



Cretec Cybernetics

Lightfield – Darkfield – LowAngle – Dome – Color

The Chamäleon

Vision starts with light

Light is the key to your solution; light minimizes cost of Hardware and Software down the road. Chamäleon is easy adapted to any task. It allows to highlight object characteristics for barely any small to medium size object.



The art of structuring light

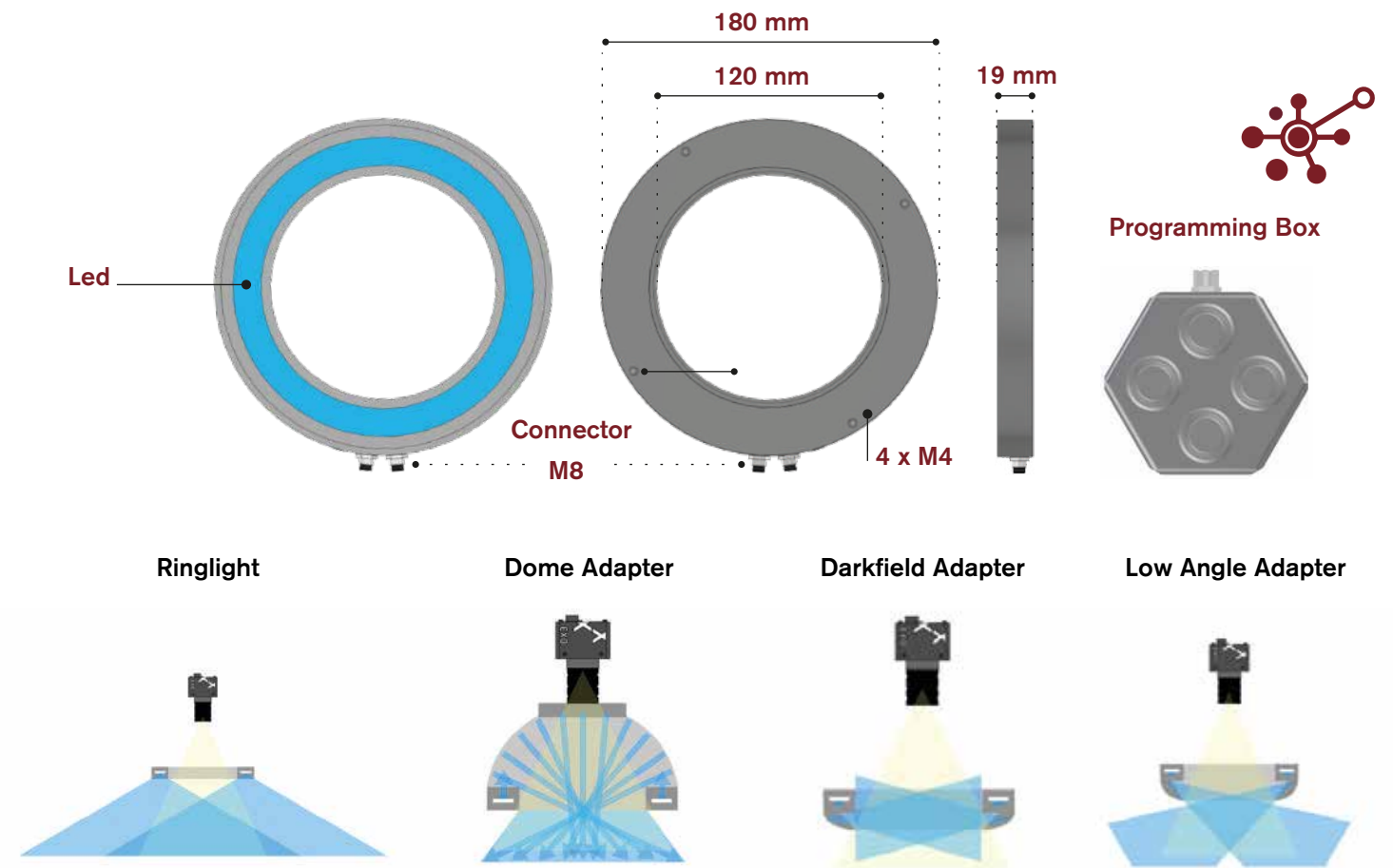
Emission characteristics

The modular kit makes it possible. Chamäleon is a:

- ✓ Lightfield ringlight
- ✓ Darkfield ringlight
- ✓ LowAngle ringlight
- ✓ Dome light

Several light geometries maybe combined freely.

Example > Dome + Darkfield combination of two ringlights into one unit, controllable separately or combined.



Color

RGB-PowerControl of the LEDs allows for a variety of colors. With most cases, intelligent selection of wavelength is an important step to a clever solution.

Trigger and usages modes

Chamäleon teams up with professional industry cameras for your perfect solution. The following modes and operational states are possible:

1. Easy Set and Fire: Pinning V1

Intensity and color are controlled via the programming box.

External trigger (+2,5 to +24V) synchronized with the shutter or permanent on.

2. RGB Classic: Pinning V2

Each color red/green/blue controlled by separate trigger input (+2,5 to + 24V). The camera, or PLC outputs control directly the wavelength combination, producing primary colors and several secondary colors (white, yellow, cyan and magenta).

3. Advanced Individual: Pining V2

Here comes the great liberty. Requires at least one 3-channel +24V-output on the camera or PLC-controller. Intensity controlled by external PWM-signal for each channel (RGB-trigger) Color is produced by the intensity of the separate RGB-channels (On/Off-timing).

Characteristics							
Nr.	Color	Channel Distribution	Color	Aperture	Input	Power	Complementary
0	White	255:255:255		120°	750 mA	18 W	-
1	Red	255:0:0	625nm		255 mA	6 W	7
2	Orange	255:96:0			345 mA	8 W	8
3	Yellow	255:255:0			490 mA	12 W	9
4	Yellow-Green	96:255:0			345 mA	8 W	10
5	Green	0:255:0	528nm		255 mA	6 W	11
6	Blue-Green	0:255:96			345 mA	8 W	12
7	Cyan	0:255:255			490 mA	12 W	1
8	Green-Blue	0:96:255			345 mA	8 W	2
9	Blue	0:0:255	470nm		255 mA	6 W	3
10	Purple	96:0:255			345 mA	8 W	4
11	Magenta	255:0:255			490 mA	12 W	5
12	Blue-Red	255:0:96		345 mA	8 W	6	



Pinning I/O - Connector V1				Pinning I/O - Connector V2				Pinning I/O - Connector			
1	VCC +24V DC	Brown		1	VCC +24V DC	Brown		1	VCC +24V DC	Brown	
2	Trigger (+)	White		2	Trigger (+) Rot	White		2	Color ◀	White	
3	Masse (GND)	Blue		3	Trigger (+) Grün	Black		3	Masse (GND)	Blue	
4	-	Black		4	Masse (GND)	Blue		4	Color ▶	Black	
				5	Trigger (+) Blau	Grey		5	Dimmer ▲	Grey	
							6	Dimmer ▼	Pink		

Electric Data							
Power Supply	24 V DC	Current Supply (max.)	800 mA	Power Consumption (max.)	20 W	Trigger	+2,5 bis +24V DC

Housing		Ambient conditions	
Material	Machined from solid aircraft alloy	Housing Temperature during operation	
Protection class	IP 67	In use	-20°C - 55°C / -4°F - 131°F
Size H/B/T [mm]	180 x 180 x 100 mm	In storage	-20°C - 60°C / -4°F - 140°F
Weight	350 g	Humidity (relative, not condensing)	20% - 80%

Recommendation

By using a high-performance camera with an integrated sequencer or an external controller, individual LED-states can be created for each image or image sequence. The light can be adapted ideally to the object and desired effects can be created for image analysis.



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