



外形尺寸 External dimensions			M12×1×60	
电源电压 Supply voltage			10~30VDC 90~250VAC	
漫反射型 Diffused reflection type	检测距离 Sensing distance		10cm	
	直流 DC	NPN	NO	ASE01-12W10DNA
			NC	ASE01-12W10DNB
		PNP	NO	ASE01-12W10DPA
			NC	ASE01-12W10DPB
	交流 AC	二线制 Two-wire	NO	ASE01-12W10ATA
			NC	ASE01-12W10ATD
	五线继电器输出 Relay output			
回归反射型 Retroreflective type	检测距离 Sensing distance		50cm	
	直流 DC	NPN	NO	ASE01-12K50DNA
			NC	ASE01-12K50DNB
		PNP	NO	ASE01-12K50DPA
			NC	ASE01-12K50DPB
	交流 AC	二线制 Two-wire	NO	ASE01-12K50ATA
			NC	ASE01-12K50ATB
	五线继电器输出 Relay output			
对射型 Through beam type	检测距离 Sensing distance		300cm	
	直流 DC	NPN	NO	ASE01-12Q300DNA
			NC	ASE01-12Q300DNB
		PNP	NO	ASE01-12Q300DPA
			NC	ASE01-12Q300DPB
	交流 AC	二线制 Two-wire	NO	ASE01-12Q300ATA
			NC	ASE01-12Q300ATB
	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				M18×1×67	
电源电压 Supply voltage				10~30VDC 90~250VAC	
漫反射型 Diffused reflection type	检测距离 Sensing distance			30cm	
	直流 DC	NPN	NO	ASE01-18W30DNA	
			NC	ASE01-18W30DNB	
		PNP	NO	ASE01-18W30DPA	
			NC	ASE01-18W30DPB	
	交流 AC	二线制 Two-wire	NO	ASE01-18W30ATA	
			NC	ASE01-18W30ATB	
	五线继电器输出 Relay output				
	回归反射型 Retroreflective type	检测距离 Sensing distance			200cm
直流 DC		NPN	NO	ASE01-18K200DNA	
			NC	ASE01-18K200DNB	
		PNP	NO	ASE01-18K200DPA	
			NC	ASE01-18K200DPB	
交流 AC		二线制 Two-wire	NO	ASE01-18K200ATA	
			NC	ASE01-18K200ATB	
五线继电器输出 Relay output					
对射型 Through beam type		检测距离 Sensing distance			400cm
	直流 DC	NPN	NO	ASE01-18Q400DNA	
			NC	ASE01-18Q400DNB	
		PNP	NO	ASE01-18Q400DPA	
			NC	ASE01-18Q400DPB	
	交流 AC	二线制 Two-wire	NO	ASE01-18Q400ATA	
			NC	ASE01-18Q400ATB	
	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				M30×1.5×92			
电源电压 Supply voltage				10~30VDC 90~250VAC			
漫反射型 Diffused reflection type	检测距离 Sensing distance		70cm				
	直流 DC	NPN	NO	ASE01-30W70DNA			
			NC	ASE01-30W70DNB			
		PNP	NO	ASE01-30W70DPA			
			NC	ASE01-30W70DPB			
	交流 AC	二线制 Two-wire	NO	ASE01-30W70ATA			
			NC	ASE01-30W70ATB			
	五线继电器输出 Relay output						
	对射型 Retractive type	检测距离 Sensing distance		400cm			
		直流 DC	NPN	NO	ASE01-30K400DNA		
NC				ASE01-30K400DNB			
PNP			NO	ASE01-30K400DPA			
			NC	ASE01-30K400DPB			
交流 AC		二线制 Two-wire	NO	ASE01-30K400ATA			
			NC	ASE01-30K400ATB			
五线继电器输出 Relay output							
透射型 Through beam type		检测距离 Sensing distance		1000cm			
		直流 DC	NPN	NO	ASE01-30Q1000DNA		
	NC			ASE01-30Q1000DNB			
	PNP		NO	ASE01-30Q1000DPA			
			NC	ASE01-30Q1000DPB			
	交流 AC	二线制 Two-wire	NO	ASE01-30Q1000ATA			
			NC	ASE01-30Q1000ATB			
	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				50×50×18	
电源电压 Supply voltage				10~30VDC	
漫反射型 Diffused reflection type	检测距离 Sensing distance			30cm	
	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			ASE01-F50W30R	
retroreflective type retroreflective type	检测距离 Sensing distance			400cm	
	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			ASE01-F50K400R	
对射型 Through beam type	检测距离 Sensing distance			500cm	
	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			ASE01-F50Q500R	
外壳材质 Housing material				塑料 Plastic	
连接方式 Connection method				引线 Cable	

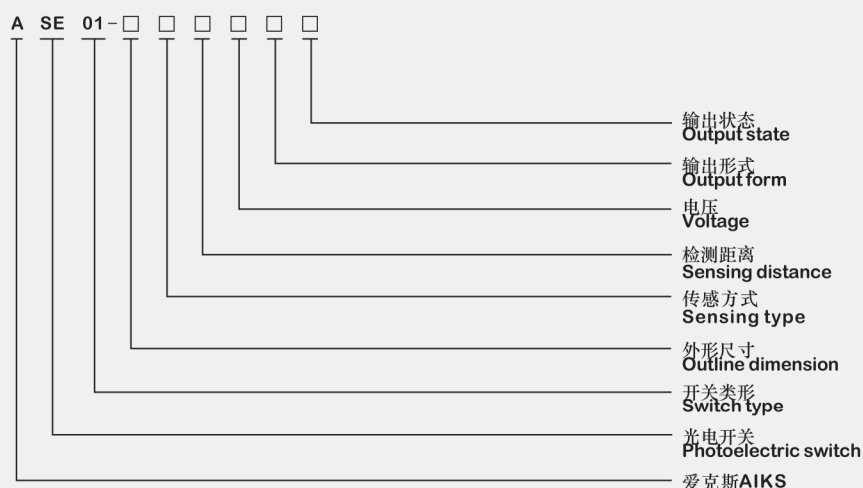


► 概述 Description

■ 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

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

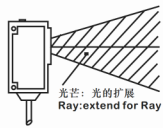
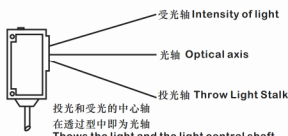
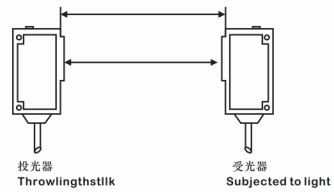
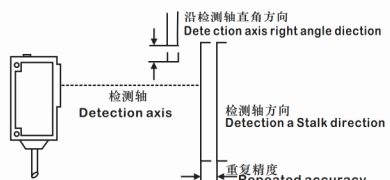
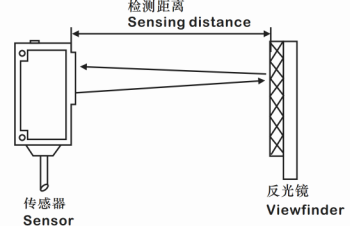
⑤外形尺寸outline dimension

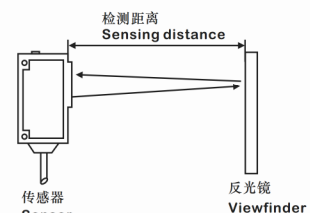
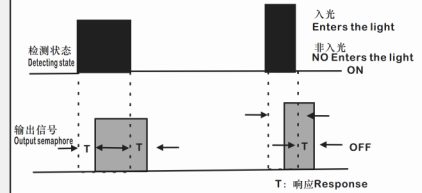
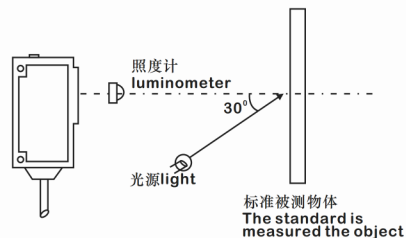
- 圆形不表示 circular unexpress
F: 表示方形squareness
J: 矩形rectangular

⑥开关类型switch type

- 01: 光电开关photoelectric switch

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

术语lang	解释explanation
Ray optical axis 光芒光轴	 光轴：光芒的中心轴 Light axis: the central axis of light rays 光芒：光的扩展 Ray: extend for Ray
Detection axis 检测轴	 受光轴 Intensity of light 光轴 Optical axis 投光轴 Throw Light Stalk 投光和受光的中心轴 Shows the light and the light central shaft in the penetration is the optical axis
Detection distance 检测距离	对射型 可稳定设定的投光器和受光器之间的距离 Opposite reflection The distance between the light projector and receiver that can be set stably.  投光器 Throwing stalk 受光器 Subjected to light
	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） Retro reflective type The distance between the light projector and receiver of standard set (“0” is omitted in case of 0)  沿检测轴直角方向 Detection axis right angle direction 检测轴 Detection axis 检测轴方向 Detection axis direction 重复精度 Repeated accuracy
	漫反射型 可稳定检测物体（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 detection the object (usually is white unglazed paper) can the max range which stabilizes examines  检测距离 Sensing distance 传感器 Sensor 反光镜 Viewfinder

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 object	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 sensor can test under certain conditions. Opposite reflection, mirror reflection type is the opaque object (thoroughly shielded), the opposite reflection means the corresponding value of steel or copper 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 Redundant precision state response position of error  检测距离 Sensing distance 传感器 Sensor 反光镜 Viewfinder
响应时间 response time	检测状态变化后输出ON或OFF信号的延迟时间 Delayed time it takes when the signal of ON or OFF is output after the changes of inspection states 检测状态变化后输出ON或OFF信号的延迟时间 Delayed time it takes when the signal of ON or OFF is output after the changes of inspection states  检测状态 Detecting state 入光 Enters the light 非入光 NO Enters the light ON OFF 输出信号 Output semaphore T: 响应 Response
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.  照度计 luminometer 30° 光源 light 标准被测物体 The standard is measured the object

► 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

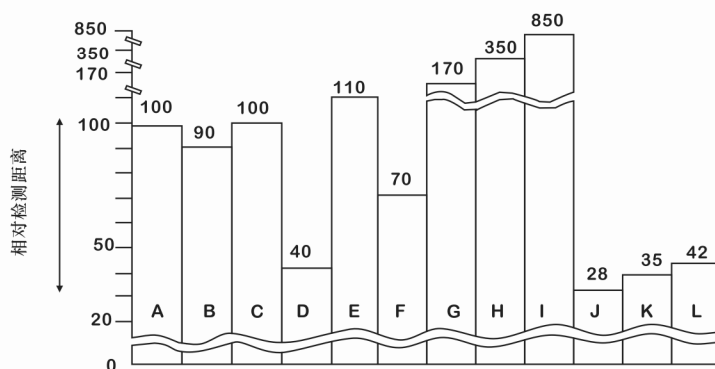
The distance set shall be less than the inspection distance indicated on the instruction manual. It can still work when the distance exceeds the inspection distance since there is residue, but the stability can not be ensured. In addition, certain residuals shall be reserved during the distance setting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

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

► 防止相互干扰的方法及注意事项 Prevents the mutual interference of method & note

● 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. 反射式并列使用时，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

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:

① Dusty places

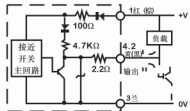
② Places with corrosive gases

③ Places with direct spraying of water, oil and medicament

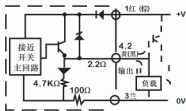
④ Outdoor or places with strong direct sunshine

► 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

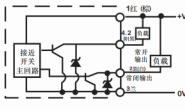
直流NPN常开或常闭三线型
direct current NPN often open or often close three line



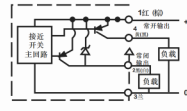
直流PNP常开或常闭三线型
direct current PNP often open or often close three line



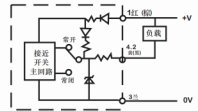
直流NPN常开+常闭四线型
direct current NPN often open or often close four line



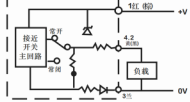
直流PNP常开+常闭四线型
direct current PNP often open or often close four line



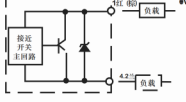
直流NPN常开或常闭可选三线型
direct current NPN often open or often close three line



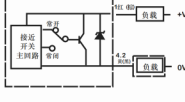
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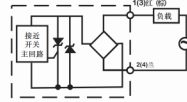
直流常开或常闭二线型
direct current often open or often close two line



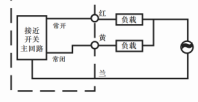
直流常开或常闭可选二线型
direct current often open or often close two line



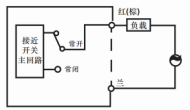
交流常开或常闭二线型
Alternating Current often open or often close two line



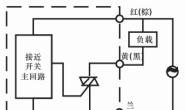
交流常开+常闭三线型
Alternating Current often open + often close three line



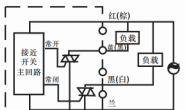
交流常开+常闭可选二线型
Alternating Current often open often close two line



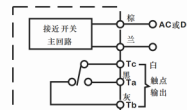
交流常开或常闭三线型
Alternating Current often open often close three line



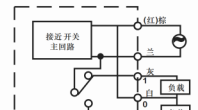
交流常开+常闭四线型
direct current often open or often close two line



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 output five line output



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

