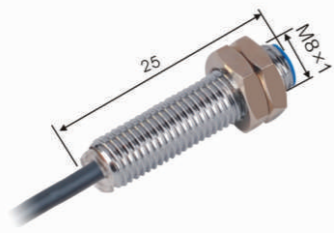
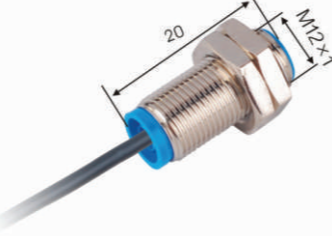
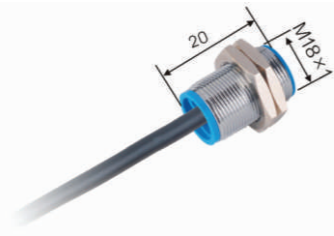
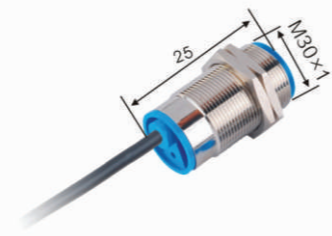
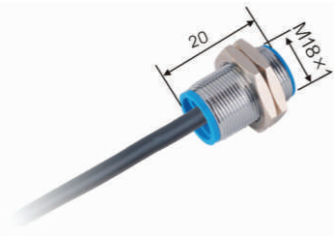
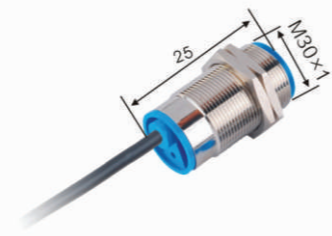
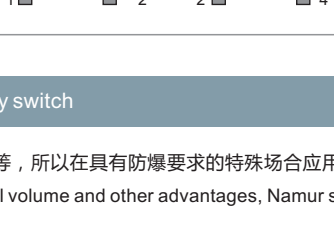
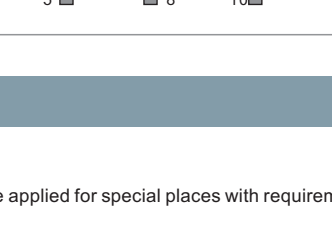










安全防爆型接近开关 SAFETY EXPLOSION-PROOF PROXIMITY SWITCH

结构分类 Structural category		防爆传感器 Namur sensor			
外形编号 Outward Appearance code		AM8-3001LB	AM8-3002LB	AM8-3005LB	AM8-3008LB
外形图例 Outward appearance illustration					
外形编号 Outward Appearance code		AM12-3002LB	AM12-3004LB	AM30-3010LB	AM30-3015LB
外形图例 Outward appearance illustration					
额定检测距离 Rated sensing distance		 	 	 	 




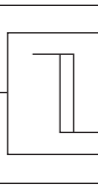
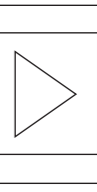
安全防爆型接近开关 Safety explosion-proof proximity switch

- 因NAMUR传感器为低电压供电，微电流输出，体积小等等，所以在具有防爆要求的特殊场合应用。
- With low-voltage power supply, micro-current output, small volume and other advantages, Namur sensors can be applied for special places with requirements of explosion proof.

标准检测体Q235(mm) standard detecting object Q235 steel(mm)		12×12×1t	12×12×1t	18×18×1t	30×30×1t
具备型号 Model	二线常闭 埋入 Two-wire normally close	AM8-3001LB	AM12-3002LB	AM18-3005LB	AM30-3010LB
	二线常闭 非埋 Two-wire normally close	AM8-3002LB	AM12-3004LB	AM18-3008LB	AM30-3015LB
技术参数 specifications	额定电压 rated voltage	8.2V	8.2V	8.2V	8.2V
	振荡电流 / 停振荡电流 oscillating current / stop pscillating current	≥2.2mA/≤1mA	≥2.2mA/≤1mA	≥2.2mA/≤1mA	≥2.2mA/≤1mA
	负载电阻 load resistance	1KΩ	1KΩ	1KΩ	1KΩ
	开关频率: 埋入 / 非埋 switch frequency, flusn / non-fish	1.5Hz/1KHz	1.5Hz/1KHz	1Hz/700KHz	300Hz/200KHz
	外壳材料 shell material	黄铜镀镍 Nickel-plated brass	黄铜镀镍 Nickel-plated brass	黄铜镀镍 Nickel-plated brass	黄铜镀镍 Nickel-plated brass
	防护等级 protection level	IP67	IP67	IP67	IP67
	工作环境温度 protection level	-20°C~70°C	-20°C~70°C	-20°C~70°C	-20°C~70°C
外接线圈 external wiring diagram					

电容式接近开关 CAPACITANCE PROXIMITY SWITCH

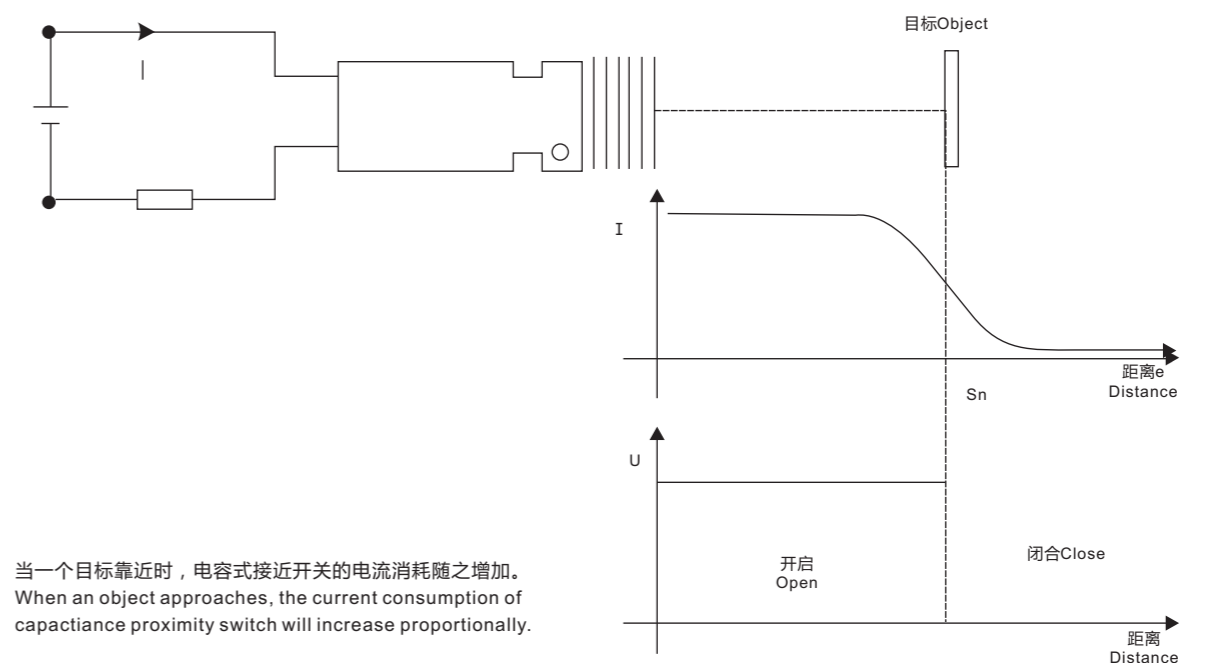
电容式接近开关的工作原理 Working principle of capacitance proximity switch

结构分类 Structural category	目标 Object	感应面 Inductive surface	RC振荡器 RC oscillator	开关级 switching stage	输出级 magnified output stage
外形图例 Outward appearance illustration					

电容式接近开关 Capacitance proximity switch

- 电容式传感器的感应面由两个同轴金属电极构成，很象“打开的”电容电极，该两个电极构成一个电容，串接在RC震荡回路中。
- 电源接通时，RC振荡器不振荡，当一个目标朝着电容器的电极靠近时，电容器的容量增加，使振荡器开始振荡。通过后级电路的处理，将振荡和振荡两种信号转换成开关信号，从而起到了检测有无物体存在的目的。该传感器能检测金属物体，也能检测非金属物体，对金属物体可以获得最大的动作距离，对非金属物体动作距离决定于材料的介电常数 ϵ ，材料的介电常数越大，可获得的动作距离越大。
- The induction surface of capacitance sensor is composed of two coaxial mental electcrodes, which from a capacitor and connected on RC oscillation circuit, just like an open capacitor electrode.
- When connecting to power supply, RC oscillator does not work. When an object is clos eto capacitor electrode, the capacitor capacity will increase, and the oscillator will vibrate. Through the treatment of behind stage circuit, both signals of stop oscillation and oscillation will be converted to switch signs for checking the existence of object. this distance can be obtained, but to nonmetal object, the action distance is d etermined by material dielectric constant, the more action distance will be obtained.

外形图例 Outward appearance illustration



当一个目标靠近时，电容式接近开关的电流消耗随之增加。
When an object approaches, the current consumption of capacitance proximity switch will increase proportionally.

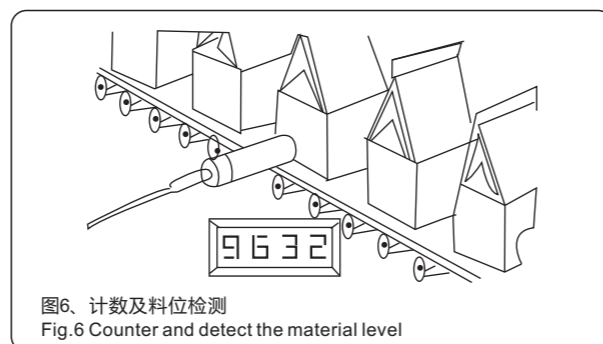
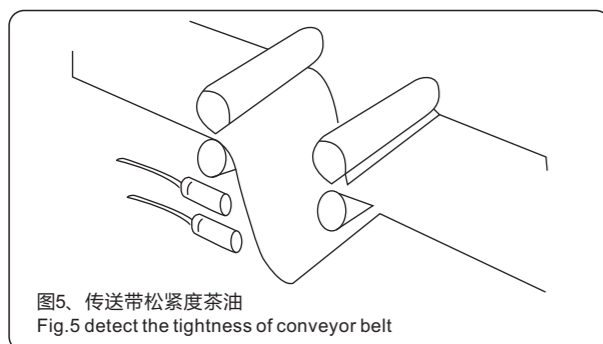
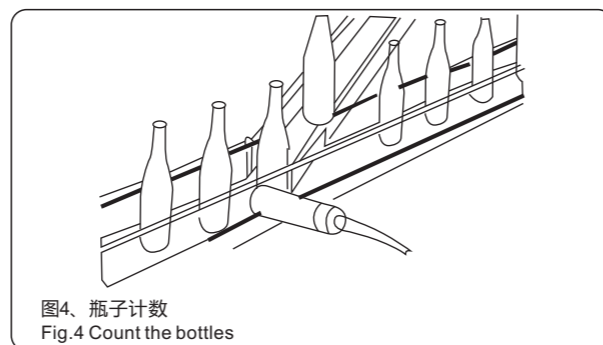
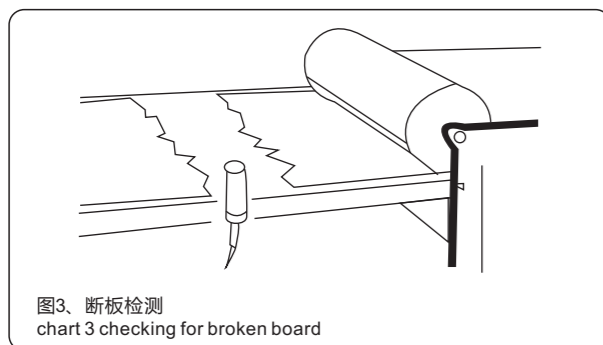
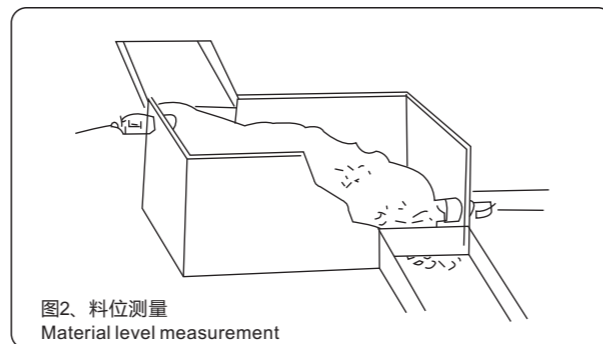
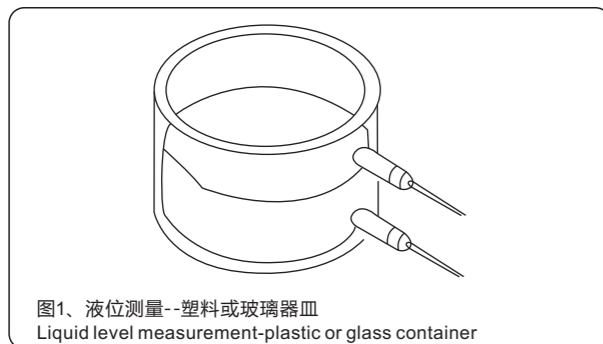
电容式接近开关 CAPACITANCE PROXIMITY SWITCH

一些重要材料的介电常数如下表:

The dielectric constants for some important materials are as listed as below:

材料 Materials	介电常数 Dielectric constant	材料 Materials	介电常数 Dielectric constant	材料 Materials	介电常数 Dielectric constant	材料 Materials	介电常数 Dielectric constant
合成树脂粘接剂 Synthetic resin adhesive	3.6	苯乙烯 Styrene	3	酒精 Alcohol	25.8	聚乙烯化合物 Polyvinyl	2.9
云母 Mica	6	陶瓷 Porcelain	4.4	玻璃 Glass	5	石英玻璃 Quartz glass	3.7
硬橡胶 Ebonite	4	石蜡 Petrolin	2.2	硬纸 Cardboard	4.5	硅 Silicon	2.8
大理石 Marble	8	石英沙 Quartz sand	4.5	电缆胶皮化合物 Cable rubber compound	2.5		
纸 Paper	2.3	软橡胶 Soft rubber	2.5	汽油 Gasoline	2.2		
有机玻璃 Organic glass	3.2	水 Water	80	木材 Wood	2.7		

应用图例 application illustration








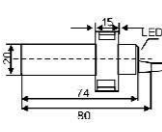
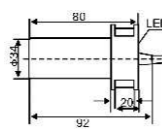
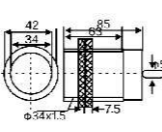
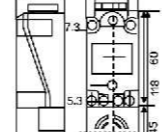
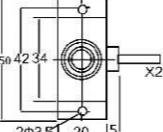
电容式接近开关 CAPACITANCE PROXIMITY SWITCH

结构分类 Structural category

电容式接近开关 Capacitance proximity switch

外形编号 Outward Appearance code		CM12	CM18	CM24	CM30		
外形图例 Outward appearance illustration							
外形尺寸 Overall dimensions							
检测距离 DETECTION DISTANCE		0-2mm	0-5mm	0-8mm	0-10mm		
埋入式 Flush	直流 DC 6-36 VDC	NPN	NO	CM12-3002NA	CM18-3005NA	CM24-3008NA	CM30-3010NA
			NC	CM12-3002NB	CM18-3005NB	CM24-3008NB	CM30-3010NB
			NO+NC	CM12-3002NC	CM18-3005NC	CM24-3008NC	CM30-3010NC
	交流 AC 90- 250 VAC	PNP	NO	CM12-3002PA	CM18-3005PA	CM24-3008PA	CM30-3010PA
			NC	CM12-3002PB	CM18-3005PB	CM24-3008PB	CM30-3010PB
			NO+NC	CM12-3002PC	CM18-3005PC	CM24-3008PC	CM30-3010PC
SCR 可控硅 Control- lable silicon	NO	CM12-2002A	CM18-2005A	CM24-2008A	CM30-2010A		
	NC	CM12-2002B	CM18-2005B	CM24-2008B	CM30-2010B		
检测距离 DETECTION DISTANCE		0-4mm	0-8mm	0-12mm	0-15mm		
非埋入式 Non-Flush	直流 DC 6-36 VDC	NPN	NO	CM12-3004NA	CM18-3008NA	CM24-3012NA	CM30-3015NA
			NC	CM12-3004NB	CM18-3008NB	CM24-3012NB	CM30-3015NB
			NO+NC	CM12-3004NC	CM18-3008NC	CM24-3012NC	CM30-3015NC
	交流 AC 90- 250 VAC	PNP	NO	CM12-3004PA	CM18-3008PA	CM24-3012PA	CM30-3015PA
			NC	CM12-3004PB	CM18-3008PB	CM24-3012PB	CM30-3015PB
			NO+NC	CM12-3004PC	CM18-3008PC	CM24-3012PC	CM30-3015PC
SCR 可控硅 Control- lable silicon	NO	CM12-2004A	CM18-2008A	CM24-2012A	CM30-2015A		
	NC	CM12-2004B	CM18-2008B	CM24-2012B	CM30-2015B		
可检测体 Detectable object		导体及介电体 conductor and dielectric body					
消耗电流 Consumption current		直流(NPN PNP)型 DC12V时8mA 24V时15mA、交流型: 10mA以下、DC<15mA、AC<10mA					
输出电流 Output current		直流:200mA, 交流型:300mA					
可输出电压降 Output voltage drop DC/AC		直流(NPN PNP)3V以下, 交流型:7V以下、DC<3V、AC<7V					
响应频率 DC/AC Response frequency		直流:50Hz, 交流型:10Hz					
外壳材料 Shell material		金属 Metal	ABS树脂/金属 Resin, Metal	金属 Metal	金属 Metal/ABS树脂 Resin		
工作环境温度 Working environment temperature		-25°C~70°C					
绝缘电阻 Insulation resistance		50MΩ					
防护等级 Protection grade		IEC标准IP54 IEC standard IP54					
可替代国内型号 Aiyemative model at home and abroad		LJC18A3-□□	LJC24A3-□□	E2K-X15M□			

电容式接近开关 CAPACITANCE PROXIMITY SWITCH

结构分类 Structural category		电容式接近开关 Capacitance proximity switch						
外形编号 Outward Appearance code		CM20	CM34	CM35	CMF37	E2K		
外形图例 Outward appearance illustration								
外形尺寸 Overall dimensions								
检测距离 DETECTION DISTANCE								
埋入式 Flush	直流 DC 6-36 VDC	NPN	NO					
			NC					
			NO+NC					
	交流 AC 90- 250 VAC	PNP	NO					
			NC					
			NO+NC					
SCR 可控硅 Control- lable silicon	NO							
	NC							
检测距离 DETECTION DISTANCE								
非埋入式 Non-Flush	直流 DC 6-36 VDC	NPN	NO	CM20-3010NA	CM34-3020NA	CM35-3025NA	CMF37-3025NA	E2K-F10MC1
			NC	CM20-3010NB	CM34-3020NB	CM35-3025NB	CMF37-3025NB	E2K-F10MC2
			NO+NC	CM20-3010NC	CM34-3020NC	CM35-3025NC	CMF37-3025NC	E2K-F10MC3
	交流 AC 90- 250 VAC	PNP	NO	CM20-3010PA	CM34-3020PA	CM35-3025PA	CMF37-3025PA	E2K-F10MF1
			NC	CM20-3010PB	CM34-3020PB	CM35-3025PB	CMF37-3025PB	E2K-F10MF2
			NO+NC	CM20-3010PC	CM34-3020PC	CM35-3025PC	CMF37-3025PC	E2K-F10MF3
	SCR 可控硅 Control- lable silicon	NO	CM20-2010A	CM34-2020A	CM35-2025A	CMF37-2025A	E2K-F10MA0	
		NC	CM20-2010B	CM34-2020B	CM35-2025B	CMF37-2025B	E2K-F10MAC	
	可检测体 Detectable object		导体及介电体 conductor and dielectric body					
消耗电流 Consumption current		直流(NPN PNP)型 DC12V时8mA 24V时15mA、交流型: 10mA以下、DC < 15mA、AC < 10mA						
输出电流 Output current		直流:200mA, 交流型:300mA						
可输出电压降 Output voltage drop DC/AC		直流(NPN PNP)3V以下, 交流型:7V以下、DC < 3V、AC < 7V						
响应频率 DC/AC Response frequency		直流(NPN-PNP) 50Hz, 交流型:10Hz						
外壳材料 Shell material		ABS树脂 Resin	ABS塑料 Plastic	ABS塑料 Plastic	ABS塑料 Plastic	ABS塑料 Plastic		
工作环境温度 Working environment temperature		-25°C~70°C						
绝缘电阻 Insulation resistance		50MΩ						
防护等级 Protection grade		IEC标准IP54 IEC standard IP54						
可替代国内型号 Aiyemative model at home and abroad			E2K-C25□□					

霍尔传感器 HALL SENSOR

简介 Brief Introduction					
<ul style="list-style-type: none"> SM系列霍尔传感器是由电压调整器, 霍尔电压发生器, 差分放大器, 施密特触发器和集电极开路的输出级组成的磁敏传感器, 其输入为磁感应强度、输出是一个数字电压讯号。 SM series Hall sensor is a kind of magnct-sensitive scnsor consisting of voltage regulator, Hall voltage generator, differential amplifier, Schmidt trigger and the output pole of collector open circuit. Its input is the magnetic flux density. The output is adigital voltage signal. 					
特点 Features					
<ul style="list-style-type: none"> 电源电压范围宽 频率高 寿命长, 体积小, 安装方便 能直接和晶体管及TTL.MOS等逻辑电路接口 Wide mains voltage range High frequency Long service life, compact volume, and convenient installation Directly connect to transistor and logic circuit pore like, TTL.MOS 					
型号及参数 Model and parameters					
外形编号 Outward Appearance code		SM8	SM12	SM14	SM18
外形图例 Outward appearance illustration					
外形尺寸 Overall dimensions					
检测距离 Detection distance		10mm	10mm	10mm	10mm
电源电压 Mains voltage		5~24VDC	5~24VDC	5~24VDC	5~24VDC
可检测物体 Detectable object		永磁体 Permanent magnet	永磁体 Permanent magnet	永磁体 Permanent magnet	永磁体 Permanent magnet
输出低电平电压 Output low level voltage		200mV	200mV	200mV	200mV
输出高电平电流 Output high level current		0.1uA	0.1uA	0.1uA	0.1uA
电源电流 Mains current		8mA	8mA	8mA	8mA
开关频率 ON-OFF frequency		320KHz			
工作点磁强度 Working point magnetic density		22mT			
外壳材料 Shell materia		金属 Metal			
环境温度 Ambient temperature		-25°C~70°C			
防护等度 Protection structure		IEC标准 IP67 standard IP67			
具备型号 Model available	NPN	SM8-31010NA	SM12-31010NA	SM14-31010NA	SM18-31010NA
	NO				
	PNP NO	SM8-31010PA	SM12-31010PA	SM14-31010PA	SM18-31010PA
	PNP NC		SM12-31010NB	SM14-31010NB	SM18-31010NB
	PNP NC		SM12-31010PB	SM14-31010PB	SM18-31010PB