

P R O D U C T D A T A S H E E T

High-Intensity Fiber Optics



30 mm Barrel Style Housing

Easily Adjustable Mounting Nuts

5-pin M12 Connector

Focus Lens

OverDRIVE

Warranty
10
YEAR

Compliant
IEC
62471

Compliant
CE
RoHS

Rated
IP
65

Connector
5 PIN
M12

PRODUCT HIGHLIGHTS

- ✓ OverDrive™ — Up to 2.5 times brighter than a standard SXF30 Prox Light
- ✓ SafeStrobe™ technology ensures protected operation of LEDs
- ✓ Built-in driver, cutable fiber optic allows for custom length for non-SWIR wavelengths.
- ✓ 5-pin M12 quick connect
- ✓ PNP and NPN trigger signal input
- ✓ Focusing lens for fiber optic available

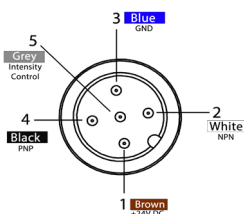
PRODUCT DESCRIPTION

The ODSXF30 Series of Spot Lights were designed with flexibility in mind. The special fiber adapter allows for the placement of the light to be away from the object being inspected, even allowing the light to be placed around a corner from the object. Standard fiber size is 1 meter in length, with the option to customize the length to the application needs. The ODSXF30 light output is 2.5 times that of the standard SXF30. Built-in SafeStrobe™ technology ensures protection of the LED while providing maximum output. NPN or PNP strobe triggers can be used to control the pulse length of the light. Intensity of the light can be controlled via 1–10VDC analog signal. The ODSXF30 has convenient mounting options that make mounting this spot light an easy task.

PRODUCT SPECIFICATIONS

Electrical Input	24VDC +/- 5%
Input Current	Max. 1.25 A
Wattage	Max. 30 W
Strobe Input	PNP : +4VDC or greater to activate NPN : GND (<1VDC) to activate
PNP Line	4 mA @ 4VDC 10 mA @ 12VDC 20 mA @ 24VDC
NPN Line	15 mA @ Ground (0VDC)
Duty Cycle	Max. 10%
Strobe/Pulse Time	(see SafeStrobe™ Technology for more information)
Red Indicator LED	LED Strobe Indicator ON = Light Active
Green Indicator LED	ON = Power
Analog Intensity	The output is adjustable from 10%–100% of brightness by a 1–10VDC signal. (Jumpering pin 5 to pin 1 will provide maximum intensity).
Connection	5-pin M12 connector
Ambient Temperature	-0°–45° C (32°–114° F)
IP Rating	IP65
Weight	~320g
Compliances	CE, RoHS, IEC-62471
Warranty	10 years. For more information, visit smartvisionlights.com/warranty .

WIRING CONFIGURATION



Pins	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	1–10VDC	GREY*

* Some cables use green/yellow for 1-10V adjustment

If Analog 1-10VDC is not used to control light intensity, analog input must be connected to +VDC (24VDC) – Jumper pin 5 to pin 1

Pin layout for light (Male Connector)

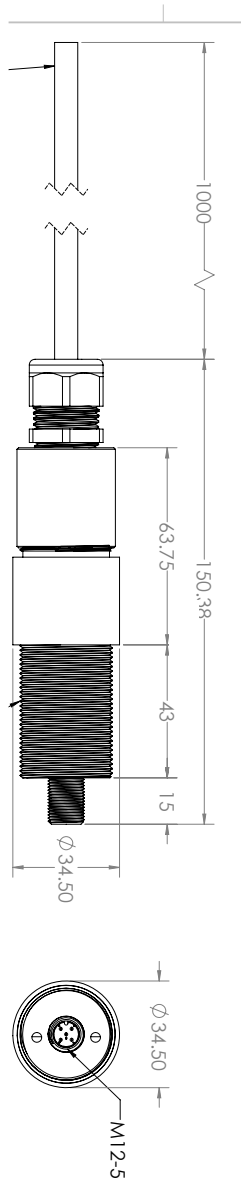


RESOURCE CORNER

Additional resources available on our website including CAD files, videos and application examples.

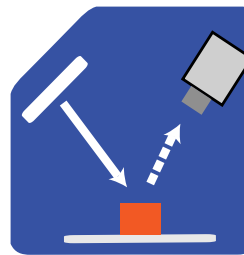
PRODUCT DRAWING

CAD files available on our website.
Dimensions are in mm.

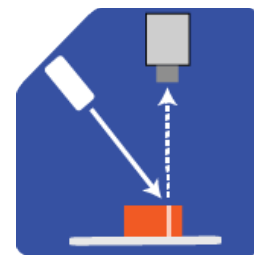


ILLUMINATION

ODSXF30 series of Prox Spot Lights works best for:



Bright Field



Projector

EYE SAFETY

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, 850, 940, 1050, 1200, 1300, 1450, and 1550.

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, 505, 530, and WHI.

PART NUMBER

ODSXF30 –



Additional wavelengths options available upon request.

Part Number Examples:

- ODSXF30-625** ODSXF30, 625 nm Red Wavelength, Standard
- ODSXF30-WHI** ODSXF30, White



This light is available in our SWIR LEDs
(1050 nm, 1200 nm, 1300 nm, 1450 nm, 1550 nm)

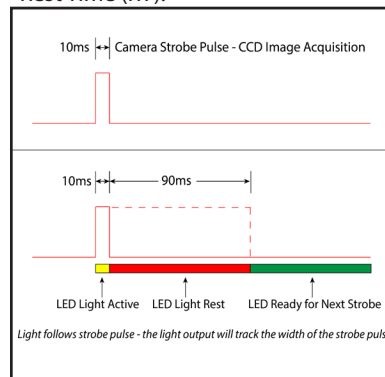
SAFESTROBE™ TECHNOLOGY

SafeStrobe™ is a unique technology that applies safe working parameters to ensure high-current LED's are not damaged by driving them beyond their limits, such as maximum strobe time or duty cycle. SafeStrobe™ is built into the ODSXF30.

DUTY CYCLE (OVERDRIVE™ MODE ONLY)

This section applies only when light is in OverDrive™ mode.

The Duty Cycle (D) is related to the Strobe Time (ST) and Rest Time (RT).



Calculating Rest Time

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

RT = Rest Time
ST = Strobe Time
D = Duty Cycle

Example

$$RT = \frac{10 \text{ ms}}{0.1} - 10 \text{ ms} = 90 \text{ ms}$$

Rest Time is 90 ms for 10 ms Strobe Time

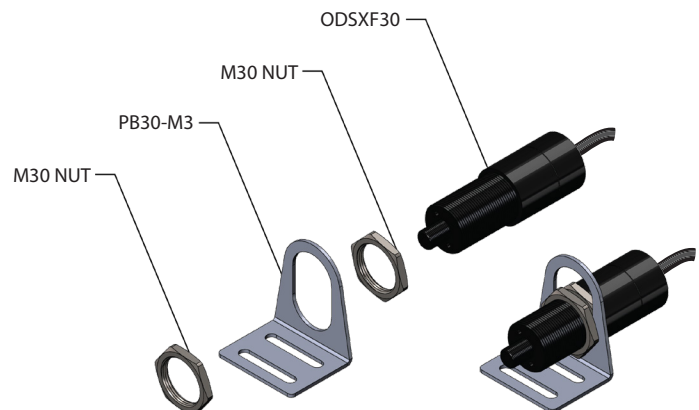
Maximum Duty Cycle for OverDrive™ light is 10% (0.1)

MOUNTING

Two M30 nuts for mounting are included with the light.


Example of the ODSXF30 shown using the Slotted Right Angle mount (**Part Number: PB30-M3**).

See accessories for additional mounting options.







ACCESSORIES

Mount	
	
Description	Part Number
Swivel Mount	PB30-M1

Mount	
	
Description	Part Number
Slotted Block Mount	PB30-M2

Mount	
	
Description	Part Number
Slotted Right Angle	PB30-M3

Mount	
	
Description	Part Number
Blot-on Block Mount	PB30-M6

Power Cables	
	
Lengths	Part Number
5 m	5PM12-5
10 m	5PM12-10
15 m	5PM12-15

Focusing Lens	
	
Description	Part Number
Focusing lens for fiber optic light	PSFB-LENS-FC2



GLOSSARY

This glossary covers all Smart Vision Lights product families; some content in this section may not apply to this specific light.

TERMINOLOGY

OverDrive™ Lights include an integrated high-pulse driver for complete LED light control.

Continuous Operation Lights stay on continuously.

Multi-Drive™ Combines continuous operation and OverDrive™ strobe (high-pulse operation) mode into one easy-to-use light.

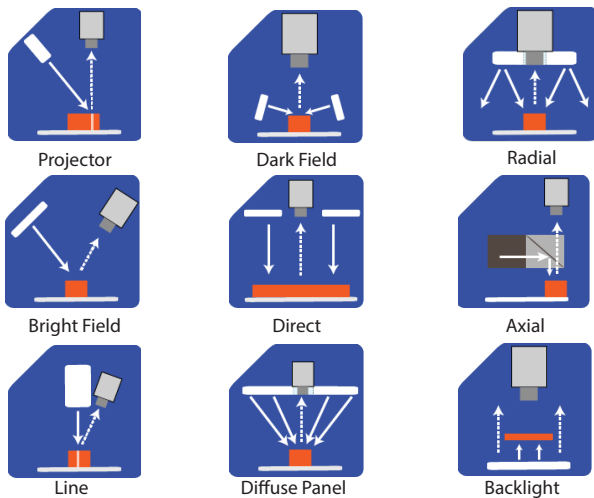
Built-In Driver The built-in driver allows full function without the need of an external controller.

Camera to Light Connecting the light directly to the camera, without the need for additional controllers or equipment.

Polarizers Filters that reduce reflections on specular surfaces.

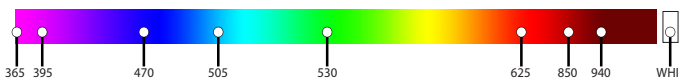
Diffuser Used to widen the angle of light emission, reduce reflections, and increase uniformity.

TYPES OF ILLUMINATIONS



COLOR/WAVELENGTHS LEGEND

Wavelengths options range from 365 nm to 1550 nm. Additional wavelengths available for many light families.



*See Part Number section for **this light's** available standard wavelengths.



Shortwave Infrared LEDs are available in 1050 nm, 1200 nm, 1300 nm, 1450 nm, and 1550 nm.