



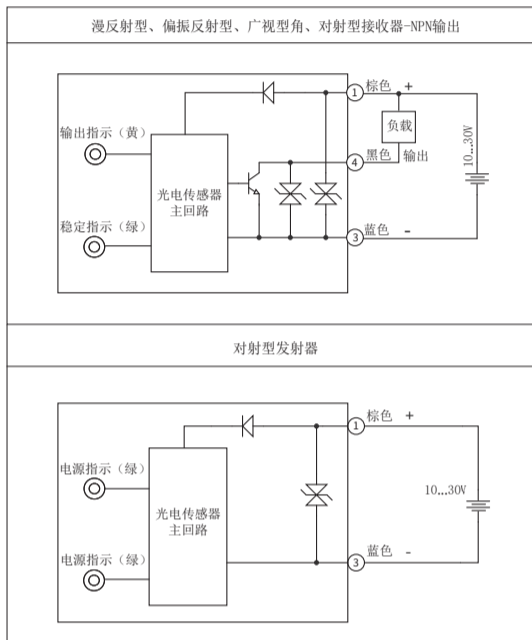
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产品规格

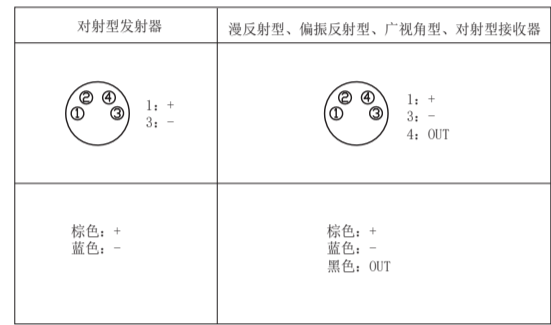
检测类型		对射型						偏振反射型	漫反射型		广视角型
型号	NPN引线型	发射器PSE-TM20D	接收器PSE-TM20DNB	发射器PSE-TM10DR	接收器PSE-TM10DNBR	发射器PSE-TM5DR	接收器PSE-TM5DNBR	PSE-PM3DNBR	PSE-BC100DNB	PSE-BC30DNBR	PSE-BC100NB
	NPN插件型	发射器PSE-TM20D-E3	接收器PSE-TM20DNB-E3	发射器PSE-TM10DR-E3	接收器PSE-TM10DNBR-E3	发射器PSE-TM5DR-E3	接收器PSE-TM5DNBR-E3	PSE-PM3DNBR-E3	PSE-BC100DNB-E3	PSE-BC30DNBR-E3	PSE-BC100NB-E3
	PNP引线型	发射器PSE-TM20D	接收器PSE-TM20DPB	发射器PSE-TM10DR	接收器PSE-TM10DPBR	发射器PSE-TM5DR	接收器PSE-TM5DPBR	PSE-PM3DPBR	PSE-BC100DPB	PSE-BC30DPBR	PSE-BC100PB
	PNP插件型	发射器PSE-TM20D-E3	接收器PSE-TM20DPB-E3	发射器PSE-TM10DR-E3	接收器PSE-TM10DPBR-E3	发射器PSE-TM5DR-E3	接收器PSE-TM5DPBR-E3	PSE-PM3DPBR-E3	PSE-BC100DPB-E3	PSE-BC30DPBR-E3	PSE-BC100PB-E3
检测距离	0...20m			0...10m			0...5m	0...3m*	0...100cm	0...30cm	0...10cm
光斑直径	/										
检测物体	Φ10mm以上不透明物体(Sn范围内)										
迟滞范围	/										
方向角度	>2°										
光源类型	红外(850nm)			红光(630nm)			红光(640nm)	红光(640nm)	红外(860nm)	红光(640nm)	红外(860nm)
距离调节	按键按下2...5s, 黄、绿灯4Hz同步闪, 抬起距离设置成功; 若黄、绿灯8Hz异步闪烁3s设置失败, 产品变为最大距离。										
工作电压	10...30 VDC										
消耗电流	发射器: ≤20mA; 接收器: ≤20mA										
负载电流	≤200mA										
压降	≤1V										
保护回路	短路保护, 极性保护, 过载保护, 齐纳保护										
NO/NC调节	按键按下5...8s, 黄灯和绿灯同时以2Hz闪烁, 抬起: 状态切换完成										
响应时间	≤1ms										
指示灯显示	绿灯	电源指示; 信号稳定指示 (信号不稳定闪烁)									
	黄灯	输出指示; 过载或短路指示 (闪烁)									
抗环境光	抗太阳光干扰≤10,000lux; 白炽灯光干扰≤3,000lux										
工作温度	-25℃...55℃										
贮存温度	-25℃...70℃										
防护等级	IP67										
产品认证	CE										
生产标准	EN60947-5-2:2012, IEC60947-5-2:2012										
材质	外壳: PC+ABS; 光学元件: PMMA										
重量	引线型: 约50g; 插件型: 约10g										
附件	使用说明书、螺钉、反光板TD-09 (仅限偏振反射型传感器)、安装支架ZJP-8										

*此数据为兰宝PSE偏振反射型传感器标配的反光板TD-09检测结果。

电气接线图



端子接线图



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注意事项

- 传感器最大允许电源电压是额定电压的10%, 通电前请确认供电电源电压小于最大允许值
- 传感器从接通电源到正常检测的时间为100ms, 请确保通电后100ms后再使用
- 传感器与负载使用不同电源时, 请确保先接通传感器的电源
- 不使用传感器时, 建议优先切断负载上的电源, 再切断传感器的电源
- 安装传感器时, 请勿使传感器受剧烈外力(如锤击打等), 这样有可能破坏传感器性能
- 清洗时避免使用稀释剂、酒精或其他有机溶剂

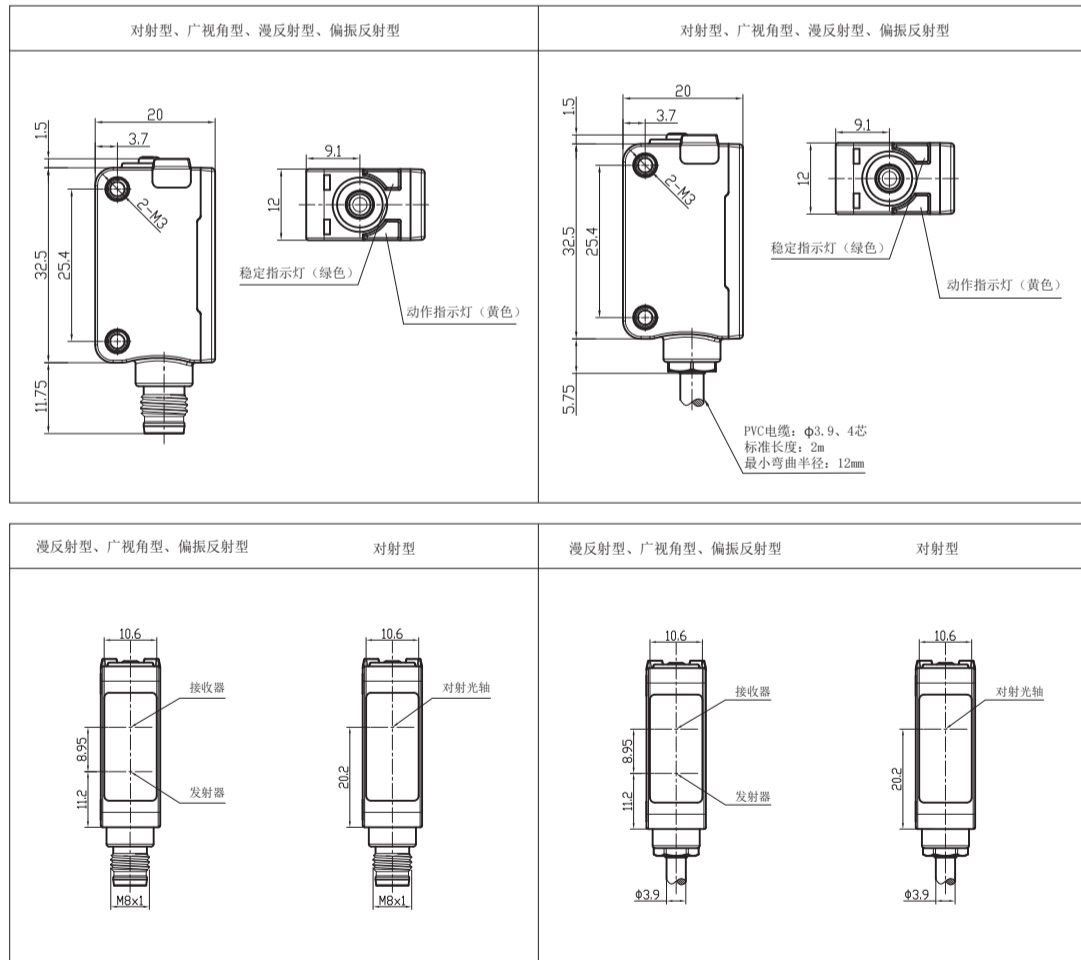
安全警告

- 请勿在具有易燃性、爆炸性或腐蚀性气体的环境下使用
- 请勿在具有油或化学品的环境下使用
- 请勿在湿度高的环境下使用
- 请勿在日光直射的环境下使用
- 请勿在其他超过额定值的环境下条件下使用
- 请勿擅自拆卸、修理、改造本产品

报废处理

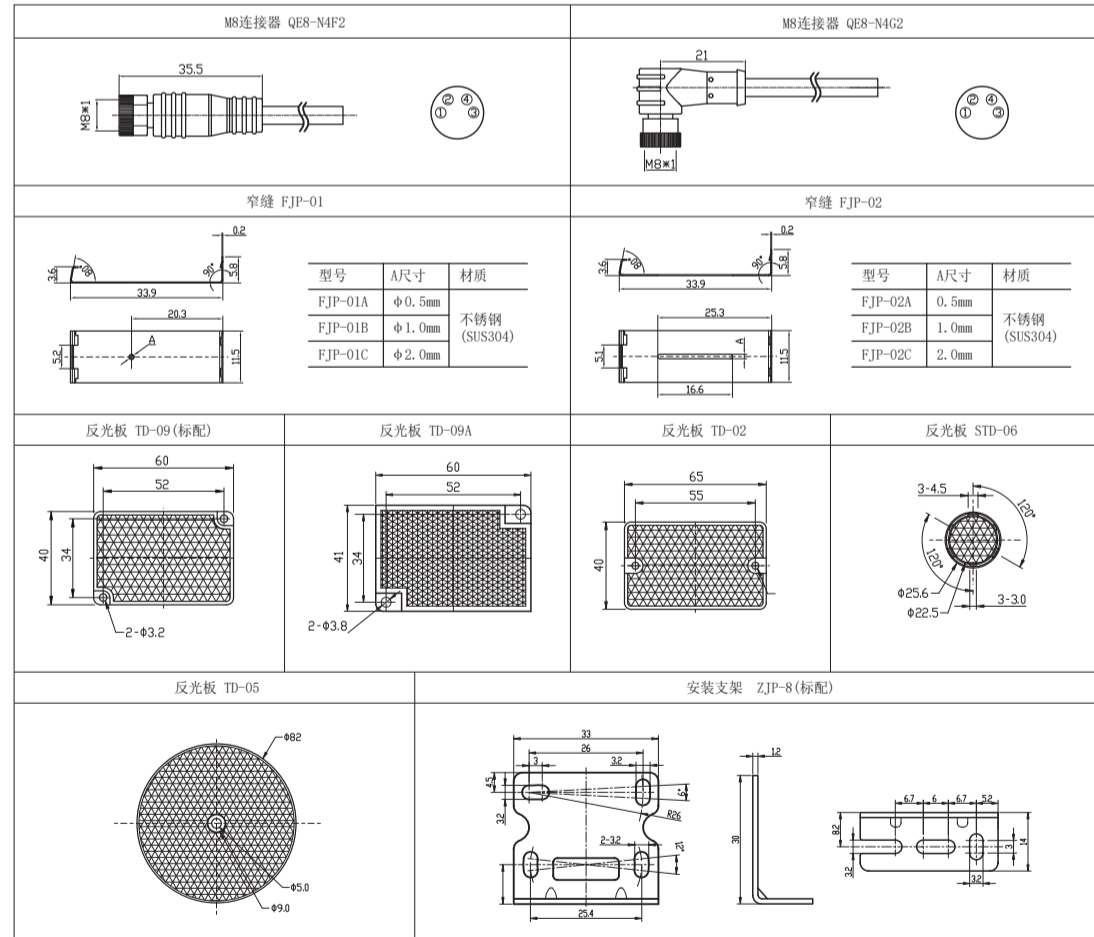
- 产品报废时, 请作为工业废弃物进行处理

外形尺寸图



配件尺寸图

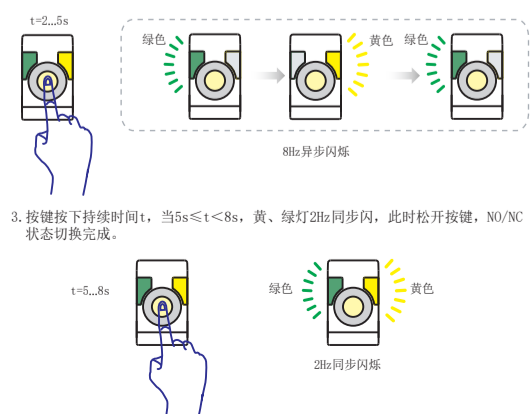
以下附件除ZJP-8型号安装支架及PSE偏振反射型产品标配反光板TD-09型号反光板外, 其他均需要额外订购。



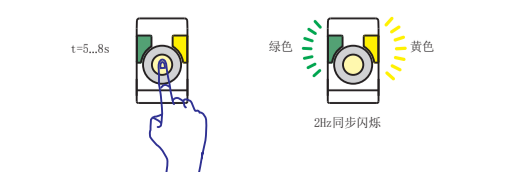
按键说明

- 按键按下持续时间t, 当t<2s或t≥8s, 产品为无效设置, NO/NC维持原状态, 产品距离维持原状态;
- 产品对着检出物, 按键按下持续时间t, 当2s≤t<5s, 黄、绿灯4Hz同步闪, 此时松开按键, 产品距离设定成功。如下图所示:

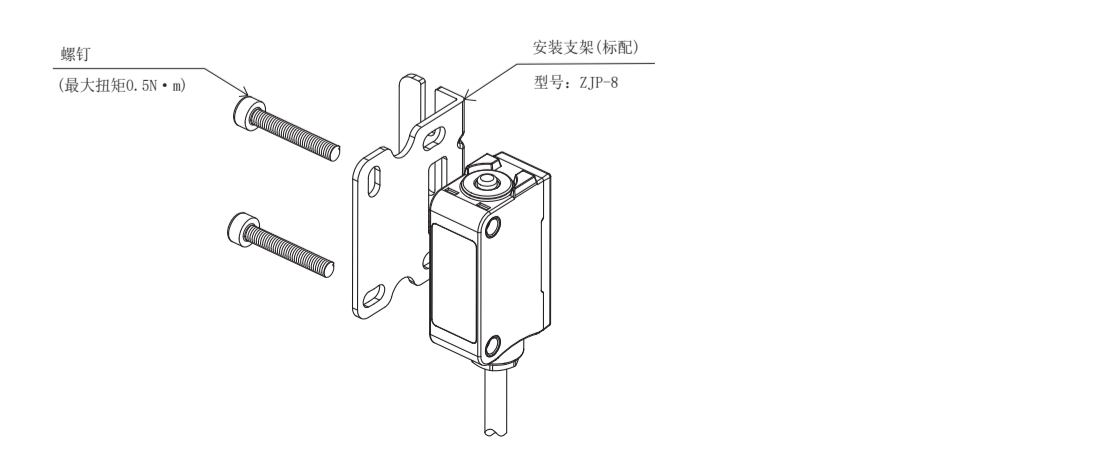
注意: 设定距离时, 若检出物距传感器的距离超过了产品的检出能力, 在2s≤t<5s之间, 黄、绿灯4Hz同步闪, 此时松开按键, 黄、绿灯则以8Hz异步闪烁, 表示产品距离设定失败, 产品距离自动设定成产品的最大值, 如下图所示:



- 按键按下持续时间t, 当5s≤t<8s, 黄、绿灯2Hz同步闪, 此时松开按键, NO/NC状态切换完成。



安装图





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Technical specifications

Detection type	Through beam						Polarized reflection	Diffuse reflection		Wide-angle
	Model	Emitter	Receiver	Emitter	Receiver	Emitter	Receiver	Emitter	Receiver	Emitter
NPN cable	Emitter PSE-TM20D	Receiver PSE-TM20DNB	Emitter PSE-TM10DR	Receiver PSE-TM10DNB	Emitter PSE-TM5DR	Receiver PSE-TM5DNB	PSE-PM3DNBR	PSE-BC100DNB	PSE-BC30DNBR	PSE-BC10DNB
NPN connector	Emitter PSE-TM20D-E3	Receiver PSE-TM20DNB-E3	Emitter PSE-TM10DR-E3	Receiver PSE-TM10DNB-E3	Emitter PSE-TM5DR-E3	Receiver PSE-TM5DNB-E3	PSE-PM3DNBR-E3	PSE-BC100DNB-E3	PSE-BC30DNBR-E3	PSE-BC10DNB-E3
PNP cable	Emitter PSE-TM20D	Receiver PSE-TM20DPB	Emitter PSE-TM10DR	Receiver PSE-TM10DPB	Emitter PSE-TM5DR	Receiver PSE-TM5DPB	PSE-PM3DPBR	PSE-BC100DPB	PSE-BC30DPBR	PSE-BC10DPB
PNP connector	Emitter PSE-TM20D-E3	Receiver PSE-TM20DPB-E3	Emitter PSE-TM10DR-E3	Receiver PSE-TM10DPB-E3	Emitter PSE-TM5DR-E3	Receiver PSE-TM5DPB-E3	PSE-PM3DPBR-E3	PSE-BC100DPB-E3	PSE-BC30DPBR-E3	PSE-BC10DPB-E3
Sensing distance	0...20m		0...10m		0...5m		0...3m*	0...100cm	0...30cm	0...10cm
Spot diameter	/									
Sensing object	≥ φ10mm opaque object (within Sn range)									
Hysteresis range	/									
Direction angle	>2°		/		<±2°		/		3...20%	
Light source	Infrared (850nm)		Red light (630nm)		Red light (640nm)		Red light (640nm)	Infrared (860nm)	Red light (640nm)	Infrared (860nm)
Distance adjustment	Press the button for 2...5s, when the yellow and green light flash synchronously at 4Hz, and lift to finish the distance setting. If the yellow and green light flash asynchronously @8Hz for 3s, setting fails and the product distance goes to the maximum.									
Supply voltage	10...30 VDC									
Consumption current	Emitter: ≤20mA; Receiver: ≤20mA						≤200mA		≤25mA	
Load current	/									
Voltage drop	≤1V									
Circuit protection	Short circuit, Reverse polarity, Overload, Zener protection									
NO/NC adjustment	Press the button for 5...8s, when the yellow and green light flash synchronously at 2Hz, and lift to finish the state switching.									
Response time	≤1ms						/		≤0.5ms	
Indicator	Green		Power, stable signal (unstable signal flash)							
	Yellow		Output, overload or short circuit (flash)							
Anti-ambient light	Anti-ambient light interference ≤10,000lux; Anti-incandescent light interference ≤3,000lux									
Ambient temperature	-25°C...55°C									
Storage temperature	-25°C...70°C									
Protection degree	IP67									
Certification	CE									
Production standards	EN60947-5-2:2012, IEC60947-5-2:2012									
Material	Housing material: ABS; Filter: PMMA									
Weight	Cable: about 50g; Connector: about 10g									
Accessories	Operation manual, screw, reflector TD-09 (only for polarized reflection sensor), Mounting bracket ZJP-8									

*The data is the result of the Lanbao PSE polarized reflection sensor with standard reflector TD-09.

Precautions

- The maximum allowable voltage of the sensor is 10% of the rated voltage. Please confirm that the supply voltage is less than the maximum allowable value before powering on.
- The time from powering-on to normal detection of the sensor is 100ms, please ensure that the sensor is used after 100ms of powering-on.
- When using different power sources for the sensor and load, be sure to turn on the power of the sensor first.
- When the sensor is not used, it is recommended to cut off the power of the load first and then turn off the power of the sensor.
- When installing the sensor, do not subject the sensor to severe external force (such as hammering, etc.), which may damage the sensor performance.
- Avoid using thinner, alcohol or other organic solvents when cleaning.

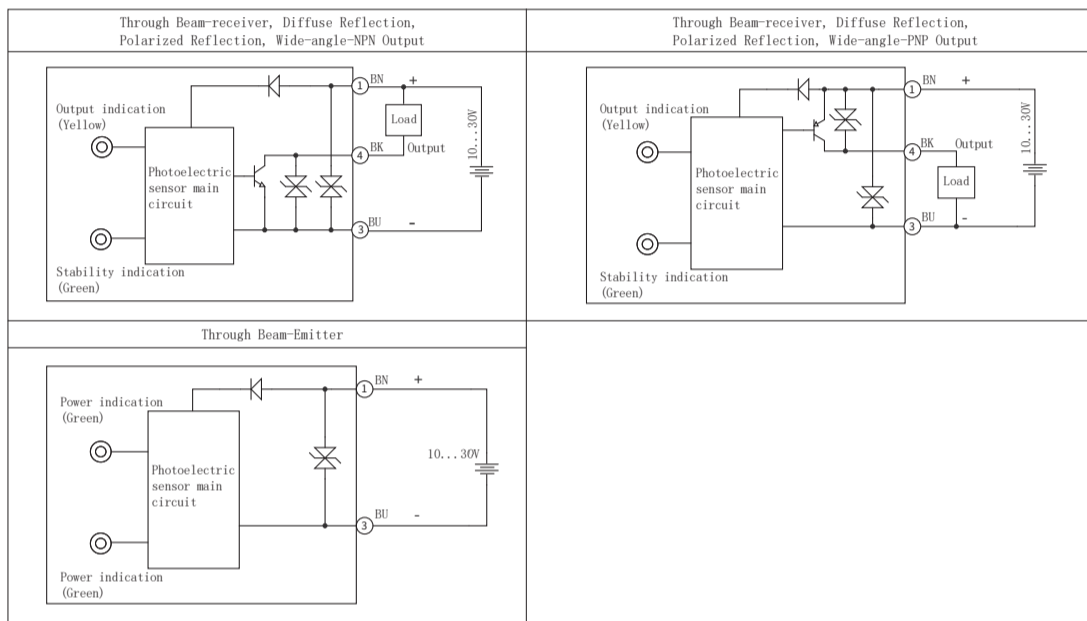
Safety Warning

- Do not use in an environment with flammable, explosive or corrosive gases.
- Do not use in oil or chemical environments.
- Do not use in a high humidity environment.
- Do not use in direct sunlight.
- Do not use in other environmental conditions that exceed the rated value.
- Do not disassemble, repair or modify this product without authorization.

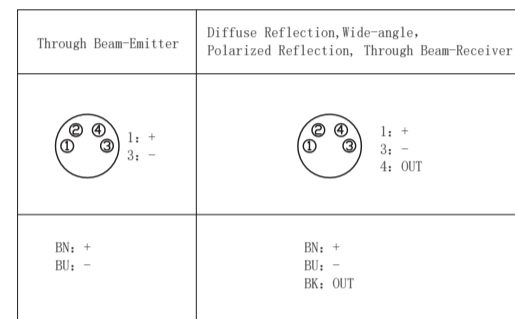
Scrap Treatment

- When the product is scrapped, please dispose of it as industrial waste.

Wiring diagram



Terminal Wiring Diagram

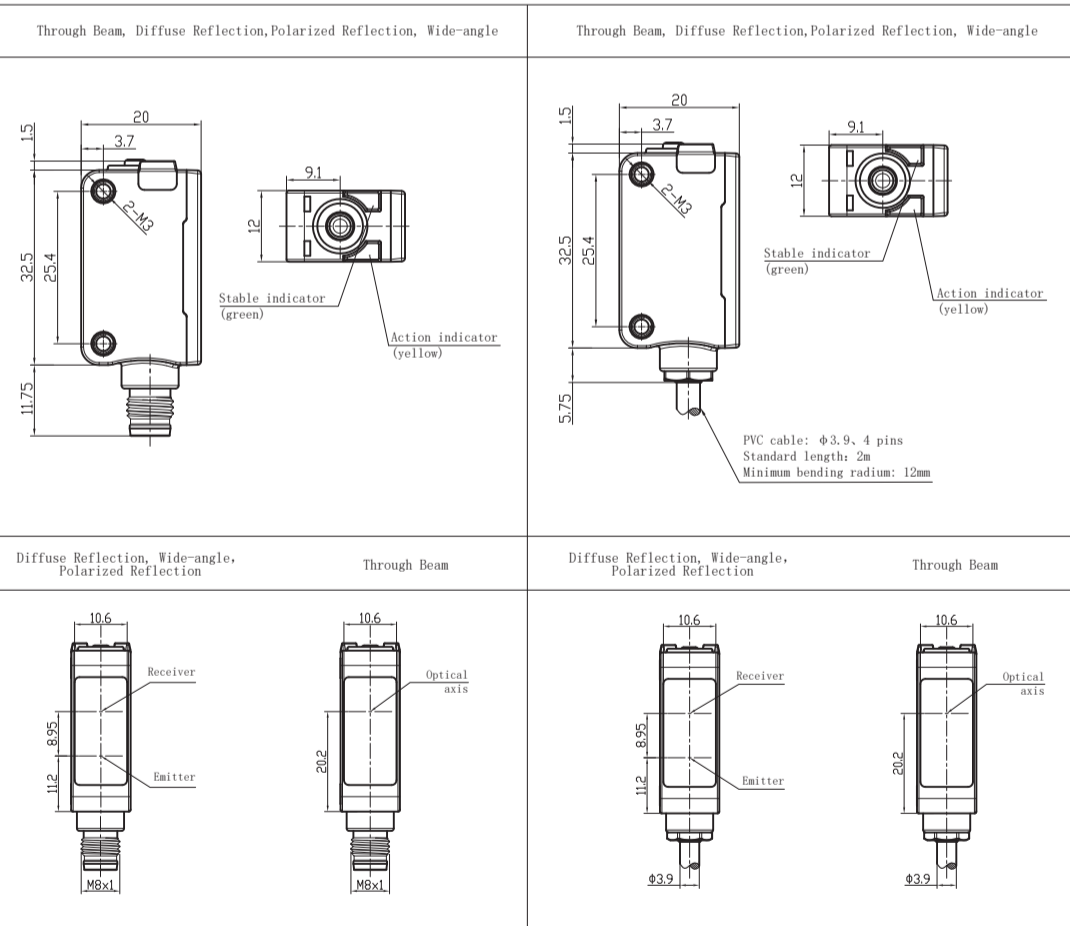


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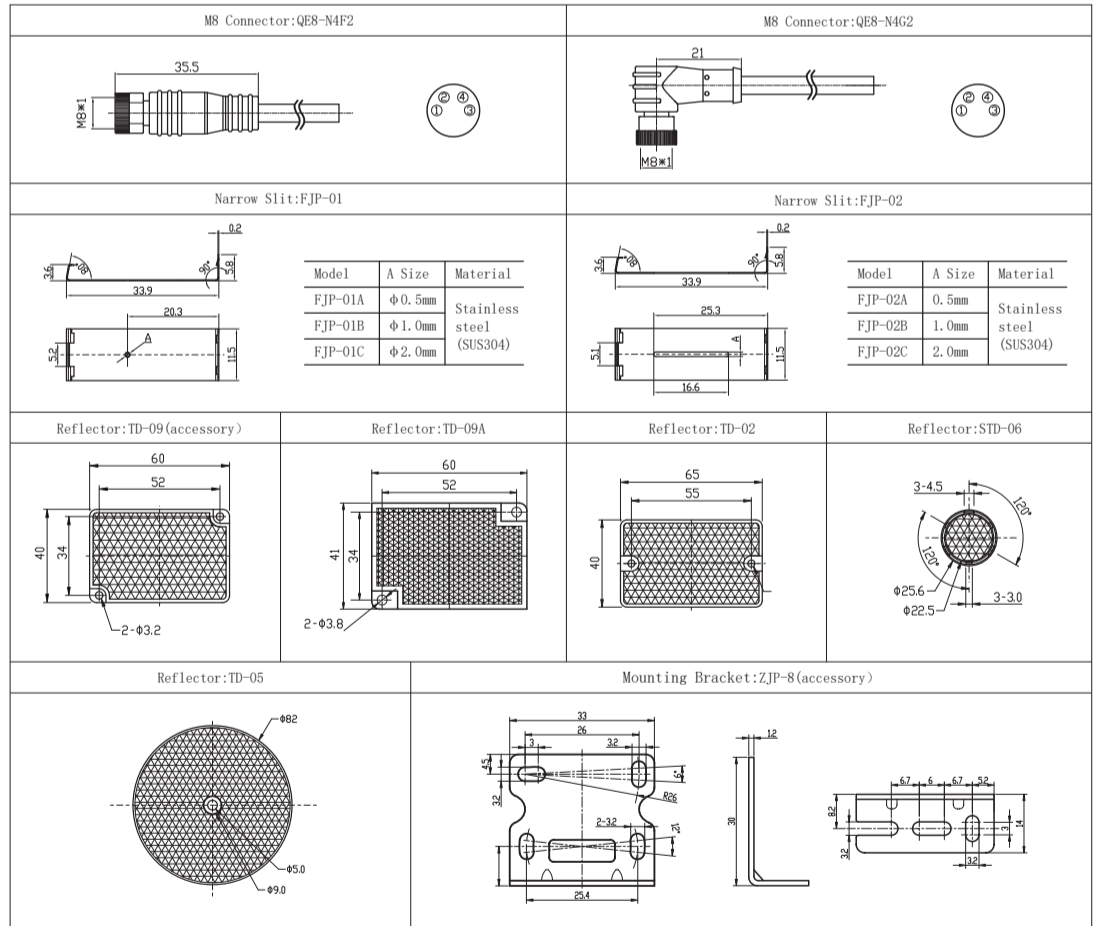
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Dimensions



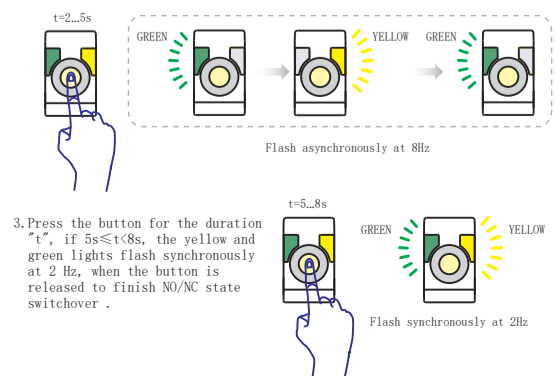
Accessory Dimensions (Sold Separately)



Button instruction

- Press the button for the duration time "t", if t < 2s or t ≥ 8s, the setting is invalid, NO/NC maintains in the original state, and the product distance maintains the original;
- Put the product in face to the sensing object, and press the button for the duration "t", if 2s ≤ t < 5s, the yellow and green lights flash synchronously at 4 Hz, when the button is released to finish distance setting, as shown in the following figure

Note: For distancing setting, if the distance between the sensing object and the sensor exceeds the detection ability of the product, in duration 2s ≤ t < 5s, the yellow and green lights flash synchronously at 4Hz, when the button is released to finish the distance setting but not successfully. If the yellow and green lights flash asynchronously at 8 Hz, meaning that the product distance setting fails, and the product distance is automatically set to the maximum value, as shown in the following figure:



Mounting

