

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 follows, 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

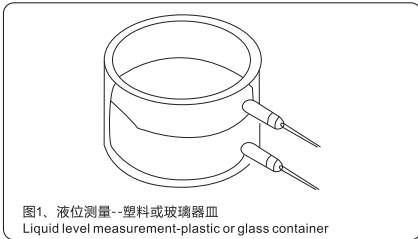


图1. 液位测量-塑料或玻璃器皿
Liquid level measurement-plastic or glass container

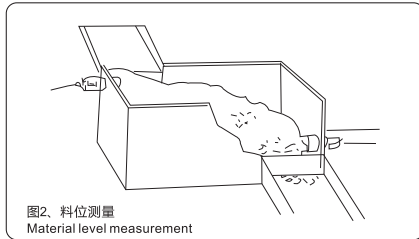


图2. 料位测量
Material level measurement

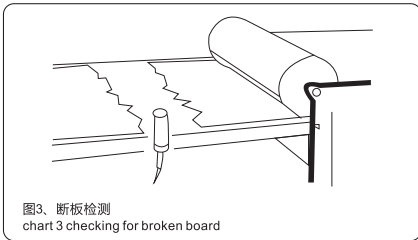


图3. 断板检测
chart 3 checking for broken board

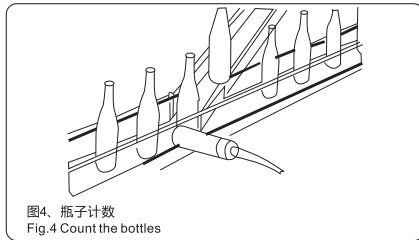


图4. 瓶子计数
Fig.4 Count the bottles

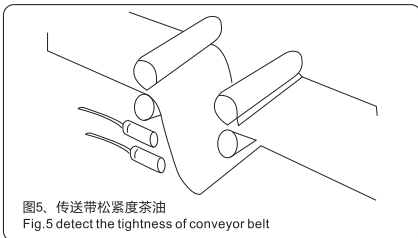


图5. 传送带松紧度检测
Fig.5 detect the tightness of conveyor belt

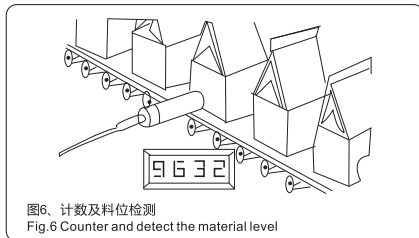


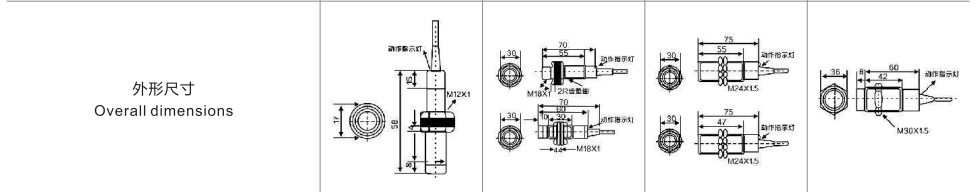
图6. 计数及料位检测
Fig.6 Counter and detect the material level

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



检测距离 DETECTION DISTANCE		0-2mm	0-5mm	0-8mm	0-10mm	
埋入式 Flush	直流 DC 6-36 VDC	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	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-able 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	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	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-able 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 Alyemative 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			0-10mm	0-20mm	0-25mm	0-25mm	0-10mm	
非埋入式 Non-Flush	直流 DC 6-36 VDC	NPN	NO	CM20-3010NA	CM34-3020NA	CM35-3025NA	CM37-3025NA	E2K-F10MC1
			NC	CM20-3010NB	CM34-3020NB	CM35-3025NB	CM37-3025NB	E2K-F10MC2
			NO+NC	CM20-3010NC	CM34-3020NC	CM35-3025NC	CM37-3025NC	E2K-F10MC3
	交流 AC 90- 250 VAC	PNP	NO	CM20-3010PA	CM34-3020PA	CM35-3025PA	CM37-3025PA	E2K-F10MF1
			NC	CM20-3010PB	CM34-3020PB	CM35-3025PB	CM37-3025PB	E2K-F10MF2
			NO+NC	CM20-3010PC	CM34-3020PC	CM35-3025PC	CM37-3025PC	E2K-F10MF3
	SCR 可控硅 Control- lable silicon	NO	CM20-2010A	CM34-2020A	CM35-2025A	CM37-2025A	E2K-F10MA0	
		NC	CM20-2010B	CM34-2020B	CM35-2025B	CM37-2025B	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

- 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 magnet-sensitive sensor 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

- 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				
防护等级 Protection structure	IEC标准 IP67 standard IP67				
具备型号 Model available	NPN NO	SM8-31010NA	SM12-31010NA	SM14-31010NA	SM18-31010NA
	PNP NO	SM8-31010PA	SM12-31010PA	SM14-31010PA	SM18-31010PA
	NPN NC	SM12-31010NB	SM12-31010NB	SM14-31010NB	SM18-31010NB
	PNP NC	SM12-31010PB	SM14-31010PB	SM14-31010PB	SM18-31010PB