

## Machine Vision Light



Provide the world's most cost-effective machine vision products

Shenzhen HIFLY Technology Co.,Ltd

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## 公司简介

海天翔科技有限公司成立于2006年,位于中国广东深圳,是一家专注于机器视觉光源、工业相机镜头和视觉系统解决方案的高科技企业。

作为全球机器视觉解决方案的领导者,我们在管理、研发、软件工程师、成像工程师和销售团队方面拥有15年的专业经验。

公司拥有先进的生产设备,秉承I S09001: 2015质量体系管理标准。同时,我们拥有30多项发明专利和认证,服务于全球30个国家的2500多家客户。

我们热切期待您的沟通,期待在不久的将来有一个富有成效的合作伙伴关系。

### **Company Profile**

HIFLY Technology company Limited was established in 2006 located in Shenzhen Guangdong China which is a high-tech enterprise focusing on machine vision light source, industrial camera lenses and vision system solutions.

As a global leader in machine vision solutions, we have 15 years of expertise in management, R&D, software engineers, imaging engineers and sales teams.

We are equipped with state-of-the-art production facilities, adhering to ISO 9001:2015 quality system management standard. At the same time, we have more than 30 invention patents and Certifications, serving more than 2,500 customers in 30 countries all over the world.

We eagerly await your communication, anticipating a fruitful partnership in the near future.



## Quick Customization

We have advanced machinery and equipment and professional R & D team, according to customer requirements quickly customized proofing, not only saving proofing time, greatly improving efficiency, product quality is also more guaranteed.

#### R&D



#### Lathe



SMT



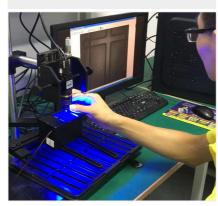
#### Production



Aging test

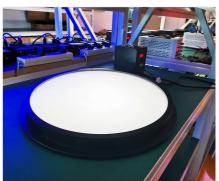


Optical Laboratory



#### Product customization time: 3 to 7 working days



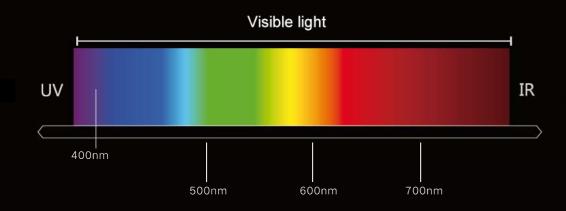


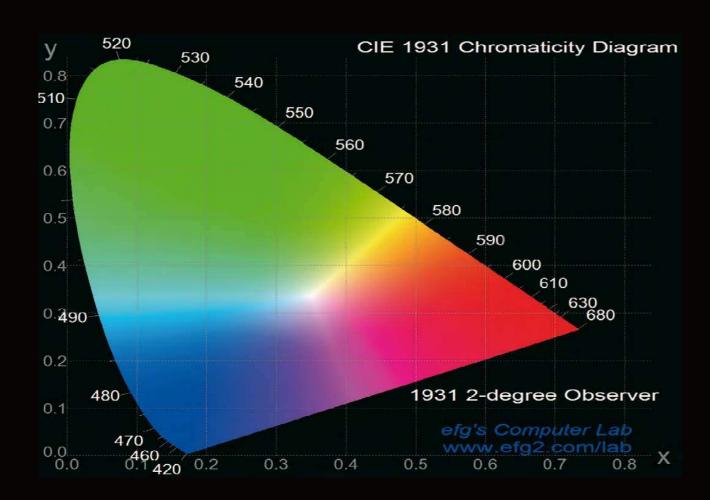


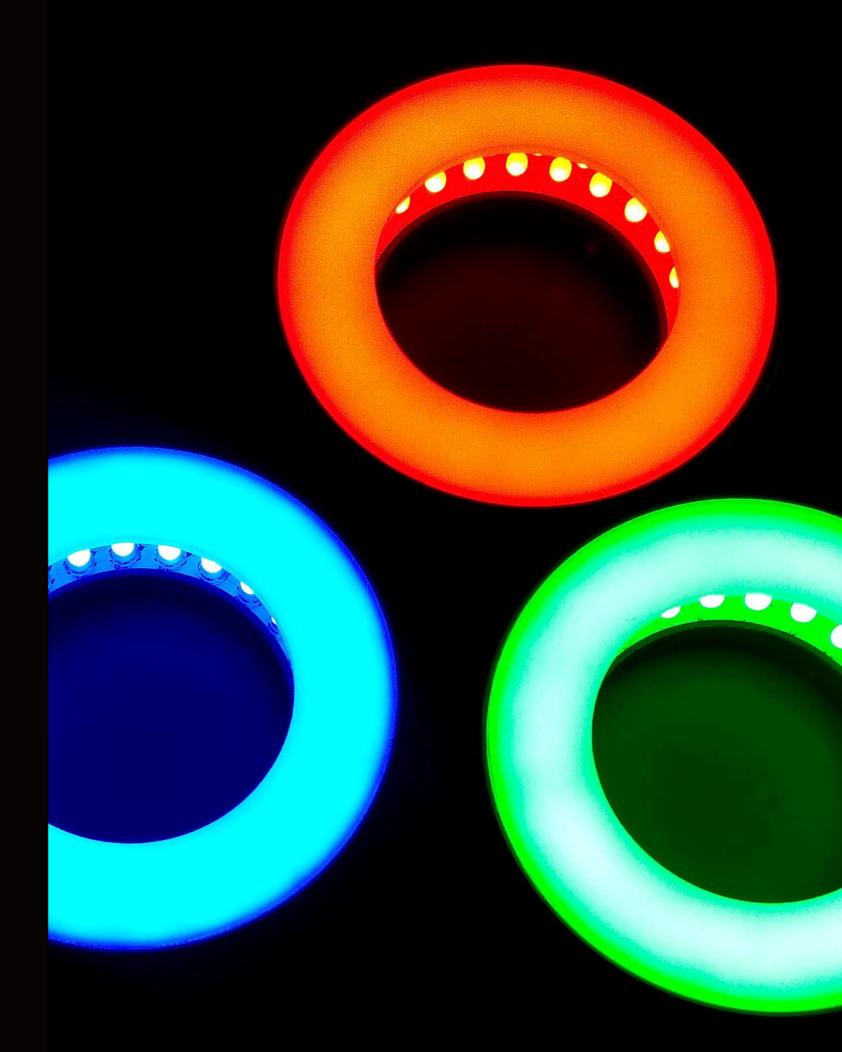




## Color and wavelength of light







## CONTENTS





























































**01**Ring Light

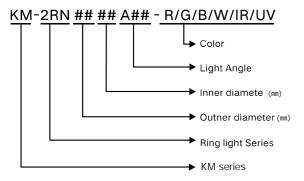


#### Application Cases

- PCB&liastic containers inspection.
- Electronic components inspection&OCR on integrated circuits.
- Microscope illumination, general appearance inspection.
- LCD correction, font label detection.

# lens LED light Detected object

#### Selection Guide



#### Application Example

#### Ceramic surface profile detection

Ceramic surface contour detection uses the direct illumination method of the ring light source, and the contour is more obvious after the surface is illuminated.



## Surface is relatively flat, the end face is brightened with a ring light, and the cross groove is rough and black, so as to detect the quality of the cross groove.

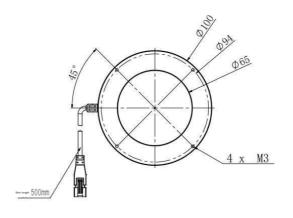


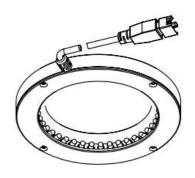
#### Technical indicators

Light color(wave lenght)	red:620-639nm	green:520-530nm					
Light color (wave longitt)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20-85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according)	ording to the use environment)					
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

#### Product size

Model: KM-2RN10065A0



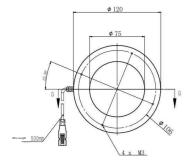




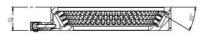
#### Product modelling panameter table

					Voltage (	24V)	Voltage	(24V)		Size		LED	Type	Uniformit
Product	Model	Angle	Cole	or	Power (V	/)/SMD	Power (V	M)/DIP	internal diameter	outside diameter	Thickness	SMD	DIP	diffuser
					•	• 0	•	• 0	diamotoi	diameter				
	KM-2RN6030A0	0 °	•	• 0	-	-	0.6	1.2	30	60	11		<b>√</b>	×
	KM-2RN7035A0	0 °	•	• 0	-	-	0.9	1.2	35	70	11		$\checkmark$	×
	KM-2RN8045A0	0 °	•	• 0	-	-	0.9	1.6	45	80	11		<b>√</b>	×
	KM-2RN9055A0	0 °	•	• 0	-	-	1.2	1.9	55	90	11		$\checkmark$	×
	KM-2RN10065A0	0 °	•	• 0	-	-	1.2	1.9	65	100	11		√	×
	KM-2RN12085A0	0 °	•	• 0	-	-	1.9	2.5	85	120	11		<b>√</b>	×
	KM-2RN150115A0	0 °	•	• 0	-	-	1.9	3.7	115	150	11		<b>√</b>	×
	KM-2RN180145A0	0 °	•	• 0	-	-	2.8	4.7	145	180	11		<b>√</b>	×
	KM-2RN200170A0	0 °	•	• 0	-	-	3.2	4.7	170	200	10.5		<b>√</b>	×
Ring light	KM-2RN250220A0	0 °	•	• 0	-	-	3.8	6.3	220	250	10.5		<b>√</b>	×
(2RN)	KM-2RN6022A30	30 °	•	• 0	2.7	2.9	1.6	2.2	22	60	18	$\checkmark$	<b>√</b>	×
	KM-2RN7035A30	30 °	•	• 0	4.0	4.8	1.6	2.8	35	70	22	$\checkmark$	$\checkmark$	×
	KM-2RN8045A30	30 °	•	• 0	4.3	5.3	2.2	3.1	45	80	22	$\checkmark$	√	×
	KM-2RN9045A30	30 °	•	• 0	5.8	6.9	3.1	5.0	45	90	23	$\checkmark$	$\checkmark$	×
	KM-2RN10055A30	30 °	•	• 0	5.8	6.9	3.7	5.9	55	100	23	$\checkmark$	√	×
	KM-2RN12075A30	30 °	•	• 0	8.6	9.5	4.7	7.2	75	120	23	$\checkmark$	$\checkmark$	×
	KM-2RN150105A30	30 °	•	• 0	11.5	12.7	6.2	10.0	105	150	23	$\checkmark$	√	×
	KM-2RN180130A30	30 °	•	• 0	17.3	19.0	10.3	15.9	130	180	27	$\checkmark$	√	×
	KM-2RN200158A30	30 °	•	• 0	19.4	23.8	11.3	18.8	158	200	26	$\checkmark$	√	×
	KM-2RN250206A30	30 °	•	• 0	25.9	28.5	14.1	22.5	206	250	26	<b>V</b>	V	×

- 1. Angle refers to the Angle between the light and the horizontal plane
- 2. The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range







										S	ize	LEI	D Type	
Product	Model	Angle	Color		Voltage Power (	(24V) W)/SMD		e (24V) (W)/DIP	internal	outside	Thickness	SMD	DIP	Uniformit diffuser
		_			•	• 0	•	• 0	diameter	diameter				
	KM-2RN5320A45	45 °	•	• 0	2.7	2.9	1.2	1.9	20	53	20	$\checkmark$	$\checkmark$	×
	KM-2RN6025A45	45 °	•	• 0	3.4	3.8	1.6	2.2	25	60	21	$\checkmark$	$\checkmark$	×
	KM-2RN7035A45	45 °	•	• 0	4.0	3.4	1.9	2.8	35	70	21	$\checkmark$	$\checkmark$	×
	KM-2RN8045A45	45 °	•	• 0	5.0	5.8	2.2	3.4	45	80	21	$\checkmark$	$\checkmark$	×
	KM-2RN9045A45	45 °	•	• 0	7.2	6.9	3.4	5.3	45	90	23	$\checkmark$	$\checkmark$	×
	KM-2RN10055A45	45 °	•	• 0	9.4	9.0	3.7	5.9	55	100	23	$\checkmark$	$\checkmark$	×
	KM-2RN12070A45	45 °	•	• 0	13.0	14.8	6.2	9.7	70	120	25	$\checkmark$	$\checkmark$	×
	KM-2RN150100A45	45 °	•	• 0	15.8	19.0	8.1	13.1	100	150	25	$\checkmark$	$\checkmark$	×
	KM-2RN180130A45	45 °	•	• 0	15.1	23.8	10.3	15.9	130	180	25	$\checkmark$	√	×
	KM-2RN200154A45	45 °	•	• 0	19.4	23.8	10.3	16.9	154	200	24	$\checkmark$	$\checkmark$	×
	KM-2RN250204A45	45 °	•	• 0	25.9	29.6	13.8	22.5	204	250	23	$\checkmark$	√	×
	KM-2RN6025A60	60 °	•	• 0	2.7	2.9	1.6	2.2	25	60	20	$\checkmark$	$\vee$	×
	KM-2RN7035A60	60 °	•	• 0	4.0	4.8	1.9	2.8	35	70	20	$\checkmark$	√	×
	KM-2RN8045A60	60 °	•	• 0	4.3	5.3	2.2	3.1	45	80	20	$\checkmark$	<b>√</b>	×
Dina liabt	KM-2RN9040A60	60 °	•	• 0	7.2	7.9	3.1	5.0	40	90	22	$\checkmark$	√	×
Ring light (2RN)	KM-2RN10050A60	60 °	•	• 0	7.9	8.4	3.7	5.6	50	100	22	$\checkmark$	$\checkmark$	×
(ZNN)	KM-2RN12060A60	60 °	•	• 0	11.5	13.2	5.9	9.0	60	120	23	$\checkmark$	<b>√</b>	×
	KM-2RN15095A60	60 °	•	• 0	13.0	18.0	8.1	12.5	95	150	23	$\checkmark$	$\checkmark$	×
	KM-2RN180125A60	60 °	•	• 0	17.3	23.2	10.0	15.6	125	180	23	$\checkmark$	$\checkmark$	×
	KM-2RN208154A60	60 °	•	• 0	21.6	25.3	11.3	17.5	154	208	21	$\checkmark$	$\checkmark$	×
	KM-2RN250202A60	60 °	•	• 0	23.0	25.3	13.8	22.5	202	250	22	$\checkmark$	$\checkmark$	×
	KM-2RN6030A90	90°	•	• 0	1.9	2.9	1.2	2.2	30	60	20	$\checkmark$	<b>√</b>	×
	KM-2RN7040A90	90 °	•	• 0	2.4	3.4	1.9	2.8	40	70	20	$\checkmark$	√	×
	KM-2RN8040A90	90 °	•	• 0	3.8	5.8	2.8	4.4	40	80	20	$\checkmark$	<b>√</b>	×
	KM-2RN9040A90	90 °	•	• 0	5.3	8.2	4.1	6.6	40	90	20	<b>√</b>	<b>√</b>	×
	KM-2RN10040A90	90 °	•	• 0	7.2	11.5	5.3	8.4	40	100	20	<b>√</b>	√	×
	KM-2RN12050A90	90 °	•	• 0	8.6	13.4	6.9	10.6	50	120	20	<b>√</b>	<b>√</b>	×
	KM-2RN15095A90	90°	•	• 0	10.6	16.3	7.8	12.2	95	150	20	√	V	×
	KM-2RN180125A90	90 °	•	• 0	13.0	20.6	9.7	15.3	125	180	20	$\checkmark$	√	×
	KM-2RN200154A90	90°	•	• 0	13.4	21.1	11.3	17.5	154	200	18	$\checkmark$	<b>√</b>	×
	KM-2RN250204A90	90 °	•	• 0	17.3	26.9	15.0	22.5	204	250	18	<b>√</b>	√	×

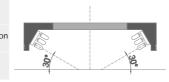
The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



- 1 Three-color RGB light source customization
- 4 Illumination Angle customization

  SInstallation and fixed customization
- 3 Wavelength and color temperature 6 wire length customization



Angle refers to the Angle between the light and the horizontal plane

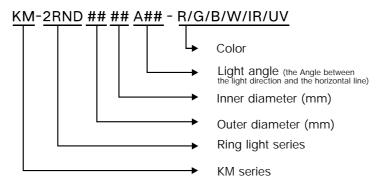
## **02**Ring Light

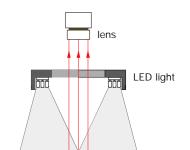


#### Application Cases

- Surface bumps, scratches and other defects detection.
- Print character, mark, bar code, fingerprint image recognition.

#### Selection Guide





Detected object

CCD/CMOS Camera

#### Application Example

#### Auto parts defect detection

Use horizontal low-angle illumination to illuminate the six corners of the bulge, and the background is gray and black, so as to judge the defect of the object.



### The edge is illuminated by the horizontal and low Angle illumination, the scratches do not reflect the light and the

do not reflect the light and the background is gray and black, so as to judge the object defects

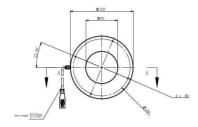


#### Technical indicators

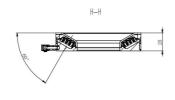
Light color(wave lenght)	red:620-630nm	green:520-530nm							
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k							
Operating environment(Indoor)	white:30000 hours,red:30000 hours (The value varies according to	nite:30000 hours,red:30000 hours (The value varies according to the use environment)							
Working life	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)								
Quality service	Provide one year product warranty, provide technical support								
Product design	Provide design and development services according to user needs to achieve the best imaging effect								

#### Product size

#### KM-2RND12060A60







#### Product modelling panameter table

KM-2RND1 KM-2RND1 KM-2RND2					Voltage	(24V)	Voltag	e (24V)		5	ize	LEL	) Type	Uniformit
KM-2RND7 KM-2RND8 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND8	el A	Angle	Color		Power (	(W)/SMD • •	Power	(Ŵ)/DÍP	internal diameter	outside diameter	Thickness	SMD	DIP	diffuser
KM-2RND7 KM-2RND8 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND8	D6022A30	30 °	•	• 0	2.7	2.9	1.6	1.2	22	60	20	√	<b>√</b>	<b>√</b>
KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND4 KM-2RND4 KM-2RND5 KM-2RND6 KM-2RND6 KM-2RND1		30 °	•	• 0	4.0	4.8	1.6	2.8	35	70	24	√	· √	√
KM-2RND9 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND3 KM-2RND3 KM-2RND1 KM-2RND1 KM-2RND4 KM-2RND4 KM-2RND5 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1		30 °	•	• 0	4.3	5.3	2.2	3.1	45	80	24	√	· √	· √
KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND3 KM-2RND3 KM-2RND1 KM-2RND1 KM-2RND4 KM-2RND4 KM-2RND5 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1		30 °	•	• 0	5.8	6.9	3.1	5.0	45	90	25	√	· √	· √
Ring light (2RND)  Ring light (2RND)  Ring 2RND)  Ring 2RND  Ring 3 KM-2RND  Ring 3 KM-2RND  Ring 4 KM-2RND  Ring 4 KM-2RND  Ring 5 KM-2RND  Ring 6 KM-2RND  Ring 6 KM-2RND  Ring 7 KM-2RND  Ring 8 KM-2RND  Ring 9 KM-2RND  Ring 9 KM-2RND  Ring 1 KM-2RND  Ring 1 KM-2RND  Ring 2 RND  Ring 2 RN		30 °	•	• 0	5.8	6.9	3.7	5.9	55	100	25	· /	·	· V
KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1	D12075A30	30 °	•	• 0	8.6	9.5	4.7	7.2	75	120	25	√	<b>√</b>	√
KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1	D150105A30	30 °	•	• 0	11.5	12.7	6.2	10.0	105	150	25	√	√	· V
KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6	D180130A30	30 °	•	• 0	17.3	19.0	10.3	15.9	130	180	29	√	√	√
KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6	D200158A30	30 °	•	• 0	19.4	23.8	11.3	18.8	158	200	28	√	√	√
KM-2RND5 KM-2RND6 KM-2RND7 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6	D250206A30	30 °	•	• 0	25.9	28.5	14.1	22.5	206	250	28	√	√	√
KM-2RND6 KM-2RND7 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND6		45 °	•	• 0	2.7	2.9	1.2	1.9	20	53	22	<b>√</b>	√ √	√
KM-2RND7 KM-2RND8 KM-2RND9 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6		45 °		• 0	3.4	3.8	1.6	2.2	25	60	23	√	√ √	√ √
Ring light (2RND)  Ring light (2RND)  Ring light (2RND)  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND2  KM-2RND6  KM-2RND6  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND6		45 °		• 0	4.0	3.4	1.9	2.8	35	70	23	√ √	√ √	√ √
Ring light (2RND)  Ring light (2RND)  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND2  KM-2RND6  KM-2RND6  KM-2RND6  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND6		45 °	•	• 0	5.0	5.8	2.2	3.4	45	80	23	√	√	√ 
KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND8 KM-2RND8 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND8		45 °		• 0	7.2	6.9	3.4	5.3	45	90	25	√ √	√ √	√ √
Ring light (2RND)  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND2  KM-2RND6  KM-2RND6  KM-2RND8  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND6		45 °	•	• 0	9.4	9.0	3.7	5.9	55	100	25	√	√	√ √
(2RND)  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND6  KM-2RND6  KM-2RND6  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND1  KM-2RND2  KM-2RND2  KM-2RND6		45 °	•	• 0	13.0	14.8	6.2	9.7	70	120	27	√ √	√ √	√ √
KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6		45 °	•	• 0	15.8	19.0	8.1	13.1	100	150	27	√ √	√ √	V
KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6		45 °	•	• 0	15.1	23.8	10.3	15.9	130	180	27	√ √	√ √	√ √
KM-2RND2 KM-2RND6 KM-2RND7 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND7		45 °	•	• 0	19.4	23.8	10.3	16.9	154	200	26	√ √	√ √	√ √
KM-2RND6 KM-2RND7 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND6		45 °	•	• 0	25.9	29.6	13.8	22.5	204	250	25	<b>√</b>	√ √	√
KM-2RND7 KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND6 KM-2RND7		60°	•	• 0	2.7	2.9	1.6	2.2	25	60	22	√ √	√ √	√ ×
KM-2RND8 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	4.0	4.8	1.9	2.8	35	70	22	√ √	√ √	√ √
KM-2RND9 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	4.3	5.3	2.2	3.1	45	80	22	√	√	√
KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	7.2	7.9	3.1	5.0	40	90	24		√ √	√ √
KM-2RND1 KM-2RND1 KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	7.9	8.4	3.7	5.6	50	100	24	√ √	√ √	√ √
KM-2RND1 KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND8 KM-2RND8		60°	•	• 0	11.5	13.2	5.9	9.0	60	120	25	√ √	√ √	<b>√</b>
KM-2RND1 KM-2RND2 KM-2RND6 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	13.0	18.0	8.1	12.5	95	150	25	√ √	√ √	√ √
KM-2RND2 KM-2RND2 KM-2RND6 KM-2RND7 KM-2RND8		60°	•	• 0	17.3	23.2	10.0	15.6	125	180	25	√ √	√ 	<b>√</b>
KM-2RND2 KM-2RND6 KM-2RND7 KM-2RND8 KM-2RND8		60°	•	• 0	21.6	25.3	11.3	17.5	154	208	23	√	√	V
KM-2RND6 KM-2RND7 KM-2RND8 KM-2RND9		60°	•	• 0	23.0	25.3	13.8	22.5	202	250	24	· √	· √	<b>√</b>
KM-2RND7 KM-2RND8 KM-2RND9		90°	•	• 0	1.9	2.9	1.2	2.2	30	60	22	√	√	√ √
KM-2RND8		90°	•	• 0	2.4	3.4	1.9	2.8	40	70	22	√ √	√ √	√ √
KM-2RND9		90°	•	• 0	3.8	5.8	2.8	4.4	40	80	22	√ √	√	V
		90°	•	• 0	5.3	8.2	4.1	6.6	40	90	22	√ √	√ √	√ √
		90°	•	• 0	7.2	11,5	5.3	8.4	40	100	22	√ √	√ √	√ √
	D12050A90	90°	•	• 0	8.6	13.4	6.9	10.6	50	120	22	√ √	√ √	√ √
	D15095A90	90°	•	• 0	10.6	16.3	7.8	12.2	95	150	22	√ √	√ √	V
	D180125A90	90°	•	• 0	13.0	20.6	9.7	15.3	125	180	22	√ √	√ √	V V
	D200154A90	90°	•	• 0	13.4	21.1	11.3		154	200	20	√ √	√ √	√
	D250204A90	90°	•	• 0	17.3	26.9	15.0	17.5 22.5	204	250	20	√ √	V √	V

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**





O<sub>o</sub> Angle refers to the Angle between the light and the horizontal plane

**03**Shadowless
Ring Light



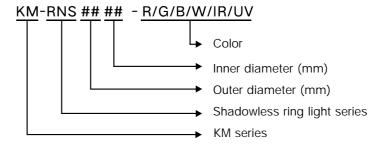


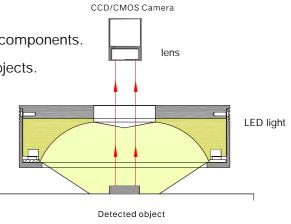
High-speed pipelined surface inspection of electronic components.

• Dirt detection on the inner wall surface of cylindrical objects.

• Beverage bottle cap surface dirt detection.

#### Selection Guide

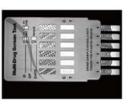




#### Application Example







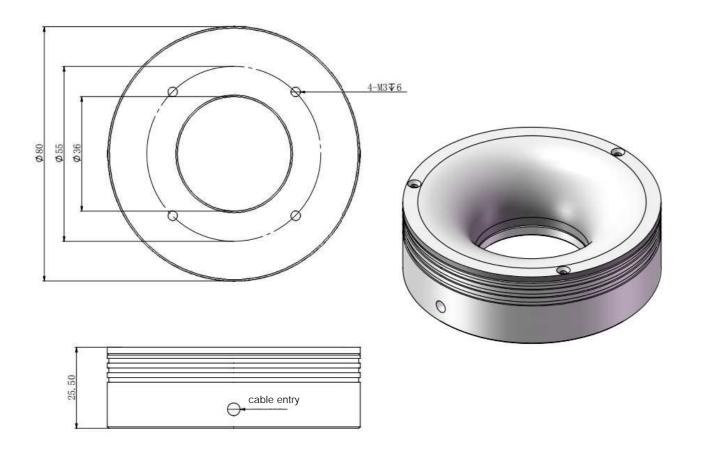
uniform light on the surface of the product to make the character more clear, easy to software analysis.

#### Technical indicators

Light color(wave lenght)	red:620-630nm blue:460-470nm	green:520-530nm white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)						
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user need	s to achieve the best imaging effect					

#### Product size

#### KM-RNS8036



#### Product modelling panameter table

								Power(W)		Size			LED Type	
Product	Model	Angle	Co	olor	Voltag	e(V)	•	• • 0	internal diameter	outside diameter	Thickness	SMD	DIP	Uniformity diffuser
Shadowless	KM-RNS8036	-	•	• • 0	-	24V	2.5	3.8	36	80	26	√		√
ring light	KM-RNS12035	-	•	0 0 0	-	24V	-	5	35	120	31	$\checkmark$		$\checkmark$
(RNS)	KM-RNS12071	-	•	• • 0	-	24V	7	8.5	71	120	24	$\checkmark$		$\checkmark$
	KM-RNS145100	-	•	• • 0	-	24V	-	12	100	145	25	$\checkmark$		V

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:** 1 Three-color RGB light source customization 4 Installation and fixed customization Outer diameter and inner diameter height customization 5 Input wire length customization 3 Wavelength and color temperature customization

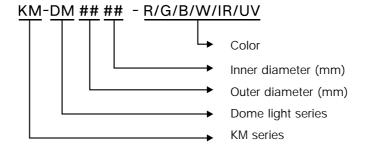
# Dome light



- Application Cases
- Detecting reflective, uneven surfaces.
- Surface, concave and convex surface, arc surface detection.

## CCD/CMOS Camera LED light Detected object

Selection Guide





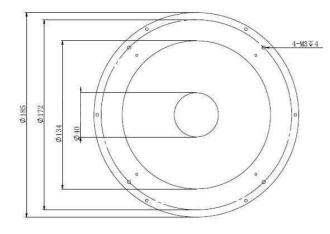


#### Technical indicators

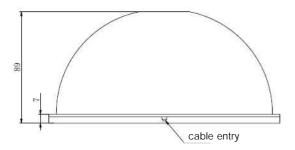
Light color(wave lenght)	red:620-630nm	green:520-530nm							
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k							
Operating environment(Indoor)	temperature:0~40°C huni di ty: 20-85%(Non condensi ng)	lemperature:0~40°C humi di ty: 20-85%(Non condensi ng)							
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)								
Quality service	Provide one year product warranty, provide technical support								
Product design	Provide design and development services according to user needs to achieve the best imaging effect								

#### Product size

KM-DM13440







#### Product modelling panameter table

	Madel	Luminous size			Color		Voltage(V)		ver(W)	Boundary	dimension	LED Type	
Product	Model	Light inlet port	Light outlet (mm)	CO	COIOI		·onago(·)		0 • 0	Outner diamete (mm)	Height (mm)	SMD	DIP
	KM-DM2812	12	28	•	• • 0	-	24V	-	1	44	30.2	$\checkmark$	
	KM-DM6228	28	62	•	• • 0	-	24V	2	3.5	84	48	$\checkmark$	
Dome light	KM-DM2.0-9230	30	92	•	• • 0	-	24V	7.6	10	135	63	$\checkmark$	
	KM-DM13440	40	134	•	• • 0	-	24V	10	12	185	89	$\checkmark$	
	KM-DM2.0-21650	50	216	•	• • 0	-	24V	16	22	266	126	$\checkmark$	
	KM-DM30060	60	300	•	0 0 0	-	24V	28	32	370	172	$\checkmark$	

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:** 1 Three-color RGB light source customization 4 Installation and fixed customization 2 Outer diameter and inner diameter height customization 5 Input wire length customization 3 Wavelength and color temperature customization

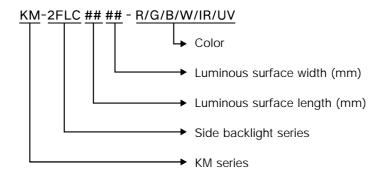
## Ultra-thin flat light

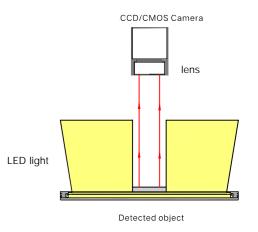


#### Application Cases

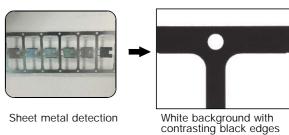
- Glass scratch detection.
- PCB board printing defect detection.
- Reflective plane defect detection.

#### Selection Guide





#### Application Example

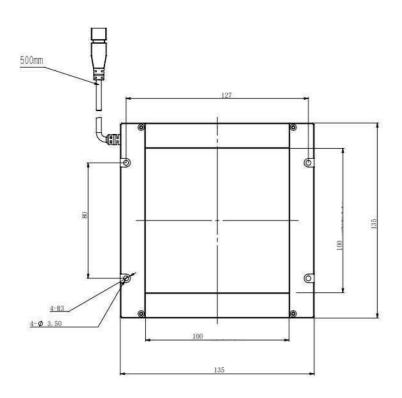


#### Technical indicators

Light color(wave lenght)	red:620-630nm blue:460-470nm	green:520-530nm white color temperature:6000-7500k								
_										
Operating environment(Indoor)	temperature:0~40℃ humi di ty: 20~85%(Non condensi ng)	temperature:0~40℃ humi di ty: 20~85%(Non condensi ng)								
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)									
Quality service	Provide one year product warranty, provide technical support									
Product design	Provide design and development services according to user needs to achieve the best imaging effect									

#### Product size

#### KM-2FLC100100





#### Product modelling panameter table

Product	Model	Luminous size	Color		Color Voltage(V)		Power(W)		Bounda	ary dimen	LED Type		
							•	• 0	Long	Wide	High	SMD	DIP
	KM-2FLC100100	100x100	_	• 0	_	24V	-	6.7	135	135	10.5	$\checkmark$	
Side backlight	KM-2FCL150150	150x150	-	• 0	-	24V	-	10.1	185	185	10.5	$\checkmark$	
(2FLC)	KM-2FLC200200	200x200	_	• 0	_	24V	-	13.4	235	235	10.5	$\checkmark$	
(2, 20)	KM-2FLC250250	250x250	-	• 0	-	24V	-	16.8	285	285	10.5	$\checkmark$	
	KM-2FLC300300	300x300	-	• 0	-	24V	-	20.2	335	335	10.5	$\checkmark$	

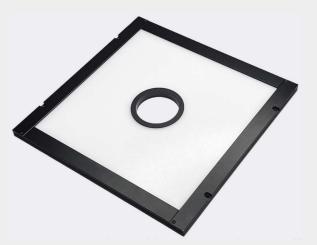
The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**

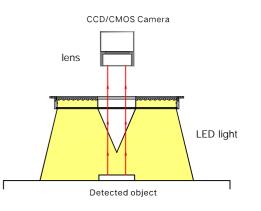


## 06

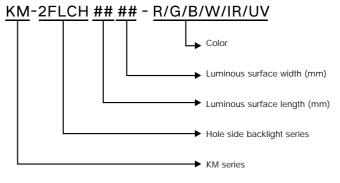
## Hole side backlight



- Application Cases
- Measurement of the four dimensions of the object.
- Edge breakage detection.
- Transparent object impurity detection.



#### Selection Guide



#### Application Example

Phone case edge detection
The required irradiation area is
relatively large, and there is a
weak deformation of the shell



Sole contour detection

The front illumination needs to solve the side shadow, and the backlight with better brightness and uniformity is selected according to the shape of the product.



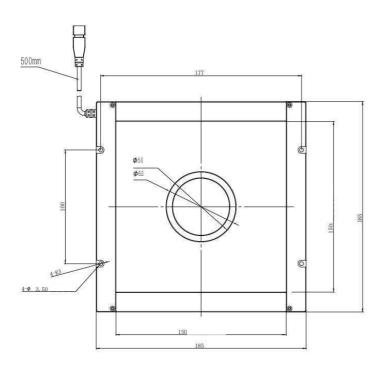
12

#### Technical indicators

Light color(wave lenght)	red:620-630nm	green:520-530nm						
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k						
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)							
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)							
Quality service	Provide one year product warranty, provide technical support							
Product design	Provide design and development services according to user needs to achieve the best imaging effect							

#### Product size

#### KM-2FLCH150150K50



#### Product modelling panameter table

Product	Model	Luminous size	Co	olor	Voltage(V)		Voltage(V)		Voltage(V)		Voltage(V)		Power(W)		Boundary dimension(mm)			LED Type		Remark
							•	• 0	Long	Wide	High	SMD	DIP							
	KM-2FLCH150150K5	0 150x150	_	• 0	_	24V	-	10.1	185	185	10.5	$\checkmark$								
Hole side backlight	KM-2FLCH200200K5	0 200x200	-	• 0	-	24V	-	13.4	235	235	10.5	$\checkmark$		孔径50						
(2FLCH)	KM-2FLCH250250K5	0 250x250	_	• 0	_	24V	-	16.8	285	285	10.5	$\checkmark$		九1至30						
(21 2011)	KM-2FLCH300300K5	0 300x300	-	• 0	_	24V	-	20.2	335	335	10.5	$\checkmark$								

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



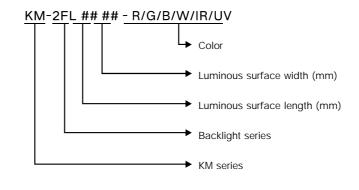
## High power backlight

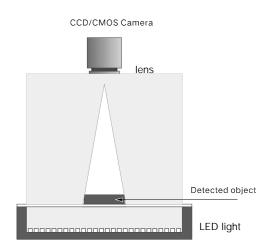


#### ► Application Cases

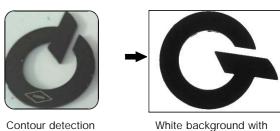
- Contour dimension measurement.
- Edge breakage detection.
- Transparent object impurity detection.
- Oral liquid height detection.

#### Selection Guide





#### Application Example



White background with contrasting black edges

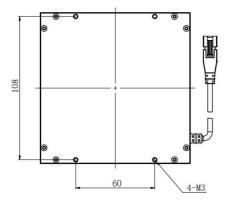
14

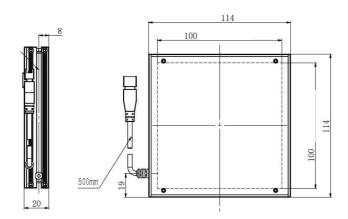
#### Technical indicators

Light color(wave lenght)	red:620-630nm	green:520-530nm					
Eight color (wave length)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)					
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

#### Product size

KM-2FL100100





#### Product modelling panameter table

Product	Model	Luminous	Co	olor	Voltage(V)	Pow	ver(W)	Bounda	ary dimens	sion(mm)	LED Type	Insta	llation method	Luminous size
		size			3 . ,	•	• • 0	Long	Wide	High	SMD	M3 nut slot	Bottom side installation	expansion
	KM-2FL5050	50x50	•	•	o 24V	2.9	2.9	64	64	20	$\checkmark$	√	√	The luminous
	KM-2FL6060	60x60	•	•	o 24V	4.3	3.6	74	74	20	$\checkmark$	$\checkmark$	$\checkmark$	size can be multiplied
	KM-2FL7070	70x70	•	•	o 24V	5.0	5.4	84	84	20	$\checkmark$	√	√	individually: 10050,
	KM-2FL8080	80x80	•	•	o 24V	6.5	6.5	94	94	20	$\checkmark$	$\checkmark$	√	12060, 14070.
	KM-2FL9090	90x90	•	•	o 24V	8.6	7.6	104	104	20	$\checkmark$	√	√	16080, 200100,
	KM-2FL100100	100x100	•	•	o 24V	9.7	11.5	114	114	20	$\checkmark$	$\checkmark$	√	240120.
High power	KM-2FL120120	120x120	•	•	o 24V	11.9	13.0	134	134	20	$\checkmark$	√	√	
backlight	KM-2FL150150	150x150	•	•	o 24V	11.9	13.7	164	164	21	$\checkmark$	$\checkmark$	√	
(2FL)	KM-2FL200150	200x150	•	•	o 24V	15.1	17.5	214	164	21	$\checkmark$	√	√	
	KM-2FL200200	200x200	•	•	o 24V	23.8	22.5	214	214	21	$\checkmark$	$\checkmark$	√	
	KM-2FL250125	250x125	•	•	o 24V	13.0	16.8	264	139	21	$\checkmark$	$\checkmark$	√	
	KM-2FL250250	250x250	•	•	o 24V	25.9	33.7	264	264	21	$\checkmark$	$\checkmark$	√	Large size
	KM-2FL300150	300x150	•	•	o 24V	19.4	27.5	314	164	21	$\checkmark$	$\checkmark$	√	
	KM-2FL300200	300x200	•	•	o 24V	30.2	34.9	314	214	21	$\checkmark$	$\checkmark$	√	
	KM-2FL300300	300x300	•	•	o 24V	47.5	54.9	314	314	21	$\checkmark$	√	√	
	KM-2FL400200	400x200	•	•	o 24V	38.9	44.9	414	214	21	$\checkmark$	$\checkmark$	√	
	KM-2FL400300	400x300	•	•	o 24V	60.5	69.9	414	314	21	$\checkmark$	√	√	
	KM-2FL400400	400x400	•	•	o 24V	77.8	89.9	414	414	21	$\checkmark$	$\checkmark$	√	

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



# **08**Collimated backlight

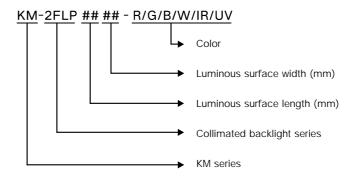


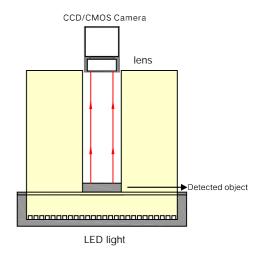
#### Application Cases

- Metal cylinder profile measurement.
- Glass bottle diameter measurement.
- Large-area circuit board component detection and identification.

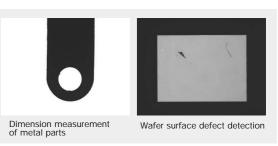
#### Product modelling panameter table

Selection Guide





#### Application Example

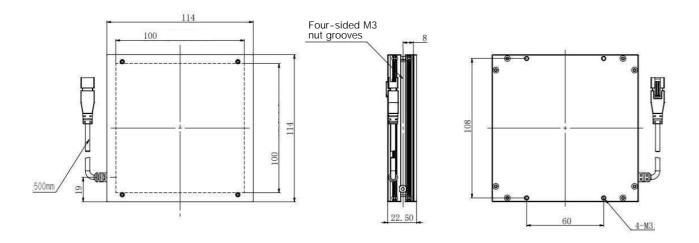


#### Technical indicators

Light color(wave lenght)	red:620-630nm	green:520-530nm					
Eight color (wave length)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)					
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

#### Product size

#### KM-2FLP100100



#### Product modelling panameter table

Product	Model	Luminous	Co	lor	Voltage(V)	Pow	ver(W)	Bounda	ary dimens	sion(mm)	LED Type	Insta	llation method	Luminous size
		size				•	• • •	Long	Wide	High	SMD	M3 nut slot	Bottom side installation	expansion
	KM-2FLP5050	50x50	•	•	24V	2.9	2.9	64	64	22.5	$\checkmark$	√	√	The luminous
	KM-2FLP6060	60x60	•	•	24V	4.3	3.6	74	74	22.5	$\checkmark$	$\checkmark$	√	size can be multiplied
	KM-2FLP7070	70x70	•	•	24V	5.0	5.4	84	84	22.5	$\checkmark$	<b>√</b>	√	individually: 10050.
	KM-2FLP8080	80x80	•	•	24V	6.5	6.5	94	94	22.5	$\checkmark$	$\checkmark$	$\checkmark$	12060, 14070.
	KM-2FLP9090	90x90	•	•	24V	8.6	7.6	104	104	22.5	$\checkmark$	√	√	16080, 200100.
	KM-2FLP100100	100x100	•	•	24V	9.7	11.5	114	114	22.5	$\checkmark$	$\checkmark$	√	240120.
0.1151	KM-2FLP120120	120x120	•	•	24V	11.9	13.0	134	134	22.5	$\checkmark$	√	√	
Collimated backlight	KM-2FLP150150	150x150	•	•	24V	11.9	13.7	164	164	23.5	$\checkmark$	$\checkmark$	√	
3	KM-2FLP200150	200x150	•	•	24V	15.1	17.5	214	164	23.5	$\checkmark$	√	√	
(2FLP)	KM-2FLP200200	200x200	•	•	24V	23.8	22.5	214	214	23.5	$\checkmark$	$\checkmark$	$\checkmark$	
	KM-2FLP250125	250x125	•	•	24V	13.0	16.8	264	139	23.5	$\checkmark$	$\checkmark$	√	
	KM-2FLP250250	250x250	•	•	24V	25.9	33.7	264	264	23.5	$\checkmark$	$\checkmark$	$\checkmark$	Large size
	KM-2FLP300150	300x150	•	• (	24V	19.4	27.5	314	164	23.5	$\checkmark$	√	√	
	KM-2FLP300200	300x200	•	•	24V	30.2	34.9	314	214	23.5	$\checkmark$	$\checkmark$	√	
	KM-2FLP300300	300x300	•	•	24V	47.5	54.9	314	314	23.5	$\checkmark$	√	√	
	KM-2FLP400200	400x200	•	•	o 24V	38.9	44.9	414	214	23.5	$\checkmark$	$\checkmark$	√	
	KM-2FLP400300	400x300	•	•	24V	60.5	69.9	414	314	23.5	$\checkmark$	√	√	
	KM-2FLP400400	400x400	•	•	24V	77.8	89.9	414	414	23.5	$\checkmark$	$\checkmark$	√	

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

## Customiztion Options: 1 Three-color RGB light source customization 4 Installation and fixed customization 2 Outer diameter and inner diameter height customization 5 Input wire length customization 3 Wavelength and color temperature customization

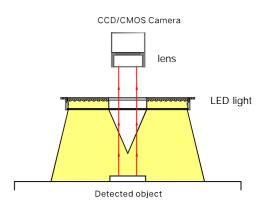
## 09

## Hole backlight

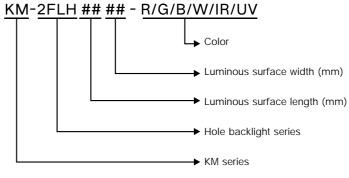


#### Application Cases

- Measurement of the four dimensions of the object.
- Edge breakage detection.
- Transparent object impurity detection.



#### Selection Guide



#### 应用案例Application Example

### Phone case edge detection The required irradiation area is relatively large, and there is a

relatively large, and there is a weak deformation of the shell edge.



#### Sole contour detection

The front illumination needs to solve the side shadow, and the backlight with better brightness and uniformity is selected according to the shape of the product.

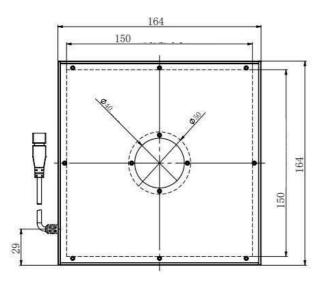


#### Technical indicators

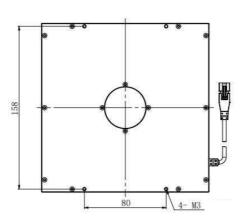
Light color(wave lenght)	red:620-630nm blue:460-470nm	green:520-530nm white color temperature:6000-7500k
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)	
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)
Quality service	Provide one year product warranty, provide technical support	
Product design	Provide design and development services according to user new	eds to achieve the best imaging effect

#### Product size

KM-2FLH150150K40







#### Product modelling panameter table

Product	Model	Luminous	0.	olor	Volta	ge(V)	Pow	er(W)	Bounda	ry dimens	sion(mm)	LED :	Туре	
Floudet	Model	size	C	DIOI	·	90(1)	•	• 0	Long	Wide	High	SMD	DIP	Remark
	KM-2FLH150150K40	150x150	_	• 0	_	24V	-	12.5	164	164	21	$\checkmark$		
Hole	KM-2FLH200200K50	200x200	_	• 0	_	24V	-	20.9	214	214	21	$\checkmark$		
backlight	KM-2FLH250250K50	250x250	_	• 0	-	24V	-	32.4	264	264	21	$\checkmark$		
(2FLH)	KM-2FLH300300K50	300x300	_	• 0	_	24V	-	53.7	414	414	21	$\checkmark$		
,_,	KM-2FLH400300K55	400x300	_	• 0	_	24V	-	67.4	414	314	21	$\checkmark$		
	KM-2FLH400400K55	400x400	-	• 0	-	24V	-	88	414	414	21	$\checkmark$		

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



10 Flat shadowless light

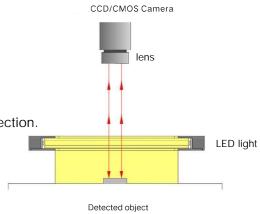




Appearance inspection of electronic components, etc.

Arc surface character detection, cylinder surface detection.

Packaging character recognition, canned surface printing detection.



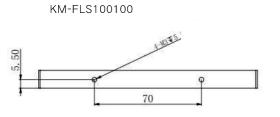
#### Selection Guide

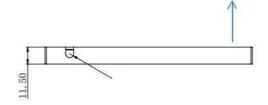


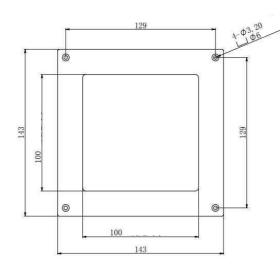
#### Technical indicators

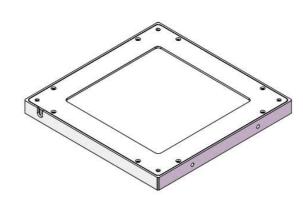
Light color(wave lenght)	red:620-630nm	green:520-530nm					
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humidity: 20~85%(Non condensing)						
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)					
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

#### Product size









#### Product modelling panameter table

Product	Model	Luminous	C	olor	Volta	nge(V)	Powe	er(W)	Boundar	ry dimens	ion(mm)	LED	Туре	Remark
		size(mm)					•	• 0				SMD	DIP	
	KM-FLS5050	50x50	•	• 0	_	24V	2.8	5.5	93	93	11.5	$\checkmark$		
	KM-FLS100100	100x100	•	• 0	-	24V	5.5	8.5	143	143	11.5	$\checkmark$		
	KM-FLS150150	150x150	•	• 0	_	24V	8.5	11	193	193	12.5	$\checkmark$		
Flat shadowless light	KM-FLS200150	200x150	•	• 0	_	24V	10	12.5	243	193	12.5	$\checkmark$		
(FLS)	KM-FLS200200	200x200	•	• 0	-	24V	11.2	14	243	243	12.5	$\checkmark$		
	KM-2FLS5050	50x50	•	• 0	-	24V	2.8	5.5	90	90	10	$\checkmark$		
	KM-2FLS100100	100x100	•	• 0	_	24V	5.5	8.5	140	140	10	$\checkmark$		
	KM-2FLS150150	150x150	•	• 0	-	24V	8.5	11	190	190	11	$\vee$		

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



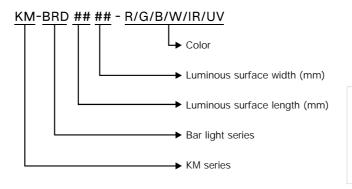
11
Bar light

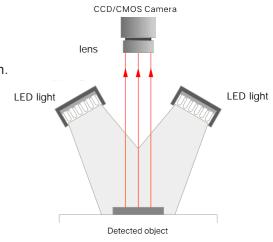


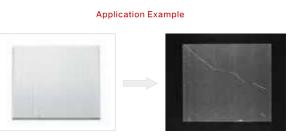
#### Application Cases

- PCB substrate inspection, plastic container inspection.
- Microscope illumination, general appearance inspection.
- Chip and glass substrate scratch and stain detection. LED light
- LCD correction, font label detection.

#### Selection Guide







Bar light suppresses the reflection of the object surface, so that the damage is clearly imaged

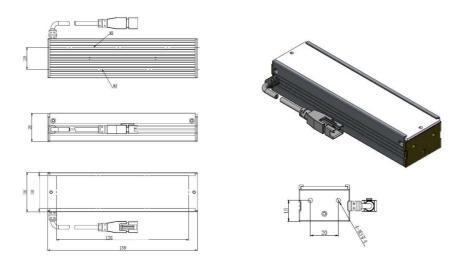
Technical indicators

Light color(wave lenght)	red:620-630nm	green:520-530nm					
Light color (wave longitt)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)					
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

Aluminum plate (pattern processing)

#### Product size

#### KM-2BRD12030



#### Product modelling panameter table

Product	Model	Luminous	C	Color	Voltage(V)	Pow	ver(W)	Bounda	ry dimens	sion(mm)	LED Type		Uniform light plate
		size(mm)				•	• • 0	Long	Wide	High	SMD	DIP	iigiit piate
	KM-2BRD6020	60x20	•	• • 0	24V	1.4	1.4	76	26	26	$\checkmark$		√
	KM-2BRD9020	90×20	•	• • 0	24V	2.2	2.2	106	26	26	$\checkmark$		√
	KM-2BRD12020	120x20	•	• • 0	24V	2.8	2.8	136	26	26	$\checkmark$		√
	KM-2BRD15020	150x20	•	• • 0	24V	3.3	3.6	166	26	26	$\checkmark$		√
	KM-2BRD18020	180x20	•	• • 0	24V	4.2	4.2	196	26	26	$\checkmark$		√
	KM-2BRD20020	200x20	•	• • 0	24V	4.7	5	216	26	26	$\checkmark$		√
	KM-2BRD24020	240x20	•	• • 0	24V	5.6	5.6	256	26	26	$\checkmark$		√
	KM-2BRD30020	300x20	•	• • 0	24V	7	7	316	26	26	$\checkmark$		√
	KM-2BRD36020	360x20	•	• • 0	24V	8.4	8.4	376	26	26	$\checkmark$		√
D !! ! !	KM-2BRD42020	420x20	•	• • 0	24V	9.8	9.8	436	26	26	$\checkmark$		√
Bar light	KM-2BRD48020	480x20	•	• • 0	24V	11.2	11.2	496	26	26	$\checkmark$		√
(2BRD)	KM-2BRD6030	60x30	•	• • 0	24V	2.2	2.2	76	36	26	$\checkmark$		√
	KM-2BRD9030	90x30	•	• • 0	24V	2.5	3.8	106	36	26	$\checkmark$		√
	KM-2BRD12030	120x30	•	<b>• •</b> 0	24V	4.4	4.4	136	36	26	$\checkmark$		√
	KM-2BRD15030	150x30	•	• • 0	24V	5.5	5.5	166	36	26	$\checkmark$		<b>√</b>
	KM-2BRD18030	180x30	•	• • 0	24V	6	6.6	196	36	26	$\checkmark$		<b>√</b>
	KM-2BRD20030	200x30	•	• • 0	24V	6.5	7.5	216	36	26	$\checkmark$		<b>√</b>
	KM-2BRD24030	240x30	•	• • 0	24V	8.8	8.8	256	36	26	$\checkmark$		V
	KM-2BRD30030	300x30	•	• • 0	24V	11	11	316	36	26	$\checkmark$		√
	KM-2BRD36030	360x30	•	• • 0	24V	13.2	13.2	376	36	26	$\checkmark$		√
	KM-2BRD42030	420x30	•	• • 0	24V	15.4	15.4	436	36	26	$\checkmark$		$\checkmark$
	KM-2BRD48030	480x30	•	• • 0	24V	17.6	17.6	496	36	26	$\checkmark$		$\checkmark$

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

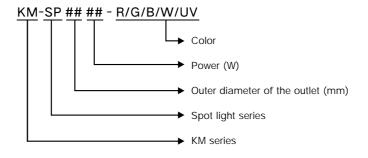
## Customiztion Options: 1 Three-color RGB light source customization 2 Outer diameter and inner diameter height customization 3 Wavelength and color temperature customization

## 12 Spot light



#### Application Cases

- Micro element detection.
- LCD panel detection.
- Wafer, liquid crystal glass base calibration.
- Chip detection, Mark point positioning.
- Installation space smaller vision system environment applications.
- Selection Guide

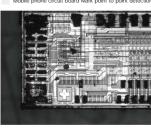


# ens Spot light

Detected object

#### Application Example

lobile phone circuit board Mark point to point detection

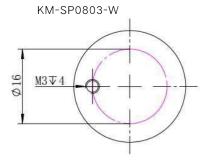


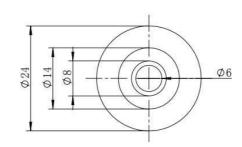
Small field of view, high light uniformity requirements. With point light and coaxial light lens irradiation, convex Mark point, high accuracy of positioning.

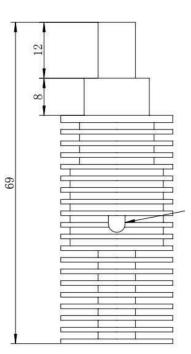
#### Technical indicators

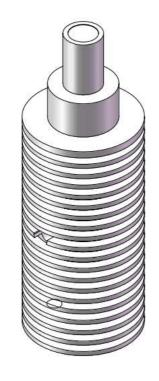
California ( a calacada)	red:620-630nm	green:520-530nm						
Light color(wave lenght)	blue:460-470nm	white color temperature:6000-7500k						
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)							
Working life	white:30000 hours,red:30000 hours (The value varies according	g to the use environment)						
Quality service	Provide one year product warranty, provide technical support							
Product design	Provide design and development services according to user ne	eds to achieve the best imaging effect						

#### Product size









#### Product modelling panameter table

Product	Model	Luminous	size(mm)	(	Color	Voltage	Pow	er(W)	Boundary din	nension(mm)	LED Type
	Wodel	Outsid diameter	Inside diameter	Coloi		Voltage (V)	•	0 • 0	Outsid diameter	High	
Cnot light	KM-SP2403	24	22	•	• • 0	3V		3w	30	120	SMD
Spot light (SP)	KM-SP2.0-0803	08	06	•	• • 0	3V		3w	30	69.5	SMD
(3F)	KM-SP0803	08	06	•	• • 0	3V		3w	24	69	SMD

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



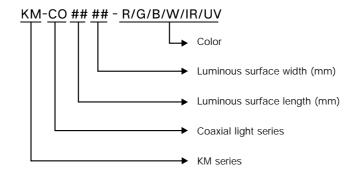
## Coaxial light

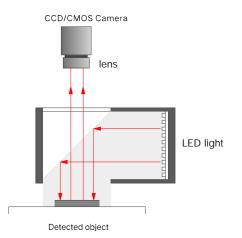


#### Application Cases

- Mark point positioning.
- Two-dimensional code detection.
- Chip, chip breakage detection.
- Screen printing positioning.
- Scratch detection of metal, glass bottles and other highly reflective surface objects.

#### Selection Guide





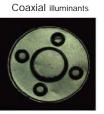
#### Application Example

Detecting objects (stamped parts)

Standard illuminants



The edges are not distinct and diffuse and specular reflected light is received by the CCD.



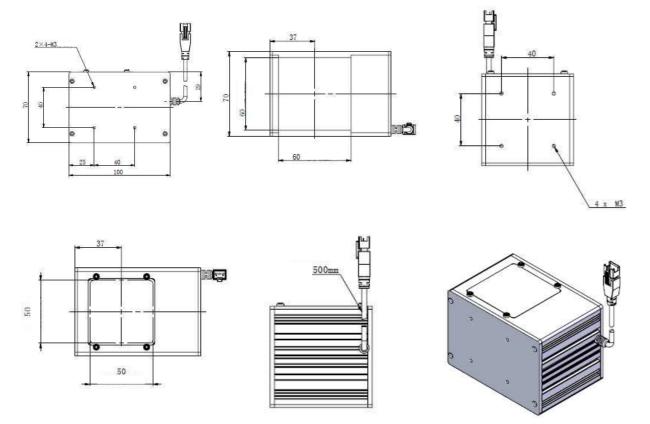
The spread of light in the depressed area appears darker and is therefore easier to

#### Technical indicators

Light color(wave lenght)	red:620-630nm	green:520-530nm					
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)						
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user ne-	eds to achieve the best imaging effect					

#### Product size

KM-3CO6060



#### Product modelling panameter table

Product	Light type	Model	Luminous	Color	Voltage(V)	Powe	r(W)	Boundary dimension(mm)	LED Type
		odo:	size(mm)		ronago(r)	•	• 0	Long X Wide X High	SMD
		KM-3CO2020	20x20	• • • •	24V	2.1	2.8	50X28X28	√
		KM-3CO3030	30x30	• • • •	24V	3.5	4	65x38x38	$\checkmark$
		KM-3CO4040	40x40	• • • •	24V	5	6	78x48x50	$\checkmark$
	Standard	KM-3CO6060	60x60	• • • •	24V	7.5	11	100x70x70	$\checkmark$
Coaxial light	type	KM-CO2.0-3535	35x35	• • • •	24V	2.6	3.4	70x44x47.5	$\checkmark$
(CO/COG)		KM-CO2.0-5050	50x50	• • • •	24V	4.5	5.7	100x60x67.5	$\checkmark$
		KM-CO2.0-7070	70x70	• • • •	24V	6	11	110X82X84.5	$\checkmark$
		KM-3COG3030	30x30	• • • •	24V	7	9	79.5X38X38	$\checkmark$
	High light type	KM-3COG4040	40x40	• • • •	24V	13	14.5	95X48X50	√
	type	KM-3COG6060	60x60	• • • •	24V	27.5	18	127X70X70	√

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

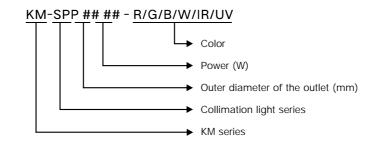
Customiztion Option	IS:			
	1 Three-color RGB light source customization	4 Installation and fixed customization		
	2 Luminescent surface size customization	5 Input wire length customization		
	3 Wavelength and color temperature customization	6 Light mouth dustproof mirror customization		

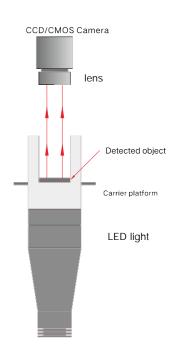
14 Collimation light



#### Application Cases

- Profile measurement and detection of subtle defects on smooth surfaces.
- 2 High precision dimension measurement.
- Selection Guide

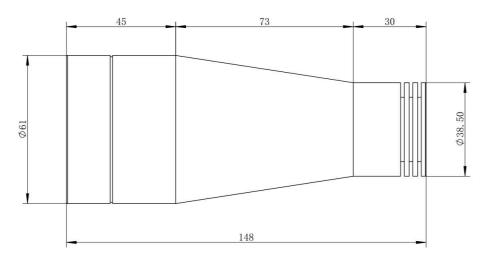




Special tailor-made



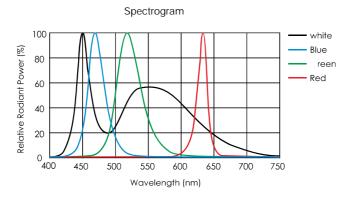
#### Product size



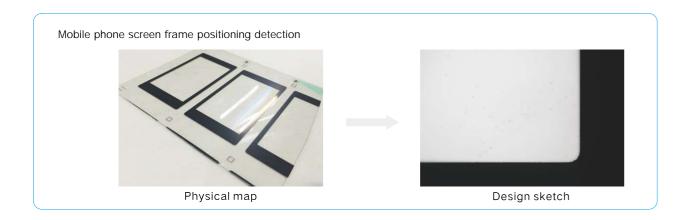
#### Product modelling panameter table

Serial number	Model	Voltage •	Voltage ○●●	Light beam
1	KM-SPP505-W	1A/2.7W	1.2A/5W	50mm





#### Application case



## 15

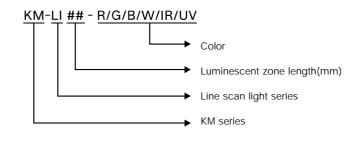
### Line scan light

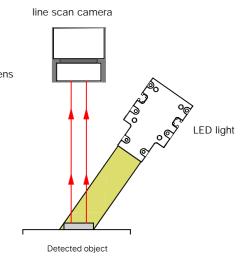


#### Application Cases

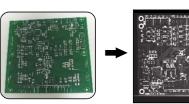
- Packaging printing inspection.
- Tile pattern detection.
- Metal panel defect detection.

#### Selection Guide





#### Application Example



Printed character detection

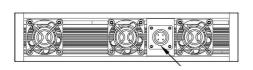
The light blackens the background and enhances the contrast of white

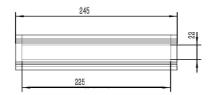
#### Technical indicators

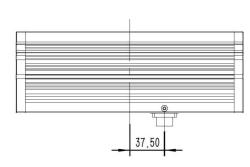
Light color(wave lenght)	red:620-630nm	green:520-530nm					
Light color (wave length)	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20-85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)						
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user ne	eds to achieve the best imaging effect					

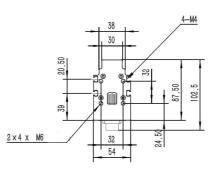
#### Product size

KM-3LI22522









#### Product modelling panameter table

Product	Model	Luminous	С	olor	Voltage (V)	Pow	er(W)	Boundary dimension(mm)			Weight	Plug	Power
		size(mm)				•	• 0	Long	Wide	High	(KĞ)	specification	cord
	KM-3LI7522	75x22	•	• 0	24V	20	31	95	54	102.5	0.6	WS16 aviation plug 4-core	Selective assembly
	KM-3LI15022	150x22	•	• 0	24V	40	62	170	54	102.5	1.0	WS16 aviation plug 4-core	Selective assembly
	KM-3LI22522	225x22	•	• 0	24V	60	93	245	54	102.5	1.4	WS16 aviation plug 4-core	Selective assembly
	KM-3LI30022	300x22	•	• 0	24V	80	124	320	54	102.5	1.8	WS16 aviation plug 4-core	Selective assembly
	KM-3LI37522	375x22	•	• 0	24V	100	155	395	54	102.5	2.3	WS20 aviation plug 4-core	Selective assembly
	KM-3LI45022	450x22	•	• 0	24V	120	186	470	54	102.5	2.7	WS20 aviation plug 4-core	Selective assembly
	KM-3LI52522	525x22	•	• 0	24V	140	217	545	54	102.5	3.1	WS20 aviation plug 4-core	Selective assembly
	KM-3LI60022	600x22	•	• 0	24V	160	248	620	54	102.5	3.5	WS20 aviation plug 4-core	Selective assembly
	KM-3LI67522	675×22	•	• •	24V	180	279	695	54	102.5	3.9	WS20 aviation plug 4-core	Selective assembly
Line scan light	KM-3LI75022	750x22	•	• 0	24V	200	310	770	54	102.5	4.4	WS20 aviation plug 4-core	Selective assembly
J	KM-3LI82522	825x22	•	• 0	24V	220	341	845	54	102.5	4.8	WS20 aviation plug 4-core	Selective assembly
(3LI)	KM-3LI90022	900x22	•	• 0	24V	240	372	920	54	102.5	5.2	WS20 aviation plug 4-core	Selective assembly
	KM-3LI97522	975x22	•	• 0	24V	260	403	995	54	102.5	5.6	WS20 aviation plug 4-core	Selective assembly
	KM-3LI105022	1050x22	•	• 0	24V	280	434	1070	54	102.5	6.0	WS20 aviation plug 4-core	Selective assembly
	KM-3LI112522	1125x22	•	• 0	24V	300	465	1145	54	102.5	6.5	WS20 aviation plug 4-core	Selective assembly
	KM-3LI120022	1200x22	•	• 0	48V	320	496	1220	54	102.5	6.9	WS20 aviation plug 6-core	Selective assembly
	KM-3LI135022	1350x22	•	• 0	48V	360	558	1370	54	102.5	7.3	WS20 aviation plug 6-core	Selective assembly
	KM-3LI150022	1500x22	•	• 0	48V	400	620	1520	54	102.5	7.7	WS20 aviation plug 6-core	Selective assembly
	KM-3LI165022	1650x22	•	• 0	48V	440	682	1670	54	102.5	8.1	WS20 aviation plug 6-core	Selective assembly
	KM-3LI180022	1800x22	•	• 0	48V	480	744	1820	54	102.5	8.6	WS20 aviation plug 6-core	Selective assembly
	KM-3LI195022	1950x22	•	• 0	48V	520	806	1970	54	102.5	9.0	WS20 aviation plug 6-core	Selective assembly
	KM-3LI210022	2100x22	•	• 0	48V	560	868	2120	54	102.5	9.4	WS20 aviation plug 6-core	Selective assembly
	KM-3LI225022	2250x22	•	• 0	48V	600	930	2270	54	102.5	9.8	WS20 aviation plug 6-core	Selective assembly
	KM-3LI240022	2400x22	•	• 0	48V	640	992	2420	54	102.5	10.2	WS20 aviation plug 6-core	Selective assembly

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**



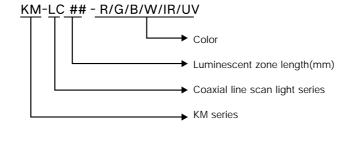
## 16 Coaxial line scan light

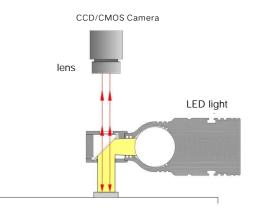


- Application Cases
- High-speed line detection.
- High reflective workpiece surface detection.
- Print quality inspection.

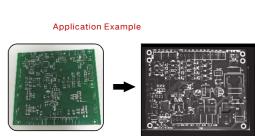
Technical indicators

Selection Guide





Detected object



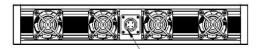
Printed character detection

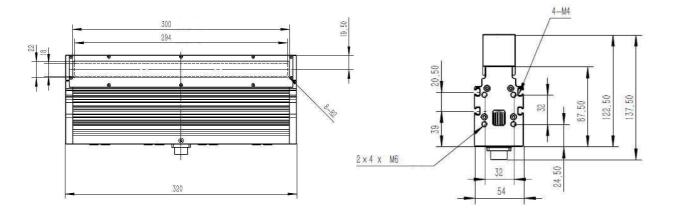
The light blackens the background and enhances the contrast of white characters.

Light color(wave lenght)	red:620-630nm	green:520-530nm					
3 ( 3	blue:460-470nm	white color temperature:6000-7500k					
Operating environment(Indoor)	temperature:0~40°C humi di ty: 20~85%(Non condensi ng)						
Working life	white:30000 hours,red:30000 hours (The value varies according to the use environment)						
Quality service	Provide one year product warranty, provide technical support						
Product design	Provide design and development services according to user needs to achieve the best imaging effect						

#### Product size

KM-3LC30022





#### Product modelling panameter table

Product	Model	Luminous size(mm)	Color		Voltage (V)	Power(W)		Boundary dimension(mm)			Weight	Plug	Power
		Size(IIIIII)				•	• 0	Long	Wide	High	(KĞ)	specification	cora
	KM-3LC7522	75x22	•	• 0	24V	20	31	95	54	137.5	0.8	WS16 aviation plug 4-core	Selective assembly
	KM-3LC15022	150x22	•	• 0	24V	40	62	170	54	137.5	1.3	WS16 aviation plug 4-core	Selective assembly
T + +	KM-3LC22522	225x22	•	• 0	24V	60	93	245	54	137.5	1.8	WS16 aviation plug 4-core	Selective assembly
同轴线光源 (3LC)	KM-3LC30022	300x22	•	• 0	24V	80	124	320	54	137.5	2.3	WS16 aviation plug 4-core	Selective assembly
(020)	KM-3LC37522	375x22	•	• 0	24V	100	155	395	54	137.5	2.8	WS20 aviation plug 4-core	Selective assembly
	KM-3LC45022	450x22	•	• 0	24V	120	186	470	54	137.5	3.3	WS20 aviation plug 4-core	Selectiv assembly
	KM-3LC52522	525x22	•	• 0	24V	140	217	545	54	137.5	3.8	WS20 aviation plug 4-core	Selective assembly

The difference between the actual product power and the power meter content of  $\pm 10\%$  is the normal range

#### **Customiztion Options:**

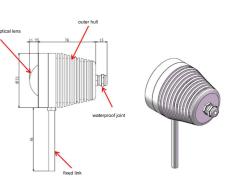


# 17 Near infrared light



#### Fundamental Function

- Provides stable 850nm near-infrared light for machine vision systems.
- Intelligent overtemperature protection, high brightness, uniform light shift.
- Small size, light weight, easy to install.
- Used in automation machinery, industrial robots, mold protection, non-destructive testing, sorting testing, intelligent transportation and other fields



Model			
Model	Radiation energy	Power/CH	Transmission voltage
KM-SL7275	Po > 2600MW	10W	24V

#### Technical parameter

Light-emitting wafer	Industrial near infrared LED
wavelength	850nm
quantity of radiant energy	Po>2600MW
Beam mode	120
input voltage	DC12-24V
power	10W
Control mode	Always on, strobe, switch value, level (optional)
operating ambient temperature	-40°C-55°C (refrigeration cover can be installed on high-temperature industrial site
the protection grades	lp67 Weight: 350g
structure	Aeronautical aluminum heat dissipation shell+original spherical lens
Mounting base	1/420
surface treatment	Anodic oxidation blackening

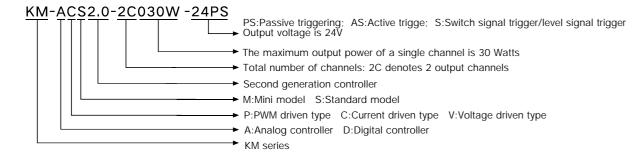
### Controller series

#### Controller usage

The main purpose is to provide power to the light source, control the brightness of the light source and lighting state (on, off). By giving the controller a trigger signal to realize the strobe of the light source, and then prolong the life of the light source. The controller is divided into two categories: standard type and Mini type.

The digital controller can be controlled remotely by PC equipment, and different types of controllers are selected according to different actual production conditions.

#### Selection Guide



#### Product modelling panameter table

Drog	duct	Category	Type of drive	Model	Input	Channel	Max. output	Output	power	Trigger		
FIO	uuci	Category	of drive	iviodei	voltage	Charmer	voltage '	Max. per channel	Total power	mygei		
				KM-ACS-2C005W-24PS	AC220V	2	24V	5W	10W			
				KM-ACS-2C012W-24PS	AC220V	2	24V	12W	24W			
				KM-ACS-2C005W-12PS	AC220V	2	12V	5W	10W			
		Analog		KM-ACS-2C010W-12PS	AC220V	4	12V	10W	20W			
				KM-ACS-2C003W-5PS	AC220V	2	5V	3W	6W			
				KM-ACS-2C010W-5PS	AC220V	4	5V	10W	20W	✓		
Ordinary Ordinary type controller	Ordinary		0	KM-DCS-1C200W-24PS	AC220V	1	24V	200W	200W			
			Constant current	KM-DCS-1C600W-24PS	AC220V	1	24V	600W	600W			
				KM-DCS-2C150W-24PS	AC220V	2	24V	150W	300W			
		D: 11 1		KM-DCS-2C200W-24PS	AC220V	2	24V	200W	400W			
		Digital	gitai	KM-DCS-2C300W-24PS	AC220V	2	24V	300W	600W			
				KM-DCS-4C080W-24PS	AC220V	4	24V	80W	320W			
	Mini			KM-DCM-2C100W-24S	DC24V	2	24V	100W	200W			
	IVIINI			KM-DCM-1C150W-24S	DC24V	2	24V	150W	150W			
				KM-ACS2.0-2C030W-24PS	AC220V	2	24V	30W	60W			
				KM-ACS2.0-2C060W-24PS	AC220V	2	24V	60W	120W			
		Analog		KM-ACS2.0-4C015W-24PS	AC220V	4	24V	15W	60W			
				KM-ACS2.0-4C030W-24PS	AC220V	4	24V	30W	120W			
	Ordinary			KM-DCS2.0-2C012W-24PS	AC220V	2	24V	12W	24W			
			Constant	KM-DCS2.0-2C030W-24PS	AC220V	2	24V	30W	60W	✓		
Upgraded			current	KM-DCS2.0-2C060W-24PS	AC220V	2	24V	60W	120W	,		
controller				KM-DCS2.0-4C015W-24PS	AC220V	4	24V	15W	60W			
		D: :: 1		KM-DCS2.0-4C030W-24PS	AC220V	4	24V	30W	120W			
		Digital		KM-DCM2.0-2C030W-24PS	DC24V	2	24V	30W	60W			
				KM-DCM2.0-2C060W-24PS	DC24V	2	24V	60W	120W			
	Mini			KM-DCM2.0-4C015W-24PS	DC24V	4	24V	15W	60W			
				KM-DCM2.0-4C030W-24PS	DC24V	4	24V	30W	120W			

#### Two channel standard analog controller



- Exquisite appearance
- ✓ Easy installation
- ✓ Add guide buckle
- Easy operation
- Operation panel front
- ✓ Noiseless fan
- ✓ High power
- ✓ Strong heat dissipation
- ✓ Constant current stable output/no strobe

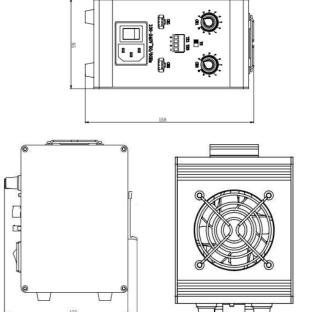
#### Explanation

- A:Analog controller
- D:Digital controller
- S:Standard model
- 2.0:Second generation controller
- 2C:Denotes 2 output channels
- 030W:The maximum output power of a single channel is 30 Watts
- 24:Output voltage is 24V
- PS:Passive triggering

Project	Arguments	Description	
Control mode	Constant current	-	
Input voltage	100-220VAC	-	
Output voltage range	DC14V~24V	-	
Channel	2 Channel	-	
Adjust brightness level range	Electrodeless	Adjust by potentiometer	
Max. power output /channel	30W	-	
External trigger mode	Passive triggering	Effective trigger voltage range 5-24V DC	
External trigger delay time	H, ON →OFF<15us	H: High level trigger	
	H, OFF→ON <15us	ON OFF: LED light source on, off state	
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz	
	Temperature: -10~50°C		
Work environment	Humidity: 20~80%	-	
	Temperature: -20~70°C	_	
Storage environment	Humidity: 10~90%		
Stand-by power consumption	<3M	-	
Boundary dimension(mm)	135 × 85 × 158mm	LxWxH	
Weight	0.9Kg	-	

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-ACS2.0-2C030W-24PS	2	30W	24V	✓
KM-ACS2.0-2C060W-24PS	2	60W	24V	✓



#### Four channel standard analog controller



- Exquisite appearance
- Easy installation
- Add guide buckle
- Easy operation
- Operation panel front
- Noiseless fan
- High power
- Strong heat dissipation
- Constant current stable output/no strobe

#### Explanation

#### ACS2.0-4C030W-24PS

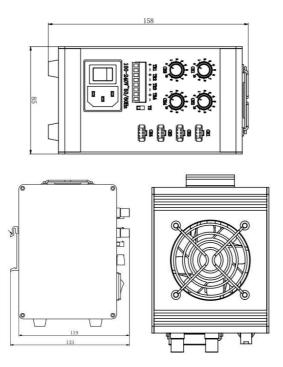
- A:Analog controller
- C:Current driven type
- S:Standard model
- 4C:De
- 030W:
- 24:Output voltage is 24V
- PS:Passive triggering

Second generation controller	KM
Denotes 4 output channels	KM
V:The maximum output power of a single channel is 30 Watts	
Autout voltage is 24V	

Project	Arguments	Description
Control mode	Constant current	-
Input voltage	100-220VAC	-
Output voltage range	DC14V~24V	-
Channel	4Channel	-
Adjust brightness level range	Electrodeless	Adjust by potentiometer
Max. power output /channel	30W	-
External trigger mode	Passive triggering	Effective trigger voltage range 5-24V DC
External trigger delay time	H, ON →OFF<15us	H, : High level trigger ON, OFF : LED light
	H, OFF→ON <15us	source on, off state
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
	Temperature: -10~50°C	
Work environment	Humidity: 20~80%	-
	Temperature: -20~70°C	_
Storage environment	Humidity: 10~90%	
Stand-by power consumption	<3W	-
Boundary dimension(mm)	135x85x158mm	LXWXH
Weight	0.9Kg	-

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-ACS2.0-4C015W-24PS	4	15W	24V	✓
KM-ACS2.0-4C030W-24PS	4	30W	24V	✓



#### Two channel mini digital controller





#### Exquisite appearance

- Easy installation
- Add guide buckle
- Easy operation
- Operation panel front
- Noiseless fan
- High power
- Strong heat dissipation
- Constant current stable output/no strobe

#### Explanation

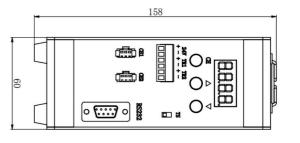
#### DCM2.0-2C030W-24PS

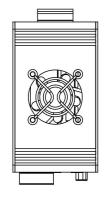
- D:Digital controller
- C:Current driven type
- M:Mini model
- 2.0:Second generation controller
- 2C:Denotes 2 output channels
- 030W:The maximum output power of a single channel is 30 Watts
- 24:Output voltage is 24V
- PS:Passive triggering

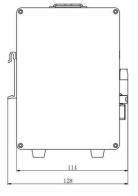
Project	Arguments	Description	
Control mode	Constant current	-	
Input voltage	DC24V	-	
Input power	60W	The minimum input power depends on the maximum power of the load	
Output voltage range	DC14.0~24.0V	-	
Channel	2 Channel	-	
Manual adjustment	✓	Adjust by key	
Remote adjustment	✓	Through the upper computer software adjustment	
Luminance level memory	<b>✓</b>	The adjustment is completed, and the memory isautomatically remembered after 8 seconds	
RS232 communication baud rate	9600	-	
Adjustable brightness level	Level 255	Long press the rough adjustment short press fine adjustment: it caulso be adjusted by the PC software	
Max. power output /channel	30W	-	
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC	
External trigger delay time	H, ON →OFF<15us	H, stands for high level trigger; ON , OFF represent the light	
External trigger delay time	H, OFF→ON <15us	and off states of the LED light source	
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz	
Work environment	Temperature: -10~50°C		
WORK ENVIRONMENT	Humidity: 20~80%	<del>-</del>	
	Temperature: -20~70°C		
Storage environment	Humidity: 10~90%	-	
Stand-by power consumption	< 1 W	-	
Boundary dimension(mm)	128x60x 158mm	LxWxH	
Weight	0.7Kg	-	

Model

Channel	Power/CH	Output voltage	External trigger
2	3W	5V	✓
2	10W	12V	✓
2	30W	24V	✓
2	60W	24V	✓
	2 2 2	2 3W 2 10W 2 30W	2 3W 5V 2 10W 12V 2 30W 24V







#### Four channel mini digital controller



- Exquisite appearance
- Easy installation
- Add guide buckle
- Easy operation
- Operation panel front
- Noiseless fan
- High power
- Strong heat dissipation
- Constant current stable output/no strobe

#### Explanation

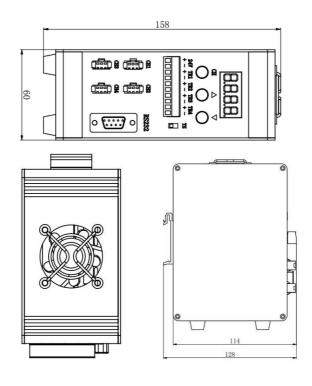
#### DCM2.0-4C030W-24PS

- D:Digital controller
- C:Current driven type
- M:Mini model
- 2.0:Second generation controller 4C:Denotes 4 output channels
- 030W:The maximum output power of a single channel is 30 Watts
- 24:Output voltage is 24V
- PS:Passive triggering

Project	Arguments	Description
Control mode	Constant current	-
Input voltage	DC24V	-
Input power	120W	The minimum input power depends on the maximum power of the load
Output voltage range	DC14.0~24.0V	-
Channel	2 Channel	-
Manual adjustment	✓	Adjust by key
Remote adjustment	✓	Through the upper computer software adjustment
Luminance level memory	<b>✓</b>	The adjustment is completed, and the memory isautomatically remembered after 8 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	Level 255	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC software
Max. power output /channel	30W	-
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC
F	H, ON →OFF<15us	H, stands for high level trigger; ON , OFF represent the light
External trigger delay time	H, OFF→ON <15us	and off states of the LED light source
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
Work environment	Temperature: -10~50°C	
WOLK SHAHOHHISH	Humidity: 20~80%	_
	Temperature: -20~70°C	
Storage environment	Humidity: 10~90%	_
Stand-by power consumption	< 1 W	=
Boundary dimension(mm)	128x60x 158mm	LxWxH
Weight	0.7Kg	

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-DCM2.0-4C003W-5PS	4	3W	5V	✓
KM-DCM2.0-4C010W-12PS	4	10W	12V	✓
KM-DCM2.0-4C015W-24PS	4	15W	24V	✓
KM-DCM2.0-4C030W-24PS	4	30W	24V	✓



#### Two channel standard digital controller





#### Explanation

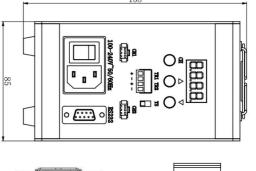
#### DCS2.0-2C030W-24PS

- D:Digital controller
- C:Current driven type
- S:Standard model
- 2.0:Second generation controller
- 2C:Denotes 2 output channels
- 030W:The maximum output power of a single channel is 30 Watts 24:Output voltage is 24V
- PS:Passive triggering

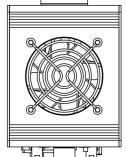
Project	Arguments	Description	
Control mode	Constant current	-	
Input voltage	100-220V AC	-	
Output voltage range	DC14.0V~24.0V	-	
Channel	2 Channel	-	
Manual adjustment	✓	Adjust by key	
Remote adjustment	✓	Through the upper computer software adjustment	
Luminance level memory	<b>✓</b>	The adjustment is completed, and the memory isautomatically remembered after 8 seconds	
RS232 communication baud rate	9600	-	
Adjustable brightness level	Level 255	Long press the rough adjustment short press fine adjustment: it ca also be adjusted by the PC software	
Max. power output /channel	30W		
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC	
External trigger delay time	H, ON →OFF<15us	H, stands for high level trigger ON, OFF represent the light	
55 7	H, OFF→ON <15us	and off states of the LED light source	
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz	
	Temperature: -10~50°C		
Work environment	Humidity: 20~80%	-	
	Temperature: -20~70°C		
Storage environment	Humidity: 10~90%	-	
Stand-by power consumption	<3M	-	
Boundary dimension(mm)	128 × 85 × 158mm	LxWxH	
Weight	0.9Kg		

- Exquisite appearance
- Easy installation
- Add guide buckle
- Easy operation
- Operation panel front
- Noiseless fan
- High power
- Strong heat dissipation
- Constant current stable output/no strobe

Model	Channel	Power/CH	Output voltage	External trigger
KM-DCS2.0-2C012W-24PS	2	12W	24V	✓
KM-DCS2.0-2C030W-24PS	2	30W	24V	✓
KM-DCS2.0-2C060W-24PS	2	60W	24V	✓







#### Four channel standard digital controller



- Exquisite appearance
- Easy installation
- Add guide buckle
- Easy operation
- Operation panel front
- Noiseless fan
- High power
- Ø Strong heat dissipation
- Constant current stable output/no strobe

#### **Explanation**

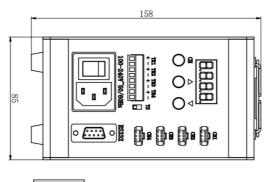
#### DCS2.0-4C030W-24PS

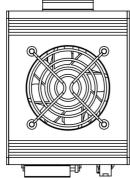
- D:Digital controller
- C:Current driven type
- S:Standard model
- 2.0:Second generation controller
- 4C:Denotes 4 output channels 030W:The maximum output power of a single channel is 30 Watts
- 24:Output voltage is 24V
- PS:Passive triggering

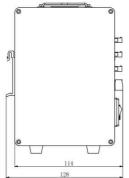
Project	Arguments	Description
Control mode	Constant current	-
Input voltage	100-220V AC	-
Output voltage range	DC14.0V~24.0V	-
Channel	4 Channel	-
Manual adjustment	✓	Adjust by key
Remote adjustment	✓	Through the upper computer software adjustment
Luminance level memory	<b>~</b>	The adjustment is completed, and the memory isautomatically remembered after 8 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	Level 255	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC software
Max. power output /channel	30W	
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC
External trigger delay time	H, ON →OFF<15us	H, stands for high level trigger; ON , OFF represent the light
	H, OFF→ON <15us	and off states of the LED light source
External trigger frequency	<1/7	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
	Temperature: -10~50°C	
Work environment	Humidity: 20~80%	-
	Temperature: -20~70℃	
Storage environment	Humidity: 10~90%	-
Stand-by power consumption	Z # 1.1.	-
Boundary dimension(mm)	128 × 85 × 158mm	LxWxH
Weight	0.9Kg	

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-DCS2.0-4C015W-24PS	4	15 <b>W</b>	24V	✓
KM-DCS2.0-4C030W-24PS	4	30W	24V	✓







#### Eight channel standard digital controller





- Exquisite appearance
- Easy installation
- Add guide buckle
- Large number of channels
- Operation panel front
- Noiseless fan
- High power
- Strong heat dissipation
- Constant current stable output/no strobe

#### Explanation

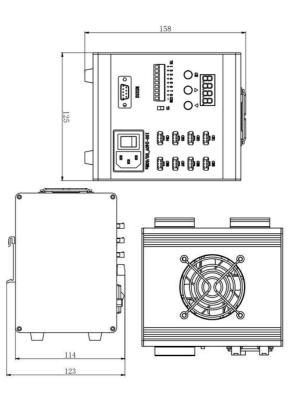
#### DCS2.0-8C015W-24PS

- D:Digital controller
- C:Current driven type
- S:Standard model
- 2.0:Second generation controller
- 8C:Denotes 8 output channels
- 015W:The maximum output power of a single channel is 15 Watts 24:Output voltage is 24V
- PS:Passive triggering

Project	Arguments	Description
Control mode	Constant current	-
Input voltage	100-220V AC	-
Output voltage range	DC14.0V~24.0V	-
Channel	8 Channel	-
Manual adjustment	✓	Adjust by key
Remote adjustment	✓	Through the upper computer software adjustment
Luminance level memory	•	The adjustment is completed, and the memory isautomatically remembered after 8 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	Level 255	Long press the rough adjustment short press fine adjustment: it ca also be adjusted by the PC software
Max. power output /channel	15W	
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC
External trigger delay time	H, ON →OFF<15us	H, stands for high level trigger; ON , OFF represent the light
55	H, OFF→ON <15us	and off states of the LED light source
External trigger frequency	<1/Т	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
	Temperature: -10~50°C	
Work environment	Humidity: 20~80%	-
	Temperature: -20~70℃	
Storage environment	Humidity: 10~90%	-
Stand-by power consumption	<3W	-
Boundary dimension(mm)	123X125X158mm	LxWxH
Weight	1.25Kg	

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
			ronago	990.
KM-DCS2.0-8C015W-24PS	8	15W	24V	✓



#### Third generation four channel mini digital controller





- ✓ Small volume
- Exquisite appearance
- Automatic power adaptation
- ✓ Two trigger modes
- ✓ Stroboscopic pulse width is adjustable
- ✓ Short circuit and overcurrent protection
- ✓ Brightness levels 0-999 are adjustable

#### Explanation

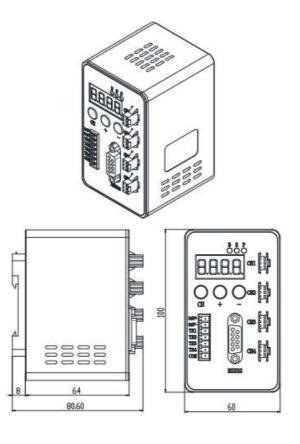
#### DPM3-4C072W(072W)-24PS

- D:Digital controller
- P:PWM driven type M:mini model
- 3:Third generation controller
- 4C:Denotes 4 output channels
- (72W):Maximum output power of the controller
- 24:Output voltage is 24V
- PS:Passive triggering

Project	Arguments	Description
Control mode	PWM driven typet	Choosable
Input voltage	DC24V	-
Channel	4 Channel	-
Manual adjustment	✓	Adjust by key
Remote adjustment	✓	Through the upper computer software adjustment
Luminance level memory	✓	The adjustment is completed, and the memory isautomatically remembered after 3 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	0-999 leve	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC software
Max. power output /channel	72W	-
Total output power of the controller	72W	-
External trigger mode	High level trigger	Effective trigger voltage range: 5-24V DC
External trigger delay time	H,ON→OFF<10us	H, stands for high level trigger; ON , OFF represent the light and off states of the LED light source
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
Short-circuit protectioncy	1	When the circuit is short, the corresponding channel output is automatically closed
Overcurrent protection	<b>~</b>	Beyond 72W, all channels are automatically closed and Errl is displayed. Restart and restore after the exception condition is removed
Work environment	Temperature: -10~50℃ Humidity: 20~80%	-
Storage environment	Temperature: -20~70℃ Humidity: 10~90%	-
Stand-by power consumption	n <3W	-
Boundary dimension(mm)	81*60*100mm	L×W×H

#### Model

Model	Cha	annel	Power/CH	Output voltage	Externa trigger
KM-DPM3-4C072W(72W) -24	PS	4	72W	24V	✓



#### Two channel stroboscopic brightening digital controller



- ✓ Small volume
- Exquisite appearance
- ☑ High speed optocoupler, short response time
- ✓ Support internal and external trigger two modes
- ✓ Stroboscopic time can be set to 0-999us
- Combined with the conventional 24V light source, it can instantly improve the brightness of the light source more than 3 times
- Automatically output the trigger signal of the camera and synchronously trigger the camera to capture images

#### Explanation

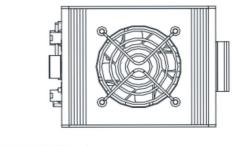
#### DPS H- 2C 040W (40W)-48PS

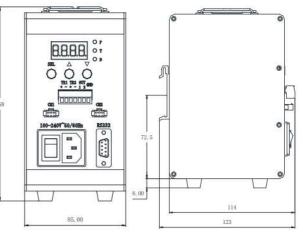
- D:Digital controller
- P:PWM driven type
- S:Standard model
- H:Third generation controller
- 2C:Denotes 2 output channels
- 040W:The maximum output power of a single channel is 40 Watts
- 48:Instantaneous output voltage is 48V
- PS:Passive triggering

Project	Arguments	Description
Control mode	PWM	Pulse driven type
Input voltage	AC 110-220V	_
Output voltage	DC 48V	Moment
Channel	4 Channel	-
Manual adjustment	<b>✓</b>	Adjust by key
Remote adjustment	.⊀	Through the upper computer software adjustment
Luminance level memory	<b>✓</b>	The adjustment is completed, and the memory isautomatically remembered after 3 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	0-999 leve	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC softwar
Max. power output /channel	40W	The power of the single-pass connected light source is ≤40W
External trigger mode	High level trigger	Effective trigger voltage range: 5-24V DC
External trigger delay time	H, ON→OFF<10us	H, stands for high level trigger: ON , OFF represent the light and off states of the LED light source
External trigger frequency	<1/5T	Determined by the external trigger signal, but affected by the stroboscopic pulse width
Work environment	Temperature: -10~50℃ Humidity: 20~80%	-
Storage environment	Temperature: -20~70℃ Humidity: 10~90%	-
Stand-by power consumption	<1W	-
Boundary dimension(mm)	123 × 85 × 158mm	LxWXH

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-DPS H- 2C 040W (40W)-48P	s 2	40W	48V	✓





#### Third generation four channel standard digital controller



#### Explanation

#### DCS3-4C060W(60W)-24PS

- D:Digital controller
- C:Current driven type
- S:Standard model
- 3:Third generation controller 4C:Denotes 4 output channels
- (60W):Maximum output power of the controller
- 24:Output voltage is 24V
- PS:Passive triggering

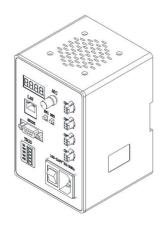
Project	Arguments	Description
Control mode	Constant currentdriven typet	-
Input voltage	AC100-240V	=
Channel	4 Channel	-
Manual adjustment	✓	Adjust by key
Remote adjustment	✓	Communication through RS232 serial port
Luminance level	✓	After adjustment, automatic memor in 3 seconds
memory RS232 communication baud rate	9600	= -
Adjustable brightness level	0-255 level	Adjust manually by encoder or by PC software
Max. power output /channel	2.5A	-
Total output power of the controller	60W	-
External trigger mode	Passive triggering	Effective trigger voltage range: 5-24V DC
	High level trigger	When the rising edge or falling edge
Four trigger modes	Low level trigger	is triggered, the luminescence duration can be set in the upper
rour anggor modes	Upper open edge trigger	computer software, ranging from 1-999ms
	Falling edge trigger	1-444112
External trigger delay time	H,ON→OFF<80us	H, stands for high level trigger; ON , OFF represent the light and off states of the LED light source
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
Short-circuit protectioncy	<b>✓</b>	When the circuit is short, the corresponding channel output is automatically closed
Overcurrent protection	*	Beyond 2.8A, all channels are automatically closed and X. Erri (X is the channel value) is displayed. Restart and restore after the exception condition is removed
Automatic detection of light source power	✓	Select this function manually or by command
Output power of each channel can be adjusted	<b>✓</b>	Adjust the output power of each channel by power level, ranging from 1 to 25
Work environment	Temperature: -10~50°C Humidity: 20~80%	-
Storage environment	Temperature: -20~70°C Humidity: 10~90%	-
Stand-by power consumption	<5W	=
Boundary dimension(mm)	115.8*100*163mm	I ×W×H

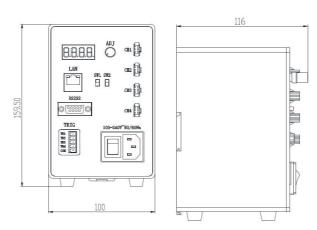
#### ✓ Small volume

- **Z** Exquisite appearance
- ✓ Multiple trigger modes
- ✓ Abnormal light source protection
- ✓ Automatic adaptation of light source power
- ✓ The channel power can be set
- ✓ Strobe time 1-999, can be set

#### Model

Model	Char	nnel	Power/CH	Output voltage	External trigger
KM-DCS3-4C060W(60W) -24	PS	4	60W	24V	✓
KM-DCS3-4C080W(120W) -2	4PS	4	80W	24V	✓





#### Four channel standard digital controller(high power)



- Current control LED brightness is more stable, and the camera takes pictures without stroboscopic phenomenon.
- High and low levels trigger switching.
- Brightness 255 level adjustable.
- RS232 serial port control.

#### Explanation

KM-DCS-4C050W-24PS

KM:KM series

D:Digital controller

C:Current driven type

S:Standard model

4C:Denotes 4 output channels

150W:Maximum output power of the controller

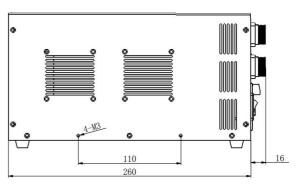
24:Output voltage is 24V

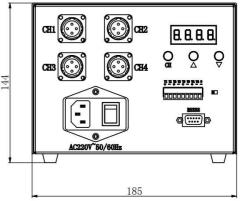
PS:Passive triggering

Project	Arguments	Description
Control mode	Constant currentdriven typet	-
Input voltage	100-220V AC	-
Output voltage range	DC14.0V~24.0V	-
Channel	4 Channel	-
Manual adjustment	<b>✓</b>	Adjust by key
Remote adjustment	✓	Through the upper software adjustment
Luminance level memory	✓	After adjustment, automatic memorin 8 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	255 level	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC software.
Max. power output /channel	80W	-
External trigger mode	Passive trigger, high and low level trigger can be switched	Effective trigger voltage range: 6-24V DC
	H, ON →OFF < 60us	H, stands for high level trigger; L, stands for low level trigger; ON, OFF represent the light
External trigger delay time	H, OFF→ON <60us	
External trigger delay time	L, ON →OFF<80us	and off states of the LED light source
	L, OFF→ON <80us	
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
Work environment	Temperature: -10~50℃	
WORK CHVIIOTIITICIIL	Humidity:20-80%RH non-solidification	-
Storago opvironment	Temperature: -20-70°C	
Storage environment	Humidity:10-55%RH non-solidification	-
Stand-by power consumption	< 1 W	-
Boundary dimension(mm)	276x185x144mm	$L \times W \times H$
Weight	2.6Kg	-

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-DCS-4C050W-24PS	4	50W	24V	✓
KM-DCS-4C080W-24PS	4	80W	24V	✓





#### Two channel standard digital controller(high power)



- Current control LED brightness is more stable, and the camera takes pictures without stroboscopic phenomenon.
- High and low levels trigger switching.
- Brightness 255 level adjustable.
- RS232 serial port control.

#### Explanation

KM-DCS-2C300W-24PS

KM:KM series

D:Digital controller

C:Current driven type

S:Standard model

2C:Denotes 2 output channels

300W:Maximum output power of the controller

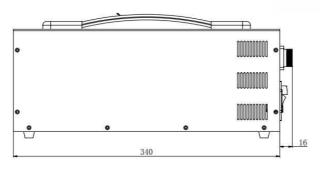
24:Output voltage is 24V

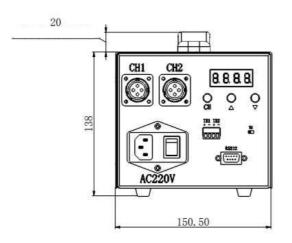
PS:Passive triggering

Project	Arguments	Description
Control mode	Constant currentdriven typet	-
Input voltage	100-220V AC	-
Output voltage range	DC14.0V~24.0V	-
Channel	4 Channel	-
Manual adjustment	<b>✓</b>	Adjust by key
Remote adjustment	✓	Through the upper software adjustment
Luminance level memory	✓	After adjustment, automatic memory in 8 seconds
RS232 communication baud rate	9600	-
Adjustable brightness level	255 level	Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC software
Max. power output /channel	500W	-
External trigger mode	Passive trigger, high and low level trigger can be switched	Effective trigger voltage range: 5-24V DC
	H, ON→OFF<60us	
Cutomal trimmer delay time	H, OFF→ON <60us	H, stands for high level trigger; L, stands for low level trigger; ON, OFF represent the light
External trigger delay time	L, ON →OFF<80us	and off states of the LED light source
	L, OFF→ON <80us	
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz
Work environment	Temperature: -10~50°C	
Work of Wilderfullerit	Humidity:20~80%RH non-solidification	-
Storage environment	Temperature: -20~70℃ Humidity :10~55%RH non-solidification	-
tand-by power consumption	<1W	-
Boundary dimension(mm)	356x150x144.5mm	L×W×H
Weight	5.2Kg	

#### Model

Model	Channel	Power/CH	Output voltage	External trigger
KM-DCS-2C300W-24PS	2	300W	24V	✓
KM-DCS-1C500W-24PS	1	500W	24V	✓





#### Two channel standard digital controller(high power)



- Current control LED brightness is more stable, and the camera takes pictures without stroboscopic phenomenon.
- High and low levels trigger switching.
- Brightness 255 level adjustable.
- RS232 serial port control.

#### Explanation

KM:KM series

D:Digital controller

C:Current driven type

S:Standard model

2C:Denotes 2 output channels

150W:Maximum output power of the controller

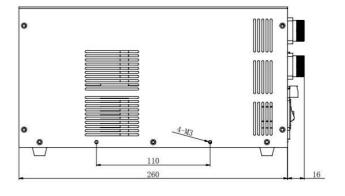
24:Output voltage is 24V

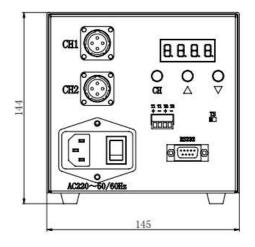
PS:Passive triggering

Project	Arguments	Description	
Control mode	Constant currentdriven typet	-	
Input voltage	100-220V AC	-	
Output voltage range	DC14.0V~24.0V	-	
Channel	4 Channel	-	
Manual adjustment	ual adjustment ✓		
Remote adjustment	✓	Through the upper software adjustment	
Luminance level memory	✓	After adjustment, automatic memoin 8 seconds	
RS232 communication baud rate	9600	-	
Adjustable 255 level brightness level		Long press the rough adjustment, short press fine adjustment: it can also be adjusted by the PC softwa	
Max. power output /channel	500W	-	
External trigger mode Passive trigger, high and low level trigger can be switched		Effective trigger voltage range: 5-24V DC	
	H, ON →OFF < 60us	H, stands for high level trigger;	
External trigger delay time	H, OFF→ON <60us	L, stands for light level trigger; ON , OFF represent the light	
External trigger delay time	L, ON →OFF<80us	and off states of the LED light source	
	L, OFF→ON <80us		
External trigger frequency	<1/T	Determined by the strobe time, such as T=1ms, the external trigger frequency is at most 1KHz	
Work environment	Temperature: -10~50℃		
TOIR SHAROHINGH	Humidity:20~80%RH non-solidification	on -	
Storage environment	Temperature: -20~70°C		
Storage environment	Humidity:10~55%RH non-solidification	-	
Stand-by power consumption	<1W	-	
Boundary dimension(mm)	276x185x144mm	L×W×H	
Weight 2.0Kg		-	

#### Model

Model		Channel	Power/CH	Output voltage	External trigger	
KM-DCS-2C10	OW-24PS	2	100W	24V	✓	
KM-DCS-2C15	OW-24PS	2	150W	24V	✓	
KM-DCS-1C30	OW-24PS	1	300W	24V	✓	





#### Common controller

#### Single channel analog controller

Aluminum alloy shell with good heat dissipation function





Model	KM-DY30-1-24V(16-24V)	Input voltage AC	100-240c
Maximum current	1.2A	Output voltage DC	16-24V

#### Mini digital controller



Model	Channel	Power/CH	Output voltage	External trigger
KM-DCM-1C100W-24S	1	100W	24V	✓
KM-DCM-1C150W-24S	1	150W	24V	✓
KM-DCM-2C050W-24S	2	50W	24V	✓

#### Accessories series

#### Polarizer

Polarizer is also called polarizer, abbreviation PL mirror, is a kind of color filter. Polarizer can selectively let a certain direction of vibration of light through, eliminate or weaken the non-metallic surface of the strong reflection, thereby eliminating or reducing the light spot, usually installed in front of the lens.



Specification: M25.5,M27,M28,M30,M30.5,M35.5,M37 ect.

#### Polaroid

The polarizer is usually mounted on the surface of the light source and converts the light emitted by the light source into linearly polarized light with a polarization degree of more than 99%. Sizes and shapes can be customized. The polarizer is used in conjunction with the polarizer to eliminate the reflection of the non-metallic surface.

#### Light filter

Designation	Effective wavelengthn	Luminousness
Blue band pass filter	465-470	90%
Green band pass filter	525-530	90%
Yellow band pass filter	585-590	90%
Red band pass filter	625-630	90%
Ultraviolet band pass filter	365	90%
Infrared band pass filter	850	90%

#### Prism



Triangular prism and cube conventional size: 20mm, 30mm, 400, side length. Support for customization



### Selection considerations

#### Attention to machine vision light source selection

Choosing a good lighting system is the key to the stable work of the whole image processing system. However, there is no general lighting system to adapt to various occasions. According to the characteristics of LED light source, such as multi-shape and multi-color, we summarize some methods of selecting light source:

- 1. Understand the system structure and operation requirements, and determine the spatial structure relationship of camera, light source and measured object. The determined parameters are: field of view, working distance
- 2, Spatial structures are: direct, lateral, back irradiation

Direct illumination structure light source -- partial ring light source, coaxial light source, dome light source. Side illumination structure light source -- partial ring light source, strip light source, line light source, point light source.

Back illumination structure light source - square backlight, strip backlight, back light.

3、For the observation and analysis of the measured object, dome light source should be used for curved surface detection, coaxial light source should be used for smooth plane, and bright field light source should be used for rough plane. Infrared light source for objects with good light transmittance. Figure out what color is in the background (which is not detected) and what color is in the foreground (which is detected).

A good light source can improve the contrast of the image - the background and foreground are clear, and the foreground color light source or white light source should be used for changing scenery.

Too small field of view



The working distance of the light source from the object



The shape, state, material, color of the measured object



Accentuate contrast

#### Attention to the use of machine vision light source

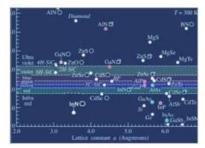
- 1. Using leds at high temperatures will shorten their life
  - \* Red leds, whose brightness decreases 1% for every degree Celsius increase in temperature.
  - \* Long-term use at high temperatures will gradually age and reduce brightness.
- 2. Use the light source correctly to prevent aging and brightness decline caused by its own heat
- Use light sources at the lowest possible brightness level
- \* Under the appropriate brightness, the level of the light source is reduced to reduce the current, less heat is emitted, and the brightness loss is small.
- \* Long-term use results in reduced brightness, which can gradually increase the brightness level.
- Install a fan or provide air flow to reduce the temperature to slow the attenuation of brightness

Install fan —————To provide air flow ————— Install heat dissipation strong bracket

Turn on the light source or use the matching strobe controller during imaging

Switching the LED light source repeatedly has no effect on the service life. When the LED is turned on as a strobe source or only for external signal requirements, the brightness of the light source is stable and the life of the LED is significantly prolonged.

### Industry application





Semiconductor

Packaging

Dispensing spray picture







Automobile making

Automation

Machine hand







Food

Medicine

Printing







Electronic products

Metal processing

Scientific research