



product introduction

The ODSA30 Series of Adjustable Prox Lights feature a telescoping lens for full control of projected spot size. Light projected has a homogenous pattern that is about 3-4 times brighter than the standard SA30 and is great for applications where very diffuse and even lighting is required. The ODSA30 also features a compact yet robust 30mm diameter threaded housing that allows for simple mounting and ultimate versatility. Built in SafeStrobe Technology ensures protection of the LED while providing maximum output. NPN and PNP strobe inputs and a 0-10VDC analog intensity control make this series of spot lights a very dependable and versatile light.



product features



- Telescoping Lens
- Compact 30mm Diameter Design
- SafeStrobe Technology Ensures Protected Operation
- Homogenous Light Pattern
- Dimmable Via Built In Potentiometer
- Analog Intensity 0-10VDC Signal
- Maximum Strobe Pulse 125mS
- Up To 5000 Strokes Per Second



product specifications

Electrical Input	24VDC +/- 5%
Current	Max. 2A during strobe – Max. Average 200mA
Wattage	Max. 48W during strobe – Max. Avg. 4.8W
Strobe Input	PNP ► +4VDC or greater to activate. NPN ► GND (<1VDC) to activate
Duty Cycle	Max. 10%
Strobe/Pulse Time	Max. 5000 SPS (Strokes Per Second) Max. Single Pulse = 125ms
Red Indicator LED	ON = LED Rest OFF=LED/Light Ready
Green Indicator LED	ON = Power
Potentiometer	10 turn pot – Intensity control of 10%-100% Clockwise increases intensity
Analog Intensity	The output is adjustable from 10%-100% of brightness by a 0-10VDC signal
Connection	5 pin M12 connector
Lifespan	100,000 hrs
Ambient Temp.	-20° - 50° C (-4° - 122° F)
IP Rating	IP50
Weight	~145g
Compliances	CE and RoHS
IEC 62471 Rating	See page 4



product number key

ODSA30 – XXX —» Part Number Key

Product Family:
Adjustable Spot
ODSA30

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

* 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

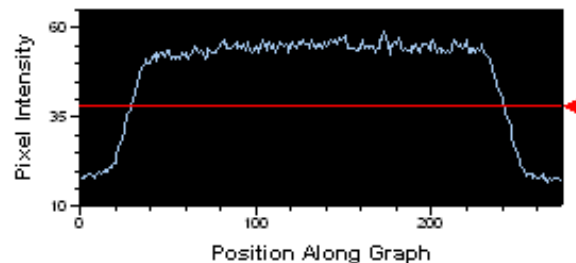
If Analog 0-10VDC is not used to control light intensity;
+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1

	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



optical performance



The ODSA30 offers a homogenous light pattern at any defined working distance. The Pixel Graph representation shows a steep drop off in intensity outside of the projected spot size with a very diffuse light pattern inside.

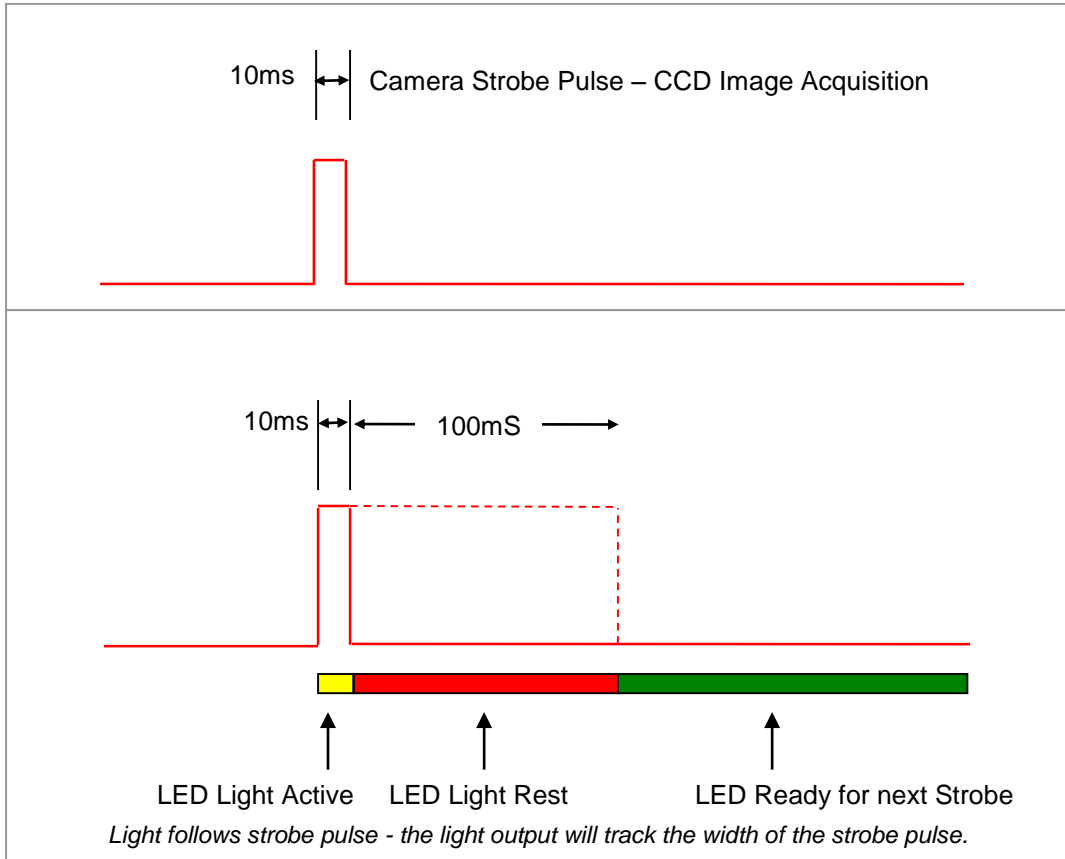
Average Intensity Rating	200mm diameter	5800 lux
	700mm diameter	1600 lux

*Lux measurement taken at .5m distance.



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 - RT

$$RT = \frac{ST}{D}$$

ST is the Strobe Time
 RT is the Rest Time
 D is Duty Cycle

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

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

Rest Time is 100ms for 10ms Strobe Time



mounting & accessories



PB30-M1
Swivel Mount



PB30-M2
Slotted Block Mount



PB30-M3
Slotted Right Angle



PB30-M6
Bolt-on Block Mount



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