The ODSXP30 Series Projector Light offers the most intense projected pattern from an LED. This light features an Overdrive driver with NPN or PNP signal options. The 9mm² die size emits 5-6x the intensity as a constant current SXP30. The housing is constructed of finned 6061-T6 aluminum designed to dissipate as much heat as possible therefore allowing the LED to be strobed at 15A during the active ON period in comparison to 2A in the standard SX30. Multiple interchangeable pattern styles are available along with optional custom patterns. The ODSXP30 Series is able to project a thinner and define pattern of light compared to laser projectors making the ODSXP30 a more accurate light.

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### product features

- Multiple interchangeable patterns
- SafeStrobe Technology
- Driver built in – No External wiring to a driver
- PNP and NPN Strobe input
- Analog intensity 0-10VDC signal
- 15A pulsed through LED
- Up to 2000 strobes per second
- 5-6x the intensity as the SPX30
- Maximum Strobe Time 50mS
- One, 9mm² Die High Current LEDs

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### product specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical Input</strong></td>
<td>24 VDC +/- 5%</td>
</tr>
<tr>
<td>Current</td>
<td>Max. 15A draw during strobe – Max. Average 1.5A</td>
</tr>
<tr>
<td>Wattage</td>
<td>Max. 360W draw during strobe – Max Average 36W</td>
</tr>
<tr>
<td>Strobe Input</td>
<td>PNP ➤ +4VDC or greater to activate.</td>
</tr>
<tr>
<td></td>
<td>NPN ➤ GND (&lt;1VDC) to activate</td>
</tr>
<tr>
<td>PNP Line</td>
<td>3.7mA @ 3VDC</td>
</tr>
<tr>
<td>NPN Line</td>
<td>22mA @ Common (0VDC)</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>Max. 10%</td>
</tr>
<tr>
<td>Strobe/Pulse Time</td>
<td>Maximum Single Pulse = 50ms</td>
</tr>
<tr>
<td>Red Indicator LED</td>
<td>ON = LED ON (LED active)  OFF = LED/Light Not Ready</td>
</tr>
<tr>
<td>Green Indicator LED</td>
<td>ON = Power</td>
</tr>
<tr>
<td>Analog Intensity</td>
<td>The output is adjustable from 10 -100% of brightness by a 0 -10 VDC signal</td>
</tr>
<tr>
<td>Connection</td>
<td>5 pin M12 connector</td>
</tr>
<tr>
<td>Ambient Temp.</td>
<td>-20° - 50° C (-4° - 122° F)</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP50</td>
</tr>
<tr>
<td>Weight</td>
<td>~413g</td>
</tr>
<tr>
<td>Compliances</td>
<td>CE and RoHS</td>
</tr>
<tr>
<td>IEC 62471 Rating</td>
<td>See page 5</td>
</tr>
</tbody>
</table>
ODSXP30 – XXX ➞ Part Number Key

Product Family: Projector Light
ODSXP30

Color: 470, 530, 625, 850 & WHI (White)

CE and RoHS Compliant

Standard patterns are available and custom patterns can be etched. Patterns can be changed.

- Line
- Grid
- Cross
- Multiple Line
- Half Sphere

SP-PO-1LN  SP-PO-GD  SP-PO-CH  SP-PO-8LN  SP-PO-HS

**warnings**

**Attention**
Please note that the power requirements are 15A at 24VDC. Failure to supply light with 15A will result in non-repeatable lighting. Contact Smart Vision Lights for more information.

**wiring configuration**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
<th>Signal</th>
<th>Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power In</td>
<td>+24VDC</td>
<td>BROWN</td>
</tr>
<tr>
<td>2</td>
<td>NPN Sinking</td>
<td></td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>GND Ground</td>
<td></td>
<td>BLUE</td>
</tr>
<tr>
<td>4</td>
<td>PNP Sourcing</td>
<td></td>
<td>BLACK</td>
</tr>
<tr>
<td>5</td>
<td>Intensity Control</td>
<td>0-10VDC</td>
<td>GREY *</td>
</tr>
</tbody>
</table>

* Some cables use green with yellow stripe for 0-10V adjustment
In constant operation the housing on ODSXP30 series lights will run at 50 C° in an ambient temperature of 25 C°.

Number in box represents the focal length of lens (example - 6 is a 6mm focal length lens).

ODSX30 series aluminum enclosures designed to transfer heat away from the high power LED.

Additional heat sinking recommended in ambient air temperatures above 25°C.

Thermal image taken after 2 hours of continuous ON operation at 25°C.
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 - $R_t$

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

$ST$ is the Strobe Time

$R_T$ is the Rest Time

$D$ is Duty Cycle

Example: Camera exposure of 5ms where Strobe Time is 5ms.

$$R_T = \frac{5\text{ms}}{.1} = 50\text{ms}$$

Rest Time is 50ms for 5ms Strobe Time
Tools: small screwdriver or tweezers

Removal of Retaining Ring
Screwdriver or Tweezers to remove retaining ring. Retaining Ring will turn Clockwise to install and Counter-Clockwise to remove. There are 2 small holes and 2 slots in ring to install/remove.

Arrangement of Retainer Ring and Pattern.
Retainer Ring on top holding pattern.

Pattern - Remove and Replace

Master Retainer Ring located in base of Projector.
DO NOT REMOVE!
According to IEC 62471:2006. Full documentation upon request.

**Notice**

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

**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: 470, 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.

**Notice**

Exempt Group: No photobiological hazard to eyes or skin even for continuous, unrestricted use.