smart vision lights

ODS75 Series
Brick Light
ODS75-940-12D

Over Drive Features

- SafeStrobe Technology ensures protected operation of LED's
- Driver built in – No External wiring to a driver
- Industry Standard M12 Quick Disconnect
- PNP and NPN Strobe input
- High Speed >> Fast Response (up to 2000 Strobes Per Second)

Electrical Input	Voltage: 24 VDC +/- 5%	
Duty Cycle	Maximum 10%	
Strobe Input	PNP ► +4VDC or greater to activate.	NPN ► GND (<1VDC) to activate
Current	Max 12A draw during strobe - Max Average 200mA	
Strobe / Pulse Time	Maximum Single Pulse = 1ms	
Strobe Mode	The Light will track the pulse width of the strobe pulse.	
RED Indicator LED	Duty Cycle	ON = LED Rest (LED inactive) OFF = LED/Light Ready
GREEN Indicator LED	ON = Power	
Power	Smart Vision Lights recommends 12 amps of supply current.	
Analog Intensity	The output is adjustable from 10-100% of brightness by a 0 -10 VDC signal	
Dimmable	The output is manually adjustable from 10-100% of brightness by potentiometer	

Important

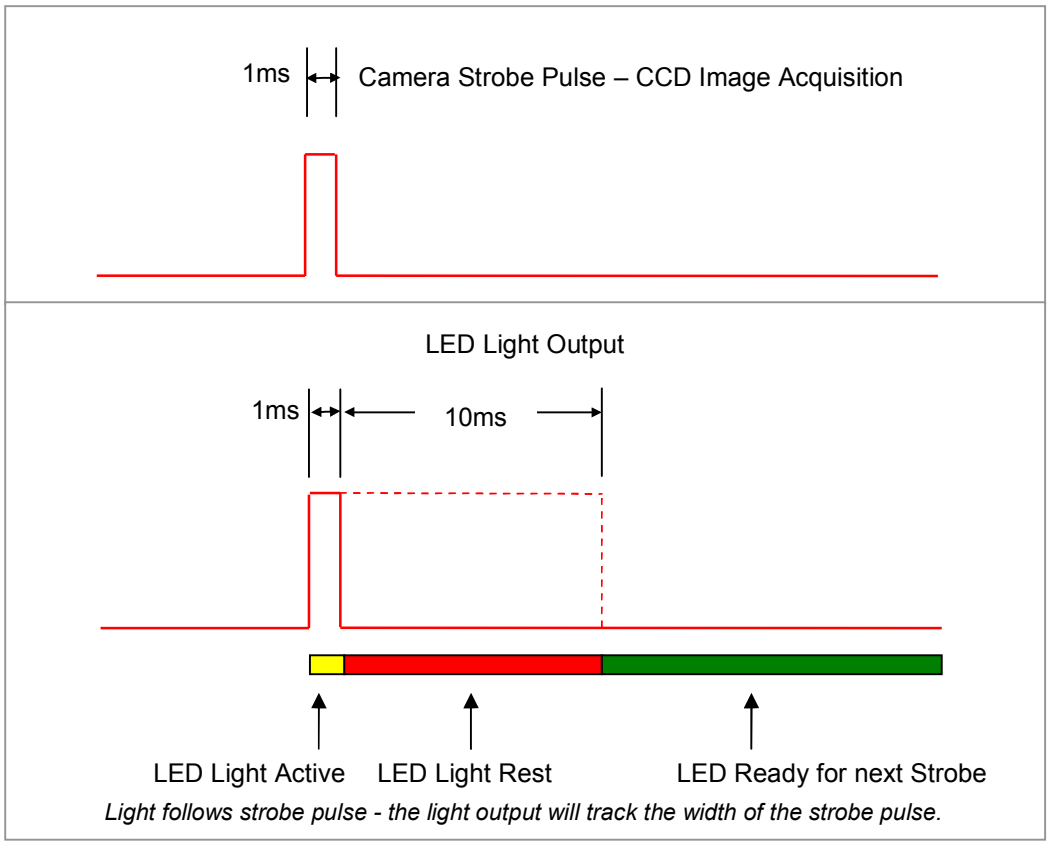
Please note that the power requirements are 12 amps at 24VDC. Failure to supply light with 12 amps (peak) will result in non-repeatable lighting. Contact Smart Vision Lights for more information.

ODS75 – XXX – X —» Part Number Key

ODS75	XXX	X
Product Family: Linear Light ODS75	**Wavelength: 940nm**	**12D**

CE and RoHS Compliant

Duty Cycle on Performance of Light



Duty Cycle (*D*) is defined as the ratio between Strobe Time and Rest Time

Maximum Duty Cycle for ODS Light is 10% = .1

Calculating Rest Time - R_T

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

where

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

$$R_T = \frac{1ms}{.1} = 10ms$$

Rest Time is 10ms for 1ms Strobe Time

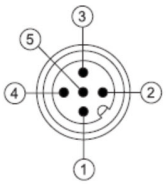
DATA SHEET

WIRING

Smart Vision Lights cables are 5 conductors M12 in 18AWG wire. 18AWG is recommended for ALL OverDrive series and standard series lights. 18AWG is necessary to strobe lights at full current. Common M12 cables are 22AWG. Standard 22AWG wires will not supply full power needed for our light. Smart Vision Lights recommends the cable from the power supply to the light be kept to a minimum.

M12 5 Pin cable color code

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

Pin and Cable Color Assignment	
 Connector on Light 1 = 24VDC 2 = NPN STROBE 3 = GND 4 = PNP STROBE 5 = 0-10VDC Analog	Standard M12 mating cable color BROWN WHITE BLUE BLACK GREEN (GRAY)
If Analog 0-10 VDC is not used to control light intensity; +VDC (24VDC) must be connected to Analog Input.	

- 5 pin Standard M12 mating cable must be used.
- 0 – 10 VDC Analog controls intensity of light from 10-100%. 0VDC = 10%, 10VDC = 100%
- PNP and NPN strobe – In strobe mode the light output will track the pulse width of the strobe input.