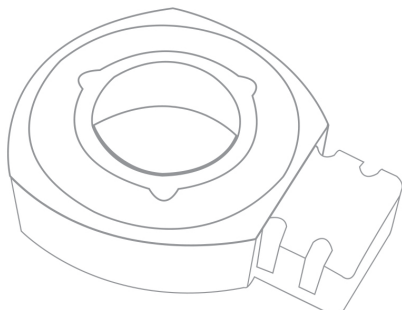


ADJUSTABLE BEAM ANGLE RING LIGHT

ELR SERIES



The ELR is an **high power** ring light.

By changing the position of the lens in a very smart way, the user can focus more or less the light beam.

Thanks to the **autostrobe integrated driver**, the ELR can deliver up to 7 more illuminance during a short time duration before going to continuous mode.

DESCRIPTION

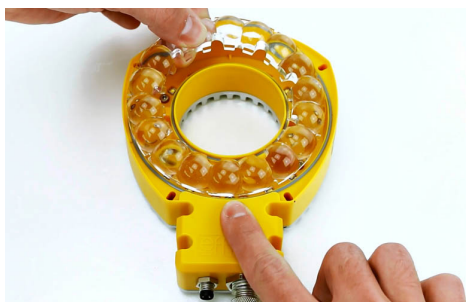
Very intense and uniform illuminated area

Full range of color : from UV to IR, white

Long lifetime and few maintenance

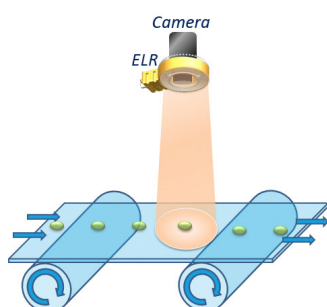
Compatible with most objectives

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

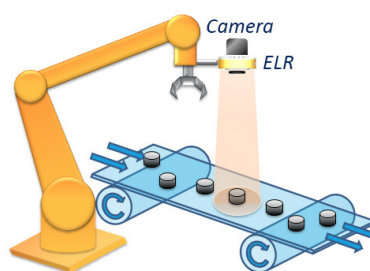


Electronics	Connector	M12 - 5 contacts	M8 - 4 contacts
	Power supply	24V DC	Direct current (No driver = No protection)
	Illumination mode	Strobe or continuous mode	
	Power consumption	72 W	Depending on your configuration
Optics	Wavelength	White, UV, Blue, Green, Red, IR	
Mechanics	Weight	400g	
	Width 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	
Environment	Working temperature	0° to 40° C	
	IP code	IP65 <i>For extended use with water please ensure to use a plastic cap on the unused connector (M8 or M12)</i>	

APPLICATIONS



Quality control



Pick & place

OPTICAL FLEXIBILITY

Window

The ELR offers different types of interchangeable windows to find a good compromise between power and homogeneity depending on the nature of the object to control.

Clear window (CW)



Semi-diffuse window (SD)

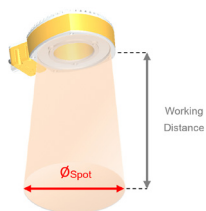


Diffuse window (DF)



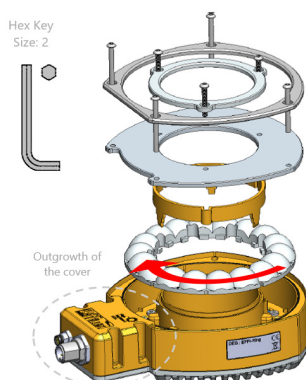
Lens Position

The ELR offers 4 lens configurations, manually adjustable to change the emission angle.



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

How to change the configuration of the ELR



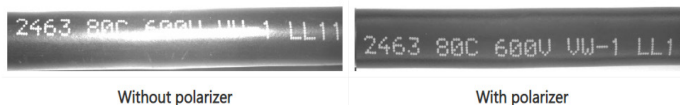
The numbers 1, 2 and 3 are inscribed in the lens and correspond to the lens position. Match the number of the desired position lens with the outgrowth of the cover.



Example: Lens position P3

Optical options

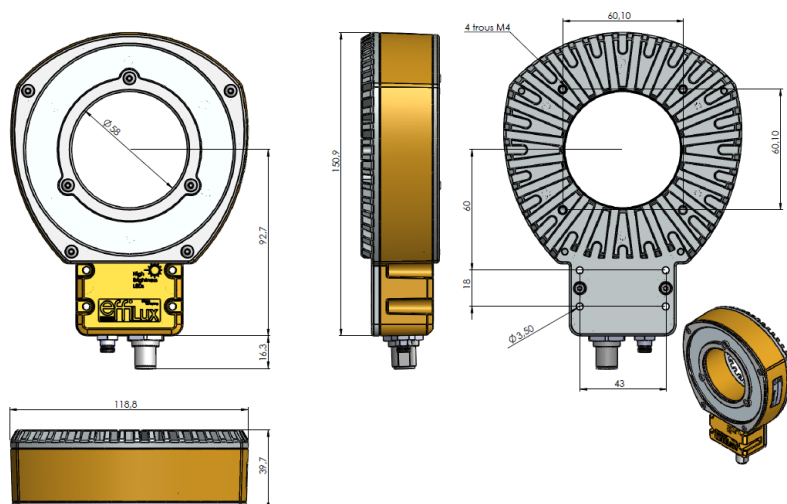
The optical accessory *Polarizer* eliminates glare caused by the lighting on parts to control. The camera can then analyze the part, without being disturbed by the glow effects.



Without polarizer

With polarizer

DIMENSIONS (MM)





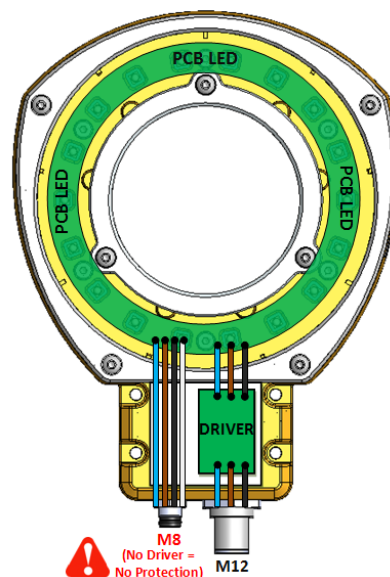
ELECTRONICAL CONSIDERATION

Contact arrangement

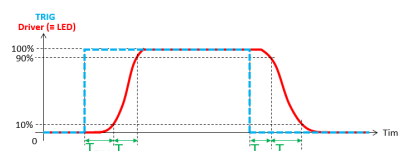
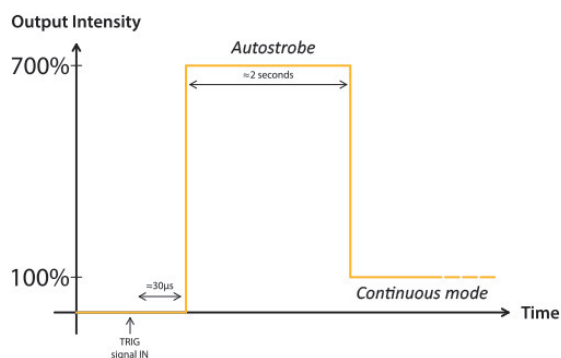
The ELR is supplied with a 24V constant voltage through the M12-5 contacts (male), the trigger contact needs to be connected and with a direct current through the M8-8 contacts (male).

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	PNP TRIGGER [trigger for rising edge] for Auto-strobe max 24V - Analog Voltage
	5	Grey	n.a.

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



Autostrobe feature (M12 connector)



Designation	Time (μs)
Rise time (T_{RM}) ^{1,5}	4-15
Response rise time (T_{RM}) ²	25
Fall time (T_{RD}) ³	10
Response fall time (T_{RD}) ⁴	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_{RM} increases when U_{TRIG} or/and the frequency increases

Direct current (M8 connector)

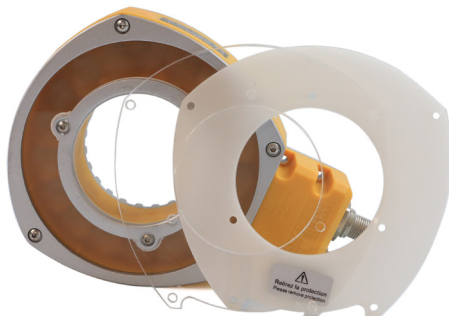
	F (Hz)						
T pulse (μs)	1	5	10	15	20		
100 000	1.0 A						
50 000	1.2A						
10 000	1.5 A	1.0 A					
1000	2.0 A						
100	2.5 A						

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

PRODUCT LINE UP - PACKAGES

The standard ELR is delivered in a **package**.

The package contains the ELR in the classic configuration with the SD window and the lenses at the position P2 and the other windows (CW and DF):



Part Number

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

OPTICAL ACCESSORIES

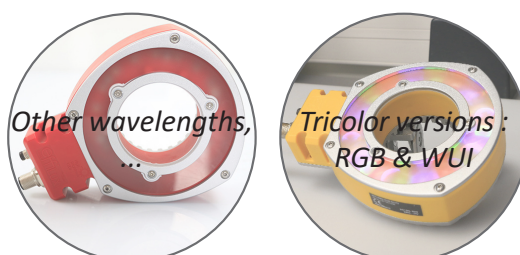
Polarizer	
Part Number	Applicable LED Unit
PL-ELR-100	ELR-100

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.