



外形尺寸 External dimensions		21×40×16	
电源电压 Supply voltage		10~30VDC 90~250VAC	
检测距离 Sensing distance		30cm	
Diffused reflection type 漫反射型		NPN NO NC ASE01-J21W30DNA ASE01-J21W30DNB	
PNP NO NC ASE01-J21W30DPA ASE01-J21W30DPB		NPN NO NC ASE01-J21W30ATA ASE01-J21W30ATB	
五线继电器输出 Relay output			
检测距离 Sensing distance		100cm	
NPN NO NC ASE01-J20K100DNA ASE01-J20K100DNB		NPN NO NC ASE01-J20K100DPA ASE01-J20K100DPB	
PNP NO NC ASE01-J20K100ATA ASE01-J20K100ATB		NPN NO NC ASE01-J20K100DBA ASE01-J20K100DBB	
五线继电器输出 Relay output			
检测距离 Sensing distance		500cm	
NPN NO NC ASE01-J21Q500DNA ASE01-J21Q500DNB		NPN NO NC ASE01-U72Q300DNA ASE01-U72Q300DNB	
PNP NO NC ASE01-J21Q500DPA ASE01-J21Q500DPB		PNP NO NC ASE01-U72Q300DPA ASE01-U72Q300DPB	
交流 二线制 AC Two-wire NO NC ASE01-J21Q500ATA ASE01-J21Q500ATB		交流 二线制 AC Two-wire NO NC ASE01-U72Q300DBA ASE01-U72Q300DBB	
五线继电器输出 Relay output			
外壳材质 Housing material		塑料 Plastic	
连接方式 Connection method		引线 Cable	



AB-01



65×40×7

光电开关反射板
Photoelectric switch baffle-board

AB-02



80×55×7

AB-03



60×50×7

AB-04



φ84

可定制安全光栅、光幕传感器及其它规格反射板
Has custom-made the diffraction grating safely,
the light curtain sensor and other baffle plates



全球专业自动化控制元件供应商
Global professional control automation element supplier

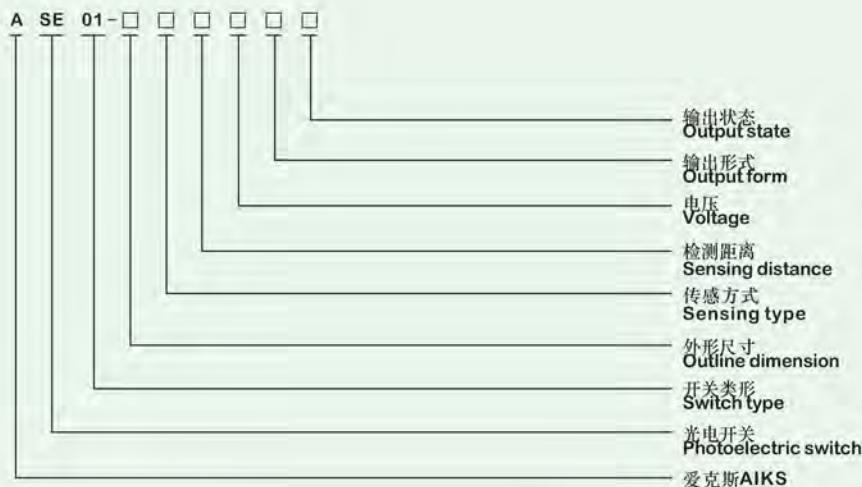


▶ 概述 Description

■ ■ 光电开关（光电传感器）是光电接近开关的简称，它是利用被检测物对光束的遮挡或反射，由同步回路选通电路，从而检测物体有无的。物体不限于金属，所有能反射光线的物体均可被检测。光电开关将输入电流在发射器上转换为光信号射出，接收器再根据接收到的光线的强弱或有无对目标物体进行探测，广泛应用于冶金、化工、机械、轻工、矿业、烟草、军工、纺织、造纸自动化流水线等行业。

■ ■ Photoelectric switch (photoelectric sensor) is short for photoelectric proximity switch. It makes use of the shelter or reflection of the tested objects on the light beam, and is connected with the electric circuit through the synchronous return circuit, so as to inspect the object. The object is not restricted in metal, and all objects that can reflect the light can be inspected. The photoelectric switch converts the input current on the reflector into the light signal to send out and the receiver will detect the targets according to the weakness of the received light or whether there is target. It is widely used in metallurgy, chemical, machinery, light industry, mining, tobacco, military industry, textile, and automatic production lines.

▶ 型号注释 Model Explain



①输出状态output states

- A: 常开 often open
- B: 常闭 often close
- C: 常开+常闭 often open+often close

④传感方式Sensing type

- W: 直接反射 directness echo
- K: 反射板反射 Baffle plate reflection
- Q: 对射 Through beam

②输出形式output form

- N: 直流电流NPN输出 direct current PNC output
- P: 直流电流PNP输出 direct current PNC output
- T: 电源二线输出 power double line output
- R: 继电器输出 relay output

⑤外形尺寸outline dimension

- 圆形不表示 circular unexpress
- F: 表示方形 squareness
- J: 矩形 rectangular

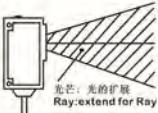
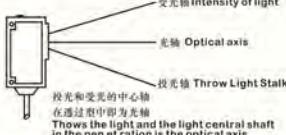
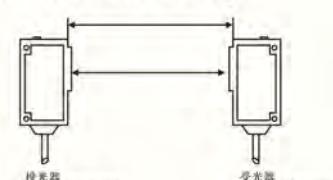
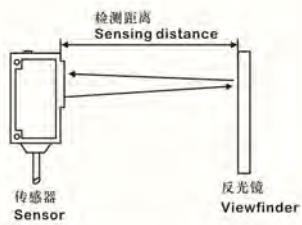
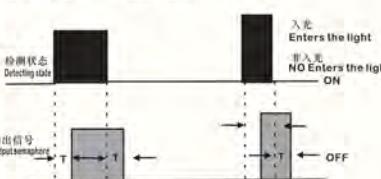
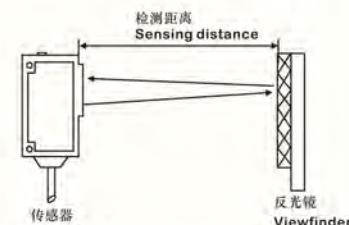
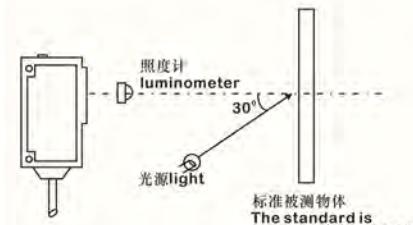
③电压voltage

- D: 直流direct current A: 交流Alternating Current

⑥开关类型switch type

- 01: 光电开关 photoelectric switch

► 光电开关术语解释 Photoelectric switch terminology explanation

术语 lang	解释 explanation	术语 lang	解释 explanation
Ray optical axis 光轴 光轴 光轴	 <p>光轴: 光的中心轴 Light axis: the central axis of light rays</p>	标准被测物体 The standard measured the object	<p>指在反射型传感器中为决定基本规格而作为标准的被检测物体。一般是白色无光，对专用传感器使用相应的被测物体（例如薄片。）</p> <p>It refers to the tested object that is used as standard for deciding the side with basic specification in the reflection sensor. It is usually white and light-less. Corresponding object shall be used for special sensors (eg. Slice).</p>
Detection axis 检测轴	 <p>受光强度 Intensity of light 光轴 Optical axis 投光和受光的中心轴为光轴 在透过的中心轴为光轴 Throws the light and the light central shaft in the penetration is the optical axis</p>	最小被测物体 Min tested object	<p>指定条件下传感器能测出的最小物体。</p> <p>对射型，镜面反射型是指不透明体（完全遮光），对反射型是指铁丝或铜丝相应的值。</p> <p>It refers to the min object that the sensor can test under certain conditions.</p> <p>Opposite reflection, mirror reflection type is the opaque object (thoroughly shielded), the opposite reflection means the corresponding value of steel or copper wires.</p>
Detection distance 检测距离	<p>对射型 可稳定设定的投光器和受光器之间的距离</p> <p>Opposite reflection The distance between the light projector and receiver that can be set stably.</p>  <p>投光器 Throwlightstlik 受光器 Subjected to light</p>	重复精度 Redundant precision	<p>指一定条件下，重复动作时响应位置的误差</p> <p>Under the certain condition Redundant precision state response position of error</p>  <p>检测距离 Sensing distance 传感器 Sensor 反光镜 Viewfinder</p>
	<p>反馈反射型 标准设定的传感器和反射镜之间的距离（0的场合将“0”省略）</p> <p>Retroreflective type The distance between the light projector and receiver of standard set ("0" is omitted in case of 0)</p>  <p>检测轴 Detection axis 沿检测轴直角方向 Detection axis right angle direction 检测轴方向 Detection a Stalk direction 重复精度 Repeated accuracy</p>	响应时间 Response time	<p>检测状态变化后输出ON或OFF信号的迟延时间</p> <p>Delayed time it takes when the signal of ON or OFF is output after the changes of inspection states</p> <p>检测状态变化后输出ON或OFF信号的迟延时间</p> <p>Delayed time it takes when the signal of ON or OFF is output after the changes of inspection states</p>  <p>检测状态 Detecting state 入光 Enters the light 非入光 NO Enters the light ON 输出信号 Output signal T: 响应 Response OFF</p>
	<p>漫反射型 可稳定被检测物体（通常是白色无光纸）能被稳定检测的最大距离（0的场合将“0”的场合半“0”省略）</p> <p>Diffuse reflection It can be stabilize detection the object(usually is white unglazed paper)can the max range which stabilizes examines</p>  <p>检测距离 Sensing distance 传感器 Sensor 反光镜 Viewfinder</p>	使用环境照度 (耐杂散光) Conditions for use Light (anti-stray light)	<p>指不引起误动作的极限照度用光接收器光面照度表示。</p> <p>It means the limit light that may not result in mistaken operations, expressed with the optical brightness of light receiver.</p>  <p>照度计 Luminometer 光源光 Light source 30° 标准被测物体 The standard is measured the object</p>

► 使用注意事项 Notices for use

1. 距离设定

● 对射型 反馈反射型

设定距离应小于说明书上规定的检测距离。由于留有余量，大于所规定的检测距离虽也能工作，但稳定性不能保证。另外，在有垃圾和尘埃的恶劣环境中，距离设定时，请保证一定的余量。

● 反射型

规格书上登出的检测距离是相对于标准被测物体而言的。实际的检测距离，因被测物体大小，颜色及表面的凸凹状况不同，会有所变化，距离设定时，请保证规定的余量。

随被测物体的大小变化，检测距离的变化规律被测物体越大，反光量越大，检测距离越长。但是，当物体的受光面的大小已大于受光的检测，物体大小再增大，检测距离也不会增大。

2 被测物体不同检测距离的差异（适用于扩散反射型）

1. Setting of distance

● Opposite reflection type Retroreflective type

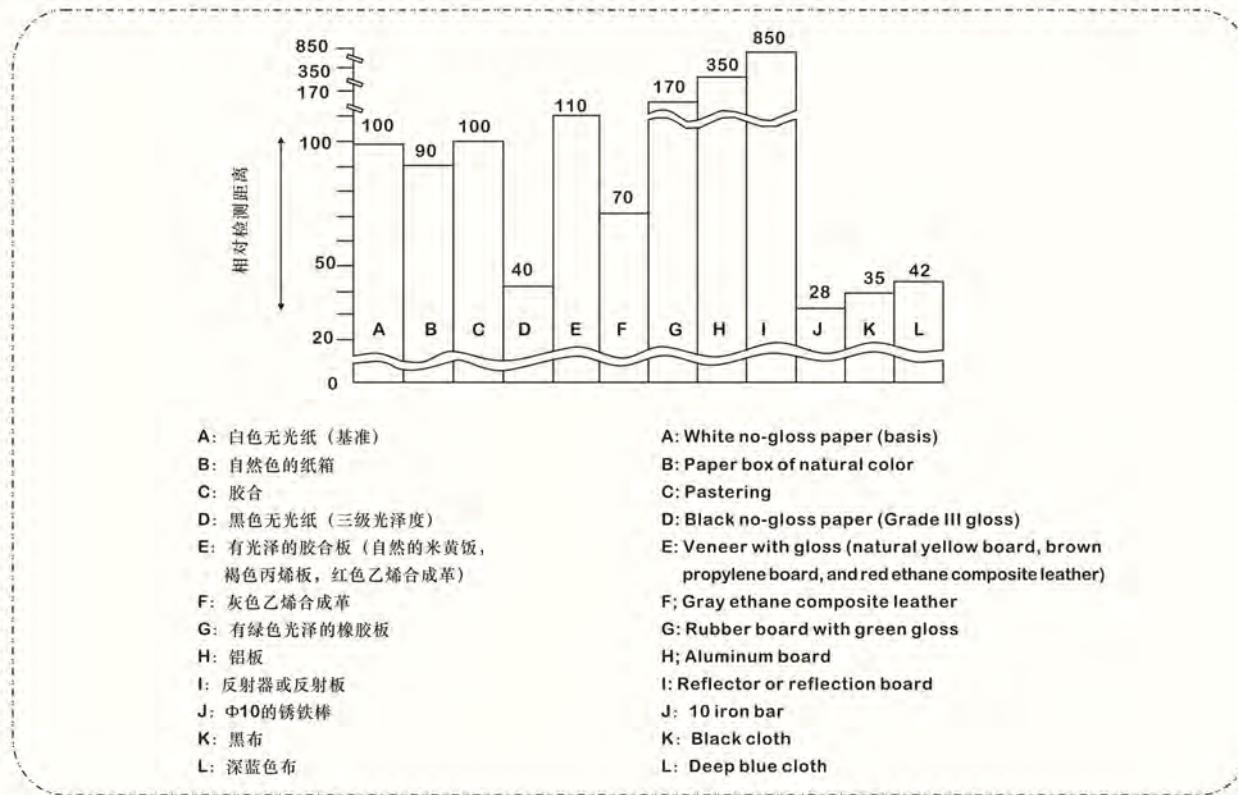
The distance set shall be less than the inspection distance indicated on the instruction manual. It can still work when the distance exceeds the inspection distance since there is residue, but the stability can not be ensured. In addition, certain residuals shall be reserved during the distance setting in harsh environments that has wastes or dust.

● Reflection type

The inspection distance indicated on the specification is intended for the standard tested objects. The actual tested distance varies from the size, color, and the surface of the objects. Room shall be reserved during the distance setting.

The size of the tested objects change, the tested distance also changes. The larger the tested object, the larger the reflection and the longer the tested distance. However, when the surface of the object that receives the light is larger than the tested part, even though the size of the object increases, the inspection distance will not grow.

2. Variation of the different inspected distance of objects tested (applicable to diffusion reflection type)



► 防止相互干扰的方法及注意事项
Prevents the mutual interference of method & no

● 把光电传感器接近设置时，另一个传感器的光入射时造成的不稳定动作，叫做相互干扰。

● When the photoelectric sensor approaches the setting, the unstable operation caused by the reflection another sensor, which is called as mutual interference.

1. 投光器、受光器相互交叉安装

Mutual installation of projector and light receiver

2. 反射式并列使时，相互间隔须维持设定距离在检测距离的1.4倍以上。
When the reflection type is used, the mutual distance shall be maintained 1.4 times over the tested distance.

3. 对射式并列使用时，相互间隔须维持设定距离在检测距离的0.4倍以上。
When the opposite reflection is used, the mutual distance shall be maintained 0.4 times over the tested distance.

4. 电源电压请在使用电源电压范围内使用。
The power voltage can only be used within the regulated range.

5. 下列安装场所会造成误动作原因，请注意：

- ①灰尘较多场所
- ②腐蚀性气体较多的场所
- ③水、油、药剂直接溅散的场所
- ④室外或太阳光等有强光直射的场所

5. Installation in the following conditions may result in mistaken operations, please take care:

- ①Dusty places
- ②Places with corrosive gases
- ③Places with direct spraying of water, oil and medicament
- ④Outdoor or places with strong direct sunshine

► 接近开关及光电开关输出回路接线原理图
proximity switch and photoelectric switch output circuit wiring schematic diagram

