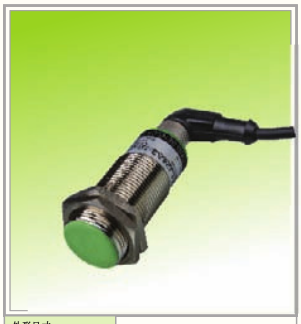
外形尺寸 External dimensions			M24×1.5×55
安装方式 installation type			埋入式 Flush
检测距离 Sensing distance			8.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-24s8DNA-1
			NC	ASP01-24s8DNB-1
			NO+NC	ASP01-24s8DNC-1
		PNP	NO	ASP01-24s8DPA-1
			NC	ASP01-24s8DPB-1
			NO+NC	ASP01-24s8DPC-1
		二线制 Two-wire	NO	ASP01-24s8DTA-1
			NC	ASP01-24s8DTB-1
	交流 AC	二线制 Two-wire	NO	ASP01-24s8ATA-1
			NC	ASP01-24s8ATB-1
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connection method			引线 Cable

外形尺寸 External dimensions			M24×1.5×63
安装方式 installation type			非埋入式 Non Flush
检测距离 Sensing distance			10.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-24b10DNA-1
			NC	ASP01-24b10DNB-1
			NO+NC	ASP01-24b10DNC-1
		PNP	NO	ASP01-24b10DPA-1
			NC	ASP01-24b10DPB-1
			NO+NC	ASP01-24b10DPC-1
		二线制 Two-wire	NO	ASP01-24b10DTA-1
			NC	ASP01-24b10DTB-1
	交流 AC	二线制 Two-wire	NO	ASP01-24b10ATA-1
			NC	ASP01-24b10ATB-1
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connection method			引线 Cable



外形尺寸 External dimensions			M24×1.5×55
安装方式 installation type			埋入式 Flush
检测距离 Sensing distance			8.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-24s8DNA-3
			NC	ASP01-24s8DNB-3
			NO+NC	ASP01-24s8DNC-3
		PNP	NO	ASP01-24s8DPA-3
			NC	ASP01-24s8DPB-3
			NO+NC	ASP01-24s8DPC-3
		二线制 Two-wire	NO	ASP01-24s8DTA-3
			NC	ASP01-24s8DTB-3
	交流 AC	二线制 Two-wire	NO	ASP01-24s8ATA-3
			NC	ASP01-24s8ATB-3
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connection method			接插式 Quick connect

外形尺寸 External dimensions			M24×1.5×63
安装方式 installation type			非埋入式 Non Flush
检测距离 Sensing distance			10.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-24b10DNA-3
			NC	ASP01-24b10DNB-3
			NO+NC	ASP01-24b10DNC-3
		PNP	NO	ASP01-24b10DPA-3
			NC	ASP01-24b10DPB-3
			NO+NC	ASP01-24b10DPC-3
		二线制 Two-wire	NO	ASP01-24b10DTA-3
			NC	ASP01-24b10DTB-3
	交流 AC	二线制 Two-wire	NO	ASP01-24b10ATA-3
			NC	ASP01-24b10ATB-3
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connecti on method			接插式 Quick connect

外形尺寸 External dimensions			M30×1.5×55
安装方式 installation type			埋入式 Flush
检测距离 Sensing distance			10.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-30s10DNA-1
			NC	ASP01-30s10DNB-1
			NO+NC	ASP01-30s10DNC-1
		PNP	NO	ASP01-30s10DPA-1
			NC	ASP01-30s10DPB-1
			NO+NC	ASP01-30s10DPC-1
		二线制 Two-wire	NO	ASP01-30s10DTA-1
			NC	ASP01-30s10DTB-1
	交流 AC	二线制 Two-wire	NO	ASP01-30s10ATA-1
			NC	ASP01-30s10ATB-1
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connection method			引线 Cable

外形尺寸 External dimensions			M30×1.5×65
安装方式 installation type			非埋入式 Non Flush
检测距离 Sensing distance			15.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-30b15DNA-1
			NC	ASP01-30b15DNB-1
			NO+NC	ASP01-30b15DNC-1
		PNP	NO	ASP01-30b15DPA-1
			NC	ASP01-30b15DPB-1
			NO+NC	ASP01-30b15DPC-1
		二线制 Two-wire	NO	ASP01-30b15DTA-1
			NC	ASP01-30b15DTB-1
	交流 AC	二线制 Two-wire	NO	ASP01-30b15ATA-1
			NC	ASP01-30b15ATB-1
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connecti on method			引线 Cable

外形尺寸 External dimensions			M30×1.5×55
安装方式 installation type			埋入式 Flush
检测距离 Sensing distance			10.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-30s10DNA-3
			NC	ASP01-30s10DNB-3
			NO+NC	ASP01-30s10DNC-3
		PNP	NO	ASP01-30s10DPA-3
			NC	ASP01-30s10DPB-3
			NO+NC	ASP01-30s10DPC-3
		二线制 Two-wire	NO	ASP01-30s10DTA-3
			NC	ASP01-30s10DTB-3
	交流 AC	二线制 Two-wire	NO	ASP01-30s10ATA-3
			NC	ASP01-30s10ATB-3
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connect ion method			接插式 Quick connect

外形尺寸 External dimensions			M30×1.5×65
安装方式 installation type			非埋入式 Non Flush
检测距离 Sensing distance			15.0mm
具备型号 Model number and operating form	直流 DC	NPN	NO	ASP01-30b15DNA-3
			NC	ASP01-30b15DNB-3
			NO+NC	ASP01-30b15DNC-3
		PNP	NO	ASP01-30b15DPA-3
			NC	ASP01-30b15DPB-3
			NO+NC	ASP01-30b15DPC-3
		二线制 Two-wire	NO	ASP01-30b15DTA-3
			NC	ASP01-30b15DTB-3
	交流 AC	二线制 Two-wire	NO	ASP01-30b15ATA-3
			NC	ASP01-30b15ATB-3
电源电压 Supply voltage			
外壳材质 Housing material			黄铜 Brass
连接方式 Connecti on method			接插式 Quick connect

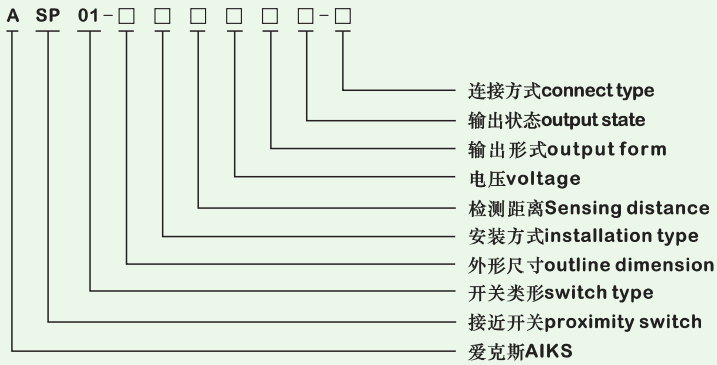
AIKS

▶概述 Description

■■ 接近开关是把要控制的物理量、化学量转为电量形式的开关量信号的传感器，它由振荡器起振后在开关的感应区上产生一个交变磁场，当阻尼物体（如金属）接近感应区时，在阻尼体内产生涡流，吸收了振荡能量，至使整形放大转换二进制的开关，它具有体积小，频率响应快，电压范围宽，重复精度高，抗干扰性能强，使用寿命长，工作稳定可靠，广泛应用于冶金、化工、机械、轻工、矿业、烟草、军工、纺织、自动化流水线等、也适用于机床限位、计数测速、液面、保护等各种控制，具有防水、耐腐蚀、耐振等特点。

■■ The proximity switch is a sensor of switch signal that changes the physical and chemical quantity into the power quantity. It produces an altern ating magnetic field in the inductive area of the switch by the oscillator after the vibration. When the damper (such as metal) gets close to the inductive area, there will be eddy currents in the damper, which absorbs the oscillation energy, so that it becomes an enlarged switch with binary system. It is characterized by small volume, fast frequency response, wide voltage range, high repetition accuracy, strong resistance to interfere nce, long use life, and stable and reliable operation. It is widely used in metallurgy, chemical, machinery, light industry, mining, tobacco, military industry, textile, and automatic production lines. It is also applicable to the machine tool's position limitation, speed calculating, liquid surface protection and other controls, featuring waterproof-ness and strong resistance to corrosion and vibration.

▶型号注释 Model Explain



①连接方式connect type
1：引线Cable
2：接线口connection port
3：快插式Inserts quickly

②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

③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

④电压voltage
D:直流direct current A:交流Alternating Current

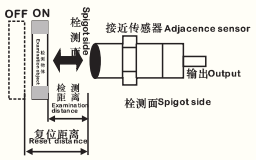
⑤安装方式installation type
b:非埋入式does not embedding
s:埋入式embedding

⑥外形尺寸outline dimension
圆形不表示 circular unexpress
F：表示方形squareness
J：矩形rectangular

⑦开关类型switch type
01：电感式inductance
02：电容式capacitance
03：霍尔式Hoare
04：模拟式simulation
05：干簧管式reed pipes

▶技术用词说明 Introduction to the technical terms

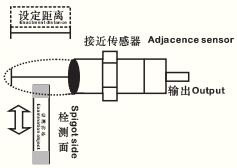
检测距离
Sensing distance



按指定方法移动检测物体，从基准位置（基准面到测定动作（复位）的距离）

Shift the detected object according to appointed method,from standard position(distance between standard surface to detecting action(rest))

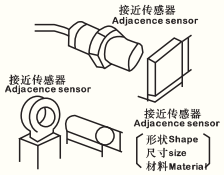
设定距离
Enactment distance



包括温度、电压影响在内，没有误动作从能实用的检测面到检测面到检测物体通过位置的距离。（一般为检测距离80%以下）

Including effect of temperature and voltage, from actual detecting surface to detected object passing position without misoperation. (Generally below 80% of detecting distance)

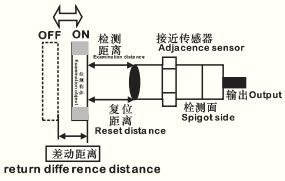
标准检测物体
Ecriterionxamination object



为测定基本性能作为标准的检测物体，形状、尺寸、材料已决定的。

In order to take the basic performances as the standard test objectives, the product shapes, dimensions and materials have been decided.

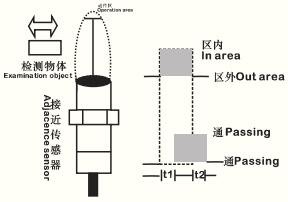
差动距离（回差）
return difference distance



●到动作的距离和到复位的距离之差的绝对值。

Absolute value of distance difference between action and reset position

响应时间
response time



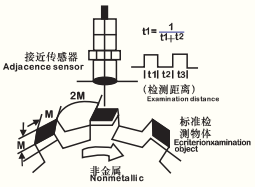
t1：检测物体进入动作区内，从接近传感器成为动作状态到出现输出的时间。

t2：从离开动作区到输出消失为止的时间。

T1：Time it takes from the tested object accesses to the operation areas, gets close to the sensor and comes into the operation state, to when the output shows.

T2：The time it takes from leaving the operation area to when the output disappears.

响应频率
response frequency



1.反复接近检测物体时，能得出跟踪它的输出的每秒次数。

测定方法概略如上图

1.When the tested object is approached repeatedly, the output per second it follows can be calculated.

The testing methods are as of the above diagram

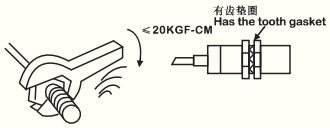
▶正确使用和安装及注意事项Correct use and installation and notices

1.螺纹式开关的安装

2.安装开关时不可采用过大力距紧固，紧固时请务必采用有齿垫圈

1.Ins tall ation of screw thre ad switch

2.Do not use too larg e moment to fasten during the switch instal lation . Plea se use the toothed washer when it is fastened.

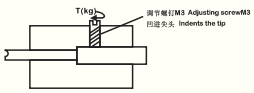


1.无螺纹式柱型开关的安装

2.采用调节螺钉时，紧固力矩请用2-4kgf-cm以下安装

1.Installation of non-screw column switch

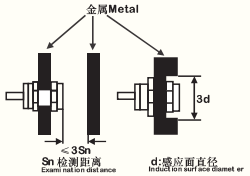
2.When the regulating screw is used, the moment should be fastened below 2-4kgf-cm.



1.防止非检测物体的干扰

2.在金属件上按装接近开关时，请务必参照下图，所示预留一定空间，以避免开关产生误动作。采用调节螺钉时，紧固力矩请用2-4kgf-cm以下安装

1.Prevent the interference by the non-inspected objects When the proximity switch is installed on the metal parts, please follow the diagram below. Certain space shall be reserved to avoid any mistaken operation of the switch. When the regulating screw is used, the moment should be fastened below 2-4kgf-cm,

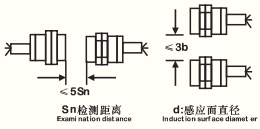


1.防止开关之间的相互干扰

2.当开关对置或并列按装时，请大于下图的尺寸按装，以免相互干扰而产生误动作；

1.so as to prevent the mutual interference of the switches.

2.When the switch is placed oppositely or installed in series, please install with the dimension larger than that indicated on the diagram below, so as to prevent the mistaken operation caused by mutual interference.

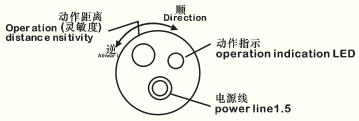


1.开关动作距离（灵敏度）可调节

2.接近开关可通过微调多圈电位器调节动作距离（灵敏度）。顺时针动作距离增大（灵敏度减低），逆时针，反之切忌在动作距离最大临界状态下使用。

1.The switch operation distance (sensitivity) are adjustable.

2.The operation distance (sensitivity) can be adjusted by the micro-control multi-coil potentiometer of the proximity. The distance becomes larger (the sensitivity reduces) when it is operated clockwise, vice versa. Operation under the max critical limit is prohibited.

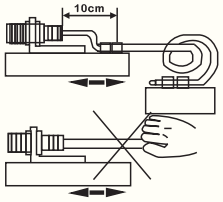


1.开关引线的防护

2.按装开关时，请将离开关10cm左右引线位置用线夹固定，防止开关引线受外力的作用损坏。

1.Protection of switch wire

2.When the switch is installed, use the clamp to fasten the wire position about 10cm away from the switch, so as to prevent the switch wire from damaging by the external force.



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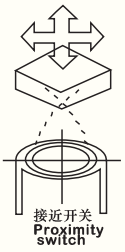
▶选用时的注意事项 Notices for selection

项目 item	分析内容Analysis content
动作条件 Movement condition	请确认检测物体和接近传感器之间的关系。 Please confirm the relationship between the tested object and the proximity sensor
电气条件 Electrical condition	请确认所用控制系统的电气条件和接近传感器的电气特性 Please confirm the electrical conditions of the control system used and the electrical features of the proximity sensor



移动方向 Move direction — 通过间隔，速度，有无振动 Throug h gap,speed Whether vibrates
- 检测距离（设定） Sensing distance (enactment)
- 温度影响，电压影响 Temperatur e influence, voltage influence
- 响应频率 Response frequency

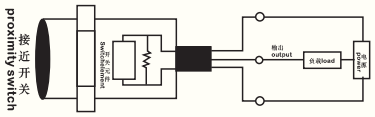
检测物体 detecting object — 大小，形状、有无覆层 size shape Whether there is coats
- 检测设定（距离） Detection hy pothesis distance
- 检测部形状；角柱、圆柱，环，槽型 Detection part shape Corner post, column, link, trough

检测距离 detecting space — 通过位置的偏差，允差 Deviation allowable error
- 温度影响，电压影响 Temp erature influen ce, vol tage influence
- 周围金属的影响（埋入式、非埋入式） Periphery metal influence

检测部形状 Detection part shape — 角柱，圆柱，环，槽型 Corner post, column, link, trough

到检测部的距离 to detecting part's distance

对向状况 To approaches the condition — 周围金属的影响 Periphery metal influence
- 周围金属的材料（埋入式、非埋入式） Periphery metal material(embedding and does not embedding)



使用电源
- 交流（电压变动值、频率值） 直流（电压变动值、电流值） 直流电压经过足够滤波电解电容或经过直流稳压电流后方可供电。
  - 电源方式的选定 交流用50HZ~60HZ频率内使用 直流用足够滤波电解电容或稳压电源后保证纹波系统＜3%

use power
- AC (Voltage variation, frequency) DC (Volta ge variation , current) The DC voltag e can only supply power through sufficient electrolytic capacitor or the stabilized DC.
  - Selection of Supply voltage DC used with the frequency of 50HZ~60HZ Ripple system is controlled within 3%. DC is supplied through sufficient electro lytic capacitor or the stabilized DC.

负载
- 电阻负载……无触控制系统 感应负载……继电器、电磁线圈等 稳定电流值、突升电流值 动作，复位电压（电流）灯负载 稳定电流值，突升电流值开关频率
  - 电源方式的选定 直流用 直流用+K2A3，K2C3型控制器 最大电流（电压）值 漏电流 负载残余电压

Load
- Resistance load…… Non-contact control system Inductive load……Relay, electromagnetic coil, etc. Stabilize d current, sudden rise current Operation, load of reset voltage (current) lamp Stabilize d current, switch frequency of sudden rise current
  - Selection of Supply voltage For DC +K2A3 and K2C controller for DC Max current (voltage) Max current (voltage) Residual voltage of load

项目 item	分析内容Analysis content
环境条件 Environmental condition	接近传感器的耐环境特性和其他检测用传感器相比虽然良好，但要预先充分研究分析温度条件严格的用法和在特殊环境中使用 Although the proximity sensor has better resistance to environment than other sensors, the thorough study and analysis of temperature conditions and the use in special environment shall be made in advance.
安装条件 Installation condition	必须考虑安装主法，按所装机械装置的制约，维护检修的方便性，接近传感器的相互干扰等条件决定安装方法。 The installation methods shall be determined according to the restrictions of the mechanical devices, the convenience of maintenance and repair, and the mutual interference of proximity sensor.
外部磁场的影响 Exterior magnetic field influence	1.直流磁场中的影响为200高斯，请勿在200高斯以上使用。 2.直流磁场急激变化时，有可能造成误动作，请勿在使用直流电磁铁ON OFF这种用法周边上使用。 1. The limit of DC magnetic field is 200 Gauss, so do not use above 200 Gauss. 2.When the DC magnetic field changes abruptly, it may cause mistaken operation. Please do not use in the surrounding area of ON OF for DC magnetic field.
其它条件 Other conditions	

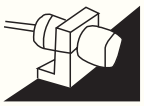
温度 湿度 temperature humidity — 最高值，最低值 有无值射光等 temperature max min whether there is value radiation and so on
- 温度影响 高温用，低温用 是否遮阳 temperat ure influence High temperatur e uses low temperature uses Whether visor

环境 气氛 Environment Atmosphere — 水、油、铁粉（污垢） 特殊化学药剂等 Water, oil, powd ered iron (dirt) Special chemical agent and so on
- 检测设定（距离） Detection enactment distance
- 检测部形状 Detection part shape

振动 冲击 Vibration Impact — 大小持续时间 size Duration
- 要否坚牢型 otherwise the firm
- 安装方法 installation type

配线方法 有无感应浪涌 Matches theline method Whether there is inductive surge
- 使用电线 Electrical wires
- 种类、长度、耐油线、屏蔽线 Types, length, oil-proof wire, shield wire

接线方法 Wiring method
- 直接引出、端子配线 Direct outlet, terminal wiring
- 直线管配线、线槽配线 Liner wiring, wiring duct
- 维护检修的方便性 Convenience of repair and maintenance



安装方法 固定场所 installation method Fixed place
- 要否安装配件、直接安装螺钉紧固，螺栓紧固； Whether the fittings are installed, or the screw fastener and the bolt fastener is installed directly
- 维护检修的方便性 Convenience of repair and maintenance
- 安装电位 Electric potential

经济性 economical efficiency
- 价格 price
- 交待期 Transfers the time
- 标准产品 Standard product
- 副标准产品 Vice-standard product

寿命 life
- 通电时间 Circular telegram time
- 使用频度 use ferquency