

## product introduction

The ODS30 Series of Prox Lights features a single high current LED enclosed in a 30mm Barrel Style Housing. This LED pulses at 4-5 times the brightness of a standard S30 light. The ODS30 features an Overdrive driver with NPN or PNP signal options. These lights also feature a built in potentiometer for manual intensity control. Each ODS30 comes potted with a two-part epoxy designed to protect the electronics and provide a sleek finished product. The ODS30 Series has multiple mounting options allowing for ease of install and comes with two locking bolts.

## product features



- 30mm Barrel Style Housing
- 4-5 Time Brighter Than Standard High Current LEDs
- Driver Built In – No External Wiring To A Driver
- PNP and NPN Strobe Input
- OverDrive/Strobe Only
- Up to 5000 Strokes Per Second
- Dimmable Via Built In Potentiometer
- Analog Intensity 0-10VDC Signal

## product specifications

<b>Electrical Input</b>	24VDC +/- 5%
<b>Current</b>	Max. 2A draw during strobe – Max Average 200mA
<b>Wattage</b>	Max. during strobe 48W - Max. Avg. 4.8W
<b>Strobe Input</b>	PNP ▶ +4VDC or greater to activate.   NPN ▶ GND (<1VDC) to activate
<b>PNP Line</b>	3.7mA @ 3VDC   6.2mA @ 5VDC   12.6mA @ 10VDC   30.4mA @ 24VDC
<b>NPN Line</b>	22mA @ Common (0VDC)
<b>Duty Cycle</b>	Maximum 10%
<b>Strobe/Pulse Time</b>	Max. 5000 SPS (Strokes Per Second)   Max. Single Pulse = 125ms
<b>Red Indicator LED</b>	On = LED Rest (LED inactive) OFF = LED/Light Ready
<b>Green Indicator LED</b>	ON = Power
<b>Potentiometer</b>	10 turn pot – Intensity control of 10%-100% Clockwise increases intensity
<b>Analog Intensity</b>	The output is adjustable from 10%-100% of brightness by a 0-10VDC signal
<b>Connection</b>	5 pin M12 connector
<b>Ambient Temperature</b>	-20° - 50° C (-4° - 122° F)
<b>IP Rating</b>	IP50
<b>Compliances</b>	CE and RoHS
<b>Weight</b>	~120g
<b>IEC 62471 Rating</b>	See page 5



## product number key

# ODS30 – XXX – X\* —» Part Number Key

**Product Family:**  
Prox Light  
ODS30

**Color:**  
365, 395 – UV  
470 – Blue  
505 – Cyan  
530 – Green  
625 – Red  
850, 940 – IR  
WHI - White

**Lenses:**  
W - Wide

\* Lights come standard with Narrow lenses  
CE and RoHS Compliant



## warnings



### Attention

Please note that the power requirements are 2A at 24VDC. Failure to supply light with 2A will result in non-repeatable lighting. Contact Smart Vision Lights for more information.



## wiring configuration

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

	Pin	Function	Signal	Wire Color
	1	Power In	+24VDC	BROWN
	2	NPN	Sinking Signal	WHITE
	3	GND	Ground	BLUE
	4	PNP	Sourcing Signal	BLACK
	5	Intensity Control	0-10VDC	GREY †

† Some cables use green with yellow stripe for 0-10V adjustment



## mounting & accessories



**Power Cables**  
5m, 10m, 15m



**PB30-M1**  
Swivel Mount



**PB30-M2**  
Slotted Block Mount



**PB30-M3**  
Slotted Right Angle



**PB30-M6**  
Bolt-on Block Mount

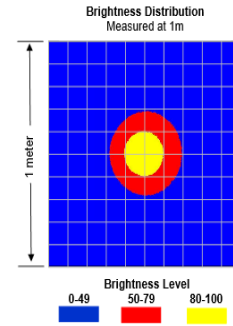


**Diffuser Kits**  
Available



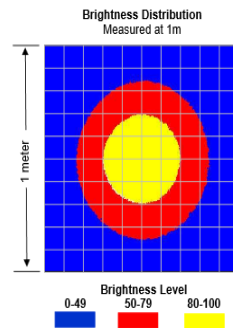
### ODS30-XXX

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	80mm(~3") D
1m (39.4")	185mm(~7") D
Typical output performance	
Distance = .5 meter	Illumination (Lux) 21000
<i>Illumination measurement taken on White Lights – 6500K</i>	



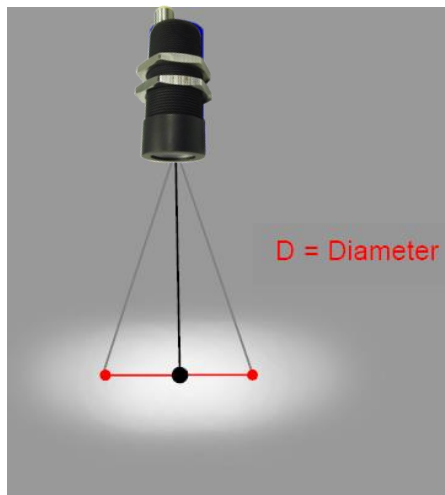
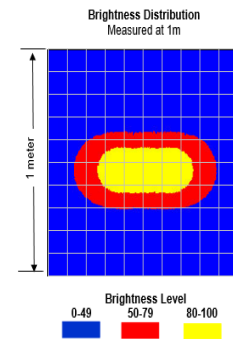
### ODS30-XXX-W

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	205mm(~8") D
1m (39.4")	415mm(~16") D
Typical output performance	
Distance = .5 meter	Illumination (Lux) 6500
<i>Illumination measurement taken on White Lights – 6500K</i>	



### ODS30-XXX-L

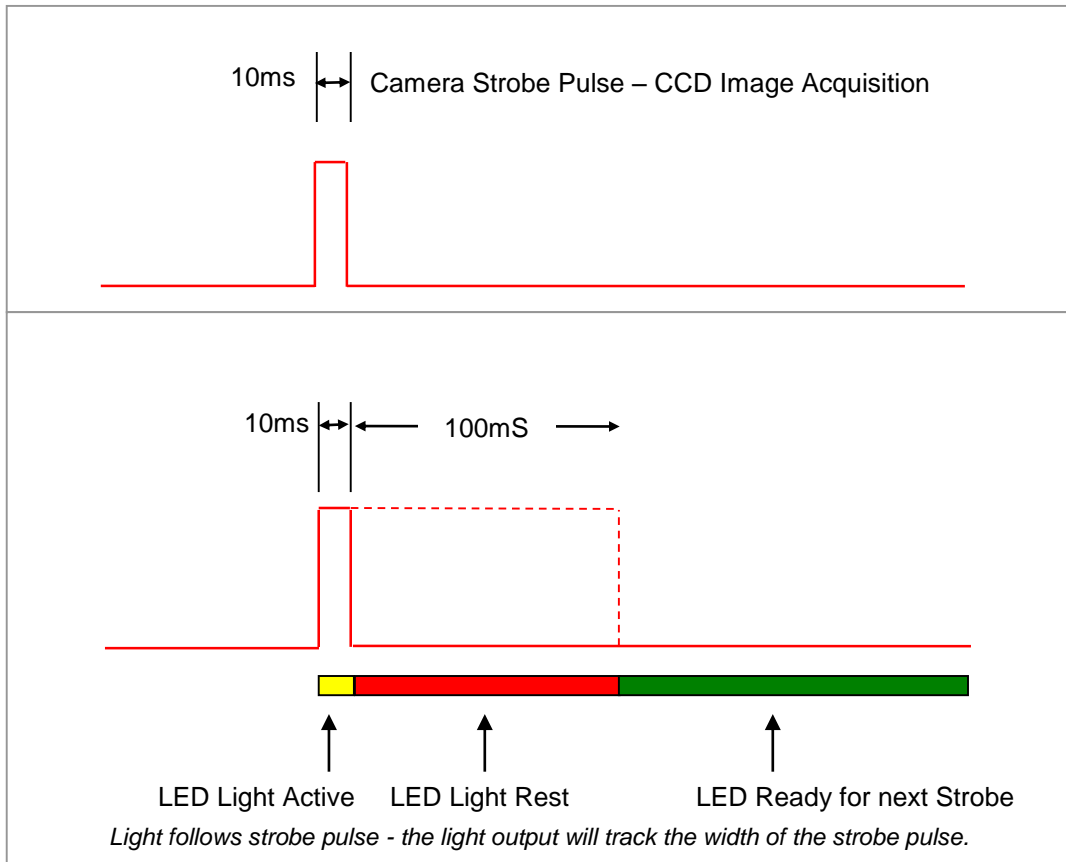
Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	255mm(~10") H x 115mm(~4.5") V
1m (39.4")	460mm(~18") H x 250mm(~10") V
Typical output performance	
Distance = .5 meter	Illumination (Lux) 9500
<i>Illumination measurement taken on White Lights – 6500K</i>	





### 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



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