



MODULAR RINGLIGHT

RING | DARK FIELD | LOW ANGLE | DOME

▷ MACHINE VISION ▷ HIGH POWER LED ▷ MODULAR ILLUMINATION ▷ BI-COLOR RING ▷ 4 INDEPENDENT QUARTERS ▷ OVERDRIVE ▷ INGENIOUS REFLECTORS

MULTIPLE LIGHTING SOLUTIONS WITH JUST A FEW ELEMENTS.

2 SIZES

80mm

130mm

2x2 COLOURS



4 EFFECTS

RING

LOW ANGLE

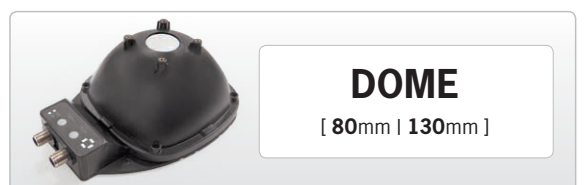
DARK FIELD

DOME



- 4 adjustable quarters ✓
- Overdrive x4 ✓
- Remote or manual control ✓

INTER-CHANGEABLE REFLECTORS



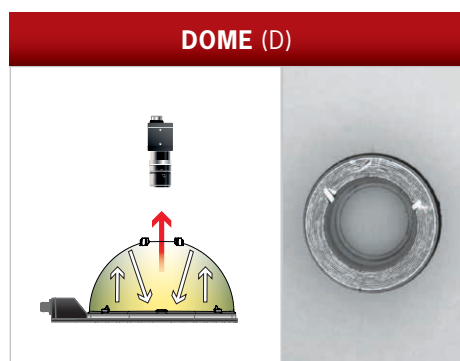
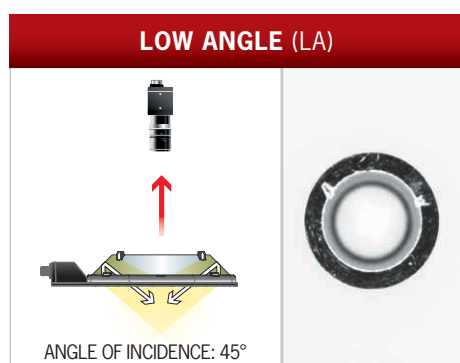
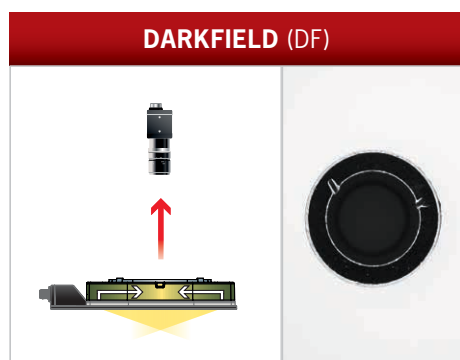
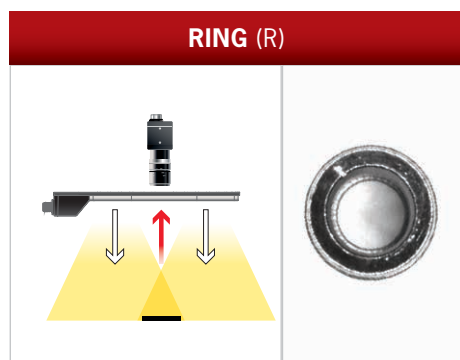
Machine vision specialists want to be able to select the best illumination configuration as quickly as possible whilst also having the confidence to take the product out of the laboratory and into a production environment. With the Modular Ringlight, this efficient way of working is now a reality.

Comprising of a controllable, bi-colour LED lighting ring (2 sets of colours, 2 dimensions) and a range of inter-changeable reflectors, the Modular Ringlight is designed to let them make their illumination choices quicker than ever before. A cleverly designed LED "square

ring" is used in conjunction with either a Dark Field, Low Angle or Dome reflector to give drastically different illumination results. Variation of the light effects are quick and simple with manual push button control and "easy clip-on" reflectors.

Once the most suitable reflector has been selected, the same products can then be installed onto a production line using conveniently located securing screws and engaging the remote-control capability.

4 LIGHTING METHODS



LIGHTING POWER

	Modular Ringlight 80				Modular Ringlight 130			
	RED (cd)	CYAN (cd)	WHITE (cd)	IR (mW/Sr)	RED (cd)	CYAN (cd)	WHITE (cd)	IR (mW/Sr)
Standard (distance: 0 cm)	43	55	300	150	65	82	445	220
Overdrive (distance: 0 cm)	172	195	1 200	600	260	286	1 830	900

TECHNICAL SPECIFICATIONS

Dimensions	80mm	130mm
Electronics		
Power Supply	24 VD/C +/-10%	
Functioning Mode	Continuous, Strobe, Overdrive, Dimming, Manual Control	
Rising Time	10 µs	
Falling Time	10 µs	
Wiring	5 Pin M12 male connector for manual, 8 Pin M12 male connector for remote control	
Max. consumption Red-Cyan	9W average / 51W peak	11W average / 82W peak
Max. consumption WHIR	10W average / 42W peak	13W average / 62W peak
Optics		
Colour	Red-Cyan and White-Infrared	
Number of LEDs	96	144
Mechanical		
Dimensions (external)	136 x 193 mm	197 x 257 mm
Height with no accessories	11 mm at light, 31 mm at connectors	
Height with Dome	75 mm	106.75 mm
Height with Low Angle	34.75 mm	45.25 mm
Height with Darkfield	27.5 mm	27.5 mm
Weight (no accessories)	270 g	388 g
Body Material	Aluminum & ABS	
Mounting/Fixing	2x M5 Screws	
Environment		
Operating Temperature	-10° to +40°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)	
Storage Temperature	-20° to +60°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)	
IP Protection	IP 65	
Labels	RoHS-CE-WEEE	

SECTORS & COLOURS CONTROL



REMOTE

M12
male 8 pins

1 Activate overdrive	5 Sector 2
2 Change colours	6 Sector 3
3 GND	7 Sector 4
4 Sector 1	8 Deactivate manual sector drive

MANUAL

Colour Sector

ON Str

SECTORS: 3 configurations

COLOURS: 2 sets

W-IR Select White or Infrared

R-C Select Red or Cyan

HOW TO BUILD YOUR PRODUCT REFERENCE

REQUIRED SETTINGS

MR	USEFUL DIMENSION	COLOUR	VERSION
	80	WIR	R RING
	130	RC	DF DARK FIELD
			LA LOW ANGLE
			D DOME

EXAMPLES :

Modular Ringlight 80mm white-IR LEDs Ring version → **MR-80-WIR-R**
 Modular Ringlight 130mm red-cyan LEDs Dome version → **MR-130-RC-D**



HOW TO BUILD YOUR LAB KIT REFERENCE

REQUIRED SETTINGS

MR	USEFUL DIMENSION	COLOUR	VERSION
	80	RC	LK LAB KIT
	130	WIR	
		RC-WIR*	

EXAMPLES :

Modular Ringlight 80mm white-IR LEDs Lab Kit → **MR-80-WIR-LK**
 Modular Ringlight 130mm red-cyan LEDs Lab Kit → **MR-130-RC-LK**
 Modular Ringlight 80mm red-cyan and white-IR LEDs Lab Kit → **MR-80-RC-WIR-LK***

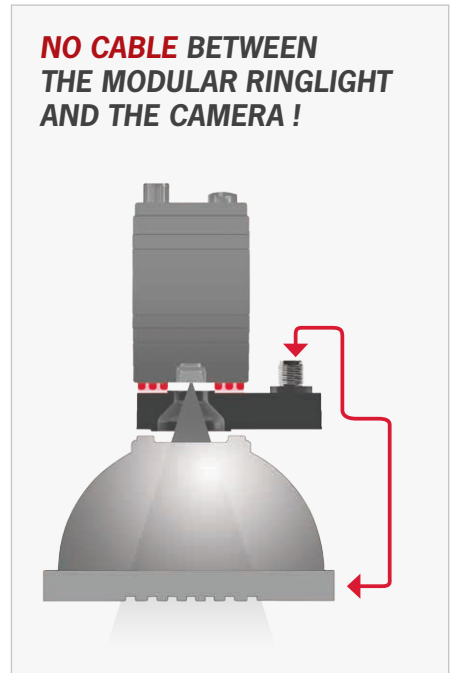


* 2 rings

RELATED PRODUCTS: OPTICAL TRIGGER



The Optical Trigger is an easy solution to connect the Modular Ringlight to your smart camera, without a wired connection. Using the Optical trigger, you can get a perfect synchronization of the Modular Ringlight with the camera software very easily. The Optical Trigger can be directly fixed to the Dome reflector. A new generation accessory that simplifies integration!



RELATED PRODUCTS: CABLES

REQUIRES **JUST 1 CABLE**

M12 female 8 pins cable	
MODULAR RINGLIGHT: REMOTE CONTROL	
3 meters	Ref: C-M12-8P-3M
5 meters	Ref: C-M12-8P-5M
10 meters	Ref: C-M12-8P-10M

M12 female 5 pins cable	
MODULAR RINGLIGHT: POWER SUPPLY	
2 meters	Ref: C-M12-5P-2M
5 meters	Ref: C-M12-5P-5M
10 meters	Ref: C-M12-5P-10M

M12 female / male 5 pins cable	
MODULAR RINGLIGHT / OPTICAL TRIGGER	
0.3 meters	Ref: RA-M12-FM-5P-0.3M

BINNING INFORMATIONS

TPL VISION IS EXTREMELY CAREFUL ABOUT BIN SORTING IN THE SELECTION OF LEDs FOR THEIR PRODUCTS.

Specifically for the Cyan series on this product, the human eye is very sensitive to colour variations. It may appear to the customer that they do not appear the same between two cyan LED products. Despite any noticeable differences, **the peak wavelength variation DOES NOT EXCEED 10NM.**

Here are the following bandpass camera filters we recommend to fit with the Modular Ringlight:

- White LEDs: no filter required
- Infrared LEDs: LP 830 (<http://midopt.com/filters/lp830/>)
- Red LEDs: BP 635 (<http://midopt.com/filters/bp635/>)
- Cyan LEDs: BP 505 (<http://midopt.com/filters/bp505/>)

We advise using bandpass filters from MidOpt: www.midopt.com

Features and presentations liable to modifications without prior notice. A-3 version, 2017/10 Edition

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Other available documents :

- PDF, DWG, DXF, STEP DRAWINGS (on demand)
- USER GUIDE

MODULAR RINGLIGHT

