



## product introduction

The ODS75 Series of brick light features an Overdrive driver with NPN or PNP signal options. Six high current LED's pulse at 3-4 times the brightness of a standard S75 and a 75mm active light area provide not only an intense but diffuse light pattern at any given working distance. These series of lights also offers a manual potentiometer intensity control as well as a 0-10 VDC analog intensity control. Heat is dissipated through the aluminum back plate which allows the ODS75 Series to be run at a higher current and hence greater intensity.



## product features



- 4-5 times brighter than standard high current LEDs
- Driver built in – No External wiring to a driver
- PNP and NPN Strobe input
- Overdrive/Strobe only
- Dimmable via built in potentiometer
- Analog intensity 0-10VDC signal



## product specifications

Electrical Input	24 VDC +/- 5%
Current	Max. 4A draw during strobe – Max Average 400mA
Wattage	Max. 9.6W strobe
Strobe Input	PNP ▶ +4VDC or greater to activate.   NPN ▶ GND (<1VDC) to activate
PNP Line	3.7mA @ 3VDC   6.2mA @ 5VDC   12.6mA @ 10VDC   30.4mA @ 24 VDC
NPN Line	22mA @ Common (0VDC)
Duty Cycle	Max. 10%
Strobe/Pulse Time	Max. Single Pulse = 125ms
Red Indicator LED	ON = LED Rest (LED inactive) OFF = LED/Light Ready
Green Indicator LED	ON = Power
Potentiometer	Intensity control of 10% to 100% Clockwise increases intensity
Analog Intensity	The output is adjustable from 10 -100% of brightness by a 0 -10 VDC signal
Connection	5 pin M12 connector
Ambient Temp.	-20° - 50° C (-4° - 122° F)
IP Rating	IP50
Weight	~155g
Compliances	CE and RoHS
IEC 62471 Rating	See page 3



## product number key

# ODS75 – XXX – X\* —» Part Number Key

**Product Family:**  
Brick Light  
ODS75

**Color:**  
365, 395, 470,  
505, 530, 625,  
850, 940 & WHI  
(White)

**Lenses:**  
W - Wide

\* Lights come standard with Narrow lenses

CE and RoHS Compliant



## warnings

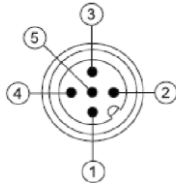


### Attention

Please note that the power requirements are up to 4A at 24VDC. Failure to supply light with up to 4A can result in non-repeatable lighting. Contact Smart Vision Lights for more information.



## wiring configuration



1 – 24V  
2 – NPN  
3 – GND  
4 – PNP  
5 – 0-10V

### Standard M12 mating cable color

BROWN  
WHITE  
BLUE  
BLACK  
\*GRAY (GREEN/YELLOW)

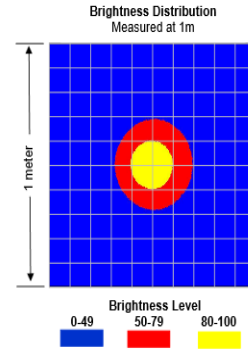
If Analog 0-10 VDC is not used to control light intensity;  
+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1

PIN	Wire Color	Function	Signal
1	BROWN	Power	+24 VDC
2	WHITE	NPN Strobe	GND for Active ON
3	BLUE	Ground	GND
4	BLACK	PNP Strobe	4VDC to 30VDC for Active ON
5	GREEN	Analog Intensity Control	0-10 VDC



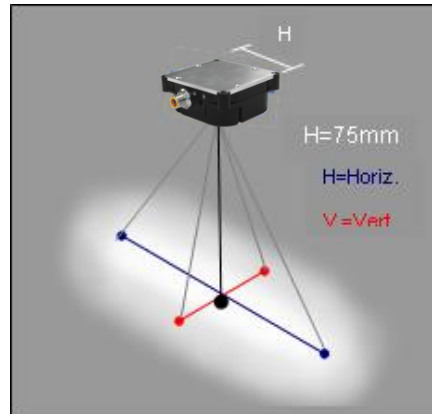
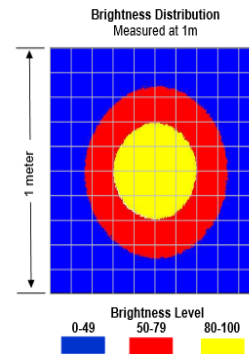
ODS75-XXX

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	100mm (~4") D
1m (39.4")	200mm (~8") D
1.5m (59")	300mm (~12") D
Typical output performance	
Distance = .5 meter	Illumination (Lux) 45000
<i>Illumination measurement taken on White Lights – 6500K</i>	



ODS75-XXX-W

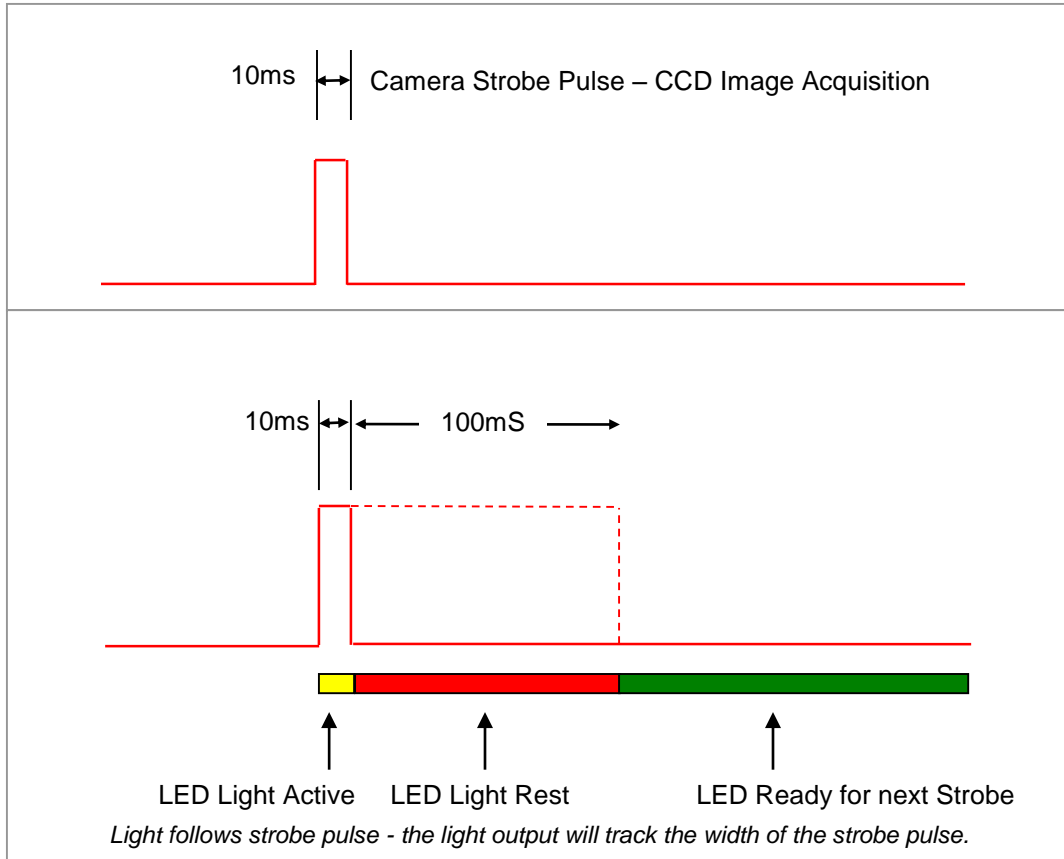
Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	210mm (~6") D
1m (39.4")	425mm (~17") D
1.5m (59")	650mm (~22") D
Typical output performance	
Distance = .5 meter	Illumination (Lux) 31500
<i>Illumination measurement taken on White Lights – 6500K</i>	





### Duty Cycle on Performance of Light

All lights are pulse following



**Duty Cycle (D) is defined as the ratio between Strobe Time and Rest Time**

**Maximum Duty Cycle for OD Light is 10% = .1**

Calculating Rest Time -  $R_T$

$$R_T = \frac{S_T}{D}$$

$S_T$  is the Strobe Time  
 $R_T$  is the Rest Time  
 $D$  is Duty Cycle

**Example: Camera exposure of 10mS where Strobe Time is 10mS.**

$$R_T = \frac{10ms}{.1} = 100mS$$

Rest Time is 100ms for 10ms Strobe Time



## mounting & accessories



**5m, 10m, or 15m Power Cable**  
Available



**Pan and Tilt Mount**  
Hardware included



**Extrusions**  
Hardware included



## identification



5 Pin M12 Power Input

Power Indicator LED (GRN)

Rest LED (RED)



## risk group

According to IEC 62471:2006. Full documentation upon request.

### Notice

Exempt Group: No photo biological hazard to eyes or skin even for continuous, unrestricted use.  
Applicable for wavelengths: 625, 850, and 940.

### Caution

Risk Group 1: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to eye. Safe for most applications except prolonged exposures.  
Applicable for wavelengths: 395, 470, 505, 530, and WHI.

### Notice

Risk Group 1: UV emitted from this product. Minimize exposure to eyes and skin. Use appropriate shielding. Safe for most applications except prolonged exposures.  
Applicable for wavelengths: 395

### Caution

Risk Group 2: UV emitted from this product. Eye or skin irritation may result from exposure. Use appropriate shielding. Does not pose optical hazard if aversion responses limit exposure.  
Applicable for wavelengths: 365