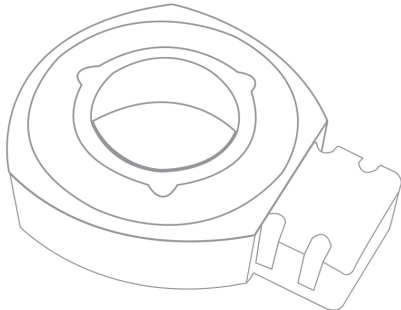


**FLEXIBLE POWER RING LIGHT**

**ELR SERIES**



The ELR Series is **highly flexible** power ring light and comes in an IP65 rating as standard.

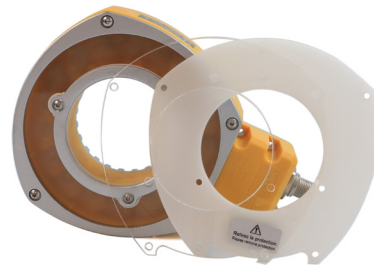
Users can easily adjust the lens position to meet any application requirements. The ELR Series is also shipped with three different diffuser plates, so that the uniformity can be adjusted to the needs of the user.

With its **autostrobe integrated controller** of the ELR Series allows for 700% increase intensity while being strobe when compared to continues mode. The extra M8 connector allows for direct current control for expert use.

**MAIN FEATURES**

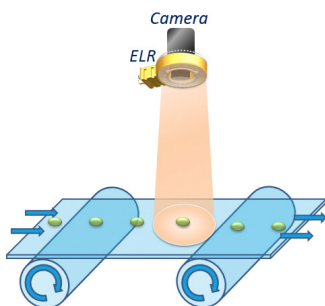
- Standard delivered as a package
- Very intense and uniform illuminated area
- Full range of color : from UV to IR, white
- Long lifetime and few maintenance
- Compatible with most objectives

Flexible: Adjustable illumination angles (4 angles) & different windows

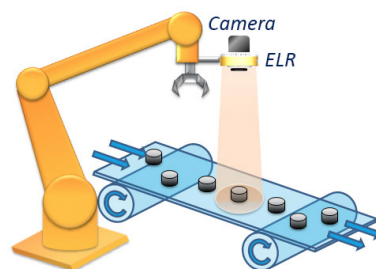


Connector	M12 - 5 contacts	M8 - 4 contacts
Power supply	24V DC	Direct current (No driver = No protection)
Illumination mode	Strobe or continuous mode	
Wavelength	White, UV, Blue, Green, Red, IR	
Width x height	117 mm x 151 mm x 40 mm	
Fastener	M4 screw (4 on heat sink & 4 on outgrowth)	
Material	Device body: Aluminum alloy & ABS; Window: PMMA	
Working temperature	0° to 50° C	
IP code	IP65	

**APPLICATIONS**



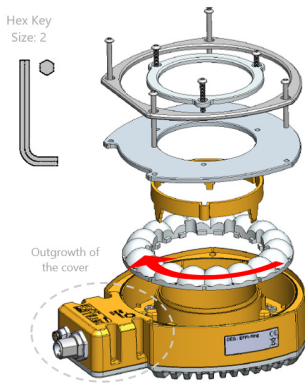
Quality control



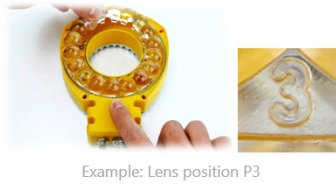
Pick & place

## OPTICAL FLEXIBILITY

### How to change the configuration of the ELR



The numbers 1, 2 and 3 are inscribed in the lens and correspond to the lens position. Match the number of the desired position lens with the outgrowth of the cover.



Example: Lens position P3

### Window

The ELR Series is shipped with three different diffusers. Depending on what uniformity is needed for the application, the user can select and easily change to the diffuser that fulfills the application requirements.

Clear window (CW)



Semi-diffuse window (SD)

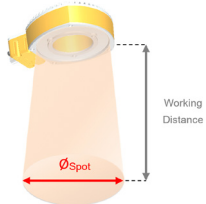


Diffuse window (DF)



### Lens Position

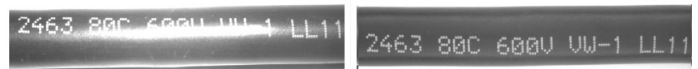
The ELR Series offers flexibility in its lens positioning, which can be easily adjusted to depending on the irradiation distance.



Position	P0*	P1	P2	P3
Angle	90° * without lens	45°	25°	10°

### Optical option

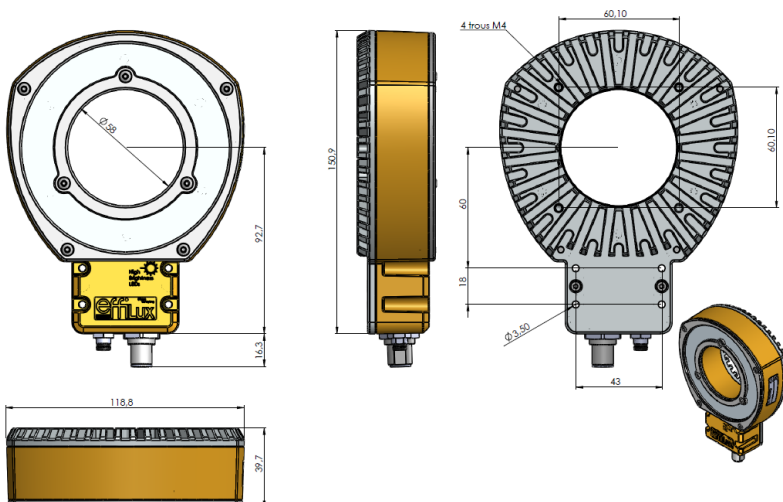
With the polarizer for the ELR Series, it is possible to eliminate glare from your workpiece, making it easier to acquire a suitable image for your application.



Without polarizer

With polarizer

## DIMENSIONS (MM)



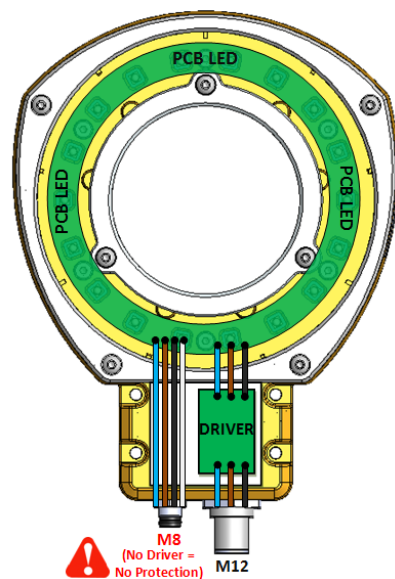


**ELECTRONICAL SPECIFICATIONS**

Contact arrangement

When using the ELR Series, please use a 24V DC. Please note that trigger needs to be connected when using the ELR Series.

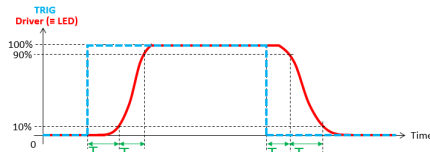
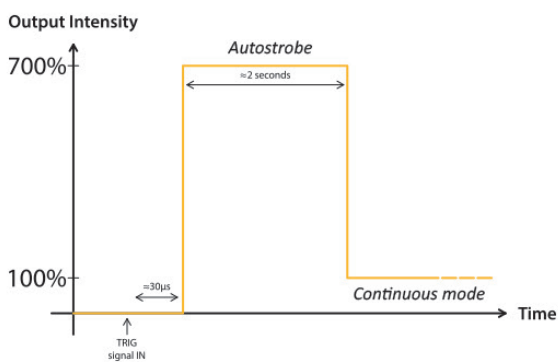
M12 connector - Smart control (Auto-strobe)			
Contact arrangement	Number	Color Contact	Designation
<p>M12 male connector</p>	1	Brown	+24V
	2	White	n.a.
	3	Blue	GND
	4	Black	<b>PNP TRIGGER [trigger for rising edge] for Auto-strobe</b> Light ON if $V_{PNP} > 3V$ DC <b>max 24V - Analog Voltage</b>
	5	Grey	n.a.



For using direct-current-control, use the M8 connector.

M8 connector - Direct control			
Contact arrangement	Number	Color Contact	Designation
<p>M8 male connector</p>	1	Brown	+V <sub>common</sub>
	2	White	GND1
	3	Blue	GND2
	4	Black	GND3

Autostrobe feature (M12 connector)



Designation	Time (µs)
Rise time ( $T_M$ ) <sup>1,5</sup>	4-15
Response rise time ( $T_{RM}$ ) <sup>2</sup>	25
Fall time ( $T_D$ ) <sup>3</sup>	10
Response fall time ( $T_{RD}$ ) <sup>4</sup>	5

- (1) From 10% to 90% of the peak value of driver signal
- (2) From 90% to 10% of the peak value of driver signal
- (3) From the beginning of the TRIG signal to 10% of the peak value of driver signal
- (4) From the ending of the TRIG signal to 90% of the peak value of driver signal
- (5)  $T_M$  increases when  $U_{TRIG}$  or/and the frequency increases

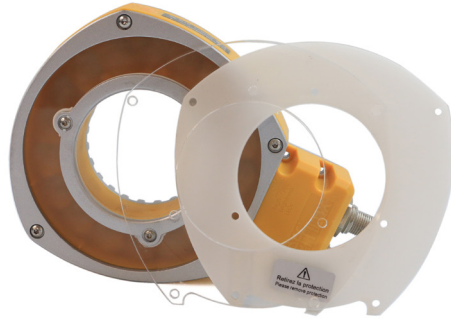
Direct current (M8 connector)

T pulse (µs)	F (Hz)				
	1	5	10	15	20
100 000	1.0 A				
50 000	1.2A				
10 000	1.5 A	1.0 A			
1000	2.0 A				
100	2.5 A				

Be aware that the maximum current for a given frequency and a given  $T_{pulse}$  cannot be exceeded.

## PRODUCT LINE UP - PACKAGES

The ELR Series is standard delivered as a **package**: the product in the classic configuration (SD diffuser and the lens at P2 position) and the two other diffusers (DF and CW), allowing the users to select the correct diffuser for their application needs:



### Part Number

Power consumption is given for white products.

Series	Part Number	Color	Wavelength / Color temperature	Power Consumption (with M12 connector)		Connectors	Weight
				Strobe	Continuous		
ELR	ELR-100SW	White	5500 K ± 500 K	72W	15W	M12 & M8	400g
ELR	ELR-100UV	Ultraviolet	405nm	72W	15W	M12 & M8	400g
ELR	ELR-100BL	Blue	465nm	72W	15W	M12 & M8	400g
ELR	ELR-100GR	Green	525nm	72W	15W	M12 & M8	400g
ELR	ELR-100RD	Red	625nm	72W	15W	M12 & M8	400g
ELR	ELR-100IR	Infrared	850nm	72W	15W	M12 & M8	400g

## OPTICAL ACCESSORIES

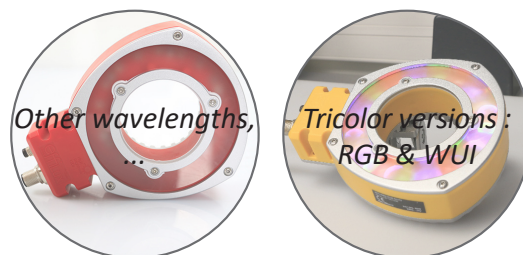
Polarizer	
Part Number	Applicable LED Unit
PL-ELR-100	ELR-100

For cables cf. the datasheet of the ECB cables series.

For fasteners and camera supports cf. the datasheet of the BK fasteners series.

## CUSTOM - ON REQUEST

### OPTIONS AVAILABLE ON REQUEST



## EU DIRECTIVE



In accordance with EU machinery directive, EMC directive, and low voltage directive, machines and electronic devices not marked with the CE logo are subject to distribution restrictions within the EU. All EL Series products. These products will maintain the EU mandate compatibility of our customers' machinery and electronic devices.

## RoHS DIRECTIVE

All products from the EL Series comply with the RoHS Directive.

## MICRO WEBSITE

[www.el-series.com](http://www.el-series.com)



**Vision Light Tech**  
creating optical solutions