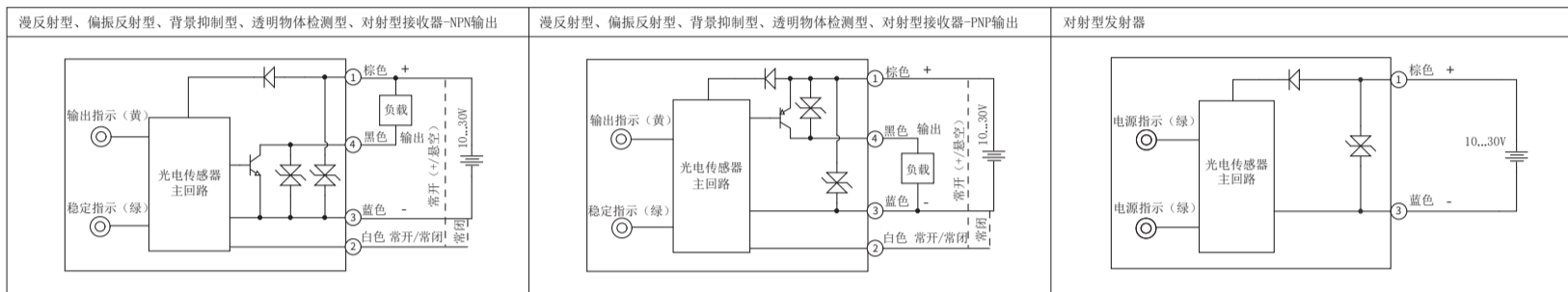


产品规格

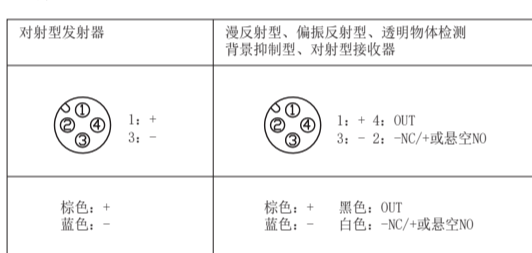
型号	对射型		偏振反射型	透明物体检测	漫反射型				背景抑制型
	发射器	接收器							
NPN引线型	发射器PSS-TM20D	接收器PSS-TM20DNB	PSS-PM3DNBR-E2	PSS-GM2DNBR	PSS-BC10DNB	PSS-BC40DNB	PSS-BC40DNBR	PSS-BC100DNB	PSS-YC10DNBR
NPN插件型	发射器PSS-TM20D-E2	接收器PSS-TM20DNB-E2	PSS-PM3DNBR-E2	PSS-GM2DNBR-E2	PSS-BC10DNB-E2	PSS-BC40DNB-E2	PSS-BC40DNBR-E2	PSS-BC100DNB-E2	PSS-YC10DNBR-E2
PNP引线型	发射器PSS-TM20D	接收器PSS-TM20DPB	PSS-PM3DPBR	PSS-GM2DPBR	PSS-BC10DPB	PSS-BC40DPB	PSS-BC40DPBR	PSS-BC100DPB	PSS-YC10DPBR
PNP插件型	发射器PSS-TM20D-E2	接收器PSS-TM20DPB-E2	PSS-PM3DPBR-E2	PSS-GM2DPBR-E2	PSS-BC10DPB-E2	PSS-BC40DPB-E2	PSS-BC40DPBR-E2	PSS-BC100DPB-E2	PSS-YC10DPBR-E2
NPN引线型	发射器PSM-TM20D	接收器PSM-TM20DNB	PSM-PM3DNBR	PSM-GM2DNBR	PSM-BC10DNB	PSM-BC40DNB	PSM-BC40DNBR	PSM-BC100DNB	PSM-YC10DNBR
NPN插件型	发射器PSM-TM20D-E2	接收器PSM-TM20DNB-E2	PSM-PM3DNBR-E2	PSM-GM2DNBR-E2	PSM-BC10DNB-E2	PSM-BC40DNB-E2	PSM-BC40DNBR-E2	PSM-BC100DNB-E2	PSM-YC10DNBR-E2
PNP引线型	发射器PSM-TM20D	接收器PSM-TM20DPB	PSM-PM3DPBR	PSM-GM2DPBR	PSM-BC10DPB	PSM-BC40DPB	PSM-BC40DPBR	PSM-BC100DPB	PSM-YC10DPBR
PNP插件型	发射器PSM-TM20D-E2	接收器PSM-TM20DPB-E2	PSM-PM3DPBR-E2	PSM-GM2DPBR-E2	PSM-BC10DPB-E2	PSM-BC40DPB-E2	PSM-BC40DPBR-E2	PSM-BC100DPB-E2	PSM-YC10DPBR-E2
检测距离	20m		3m*	2m*	10cm	40cm	40cm	100cm	10cm
光斑直径	/		/	45*45mm@100cm	/	/	15*15mm@40cm	/	8*8mm@10cm
光源类型	红外 (850nm)		红光 (660nm)		红外 (940nm)	红外 (940nm)	红光 (660nm)	红外 (940nm)	红光 (660nm)
迟滞范围	/		/		3...20%				≤5%
方向角度	>4°		<2.5°		/				/
指示灯显示	绿色LED: 电源指示、稳定指示 黄色LED: 输出指示、短路或过载指示								电源指示、稳定指示 输出指示、短路或过载指示
NO/NC调节	引线式: 白线接正极或悬空, NO模式; 白线接负极, NC模式; 插件式: 2脚接正极或悬空, NO模式; 2脚接负极, NC模式;								
工作电压	10...30V DC								
消耗电流	发射器: ≤20mA; 接收器: ≤20mA		/		≤20mA				≤20mA
响应时间	≤1ms		/		≤1V				≤1.8V
压降	/		/		≤200mA				≤100mA
负载电流	/		/		单圈电位器				无旋钮
距离调节	/		/		-25℃...55℃				-20℃...55℃
工作温度	/		/		短路保护, 极性保护, 过载保护, 齐纳保护				抗环境光干扰≤10,000lux; 白炽灯光干扰≤3,000lux
保护回路	/		/		-25℃...70℃				IP67
抗环境光	/		/		CE				产品认证
贮存温度	/		/		PSS: PC+ABS; PSM: 镍铜合金				外壳材质
防护等级	/		/		PMMA				光学元件
产品认证	/		/		使用说明书、M18螺母 (PSS为塑料, PSM为镍铜合金)				附件

*此数据为兰宝PSS/PSM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



PS-PSS/PSM-2020LB V1.0

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光电传感器使用说明书 PSS/PSM系列



www.shlanbao.cn

注意事项

- 为保证信号强度, 在使用偏振产品时, 不建议把调节柄调至最小值使用
- 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(如敲击打等), 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

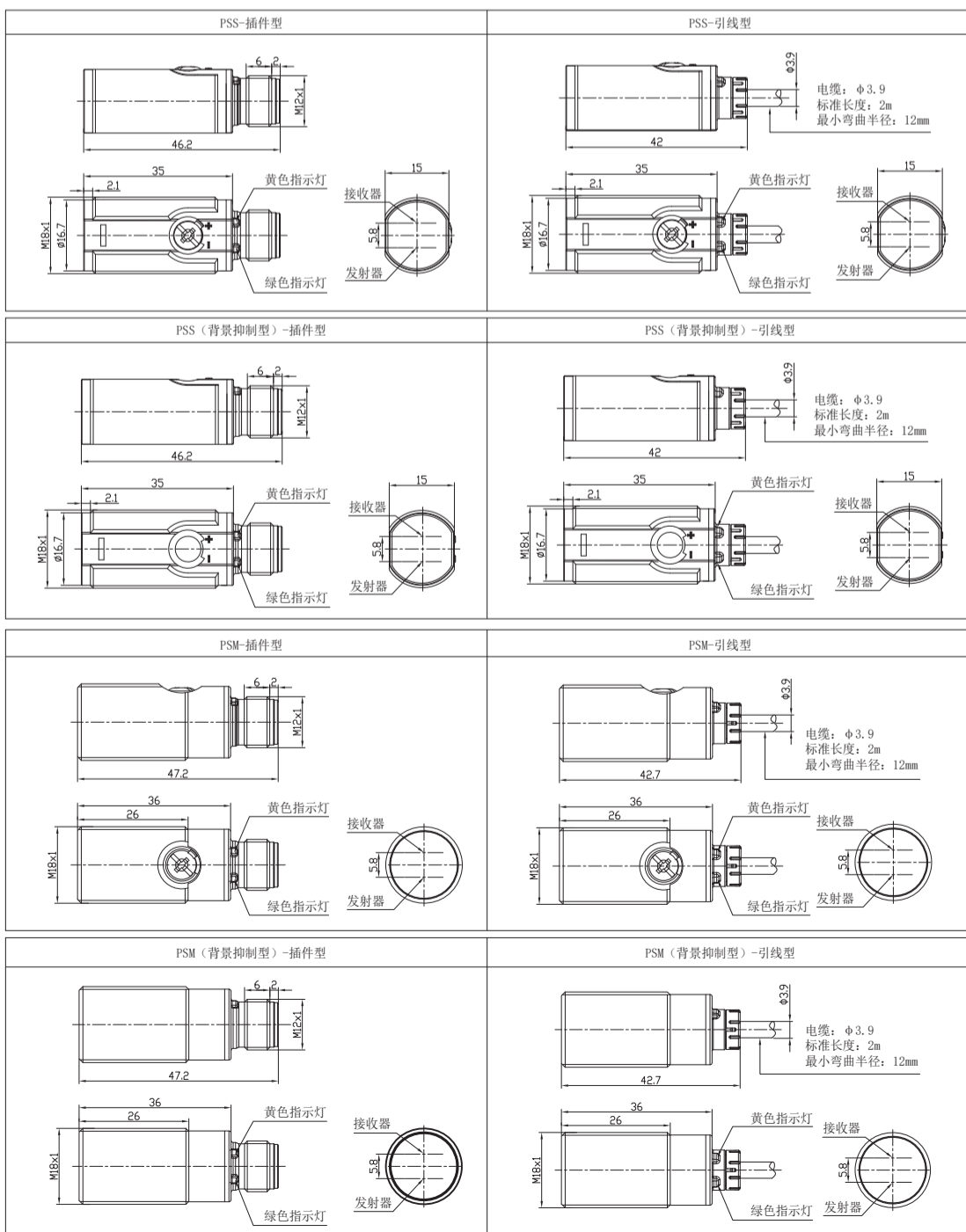
安全警告

- 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

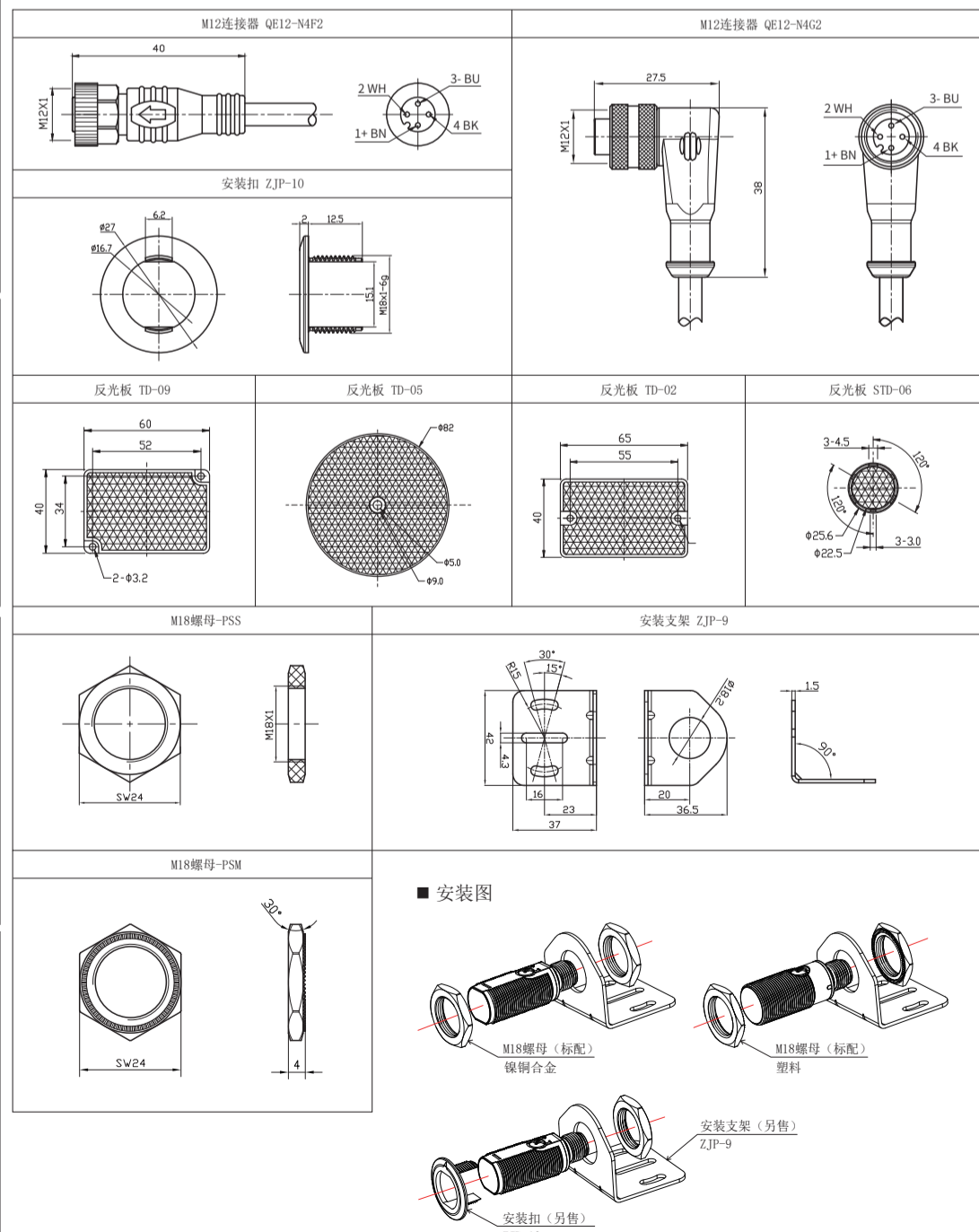
- 产品报废时, 请作为工业废弃物进行处理

外形尺寸图

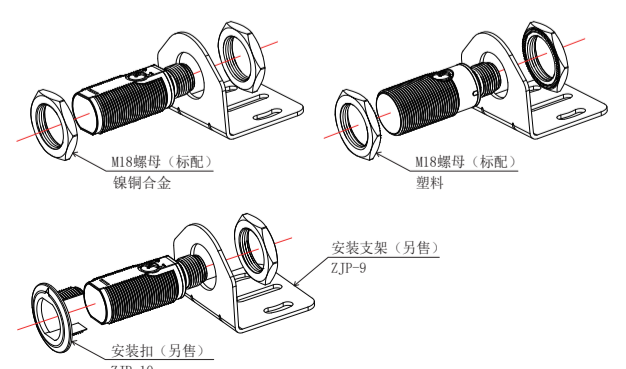


配件尺寸图

以下附件除PSS/PSM全系列标配M18螺母和偏振反射型产品标配TD-09型号反光板外, 其他均需要额外订购。



安装图

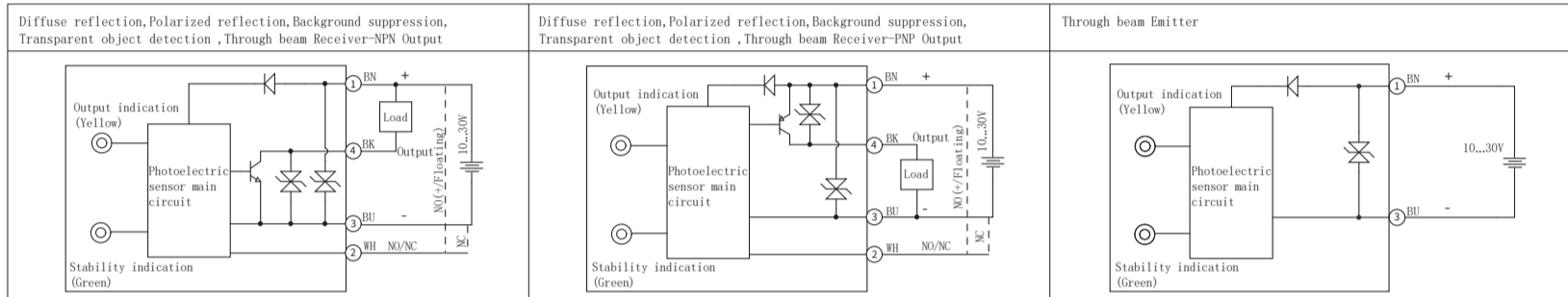


■ Technical specifications

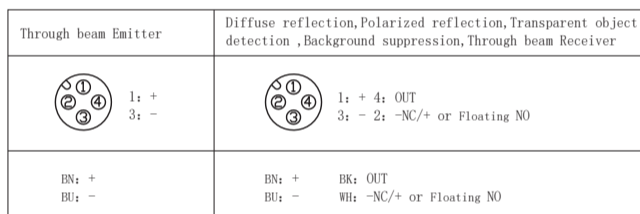
Detection type	Through beam		Polarized reflection	Transparent object detection	Diffuse reflection				Background suppression	
	Emitter	Receiver								
Model	NPN cable	Emitter PSS-TM20D	Receiver PSS-TM20DNB	PSS-PM3DNBR	PSS-GM2DNBR	PSS-BC10DNB	PSS-BC40DNB	PSS-BC40DNBR	PSS-BC100DNB	PSS-YC10DNBR
	NPN connector	Emitter PSS-TM20D-E2	Receiver PSS-TM20DNB-E2	PSS-PM3DNBR-E2	PSS-GM2DNBR-E2	PSS-BC10DNB-E2	PSS-BC40DNB-E2	PSS-BC40DNBR-E2	PSS-BC100DNB-E2	PSS-YC10DNBR-E2
	PNP cable	Emitter PSS-TM20D	Receiver PSS-TM20DPB	PSS-PM3DPBR	PSS-GM2DPBR	PSS-BC10DPB	PSS-BC40DPB	PSS-BC40DPBR	PSS-BC100DPB	PSS-YC10DPBR
	PNP connector	Emitter PSS-TM20D-E2	Receiver PSS-TM20DPB-E2	PSS-PM3DPBR-E2	PSS-GM2DPBR-E2	PSS-BC10DPB-E2	PSS-BC40DPB-E2	PSS-BC40DPBR-E2	PSS-BC100DPB-E2	PSS-YC10DPBR-E2
	NPN cable	Emitter PSM-TM20D	Receiver PSM-TM20DNB	PSM-PM3DNBR	PSM-GM2DNBR	PSM-BC10DNB	PSM-BC40DNB	PSM-BC40DNBR	PSM-BC100DNB	PSM-YC10DNBR
	NPN connector	Emitter PSM-TM20D-E2	Receiver PSM-TM20DNB-E2	PSM-PM3DNBR-E2	PSM-GM2DNBR-E2	PSM-BC10DNB-E2	PSM-BC40DNB-E2	PSM-BC40DNBR-E2	PSM-BC100DNB-E2	PSM-YC10DNBR-E2
	PNP cable	Emitter PSM-TM20D	Receiver PSM-TM20DPB	PSM-PM3DPBR	PSM-GM2DPBR	PSM-BC10DPB	PSM-BC40DPB	PSM-BC40DPBR	PSM-BC100DPB	PSM-YC10DPBR
	PNP connector	Emitter PSM-TM20D-E2	Receiver PSM-TM20DPB-E2	PSM-PM3DPBR-E2	PSM-GM2DPBR-E2	PSM-BC10DPB-E2	PSM-BC40DPB-E2	PSM-BC40DPBR-E2	PSM-BC100DPB-E2	PSM-YC10DPBR-E2
Sensing distance	20m		3m*	2m*	10cm	40cm	40cm	100cm	10cm	
Spot diameter	/		/	45*45mm@100cm	/	/	15*15mm@40cm	/	8*8mm@10cm	
Light source	Infrared (850nm)		Red light (660nm)		Infrared (940nm)	Infrared (940nm)	Red light (660nm)	Infrared (940nm)	Red light (660nm)	
Hysteresis range	/		/		3...20%				≤5%	
Direction angle	>4°		<2.5°		/				/	
Indicator	Green LED: Power, stable signal Yellow LED: Output, overload or short circuit									
NO/NC adjustment	Lead type: white wire connected to positive or floating, NO mode; white wire connected to negative, NC mode; Plug-in type: 2 feet connected to positive or floating, NO mode; 2 feet connected to negative, NC mode;									
Supply voltage	10...30V DC									
Consumption current	Emitter: ≤20mA; Receiver: ≤20mA				≤20mA					
Response time	≤1ms				≤0.5ms					
Voltage drop					≤1V				≤1.8V	
Load current					≤200mA				≤100mA	
Distance adjustment	Single-turn potentiometer									
Ambient temperature					-25°C...55°C				-20°C...55°C	
Circuit protection	Short circuit, Reverse polarity, Overload, Zener protection									
Anti-ambient light	Anti-ambient light interference ≥10,000lux; Anti-incandescent light interference ≥3,000lux									
Storage temperature	-25°C...70°C									
Protection degree	IP67									
Certification	CE									
Material	PSS: PC+ABS; PSM: Nickel copper alloy									
Optical element	PMMA									
Accessories	Instruction manual, M18 nut (PSS is plastic, PSM is Nickel copper alloy)									

*This data is the testing result of TD-09 reflector, which is the standard reflector of Lanbao PSS / PSM polarized reflective sensor.

■ Wiring diagram



■ Terminal wiring diagram



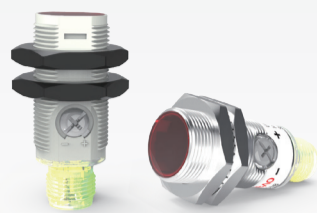
PS-PSS/PSM-2020LB V1.0

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Photoelectric sensor PSS/PSM series

Operation Instruction



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Precautions

- To ensure signal strength, it is not recommended to adjust the adjustment handle to the minimum value when using polarized products.
- 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.

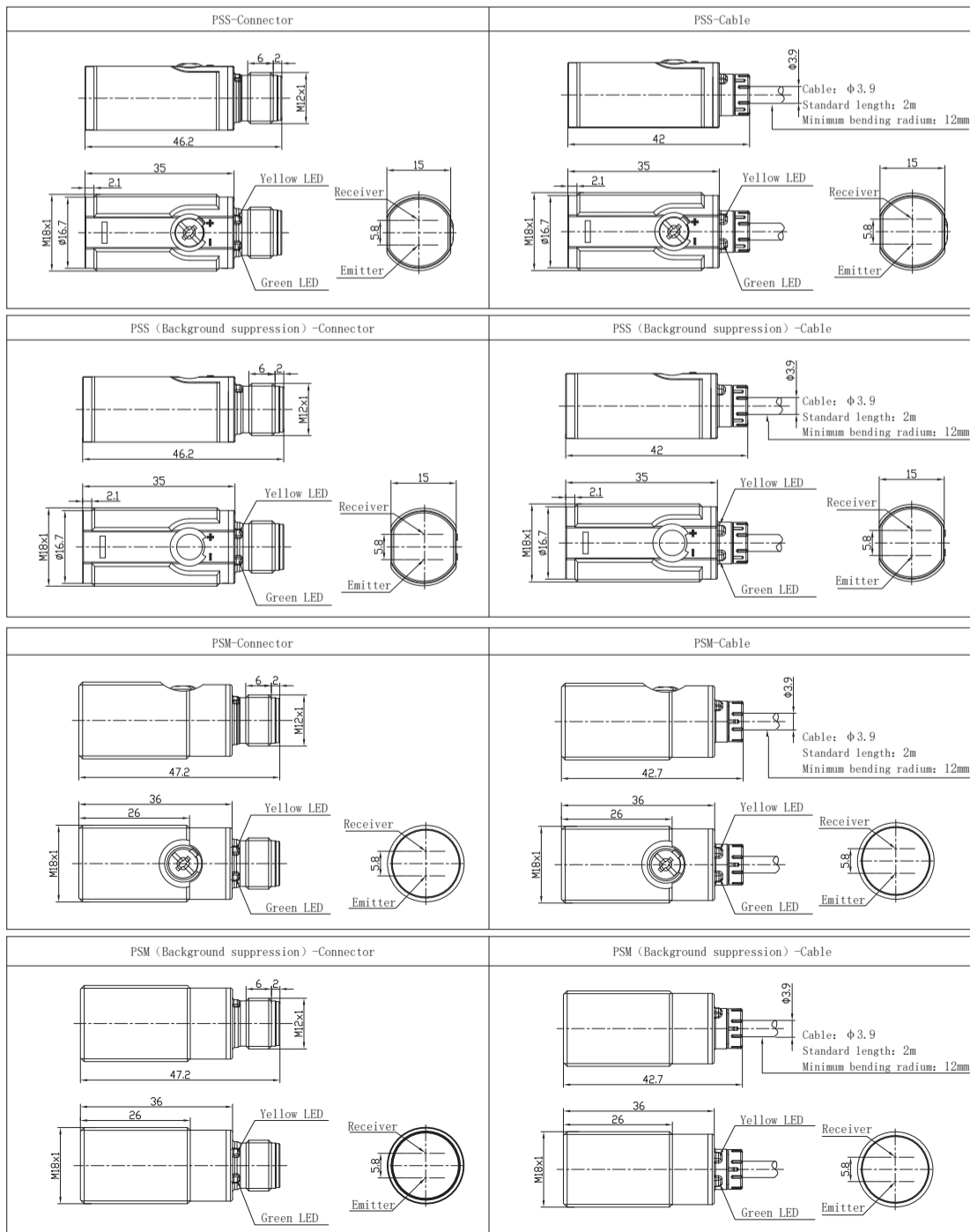
Safety Warning

- 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.

■ Dimensions



■ Accessory Dimensions

The following accessories are required to be purchased separately except that PSS / PSM series have standard M18 nuts and polarized reflective sensors have standard TD-09 reflectors.

