

### XSAV11801旋转检测器 Rotation detector

#### 用途和适用范围 Purpose and scope

- 自抑制监测旋转速度开关简称速度开关，适用于皮带运输，吊桶提升，螺旋推进，研磨机，破碎机，泵，离心干火机，搅拌机监测打滑，皮带断裂，动轴剪切和过载等。
- Self-inhibition rotation speed detecting sensor, referred to as speed sensor, is used for belt transporting, lifting bucket, screw propeller, grinders, crushers, pumps, centrifugal machine, mixer slip-monitoring, belt breakage detecting, drive shaft cutting and overloading.

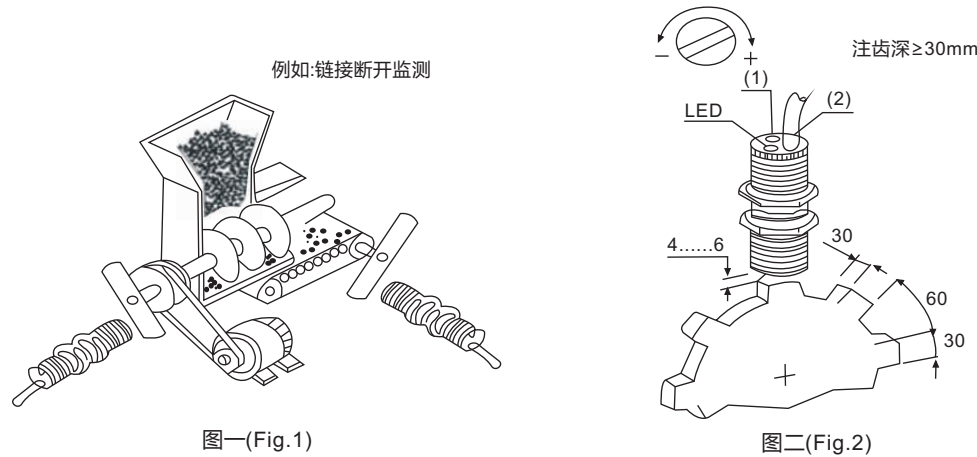
#### 动作原理 Working principle

- 开关输出一个信号经比较器处理，而被测物体的运动也产生一个震荡频率进入比较器，当被测物体的频率震荡频率小于速度开关设定频率是开关为打开状态；当被测物体的振动频率大于速度开关设定频率时开关为闭合状态。SD30-KA一般适合检测低速物体，当物体运动速度低于预置速度时，开关输出为打开状态。注：所有速度开关须通电后延时9秒才能使监测机器和设备启动一致。图1为链接断开监测。

- The sensor output a frequency signal to be processed in the comparator, while a vibration frequency originated by the detected running object also enter the comparator. The switch will be off if the vibration frequency is lower than the sensor's rated frequency, and the s will be on if the vibration frequency is higher than the sensor's rated frequency. SD30- KA is usually used to detect object with lower speed. When the speed of the object is lower than the rated speed, the sensor output an open signal.
- Note: When the power is supplied, it takes around 9 seconds for every kind of speed sensor to enable the detector to keep pace with the detected machine. In fig. 1 it is detecting the broken link.

#### 调整 Adjustment

- 开关使多圈电位器进行调整，顺时针旋转频率增加，逆时针旋转频率减少。
- The sensor uses a multi-turn potentiometer to do adjustment, clockwise turning to increase the frequency and counterclockwise turning to decrease the frequency.

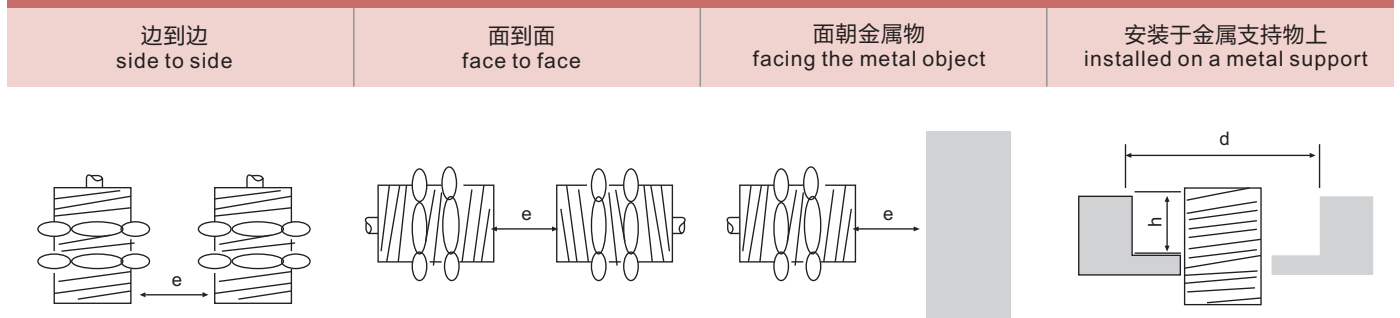


图一(Fig.1)

图二(Fig.2)

品牌 Brand	旋转探测仪(速度开关)rotation detector(speed sensor)
型号 Model	XSA-V11801
种类 Species	速度
材料 Material	金属
材料物理性质 Physical properties of materials	其他
材料晶体结构 Crystal structure of materials	其他
制作工艺 Production process	集成
输出信号 Output signal	开关型
防护等级 Protection class	IP66
线性度 Linearity	1(%F.S.)
迟滞 Sluggish	1(%F.S.)
重复性 Repeatability	1(%F.S.)
灵敏度 Sensitivity	3
漂移 Drift	1
分辨率 Resolution	1

### 最小安装距离 the least installation distance



迟滞曲线 delay curve: 5...15% of Fr

功率传输时滞 power transmission delay:  $9s \pm 20\% + 1/Fr$

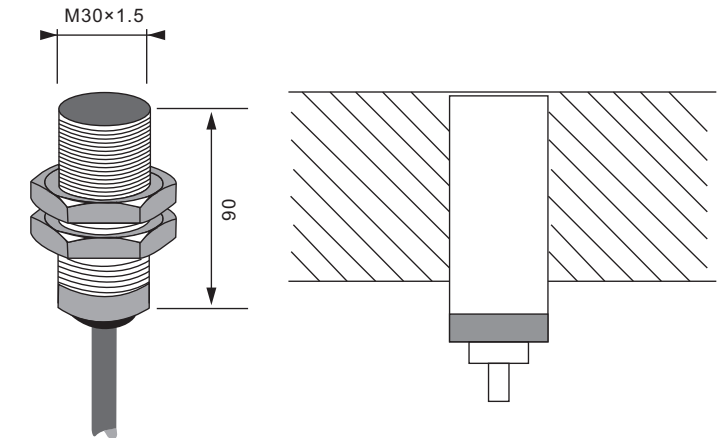
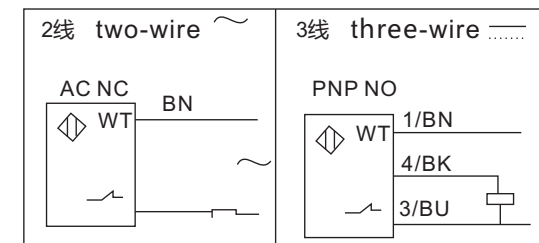
工作环境温度 working environment temperature:  $-25^{\circ}\text{C} \dots +70^{\circ}\text{C}$

连接方式 connection: 预置2mPUR 电缆 Preset 2mPUR cable

动作指示 action indicating: LED

防护等级 protection level: IP66

符合标准 standard: GB/T14084.10



### 技术参数 technical parameters

3线(wire)DC PNP	6...150	SD30-1210PA		
脉冲/分 pulse/min	120...3000	SD30-1210PB		SD30-2410KB
2线(wire)AC			SD30-4810KA	SD30-1210KA
脉冲/分 pulse/min			SD30-4810 KB	SD30-1210KB
感应距离 sensing distance	10mm			
设定距离 setdistance				
工作电压 working voltage	DC12...48V	DC 24...220V(50/60Hz)	AC 110...120V(50/60Hz)	DC24...240V(50/60Hz)
电压极限(包括波纹) voltage limit (including fluctuation)	DC 10...48V	AC 20...60V	AC 93...132V	AC 187...264V
开关容量switch capacity	0...200mA(过载短路保护)	40...300mA(2A流涌电流)	20...300mA(2A流涌电流)	20...300mA(2A流涌电流)
电压降(闭合状态)voltage drop( closed)	$\leq 1.8\text{V}$		$\leq 4.5\text{V}$	
防护等级protection level	IP66			
输出状态output state	PNP三线常开	交流两线常开		
环境温度ambient temperature	$-25^{\circ}\text{C} \dots +70^{\circ}\text{C}$			