active Overdrive Technology™ ensures maximum pulsed power regardless of pulse width
- Optional M12 Connector allows plug and play operation - no adapters required
- Seamless switching between strobe and continuous modes with no adapters or changes in wiring required
- ICS 3S version is identical, but with the default being off

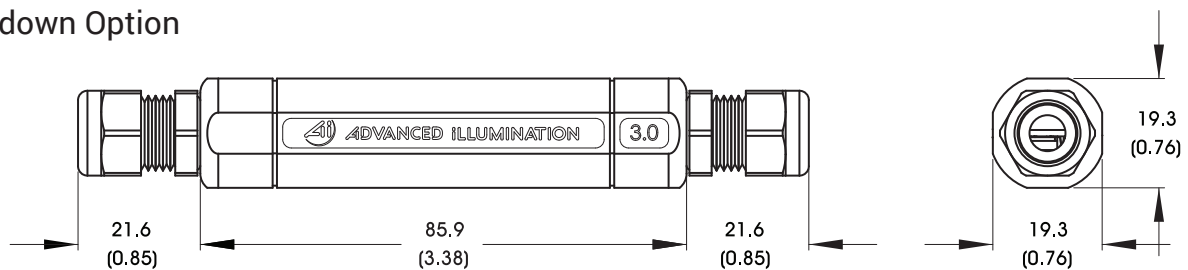


### Mechanical Specifications

#### Standard



#### Washdown Option



# ICS 3 & ICS 3S Inline Controllers

## Electrical Specifications

Input Voltage Range	24V nom
Maximum Input Current	1.5A DC
Output Power	Continuous: 35W, 1.5A Strobe: 5x Overdrive typical
Modes	Pulsed, Continuous, Gated Continuous
User Interface	5 tinned wire leads; OR optional 5-pin Male M12 cordset
Trigger	Single PNP - active HIGH trigger input, TTL compatible
IP Rating	IP50
Lumen Maintenance	L70 = 50,000 hours
Max Frequency	10 KHz User must limit duty cycle to <math>\leq 5\%</math> beyond 1KHz
Trigger Latency	60 usec typical
Maximum Ambient Operating Temperature	90 deg F
Maximum Operating Temperature (case)	125 deg F



Shown with the LL5806-455

## Cable Length and Positioning

Standard

1.82m (6') cable



Wash Down Version

1.82m (6') cable



Custom Cables Lengths



For custom cables the maximum overall length allowed is 7.62 meters (25').

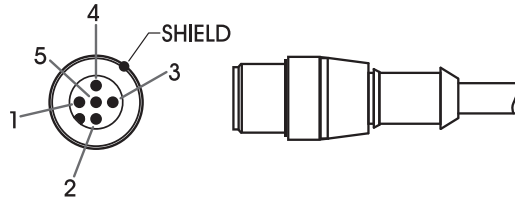
For longer cable lengths please contact us. Please note this is not an option on M12.

# ICS 3 & ICS 3S Inline Controllers

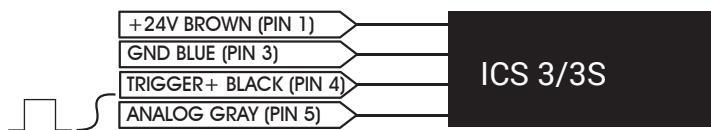
## Wiring Information

### Standard Wiring Information

Pin	Channel	Wire Color	Type
1	24V DC	Brown	Power
2	RESERVED	White	Input
3	GND	Blue	Power
4	PNP/Active High Trigger	Black	Input
5	0-10V Analog Control	Gray	Input



### TYPICAL CONNECTION - STROBE MODE



*I3: Connect TRIGGER+, Or leave floating to enable the output*

## I3 Version

- Light is in CONTINUOUS MODE when power is applied. The light will remain operating in continuous mode until a trigger pulse is detected, or for as long as the trigger input is HIGH.
- The First trigger pulse will initiate STROBE MODE. The controller remains in STROBE MODE until the power is toggled. In STROBE MODE the output light pulse width always corresponds to the duration of the input trigger width.
- A period of overdrive occurs within 5msec from the beginning of the pulse. After this period of time, the on-time of the pulse is at the continuous output level.
- Analog control is optional for remote dimming (0-10VDC) in both models.

## I3S Version

- The "I3S" version is identical to I3 except that the device will not power on continuous by default. To employ this controller in continuous mode, the black wire (Pin 4) must be connected to +24V. **The output is only active when the trigger input is HIGH.**

## I3 / I3S Wiring, Best Practices

To prevent any unwanted behavior from the controller use the following guidelines:

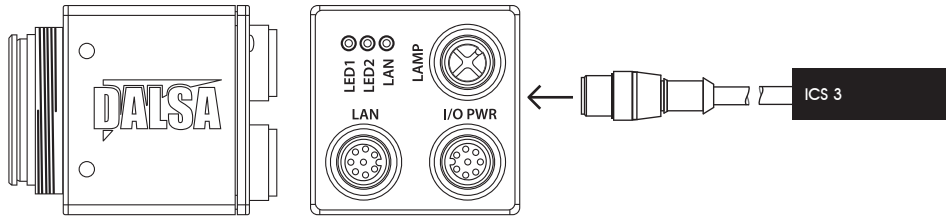
- Unused wires should be trimmed, or isolated to prevent accidental shorting of leads
- If floating, tie unused analog input: GRAY to +24VDC
- If floating tie unused trigger input: BLACK to +24VDC
- Tie drain wire to EARTH GND, or DC GND if earth is not available (noise immunity)

# ICS 3 & ICS 3S Inline Controllers

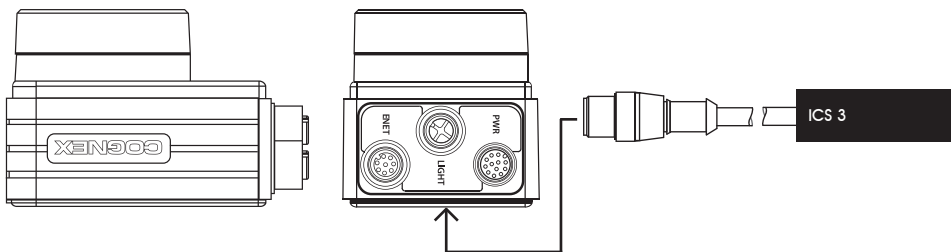
## Wiring Diagrams (Camera Specific)

It is possible to connect controller to cameras with dedicated driver outputs.  
(M12 Connector option required.)

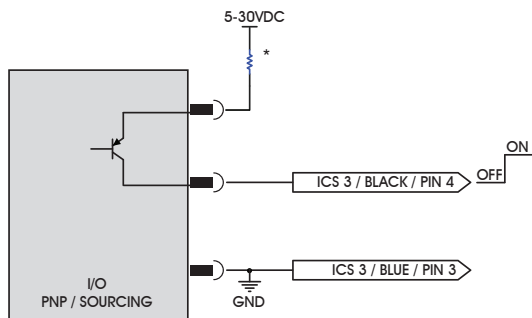
TYPICAL CONNECTION, CAMERA - TELEDYNE DALSA: BOA / BOA PRO



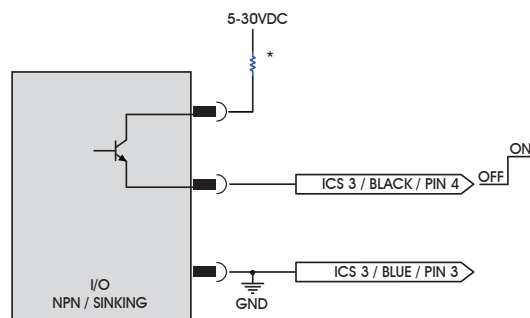
TYPICAL CONNECTION, CAMERA - COGNEX: INSIGHT 7000



## Wiring Diagrams

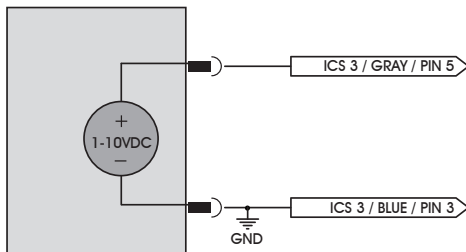


\*External resistors may not be needed  
Check documentation on I/O for recommendations and voltage limits



The ICS 3 does not have a true sinking input.  
The emitter must be tied to the trigger as shown

\*External resistors may not be needed  
Check documentation on I/O for recommendations and voltage limits



Analog Dimming: 0 = 10%, 10 = 100% output  
Analog dimming works in both strobe and continuous

# ICS 3 & ICS 3S Inline Controllers

## Part Number Key

Model	—	Controller	Connector/ Control	—	Optional Connector
SL185	—	XXX	XX	—	XXX
SL185		WHI	I3 or I3S		M12
Example light part number for I3 lighting controller: SL185-WHII3					



## Additional Information

This is **flextech™** enabled with the following software:

### Adaptive Overdrive™

For lights with an integrated driver, Adaptive Overdrive™ control provides a safe, maximal output pulse regardless of camera exposure time.

Upon receiving an external trigger input, an Adaptive Overdrive™ enabled device produces a high power output pulse for up to 5 mSec. Should the external trigger pulse width exceed 5 mSec, the light output pulse gradually trails off to a sustained, safe level for the remaining exposure period. Traditional fixed duration strobe drivers cannot provide similar performance (see Fig. 1). Adaptive Overdrive™ is provided with ICS 3 and ICS 3S inline controllers as well as EuroBrite™ lighting products.

### Adaptive Power™

For lights with an integrated driver and built-in temperature sensor, Adaptive Power™ control maximizes light output by factoring in the ambient temperature, as well as the heat sinking potential of the customer's light-head mounting structure.

Upon initialization, an Adaptive Power™ enabled lighting system can "learn" about its thermal dissipation potential by monitoring the temperature rise of the assembly versus time. Performance increases of 3X are achievable, compared to a device that is mounted in free space. This optimization process applies to both strobed and continuous modes of operation.

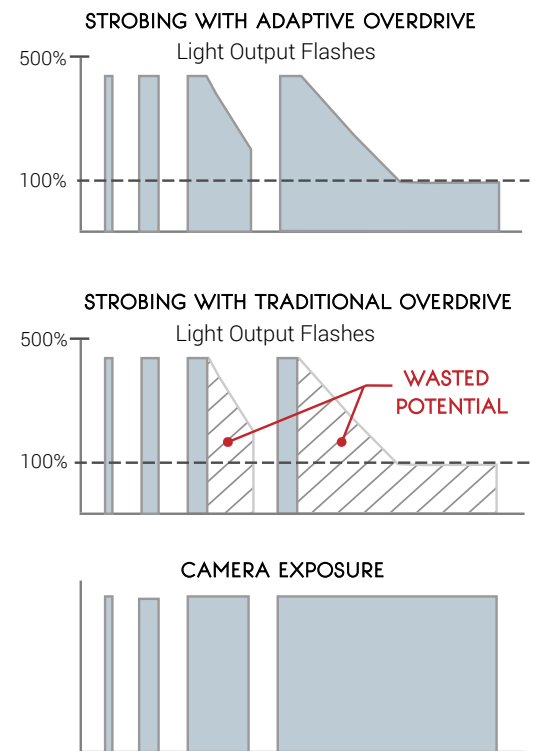


Fig. 1

# ICS 3 & ICS 3S Inline Controllers

## 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 two years from the original date of purchase. Should a defect develop during this period, please contact Ai Customer Service or your Ai distributor for a Return Merchandise Authorization (RMA), and return the complete product, freight prepaid, to Ai. If a defect is found, Ai will - at our discretion - repair or replace the product without charge. Ai claims no liability for any implied warranties, including "merchantability" and "fitness for a specific purpose."

## 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@advill.com](mailto:orders@advill.com).

## Company Information

### **Advanced Illumination**

440 State Garage Road, Rochester VT. 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: [info@advancedillumination.com](mailto:info@advancedillumination.com)

Web: [advancedillumination.com](http://advancedillumination.com)

© 2015 Advanced Illumination Inc. All rights reserved