外形尺寸 External dimensions				21×40×16
电源电压 Supply voltage				10~30VDC 90-250VAC
Diffused reflection type 漫反射型	检测距离 Sensing distance			30cm
	直流 DC	NPN	NO	ASE01-J21W30DNA
			NC	ASE01-J21W30DNB
		PNP	NO	ASE01-J21W30DPA
			NC	ASE01-J21W30DPB
	交流 AC	二线制 Two-wire	NO	ASE01-J21W30ATA
			NC	ASE01-J21W30ATB
	五线继电器输出 Relay output			
Retroreflective type 回归反射型	检测距离 Sensing distance			100cm
	直流 DC	NPN	NO	ASE01-J20K100DNA
			NC	ASE01-J20K100DNB
		PNP	NO	ASE01-J20K100DPA
			NC	ASE01-J20K100DPB
	交流 AC	二线制 Two-wire	NO	ASE01-J20K100ATA
			NC	ASE01-J20K100ATB
	五线继电器输出 Relay output			
Through beam type 对射型	检测距离 Sensing distance			500cm
	直流 DC	NPN	NO	ASE01-J21Q500DNA
			NC	ASE01-J21Q500DNB
		PNP	NO	ASE01-J21Q500DPA
			NC	ASE01-J21Q500DPB
	交流 AC	二线制 Two-wire	NO	
			NC	
	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

外形尺寸 External dimensions				72×20×52
电源电压 Supply voltage				10~30VDC
Diffused reflection type 漫反射型	检测距离 Sensing distance			
	直流 DC	NPN	NO	
			NC	
		PNP	NO	
			NC	
	交流 AC	二线制 Two-wire	NO	
			NC	
	五线继电器输出 Relay output			
Retroreflective type 回归反射型	检测距离 Sensing distance			
	直流 DC	NPN	NO	
			NC	
		PNP	NO	
			NC	
	交流 AC	二线制 Two-wire	NO	
			NC	
	五线继电器输出 Relay output			
Through beam type 对射型	检测距离 Sensing distance			30cm
	直流 DC	NPN	NO	ASE01-U72Q300DNA
			NC	ASE01-U72Q300DNB
		PNP	NO	ASE01-U72Q300DPA
			NC	ASE01-U72Q300DPB
	交流 AC	二线制 Two-wire	NO	
			NC	
	五线继电器输出 Relay output			
外壳材质 Housing material				铝 Aluminium
连接方式 Connection method				引线 Cable

光电开关反射板 Photoelectric switch baffle-board

AB-01

65×40×7

AB-02

80×55×7

AB-03

60×50×7

AB-04

φ84

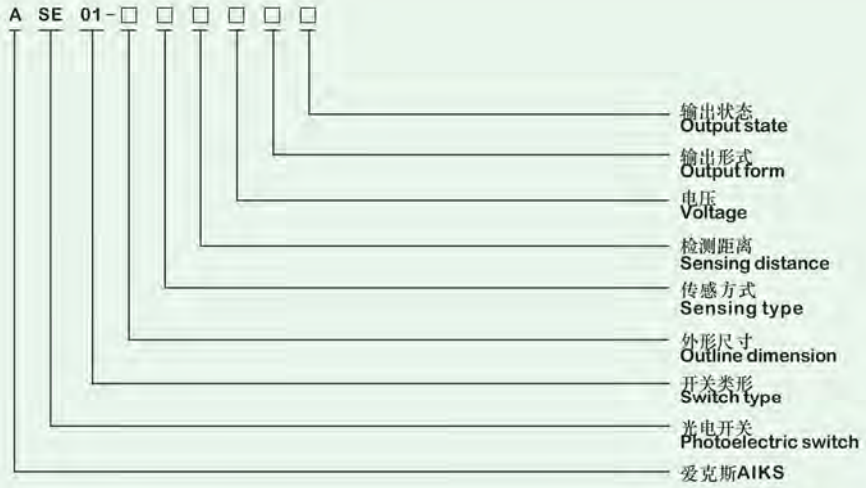
可定制安全光栅、光幕传感器及其它规格反射板
Has custom-made the diffraction grating safely, the light curtain sensor and other baffle plates

▶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，广泛应用于治金、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

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

③电压voltage

D:直流direct current A:交流Alternating Current

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

⑤外形尺寸outline dimension

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

⑥开关类型switch type

01：光电开关photoelectric switch

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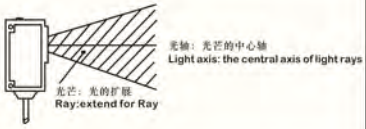
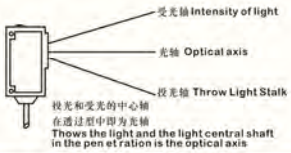
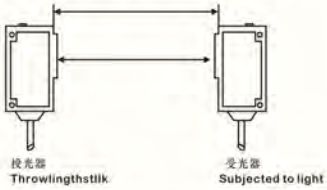
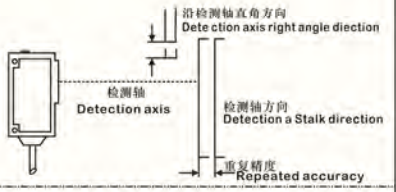
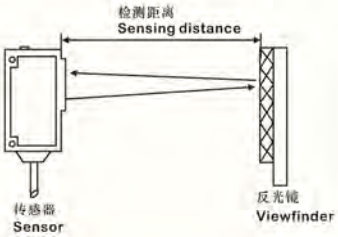
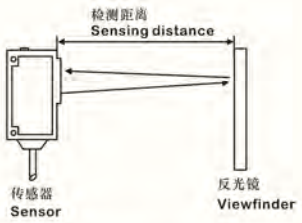
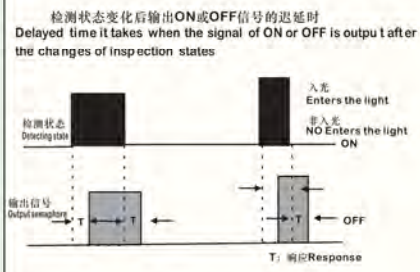
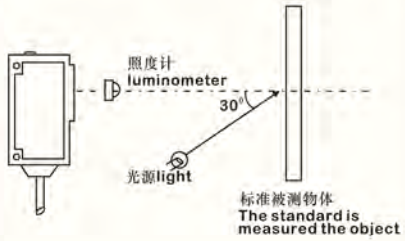
▶ 光电开关术语解释 Photoelectricity switch terminology explanation

术语lang	解释explanation
光芒光轴 Ray optical axis	
检测轴 Detection axis	
检测距离 Detection distance	对射型 可稳定设定的投光器和受光器之间的距离 Opposi te reflection The distance between the light projector and recei ver that can be set stably.  反馈反射型 标谁设定的传感器和反射镜之间的距离（0的场合将“0”省略） Retroreflective type The distance between the light projector and receiver of standard set (“0” is omitted in case of 0)  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） Diffuse reflection It can be Stabilize detec tion the object(usually is white unglazed paper)ca n the max range which sta bilizes examines 

术语lang	解释explanation
标准被测物体 The standard is measured the object	指在反射型传感器中为决定基本规格面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。） 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).
最小被测物体 Min tested objectt	指一定条件下传感器能测出的最小物体。 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。 It refers to the min object that the senso r can test under certai n con ditions. Opposit e reflectio n, mirror reflecti on type is the opa que object (thoroughly shielded), the opposite reflection means the correspo nding value of steel or cop per wires.
重复精度 Redundant precision	指一定条件下，重复动作时响应位置的误差 Under the certain condition Redun dant precision state respone position of error 
响应时间 response time	检测状态变化后输出ON或OFF信号的迟延时间 Delayed tim e it takes when the signal of ON or OFF is output after the changes of inspection states 
使用环境照度（耐杂散光） Conditions for use Light (anti-stray light)	指不引起误动作的极限照度用光接收器光面照度表示。 It means the limit light that may not result in mistaken operations, expressed with the optical brightness of light receiver. 

▶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

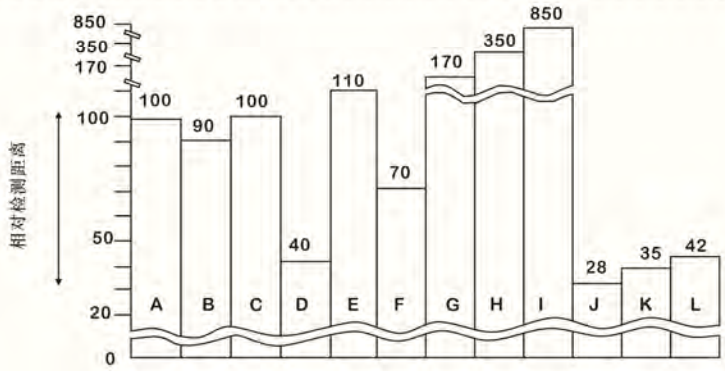
The distance set shall be less than the inspection distance indicated on the instruction manual. It can still work when the distance exceeds the inspection distance since there is residue, but the stability can not be ensured. In addition, certain residuals shall be reserved during the distance setting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



A：白色无光纸（基准）
B：自然色的纸箱
C：胶合
D：黑色无光纸（三级光泽度）
E：有光泽的胶合板（自然的米黄饭，褐色丙烯板，红色乙烯合成革）
F：灰色乙烯合成革
G：有绿色光泽的橡胶板
H：铝板
I：反射器或反射板
J：Φ10的锈铁棒
K：黑布
L：深蓝色布

A: White no-gloss paper (basis)
B: Paper box of natural color
C: Pastering
D: Black no-gloss paper (Grade III gloss)
E: Veneer with gloss (natural yellow board, brown propylene board, and red ethane composite leather)
F; Gray ethane composite leather
G: Rubber board with green gloss
H; Aluminum board
I: Reflector or reflection board
J: 10 iron bar
K: Black cloth
L: Deep blue cloth

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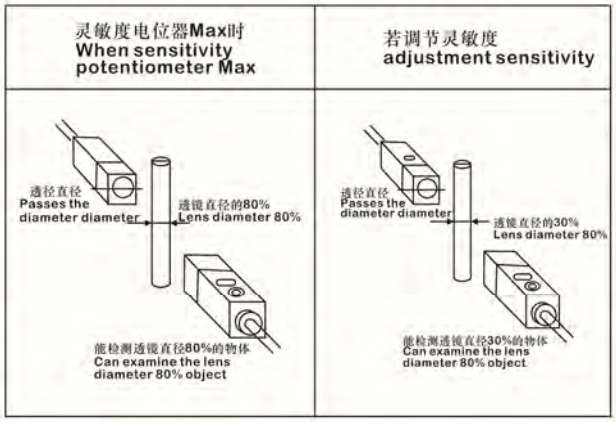
▶ 防止相互干扰的方法及注意事项
Prevents the muttual interference of method & no

● 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. 对射式并列用使用时，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.

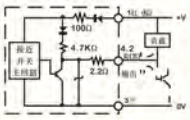
4. 电源电压清在使用电源电压范围内使用。
   The power voltage can only be used within the regulated range.

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户　　④室外或太阳光等有强光直射的场所

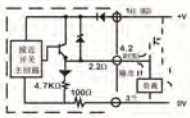
5. Installation in the following conditions may result in mistaken operations, please take care:
   ①Dusty places　　②Places with corrosive gases
   ③Places with direct spraying of water, oil and medicament　　④Outdoor or places with strong direct sunshine

▶ 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

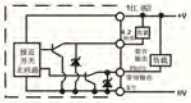
直流NPN常开或常闭三线型
direct current NPNoften open or often close three line



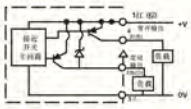
直流PNP常开或常闭三线型
direct current NPPoften open or often close three line



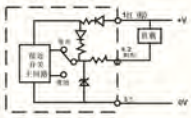
直流NPN常开+常闭四线型
direct current NPN+often open or often close four line



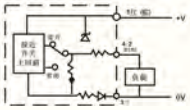
直流PNP常开+常闭四线型
direct current PNP+often open or often close four line



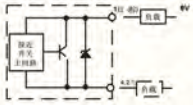
直流NPN常开或常闭可选三线型
direct current NPN+often open or often close four line



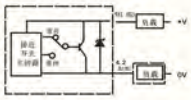
直流PNP常开或常闭可选三线型
direct current PNPoften open or often close three line



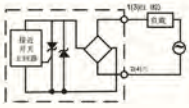
直流常开或常闭二线型
direct current often open or often close two line



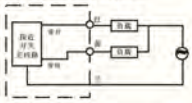
直流常开或常闭可选二线型
direct current often open or often close two line



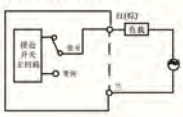
交流常开或常闭二线型
Alternating Current often open or often close two line



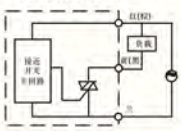
交流常开+常闭三线型
Alternating Current often open + often close three line



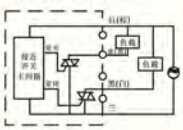
交流常开式常闭可选二线型
Alternating Current often open often close two line



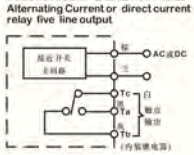
交流常开或常闭三线型
Alternating Current often open often close three line



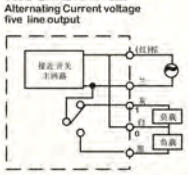
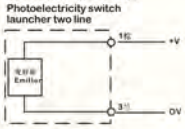
交流常开+常闭四线型
direct current often open or often close two line



交流或直流继电器输出五线型
Alternating Current or direct current relay five line output



交流电压输出五线型
Alternating Current voltage five line output



光电开关发射器二线型
Photoelectricity switch launcher two line