



Ai Fast response time - 30 μ S gating time

Ai Wash down version available

Ai 0 - 100% Intensity Control with optional MP-iCS



**For lights purchased with the
iCS prior to March 1, 2012,
CLICK HERE**

Ai's inline current source (iCS) provides optimum current drive to a light head assembly, replacing external current driver units. Intensity control is accessible via a wire which accepts a 0-10VDC voltage. This adjusts the controller between 0%-100%.

An optional accessory (PN: MP-iCS) can be purchased to provide manual intensity control via an external potentiometer.

A DC gate control input is available allowing users to enable/disable the iCS output, thereby turning the light on and off.

The iCS unit employs reverse input polarity protection.

Wire Color Code: Input power: Brown + / Blue -

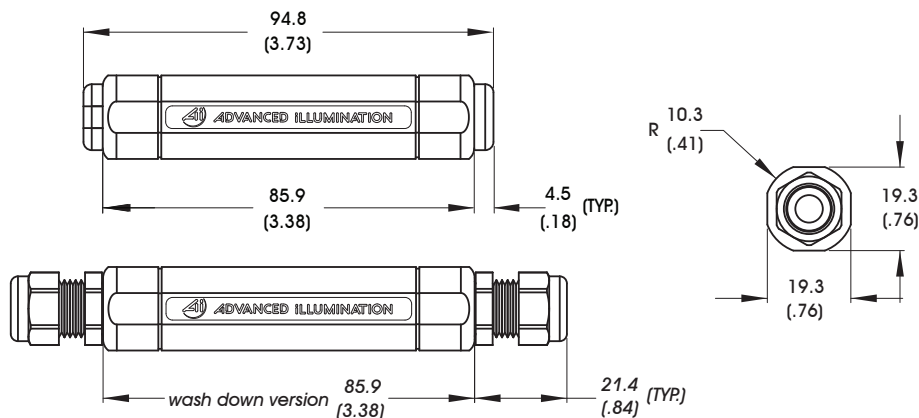
Gate Active HIGH: Black	Output ON	0v	4.2v	Output OFF
Gate Active LOW: White	Output ON	10v	.2v	Output OFF

Analog 0-10V: White 0V=0%, 10V=100%

Note: Can also be used as an active LOW gate input

click for:
SPECIFICATIONS
PINOUT
CONNECTION DIAGRAM
WIRING DIAGRAMS
3-IN-1 DIMMING

Dimensional Information



*The iCS is not detachable.
Standard location is 10" from
the light head. Standard cable
length (including iCS) is 1.5M (59")*

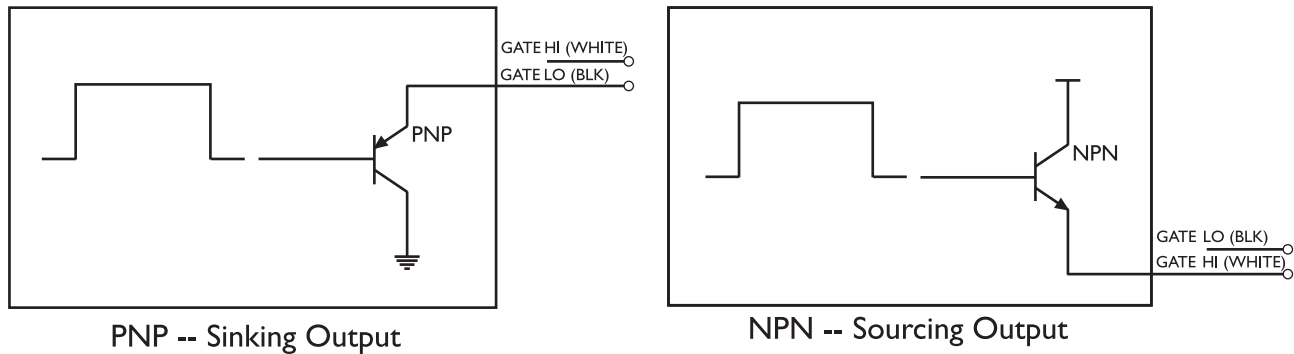
ICS SPECIFICATIONS

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	Approx 3.74L x 0.76W x 0.76H (in.) <i>Wash Down Version</i> Approx 5.06L x 0.76W x 0.76H (in.)

ICS PINOUT

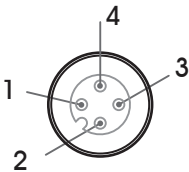
COLOR	FUNCTION
BROWN	Vin (+)
BLUE	GND (-)
WHITE	CTRL
BLACK	GATE
GRAY	Chassis GND

ICS CONNECTION DIAGRAM



M12 (OPTIONAL CONNECTOR) PINOUT

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

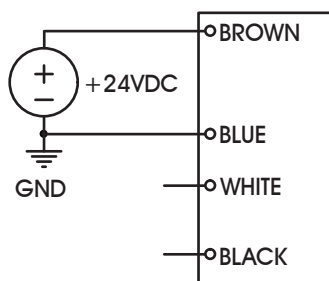


Ai lights are built with the male connector standard.

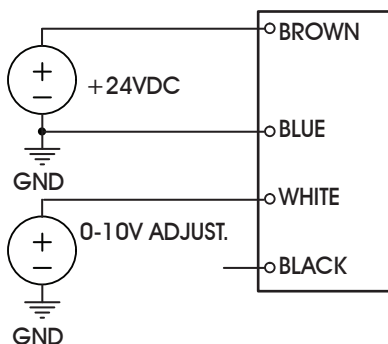
Female receptacle shown.

WIRING DIAGRAMS

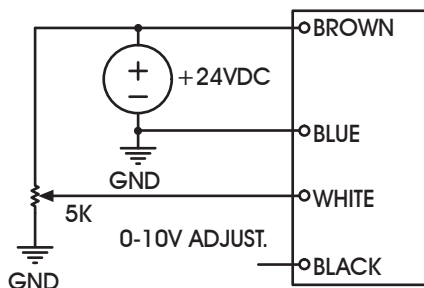
STANDARD OPERATION LIGHT IS ALWAYS ON



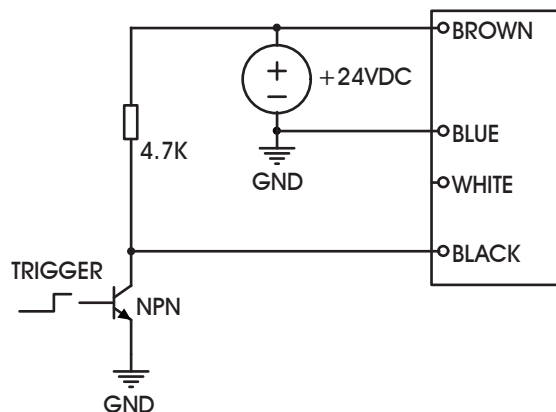
0-10V ANALOG CONTROL LINEAR OUTPUT ADJUST



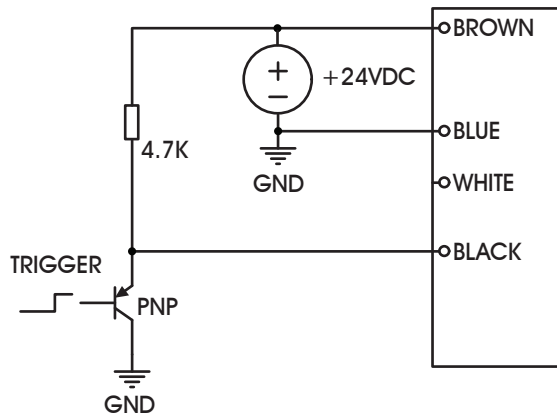
0-10V ANALOG CONTROL LINEAR OUTPUT ADJUST WITH EXTERNAL POTENTIOMETER



ACTIVE LOW GATE LOW TRIGGER SHUTS LIGHT OFF

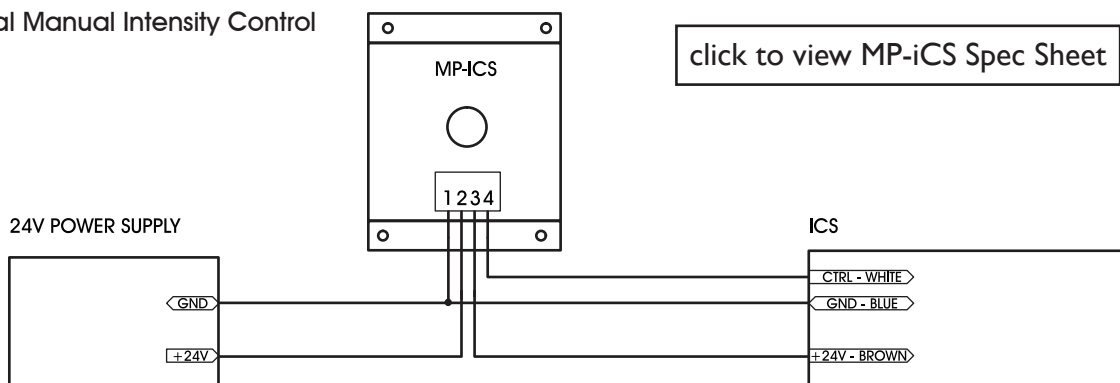


ACTIVE HIGH GATE HIGH TRIGGER SHUTS LIGHT OFF



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



[click to view MP-iCS Spec Sheet](#)

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REV

DESCRIPTION

DATE

APPROVED

3 -in - 1 Dimming -- Modes

Reference resistance value for output current adjustment (Typical)

RESISTANCE VALUE	<100KΩ	100KΩ	200KΩ	300KΩ	400KΩ	500KΩ	600KΩ	700KΩ	800KΩ	900KΩ	1MΩ	EXAMPLE SHOWN
PERCENTAGE OF RATED CURRENT	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	

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

DIMMING VALUE	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	1-10V FED DIRECTLY TO CTRL WIRE
PERCENTAGE OF RATED CURRENT	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	

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

DUTY VALUE	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	PWM FED DIRECTLY TO CTRL WIRE
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.

VIN+ (BRN)

VIN - (BLU)

CTRL (WHI)

GATE - BLK

REFERENCE RESISTOR SETS INTENSITY VALUE - THIS CAN BE A FIXED VALUE OR A POTENTIOMETER (1MOHM)

REFERENCE RESISTOR EXAMPLE

Using the built-in dimming function, a fixed (or variable resistor/potentiometer) can be used to dim the unit at various leves of intensity.

DRAWN
ADVILL
ENGINEER

DATE
3-27-2012
DATE

CHECKED

DATE

ADVANCED ILLUMINATION

TITLE

ICS, 3-IN-1 DIMMING

SIZE
C

CAT CODE

DWG NO

REV
A

SCALE 1 : 1

SHEET 1 OF 1

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