

# ODR80 Series Ring Light OverDrive

### Over Drive Features

- Highest Output LED Lights available in the Vision Industry
- SafeStrobe Technology ensures protected operation of LED's
- Driver built in No External wiring to a driver
- 5 times brighter than standard high current LED Lights
- Ring Light mounts to directly to all models of CCTV lenses
- Can also be mounted by T-Slot with T-nut
- Industry Standard M12 Quick Disconnect
- PNP and NPN Strobe input
- High Speed >> Fast Response (up to 2000 Strobes Per Second)





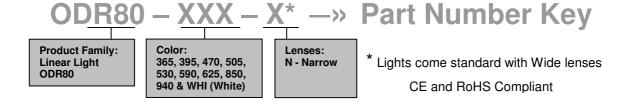


Electrical Input	Voltage: 24 VDC +/- 5%		
Duty Cycle	Maximum 10%		
Strobe Input	PNP ► +4VDC or greater to activate.		NPN ► GND (<1VDC) to activate
Current	Max 2A draw during strobe - Max Average 200mA		
Strobe / Pulse Time	Maximum Single Pulse = 125ms		
RED Indicator LED	Duty Cycle	ON = LED Rest (LED	D inactive) OFF = LED/Light Ready
GREEN Indicator LED	ON = Power		
Potentiometer	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		
Power	Smart Vision Lights recommends 2 amps of supply current per light.		

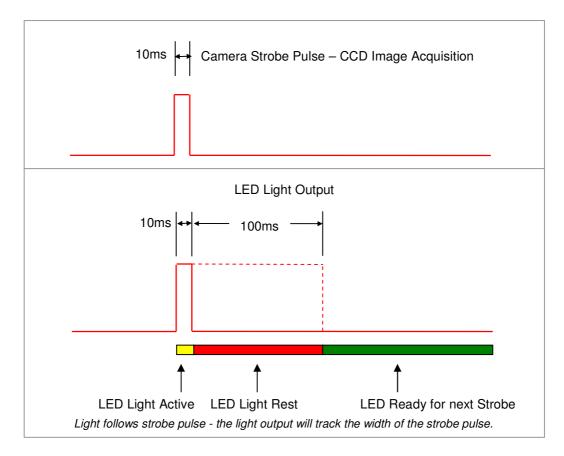


# **Important**

Please note that the power requirements are 2 amps at 24VDC. Failure to supply light with 2 amps (peak) will result in non-repeatable lighting. Contact Smart Vision Lights for more information.



#### **Duty Cycle on Performance of Light**



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

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

where

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



- Step Up adapter Rings mount lens directly to front of light
- Step Down Adapter Rings mount lens directly to back of light
- Adapter Rings mount directly to Cameras
- T-slots on 4 sides accept industrial T-nuts
- 4 threaded M4 mounting holes

Standard industrial T-slots on each side accept T-nuts



Front mounting of Lens to Ring Light



Rear mounting of Lens to Ring Light



## Standard Adapter Kit – Part # SU46-25.5-27

Adapter Kit includes 2 step up rings (25.5 and 27), 6 set screws and hex tool. 6 set screws - 3 for mounting step up ring to light and 3 additional for lens. Some locking thumbscrews may prevent the lens from fitting through the center of the R80, extra low-profile replacement set screws are included, allowing the protruding thumbscrews to be removed.



## Step Up Adapter Kits

Step Up Adapter Kits includes step up rings, 6 set screws and hex tool. Lenses can be mounted to front or back of ring light. Filters can also be installed.



Lens thread size	Part #
25.5	SU46-25.5
27	SU46-27
30.5	SU46-30.5
34	SU46-34
37	SU46-37
37.5	SU46-37.5
39	SU46-39
40.5	SU46-40.5
43	SU46-43
	25.5 27 30.5 34 37 37.5 39 40.5

## Step Down Adapter Rings

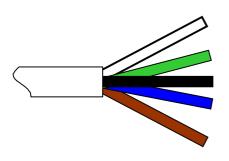
Step Down rings mount large lenses to light. Step Down rings mount lenses to back of ring light. Filters can also be installed.



M46 step-down	Lens thread size	Part #
46-	49	SD46-49
46-	52	SD46-52
46-	55	SD46-55
46-	58	SD46-58
46-	62	SD46-62
46-	67	SD46-67
46-	72	SD46-72



# DATA SHEET WIRING







#### Standard M12 5 Pin cable with Euro 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 or greater for Active ON
5	GREEN	Analog Intensity Control	0-10 VDC

Smart Vision Lights offers M12 cables with 5 conductor 18AWG wires. 18AWG or larger must be used on OverDrive series to guarantee correct current to drive the light. Smart Vision Lights recommends cable length be kept to a minimum.

Pin and Cable Color Assignment				
(5)	Connector on Light	Standard M12 mating cable color		
0 0 2	1 = 24VDC 2 = NPN STROBE 3 = GND 4 = PNP STROBE 5 = 0-10VDC Analog	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 - Jum

+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1 or Green wire to Brown wire.

- 5 pin Standard M12 mating cable must be used.
- 0 − 10 VDC Analog controls intensity of light from 10-100%.