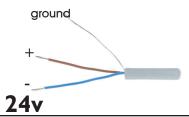
# **Ai Power Connection Options**





12 & 24 Volt lights are built with flying leads and have load limiting resistors for use with any regulated 24 volt DC power source.



gate - gate +

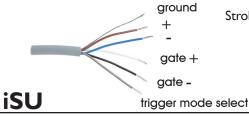
Inline Current Source built into the power cable.



iCS

Requires 24v power source

click for wiring info



Strobe Control built into the power cable.



Requires 24v power source

click for wiring info



MI2 Add-on

Available only with 24v, iCS, and iSU wiring

click for M12 pinout



For Use With: CS100, CS100-IC, CS300, CS300-IC, CS410, CS420, MS210, MS220 S4000, S6000, S6000-A

S4000, S6000, S6000-AS

click for C2 pinout



For Use With: Pulsar 710



**C**3

click to view manual



For Use With: Pulsar 320



Standard cable length: 1.5 Meter (59")

click to view manual

\* REMOVING THE CONNECTOR VOIDS Ai's WARRANTY

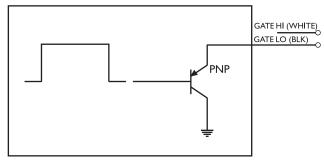
### **ICS SPECIFICATIONS**

Parameter	Specification
Input Voltage Range	+21 to 30 volts dc (24V nom)
Maximum Input Current	2.0 A
Gating Control Active High (GHI) and Active Low	GHI Turn On Voltage = 4.2v / Input Tolerant to -10 to +24 vdc Analog 0-10V: White 0V =0%, 10V=100%. Note: Can also be used as an active LOW gate input
Gating Time	30μs +/- 10μs
Storage Temperature	-40 to +125C
Operating Temperature	0 to +70C
Housing Material	High Impact Polycarbonate
Weight	Approx 1.7 oz (cable not included)
Size Wash Down Version	Approx 3.74L x 0.76W x 0.76H (in.) Approx 5.06L x 0.76W x 0.76H (in.)

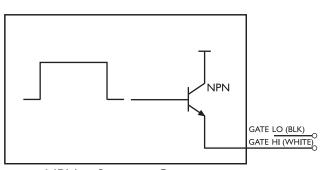
## **ICS PINOUT**

COLOR	FUNCTION
BROWN	Vin (+)
BLUE	GND (-)
WHITE	CTRL
BLACK	GATE
GRAY	Chassis GND

### ICS CONNECTION DIAGRAM



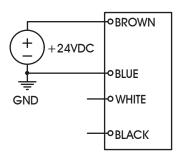
PNP -- Sinking Output



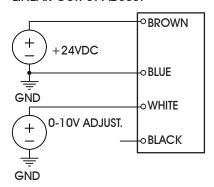
NPN -- Sourcing Output

### **iCS WIRING DIAGRAMS**

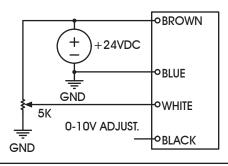
#### STANDARD OPERATION LIGHT IS ALWAYS ON



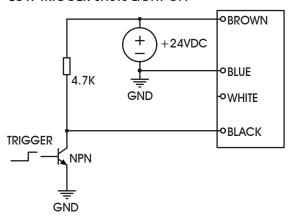
### 0-10V ANALOG CONTROL LINEAR OUTPUT ADJUST



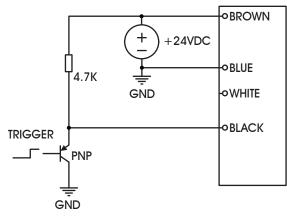
### 0-10V ANALOG CONTROL LINEAR OUTPUT ADJUST WITH EXTERNAL POTENTIOMETER



### **ACTIVE LOW GATE** LOW TRIGGER SHUTS LIGHT OFF

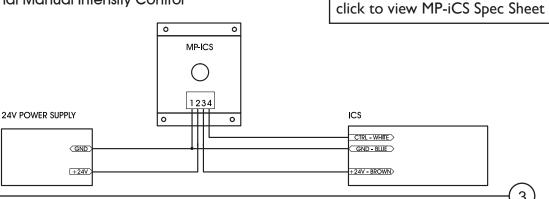


### **ACTIVE HIGH GATE** HIGH TRIGGER SHUTS LIGHT OFF



### Wiring Diagram for Optional Manual Intensity Control

Note: The MP-iCS is compatible only with lights built with the IC wiring option after 3/1/2012. It cannot be used with 24v lights, or the iCS 1.0



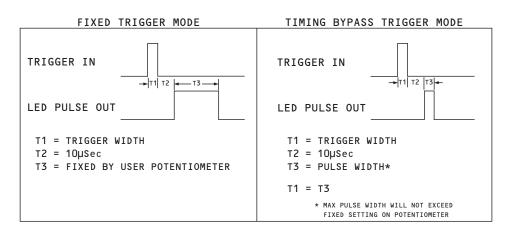
### ISU SPECIFICATIONS

Parameter	Specification	Notes
Input Voltage Range	+18 to 30VDC	24V nominal
Strobe output	0 - I2A*	* Pulse-width/Light head dependent
Max. Repetition Rate	100 Hz **	** Light head dependent
Current Output Adj.	Min to Max Current adj. as established by factory setting	Maximum current set assuming 300μSec operation
Max. Input Current	I.IA	Approx 100mA local
Trigger Active HI:WHITE Active LO: BLACK	Active HI:WHITE Active LO: BLACK	TTL compatible, 30VDC tolerant
Mode Select	Select wire that is used to put the unit into Standard or Bypass triggering mode	- Pulled 0 for bypass - Unconnected for standard
Mechanical & Environmental		
Power Indicator	Red LED is used to indicate power is being supplied	
Storage Temperature	-40 to +125C	
Operating Temperature	0 to +70C	
Housing Material	High Impact Polycarbonate	
Weight	Approx 1.7 oz	Cable Not Included
Size	Approx 4.55L x 0.67W x 0.70H	Inches

#### **ISU PINOUT**

BROWN	VIN +
BLUE	VIN -
WHITE	Active high trigger input
BLACK	Active low trigger input
GRAY	Trigger Mode Select: Connect to 0V to enable timing bypass. Leave floating for fixed trigger mode

### **ISUTRIGGER MODES**

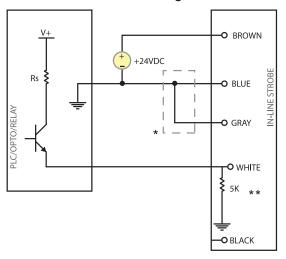


#### ISU WIRING

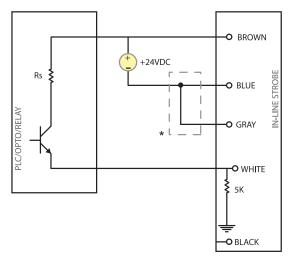
## **Sourcing Output**

Triggered When White is High

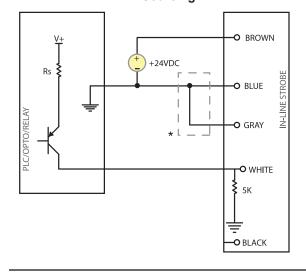
#### **NPN Sourcing**



#### NPN Sourcing - Common (V+)



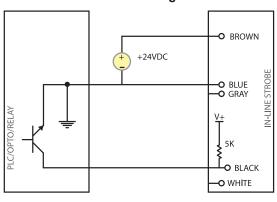
### **PNP Sourcing**



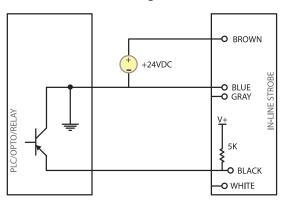
#### **Sinking Output**

Triggered When Black is Low

#### **NPN Sinking**



### **PNP Sinking**



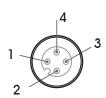
### IMPORTANT NOTES:

- FOR BEST RESULTS, AVOID RUNNING THE CABLE NEAR HIGH NOISE ENVIRONMENTS
- THE TRIGGER SOURCE AND ISU MUST SHARE A COMMON GROUND FOR REPEATABLE LIGHTING
- TIE THE BARE DRAIN WIRE OF THE ISU TO A CHASSIS GROUND OR EARTH GROUND; IF ONE IS NOT AVAILABLE, TIE TO -24V
- \* OPTIONAL: TIE GRAY TO -24V (BLUE) FOR TIMING BYPASS SELECTION; OUTPUT PULSE WIDTH WILL MATCH THE INPUT TRIGGER WIDTH
- \*\* ALL RESISTORS SHOWN ARE INTERNAL TO THE ISU. NO EXTERNAL RESISTORS ARE NEEDED

## M12 Connector Pin-Out

Male end view. Ai lights are built with the male connector standard.

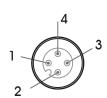
24 Volt 4 Pin



PIN COLOR DESC.	PIN	COLOR	DESC.
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1	<b>BROWN</b>	+24V IN
2	WHITE	Not Used
3	BLUE	-24V IN
4	BLACK	Not Used

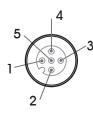
**ICS** 4 Pin



### PIN COLOR DESC.

1	BROWN	+24V IN
2	WHITE	GHI
3	BLUE	-24V IN
4	BLACK	GLO

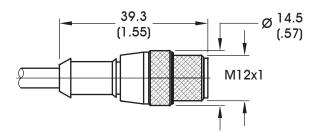
ISU 5 Pin



#### PIN COLOR DESC.

- **BROWN** +24V IN
- WHITE TRIGGER IN, ACTIVE HIGH
- 2 3 **BLUE** -24V IN
- **BLACK** TRIGGER IN, ACTIVE LO **GRAY** TRIGGER MODE SELECT

### Dimensional Information



## C2 Connector Pin-out Male - Solder Side

