

深圳市创威时代光电有限公司

Shenzhen ChuangWei Seculens CO., Ltd.

产品规格书

Product Specification

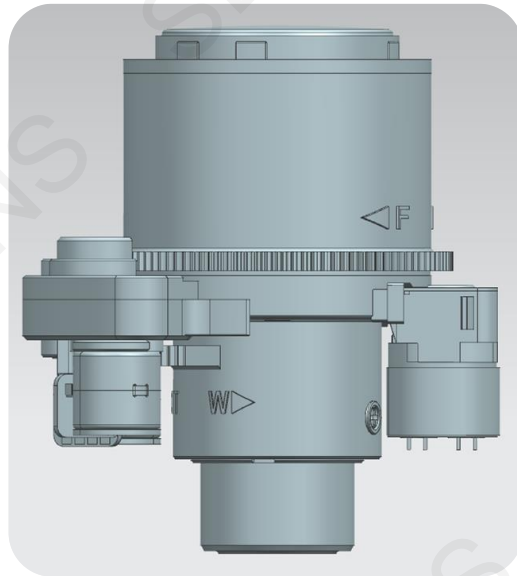
型号:
(Model Name): 30028DB. IR-JZ-5MP

编码:
(Part No.): 01. 30028. 002. 05

客户名称:
(Customer Name):

客户编码:
(Customer Part No.):

客户承认
(Customer Approved)



图片仅供参考
(picture only for your reference)

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3 变更履历 (Revision History) 变更符号标记 (Mark revised) :

版本 (REV.)	变更日期 (DATE)	变更内容 (Revision content)	作成 (Prepared by)	备注 (Remark)
1.0	20.01.09	新规作成 (New Spec Document prepared)	LCQ	
1.1	21.01.20	IRIS-更新 (IRIS updated)	LCQ	
1.2				
1.3				



4.概要 (Outline)

4.1 应用范围 (Application)

适用于我司向贵司提供的镜头产品(The below datasheet is only suit to CWZK products.)

5 主要参数 (Main Items)

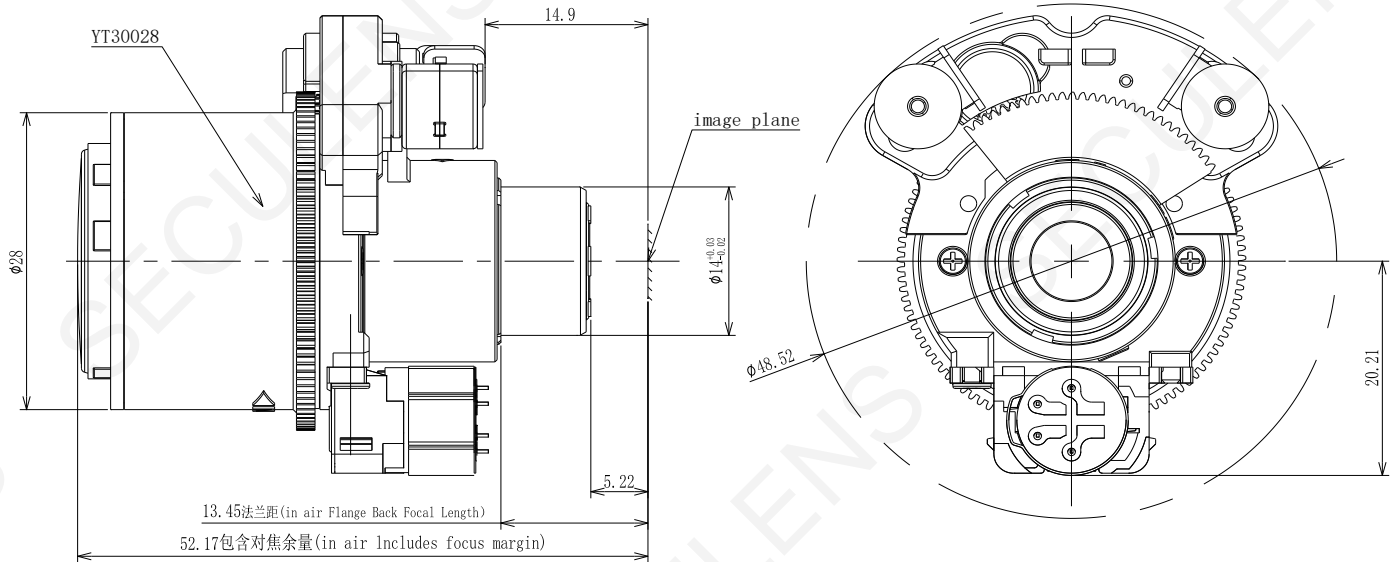
5.1 光学参数规格 (Optical Specifications)

NO.	项目 (Items)	设计规格 (Specification)			
1	F No.	1.6-3.3±10%			
2	焦距(FocalLength)	3.2-10.5±5%			
3	光学后焦 (Optical Back Focal Length)	5.98±0.2 (in air)			
4	法兰距 (Flange distance)	13.45±0.2 (in air)			
5	镜头总长(TTL)	52.17±0.2 (in air)			
6	像面大小 (Image circle)	Ø7.0(MAX)			
7	镜片构成 (Lens structure)	4G5P			
8	接口 (Mount)	Ø14			
9	视场角 (FOV)	sensor型号	H(水平)	V(垂直)	D(对角)
		1/2.7"	113° (W) - 31.4° (T)	58.4° (W) - 17.6° (T)	138.2° (W) - 36° (T)
		1/2.8"	108.1° (W) - 30.3° (T)	56.3° (W) - 17.1° (T)	130.9° (W) - 34.8° (T)
		1/2.9"	103.4° (W) - 29.3° (T)	54.3° (W) - 16.5° (T)	124.2° (W) - 33.6° (T)
10	光学畸变 (OpticalDistortion)	1/2.7"	1/2.8"	1/2.9"	
		-61%(W) - -3.3%(T)	-55.3%(W) - -3.1%(T)	-50.4%(W) - -2.9%(T)	
11	相对亮度 (RelativeIllumination)	1/2.7"	1/2.8"	1/2.9"	
		43.2%(W) - 95.2%(T)	48%(W) - 95.5%(T)	49.5%(W) - 95.6%(T)	
12	最大主光线夹角 (CRA)	1/2.7"	1/2.8"	1/2.9"	
		7.9°	7.7°	7.2°	
13	近摄距 (M.O.D)	0.8m			
14	解像标准 (Resolution)	分辨率 (Resolution):		2592×1944	(5MP)
15	重量 (Weight)	/			
16	操作方法 (Operation)	聚焦 (Focus)		自动 (auto)	
		光圈 (Iris)		自动 (auto)	
17	环保&安全 (HSF&Safety)	RoHS			

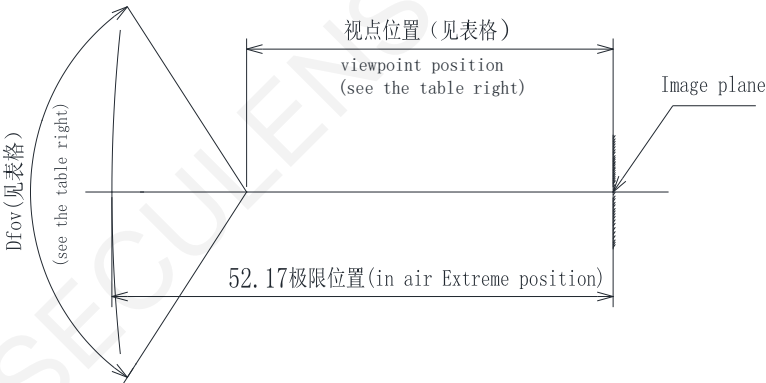


5.2 机构参数规格 (Mechanical Specifications)

5.2.1 外形尺寸图 (Dimension Figure)



5.2.2 视点图 (Viewpoint Figure)



像面大小 (Format)	Dfov	视点位置 (mm) viewpoint position	
(1/2.7"以下镜头) (lens format(1/2.7"))	$\phi 4.41$	81.8°	43.3
	$\phi 5.60$	108.9°	44.7
	$\phi 6.00$	119.4°	45.3
	$\phi 6.17$	124.2°	45.6
	$\phi 6.39$	130.9°	46.1
	$\phi 6.61$	138.2°	46.6
$\phi 7.00$	154.0°	47.8	

未注公差 (Unmarked Tolerance): $\phi \pm 0.1$, $L \pm 0.15$

本规格书未注单位 (Unit is not indicated in the document): mm

5.3 减速箱参数(ELE-6023-A) (Reduction box parameter Specifications)

NO	项目ITEM	标准standard
1	马达外径尺寸 (Outside diameter)	Φ8mm
2	相数 (NO. of phases)	2相 phase(Bipolar)
3	线圈阻抗 (Coil resistance)	40Ω /phase ±7%
4	电压使用范围 (Voltage range)	4.2-5V
5	线圈最大电流 (Coil max Current)	125mA/Phase
6	推荐驱动条件 (Recommended conditions)	4.2V 2-2相 300-800PPS(加速accelerating)
7	步进角 (Step angle)	0.224度/Step
8	激磁方式 (Excitation)	2-2bipolar
9	环境温度 (Environment temp)	参照环境参数规格Refer to the environmental parameter specifications
10	变倍行程 Zoom range(wide=>Tele)	2342 step 0.003697mm/Steps (纯理论值)
11	聚焦行程 Focus range(Near=>Far)	3011 step 0.004524mm/Steps (纯理论值)

※驱动电流要求: 82.5~125mA/phase (参考电压4.2-5V, 2-2相驱动, 建议正弦波形输出, AB相电流相位差90°)。

Drive current: 82.5~125mA /phase (Reference Voltage 4.2-5v, 2-2 phase, recommend sinusoidal waveform output, AB line current phase difference 90°)

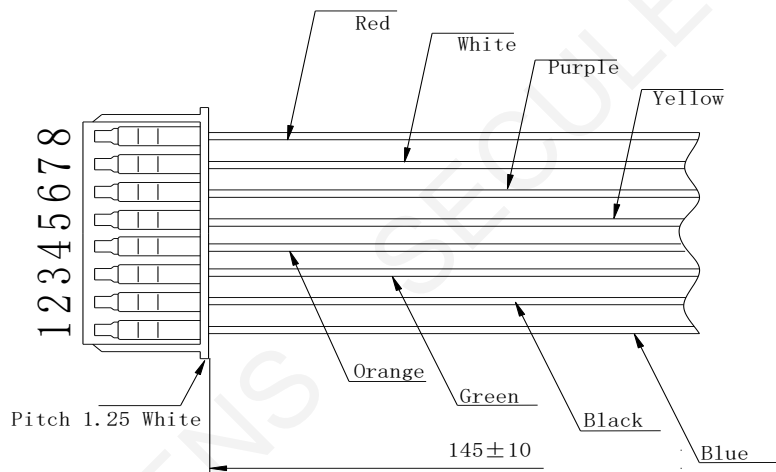
※建议使用频率: 300-800PPS。(Frequency Recommended:300-800PPS)

驱动速度加速条件Driving speed acceleration conditions:



马达端子定义Motor terminal:

PIN	颜色Color	定义Definition
1	蓝线 (Blue)	FOCUS A-
2	黑线 (Black)	FOCUS A+
3	绿线 (Green)	ZOOM A-
4	橙线 (Orange)	ZOOM A+
5	黄线 (Yellow)	ZOOM B+
6	紫线 (Purple)	ZOOM B-
7	白线 (White)	FOCUS B-
8	红线 (Red)	FOCUS B+



注意事项 (NOTE):

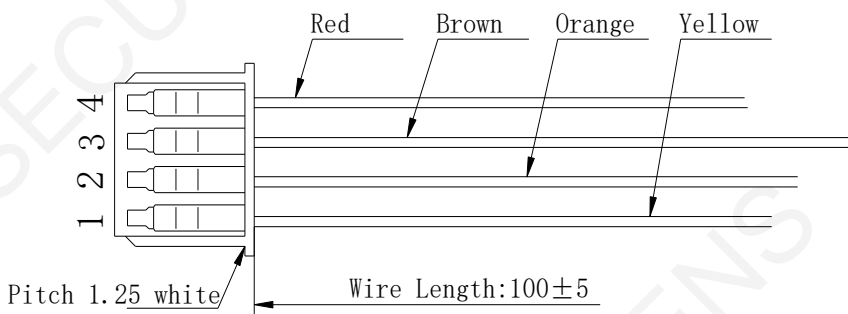
不可用手强用力转动前/后调圈, 以免破坏齿轮箱, 一切操作需用镜头驱动治具作动! Do not turn the front/back adjusting ring by hand forcefully so as not to damage the gearbox. All operation shall be driven by lens driving fixture!

5.4 日本单光驱相关参数 (IRIS0131) IRIS Specifications

NO	项目ITEM	条件Condition	单位Unit	标准Standard	
1	开放口径 (Opening Aperture)	-	mm	φ 6.7	
2	线长 (Wire Length)	-	mm	100±5	
3	线圈阻抗 DC Coil	驱动电阻 (Driving Coil)	20℃	Ω	190±10%
4		制动电阻 (Braking Coil)	20℃	Ω	465±10%
5	操作电压Action voltage	电压使用范围 (Voltage range)	-	V	3.5-5.25
6		推荐使用电压 (Voltage recommended)	-	V	5
7		全开保证电压 (Open voltage)	20℃	V	3.5以上 (Above)
8		关闭保证电压 (Close voltage)	20℃	V	0.5以下 (Under)
9	IRIS制动速度 IRIS speed	关 close→开 open	20℃	秒 (sec)	2~3
10		开 open →关 close	20℃	秒 (sec)	2~3
11	操作温度Operating Temp	-	-	参照环境参数规格 Refer to the environmental parameter specifications	
12	相关湿度Relative Humidity	-	-	参照环境参数规格 Refer to the environmental parameter specifications	

端子定义Terminal definition

PIN	线颜色 Line Color	端口名称 Pin Name
1	黄色 (Yellow)	Damp+
2	橙色 (Orange)	Damp-
3	棕线 (Brown)	Drive+
4	红色 (RED)	Drive-

配线细节Line details


5.5 光学检测标准 (Optical Performance)

No.	检测项目 (Items)	描述 (Description)
1	解像力 (Resolution)	<p>1.1: 逆投影解像条件 (Condition) A: Chart:1/2.5" VCL-4 (N) B: 投影距离(Distance): $\varnothing 6$圈直径 (diameter) 为1m即可</p> <p>1.2: 解像标准(Criteria) 5MP: 逆投影: 中心250本 0.7F 160本 0.9F 125本 The inverse projection:(center:250lp/mm 0.7Y:160lp/mm 0.9Y:125lp/mm)</p>
2	外观标准 (Appearance Standards)	<p>2.1 镜头内污 (LENS DUST) A:规格 60-40 伤痕: 宽度 <60um, 长度和 <D/2, $\leq 15\text{um}$ 不计; 脏污: 单点直径 <400um, 200~400um点 ≤ 3个, $\leq 200\text{um}$ 不计。</p> <p>2.2 其他外观(Other appearance) 外表面颜色均匀, 无明显缺陷、污渍、异物伸出、明显划伤和收缩; 胶水不得溢入有效通光内。</p> <p>2.1 LENS DUST A: Specification 60-40 Scratch: width<60um, total length<D/2, $\leq 15\text{um}$ ignored; Smudge: Single dot diameter <400um, 200~400um dot ≤ 3 pcs, $\leq 200\text{um}$ ignored.</p> <p>2.2 Other appearance Outside surface uniform color; no visible flaws, stains, foreign bodies extended, obvious scratch or contraction; no glue spill into the effective aperture.</p>
3	作动检查 (Operation check)	<p>社内作动检测治具。(Fixture check) 连接后测试镜头齿轮箱/IRIS/IR-CUT作动无异常。(Check lens gearbox//IRIS/IRCUT operation,no abnormal noise) 齿轮箱马达无异音。(No abnormal noise in gearbox motor)</p>

5.6 环境参数规格 (Environment Specifications)

No.	环境描述 (Items)	条件 (Description)
1	存放环境 (Storage condition)	-30°C ~ +80°C; 10-90%RH (No condensing)
2	工作环境 (Operation condition)	-20°C ~ +60°C; 10-90%RH (No condensing)



6 信赖性测试(Reliability Test)

No.	项目 (ITEM)	测试条件 (CONDITION)
1	高温存放试验 Storage Test At High Temperature	镜头在80℃温度中存放48小时，之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to 80℃ for 48 hours and then to normal temperature/humidity for 6 hours
2	低温存放试验 Storage Test At Low Temperature	镜头在-30℃温度中存放48小时，之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to -30℃ for 48 hours and then to normal temperature/humidity for 6 hours
3	冷热冲击试验 Temperature Cycle Test	镜头在-30℃条件下保持30分钟，然后升温至+80℃，稳定后保持30分钟作为一个周期，共10个周期。之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to -30℃ for 30min, Tank temperature change +80℃ for 30min as one cycle, 10 cycle shall be performed. And then to normal temperature/humidity for 6 hours
4	振动试验 Vibration Test	镜头在振幅为1.5mm、频率为10-55Hz的正弦波参数下，在三个互相垂直的轴线上依次振动25分钟后，镜头无松动并满足所有规格要求 All specification are to be satisfied after lens is subjected to the sine wave of 1.5mm amplitude and 10-55Hz directions for 25 minutes each



No.	项目 (ITEM)	测试条件 (CONDITION)
5	耐久试验 (Durability)	<ul style="list-style-type: none"> ▪ 齿轮箱: zoom 马达: wide-tele-wide /time 100,000 times focus 马达: far-near-far /time 100,000 times ▪ iris: Close \rightleftharpoons Open 1 往复 4 ~ 8秒 300000次 4 ~ 8 seconds for each reciprocating, 300,000 times. ▪ IR-cut filter section IN \rightleftharpoons OUT 驱动100ms, 断电2500ms 往复驱动, 20000次 0.5 ~ 1.0 seconds for each reciprocating 20,000 times
6	跌落试验 (drop test)	<ol style="list-style-type: none"> 1. 高度: 包装后, 高度1.5m; 2. 落下方向: 六面八角; 3. 次数: 各一次; <p>上述实验条件后作动无异常。(NO abnormalities for operation after testing with above experiment conditions)</p> <ol style="list-style-type: none"> 1.Height: 1.5m after packaged; 2.Direction: All directions; 3.NO abnormality after experiment above all.



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CWZK

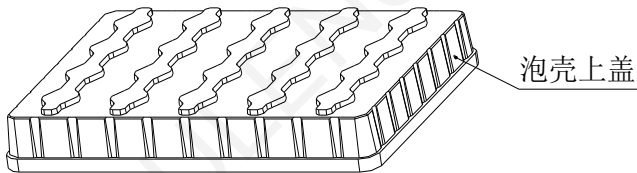


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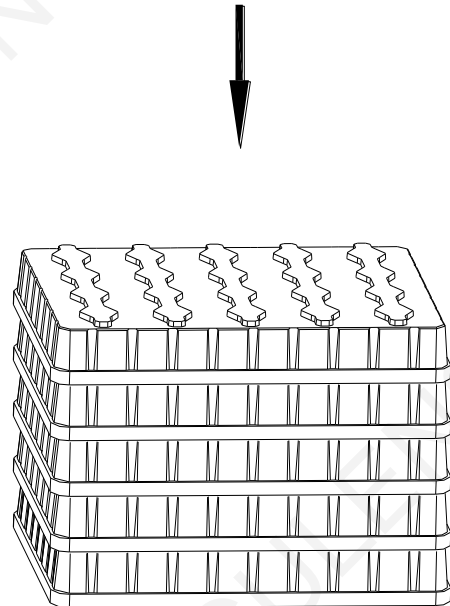
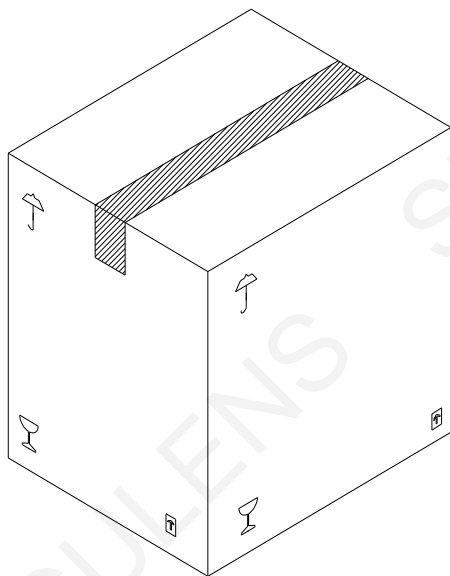
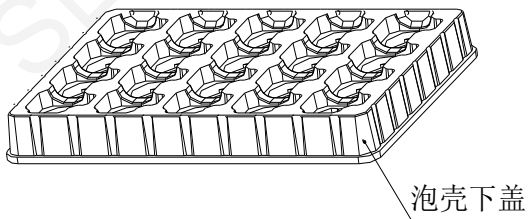
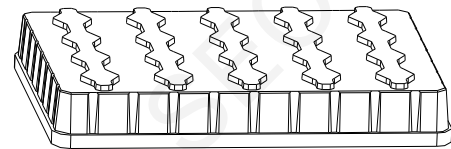
深圳市创威时代光电有限公司
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7 包装规格 (Package)

1. 镜头盖上镜头盖后，放入泡壳



2. 盖上泡壳上盖，泡壳上贴标示票。



3. 装满镜头的泡壳抽真空后重叠放入纸箱。

4. 密封胶带，箱子外面贴标示票。

注：包装纸箱可根据客户订单灵活选用，
以上包装以纸箱（320*240*490）包装示
例

数量：

20 PCS/盒

10 盒/箱

200 PCS/箱