



乐清裕林电子有限公司

## YueQing Yulin Electronic Co., Ltd

地址：浙江省温州市乐清市柳市镇象阳工业区克爱斯路 19 号  
Add: F/6 No.19 Ke'aisi Road, Xiangyang industrial Zone, Liushi Town, YueQing City, Zhejiang Province, China 325600

网址 Website: www.indicatorlight.com 电话 Tel: 0577-62768130 传真 Fax: 0577-62768130

### SPECIFICATION FOR APPROVAL

## 规格说明书

CUSTOMER'S CODE

本厂代码: \_\_\_\_\_

DESCRIPTION

Rocker Switch

品 名:

SPECIFICATION

规 格:

30×22

DATE

编制日期:

2020-3-3

PART NO.

本厂型号:

KCD4-0113-21

REFERENCE No.

档案编号: \_\_\_\_\_

Approved By Customer 编 制	Qualified By 审 核	Form Designer 批 准

# FILN 飞林

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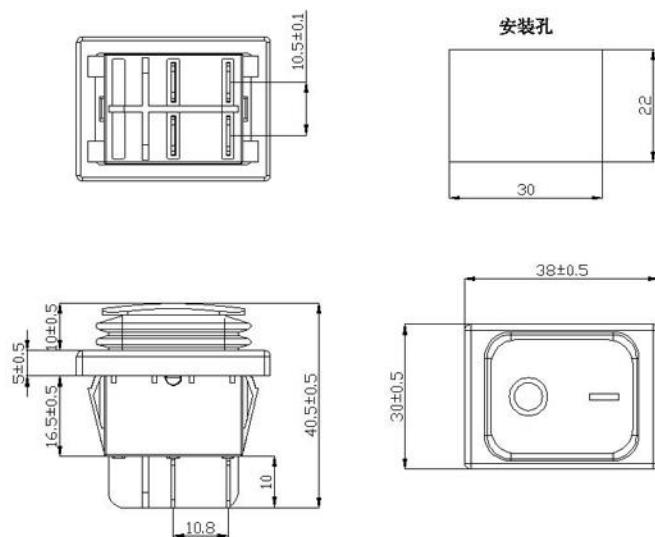
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### 1. Picture:

FILN 飞林



### 2. drawing



### 3Material:

Accessories name	Material
铝片 Actuator	PC
导光件 light guiding part	PC
支架 holder	ABS
防护罩 Waterproof cover	橡胶 Rubber
上壳 Up base	ABS
底座 Bottom base	PA66
中座 Middle base	ABS
边脚/中脚/跳板 Pin/spring board	黄铜 H62 Brass H62
银触点 contact	AgCd012
弹簧 spring	72#
铁套 Iron case	08F
垫圈 washer	橡胶 Rubber
灯组件 Light comp	



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### 4 温度范围 Temperature Range:

使用环境温度:  $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 。Working environment temperature:  $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 。

### 5 外观和手感 Out looking and operation feeling:

#### 5.1 标志清晰牢固 Clear and firm marking;

外观清洁美观, 无变形, 无损伤, 无开裂

The appearance is clean and beautiful, no deformation, no damage, no cracking;

无锈蚀, 无电镀不良

No rust, no electroplating;

各组件连接牢固, 无松动, 无脱落

The components are firmly connected, no looseness, no falling off;

#### 5.2 开关操作灵活, 无卡死, 无明显摩擦

The switch operation is flexible, no jamming, no obvious friction.

### 6 电气性能 Electrical Capacity:

项目 Item		测试条件 test condition	技术要求 technical requirements
6.1	额定值 Rating	30A 250VAC	
6.2	接触电阻 Contact Resistance	在 1KHz 小电流下测量。 Test <1KHz	$\leq 200\text{m}\Omega$
6.3	绝缘电阻 Insulation resistance	在端子之间和端子与外壳之间施加 DC500V, 60s 后测量。 Working at DC500V Between pins and housing, in 1 mins	$\geq 100\text{M}\Omega$
6.4	耐压 Withstand Voltage	在端子之间施加 AC1500V, 0.5mA, 10 秒; 端子与外壳之间施加 AC3000V, 0.5mA, 10 秒; Working at DC500V Between pins , in 10 seconds; Working at DC500V Between pins and housing, in 10 seconds	无击穿或闪络。 No breakdown or flashover



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6.5	电气耐久 Electrical Endurance	额定负载情况下，每分钟操作 30 次，共进行 10,000 次操作。 Under rated load, 30 operations per minute for a total of 10,000 operations.	<ol style="list-style-type: none"> <li>1. 外观和手感合格；</li> <li>2. 接触电阻<math>\leq 2\Omega</math>；</li> <li>3. 端子温升<math>\leq 55K</math>；</li> <li>4. 耐压测试合格。</li> </ol> <ol style="list-style-type: none"> <li>1. Appearance and feel are acceptable;</li> <li>2. Contact resistance <math>\leq 2\Omega</math>;</li> <li>3. Terminal temperature rise <math>\leq 55K</math>;</li> <li>4. The pressure test is qualified.</li> </ol>
<b>7 机械性能 Mechanical Capacity:</b>			
7.1	操作力 Operation force	开关垂直于操作方向放置，在按钮一侧逐渐施力，测量开关导通所需的最大力度。 The switch is placed perpendicular to the direction of operation, applying a force on one side of the button to measure the maximum force required to turn the switch on.	按客户要求。 As customer required.
7.2	端子强度 Terminal Strength	在端子的顶部施加一向内推的 60N 静负荷，持续 60 秒。 Apply a 60N static load, always pushed inward, to the top of the terminal for 60 seconds.	端子无损伤，脱落，开关功能动作正常。 The terminal is free from damage and falling off, and the switch function is normal.
Item		test condition	technical requirements
7.3	可焊性 Solder ability	将端子浸入熔融的锡槽内，温度为 $235 \pm 5^\circ\text{C}$ ，时间为 $3 \pm 0.5$ 秒。 The terminal into the molten tin bath, temperature of $235 \pm 5^\circ\text{C}$ , time of $3 \pm 0.5$ seconds.	浸入的部分 90% 以上表面被锡覆盖。More than 90% of the immersed portion is covered with tin.



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7.4	耐焊接热 Resistance to soldering Heat	端子的焊接部分浸入温度为 $260 \pm 5^\circ\text{C}$ 熔融的锡炉内 $3 \pm 1$ 秒。Terminal welding part of the immersion temperature for $260 \pm 5^\circ\text{C}$ molten tin furnace $3 \pm 1$ second.	1. 本体无明显变形; 2. 机械性能, 电气性能测试合格。The body has no obvious deformation; Mechanical performance, electrical performance test qualified.
		手工烙铁焊接, 焊接温度 $350 \pm 5^\circ\text{C}$ , 焊接时间 $3 \pm 1$ 秒。焊接时不得在端子上施加压力。 Manual soldering iron welding, the welding temperature of $350 \pm 5^\circ\text{C}$ , welding time $3 \pm 1$ seconds. No pressure shall be applied to the terminals during welding.	
<b>8 耐候性能 Weathering Performance:</b>			
8.1	耐高温 high temperature resistance	在 $85 \pm 2^\circ\text{C}$ 环境下放置 72 小时, 然后在自然环境下放置 1 小时后测试。In $85 \pm 2^\circ\text{C}$ for 72 hours, and then placed in a natural environment test in 1 hour.	1. 外观和手感合格; 2. 接触电阻 $\leq 2\Omega$ ; 3. 耐压测试合格; 4. 机械性能合格。
8.2	耐湿热 hot-wet	在 $40 \pm 2^\circ\text{C}$ , 湿度 91%-95%RH 环境下放置 96 小时, 然后在自然环境下放置 1 小时后测试。In $40 \pm 2^\circ\text{C}$ , humidity 91%-95% RH conditions for 96 hours, and then placed in a natural environment test in 1 hour	1. Out looking and operation felling pass; 2. Contact resistance $\leq 2\Omega$ ; 3. high-voltage insulation test ok;
8.3	耐低温 low temperature resistant	在 $-25 \pm 2^\circ\text{C}$ 环境下放置 12 小时, 然后在自然环境下放置 1 小时后测试。Under the environment of $-25 \pm 2^\circ\text{C}$ for 12 hours, and then placed in a natural environment test in 1 hour.	4. Mechanical qualification ok

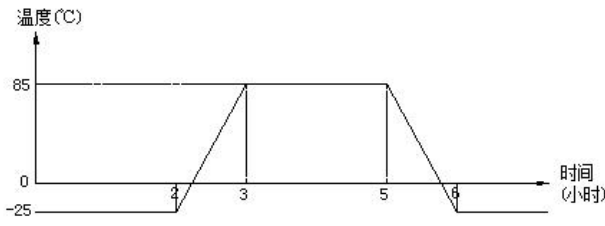


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8.4	温度交变 alternative temperature	<p>按图示温度和时间进行温度交变，连续 5 次循环，然后在自然环境下放置 1 小时后测试。According to the temperature and time shown in the figure, the temperature alternation was carried out for 5 consecutive cycles, and then the test was carried out in the natural environment for 1 hour.</p>  <p>The graph shows a temperature profile over time. The y-axis is labeled '温度(°C)' (Temperature in °C) with values -25, 0, and 85. The x-axis is labeled '时间(小时)' (Time in hours) with values 2, 3, 5, and 6. The temperature starts at -25°C, remains constant until 2 hours, then rises linearly to 85°C at 3 hours. It remains at 85°C until 5 hours, then drops linearly to 0°C at 6 hours. The temperature remains at 0°C until 6 hours.</p>	
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