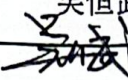



# SODOWELL 光控传感器TPJ-1601-01规格书

## Photo Sensor TPJ-1601-01 Specifications Sheet

Spec. NO. 规格书编号: S0125

REV.:A Page:1/4

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制品名称: 管液检测型光电传感器

Products Name: Tube Liquid type Photo Sensor

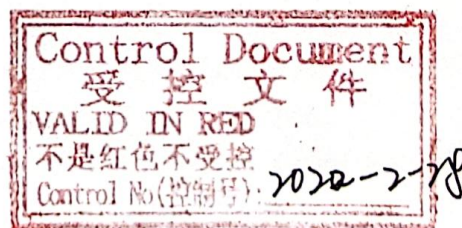
型 号: TPJ-1601-01

Product Number: TPJ-1601-01

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## 1. 适用范围 Scope Of Applications

本规格书适合于管液检测型光控传感器TPJ-1601-01.

This specification covers tube liquid type photo sensor TPJ-1601-01.

## 2. 绝对最大定格 Absolute Maximum Ratings (Ta=25°C)

项目		记号	规格	单位
Items		Symbol	Ratings	Units
发光侧 Input	直流顺电流 Forward DC Current	IF	50	mA
	直流逆电压 Reverse DC Voltage	VR	5	V
	允许损失 Power Dissipation	PD	75	mW
受光侧 Output	集电极与发射极间电压 Collector-Emitter Voltage	VCEO	30	V
	发射极与集电极间电压 Emitter-Collector Voltage	VECO	5	V
	集电极电流 Collector Current	IC	20	mA
	集电极功率损失 Collector Power Dissipation	PC	100	mW
操作温度 Operating Temperature Range		Topr	-20~+85	°C
保存温度 Storage Temperature Range		Tstg	-40~+85	°C

## 3. 电气光学特性 Electrical Optical Characteristics (Ta= 25 °C)

	项目 Items	符号 Symbol	测定条件 Test Conditions	最小	标准	最大	单位
				Min	Typ	Max	Units
发光侧 Input	顺电压 Forward Voltage	V <sub>F</sub>	I <sub>f</sub> =20mA	-	1.2	1.5	V
	逆电流 Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	μA
	发光波长 Peak Wavelength	λ <sub>p</sub>	I <sub>f</sub> =50mA	-	940	-	nm
受光侧 Output	暗电流 OFF-state Collector Current	I <sub>CEO</sub>	V <sub>CE</sub> =10V I <sub>f</sub> =0mA	-	-	0.5	μA
	集电极与发射极间饱和电压 Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	-	-	-	0.5	v
耦合特性 Coupled	空管光电流 (1*) Empty Tube Light Current	I <sub>C</sub>	V <sub>CC</sub> =5V V <sub>CE</sub> =5V	-	-	2.0	mA
	满水光电流 (1*) Full Water Light Current	I <sub>C</sub>	V <sub>CC</sub> =5V V <sub>CE</sub> =5V	3.0	-	-	mA

(1\*): Tubing ---Transparent NE-9550 material. OD=1.6mm.

## 4. 机械特性 Mechanical Characteristic.

## 4.1 耐振动性

Vibration Resistance

振幅1.5mm. 振动循环频率按10~55~10Hz, 振动周期1分钟, 反复振动测试X, Y, Z三个方向各振动2小时, 测试未发现异常。

Vibration frequency of 10~55~10Hz, 1.5mm amplitude and 1 minute sweep time in X, Y, and Z directions, each for 2 hours.

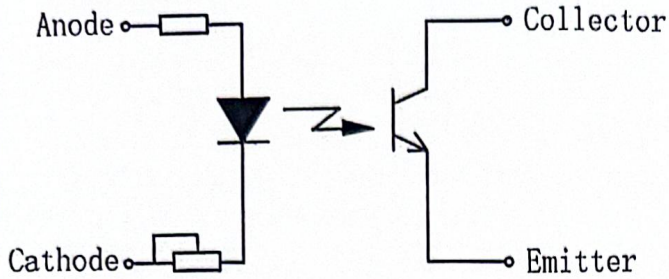
## 4-2. 耐冲击性

Shock Resistance

294m/S<sup>2</sup> (30G) 以上。294m/S<sup>2</sup> (30G) or more.



5. 内部接线图 Connection Diagram

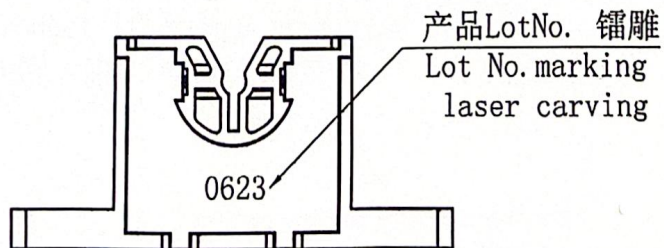
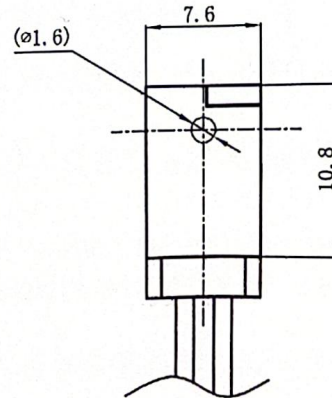
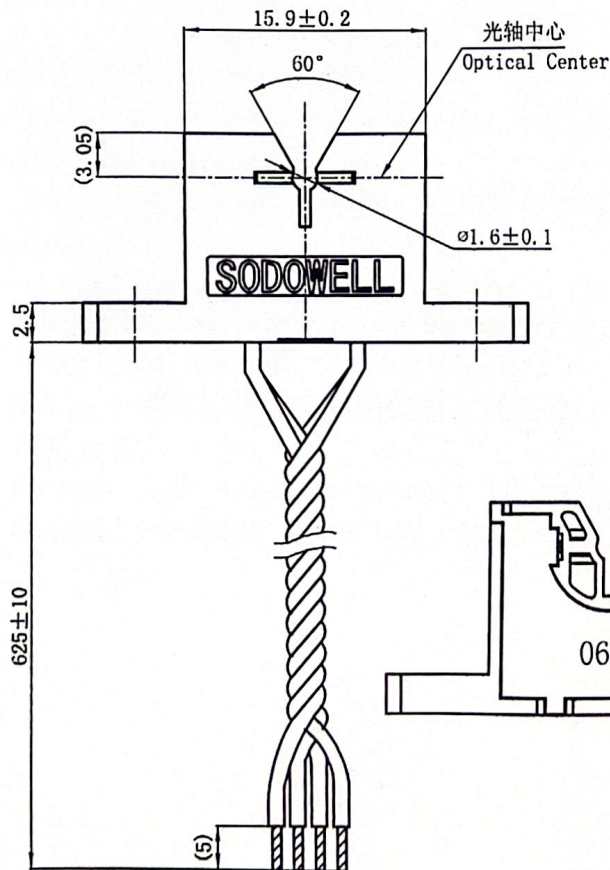
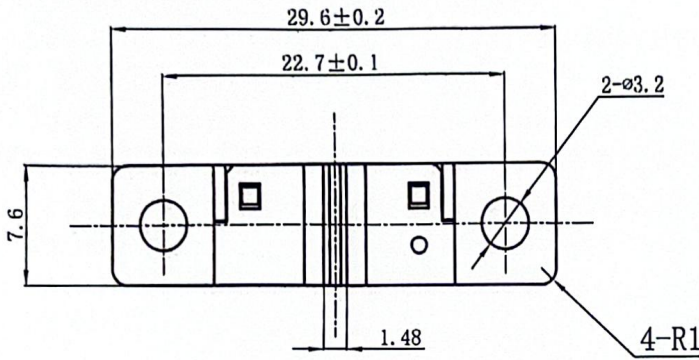


6. 接线表 Connection Table

电线颜色 Wire Color	电气信号 Electric sign
红色 Red	Anode
黑色 Black	Cathode
白色 White	Collector
绿色 Green	Emitter

单位 (Unit): mm  
 比例 (Scale): NIL  
 一般公差:  $\pm 0.3$   
 Tolerance:  $\pm 0.3$

7. 外形尺寸图 Outline Dimensions



Lot No. 说明:

0623  
 — 制作日: 用2位数表示。即01~31.  
 — 制作月: 用1位数表示。  
     1月 --- 1  
     2月 --- 2  
     ⋮  
     10月 --- X  
     11月 --- Y  
     12月 --- Z  
 — 制作年: 公历年最后一位。  
 例: 2020年用0表示。



## 8. 使用时注意事项:

## Handling Notes

- (1). 制品在使用时要小心不能负重, 避免变形.

Careful attention should be made to avoid deformation of components.

- (2). 保存和使用要在通风良好的环境, 防有腐蚀或硫化物及潮湿空气中。

Environmental air must be free from corrosive gasses such as hydrogen sulfide or salt water air.

- (3). 使用时避免阳光直射和强光直射。

Mount sensor away from direct sun-light and incandescent.

- (4). 光发射和接收部分的表面应保护好。

The side with emitting &receiving elements should be handled very carefully.

- (5). 插头插入或拔出要在常温下进行。

Insert &remove connectors at room temperature only.

- (6). 不要用洗净剂清洗传感器, 洗净剂残留有可能会对传感器造成损坏。如必须要清洁传感器表面请用蘸有洗净液比如酒精的软布进行清洁。

Do not wash sensor, Liquid may get into the case and cause damage. If you must clean the surface area use a soft cloth damped with a washing fluid such as Ethanol.

## 9. 保证期间的保证范围

## Guarantee term and guarantee limits

- (1) 保证期间 Guarantee term

交付后保证期为1年 The guarantee period is one year after the delivery date.

- (2) 保证范围 Guarantee limits

保证期内若本制品发生故障, 我们将会更换新产品, 但不负责交货后产品组合以后发生的不良。

We will replace a product if the failure is due to our manufacturing process Within the warranty term. we don not guarantee responsibility of damage by Trouble of a product after the delivery.

- (3) 本制品在使用时请注意其相关最大规格值, 若因超出其参数规格值使用发生的不良, 敝司不负责。

We will not replace a product if damage is due to disregard of maximum Rating, handling notes and other specification.

