PRODUCT DATA SHEET

ODS30 Series | **PROX LIGHT** | OverDrive

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
- Dimmable via built in potentiometer
- Analog intensity 0-10VDC signal
- Standard optics provide tight focused light

product specifications

Electrical Input	24 VDC +/- 5%
Current	Max. 2A draw during strobe – Max Average 200mA
Wattage	Max. 4.8W
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	Maximum 10%
Strobe/Pulse Time	Maximum Single Puse = 125ms
Red Indicator LED	On = LED Rest (LED inactive) OFF = LED/Light Ready
Green Indicator LED	ON = Power
Potentiometer	10 turn pot – 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 Integral QD connector
Ambient Temperature	-20º - 50º C (-4º - 122º F)
IP Rating	IP50
Compliances	CE and RoHS
Weight	~120g
IEC 62471 Rating	See page 4

product number key

ODS30 – XXX – X* —» Part Number Key

Product Family:
Prox Light
ODS30

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

Lenses:
W - Wide

* Lights come standard with Narrow lenses

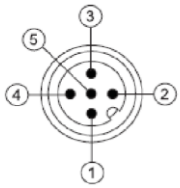
CE and RoHS Compliant

warnings

Attention

Please note that the power requirements are 2A at 24VDC. Failure to supply light with 2A will 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 code:

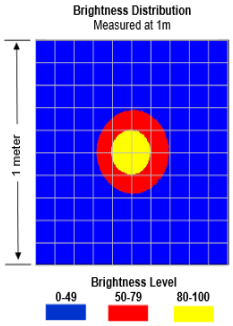
BROWN
WHITE
BLUE
BLACK
*GRAY (GREEN/YELLOW)

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

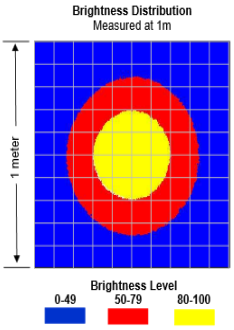
ODS30-XXX-N

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	Illumination (Lux)
Distance = .5 meter	21000
Illumination measurement taken on White Lights – 6500K	



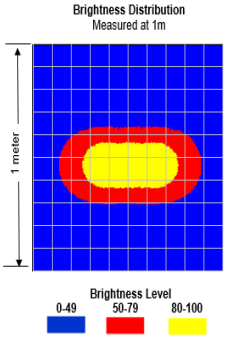
ODS30-XXX-W

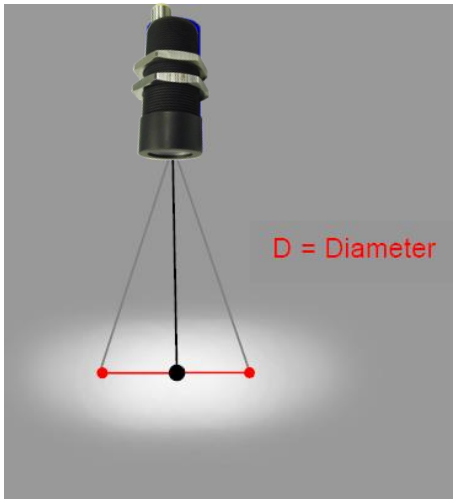
Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	205mm(~8") D
1m (39.4")	415mm(~16") D
Typical output performance	Illumination (Lux)
Distance = .5 meter	6500
Illumination measurement taken on White Lights – 6500K	



ODS30-XXX-L

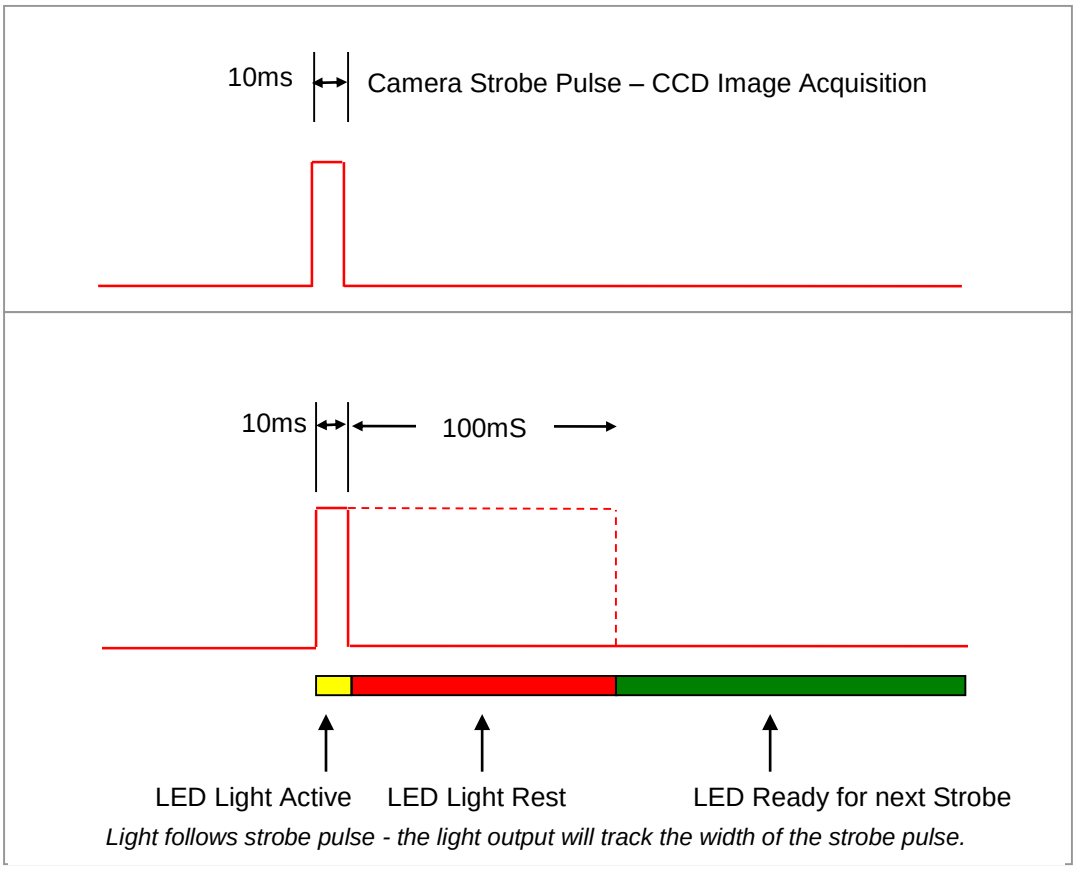
Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (19.7")	255mm(~10") H x 115mm(~4.5") V
1m (39.4")	460mm(~18") H x 250mm(~10") V
Typical output performance	Illumination (Lux)
Distance = .5 meter	9500
Illumination measurement taken on White Lights – 6500K	





Duty Cycle on Performance of Light

All lights are pulse following



Light follows strobe pulse - the light output will track the width of the strobe pulse.

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

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

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