



特点 Features

- 内置浪涌保护, 电源反接保护和过流保护电路
- 寿命长, 高可靠性, 操作简单, 经济实惠
- 红色LED状态指示灯, 易于识别运行状态
- IP67防护等级(IEC规格)
- 可以代替微动开关或限位开关广泛使用
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches



选型说明 Model Designation

CJ F 18 E - 05 D N A / □ □ - L2

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

序号 No	项目 Item	代号 Code	说明 Description
①	分类代号 Classification code	CJ	电感式 Inductive type
②	外形代号 Shape code	F	方形 Quadrate
③	尺寸代码 Size code	18	17=□17、18=□18、25=□25、30=□30、40=□40
④	产品类别 Product category	E	经济型 Economical
⑤	检测距离 Detection distance	05	05=5mm、08=8mm、12=12mm、15=15mm
⑥	工作电压 Operating voltage	A	90...250VAC
		D	10...30VDC
		E	20...60VDC
		J	5...10VDC
⑦	输出方式 Output mode	N	NPN
		P	PNP
		K	AC二线 Wire
		L	DC二线 Wire
⑧	输出状态 Output state	A	NO
		B	NC
		C	NO+NC
⑨	连接形式 Connection form	无 None	引线式自由出线端 Lead type free outlet end
		M	M12针式 直头 4芯 A编码 M12 pin straight head 4-core A coding
		M□□□□	M型接插件 M□□□□ M-type connector M□□□□
		D□□□□	DT型接插件 D□□□□ DT-type connector D□□□□
		A□□□□	AMP型接插件 A□□□□ AMP-type connector A□□□□
		S□□□□	SM型接插件 S□□□□ SM-type connector S□□□□

序号 No	项目 Item	代号 Code	说明 Description
⑩	电线材质 Wire material	无 None	PVC
		U	PUR
		VP	PVC+屏蔽 Shield
		UP	Shielded PUR
⑪	引线长度 Lead length	L1-L5	L1表示1米线 (线长不限L5) L1 means 1 meter line (line length is not limited to L5)

国际认证规格 International Certification Specifications

认证规格 Certification specifications	规格 Specifications	文件No. Document
CCC	GB/T 14048.10	请咨询昌得代表处 Please consult the CNTD Representative Office
TUV	EN 60947-5-2	
CE		

安全规格认证额定值 Safety Specification Certification Rating

CCC(GB/T 14048.10)、TUV(EN60947-5-2)

类型与额定值 Type and Rating
AC-140 24~250VAC 200mA DC-13 10~30VDC 200mA

规格 Specifications

直流3线式 DC 3wire type

型号名 Model	CJF17E-05DNA CJF17E-05DNB CJF17E-05DPA CJF17E-05DPB	CJF18E-05DNA CJF18E-05DNB CJF18E-05DPA CJF18E-05DPB	CJF25E-08DNA CJF25E-08DNB CJF25E-08DPA CJF25E-08DPB	CJF30E-12DNA CJF30E-12DNB CJF30E-12DPA CJF30E-12DPB	CJF40E-15DNA CJF40E-15DNB CJF40E-15DPA CJF40E-15DPB
检测距离 Sensing distance	5mm	5mm	8mm	12mm	15mm
应差距离 Hysteresis	检测距离的10%以下 Max. 10% of sensing distance				
标准检测物 Standard sensing target	18×18×1mm (铁 Iron)	25×25×1mm (铁 Iron)	30×30×1mm (铁 Iron)	40×40×1mm (铁 Iron)	60×60×1mm (铁 Iron)
设定距离 Setting distance	0~3.5mm	0~3.5mm	0~5.6mm	0~8.4mm	0~10.5mm
工作电压 Working voltage	10~30VDC				
漏电流 Leakage current	10mA以下 Max.10mA				
应答频率 (※1) Response frequency (※1)	500Hz	500Hz	350Hz	250Hz	100Hz
残留电压 Residual voltage	1.0V以下 Max. 1.0V				
温度的影响 Affection by Temp	在-25~+70℃温度范围内+20℃时的检测距离的±10%以内 Max. ±10% for sensing distance at ambient temperature 20℃				
控制输出 Control output	200mA以下 Max. 200mA				
绝缘阻抗 Insulation resistance	50MΩ以上(500VDC为基准) Min. 50MΩ(at 500VDC megger)				
耐电压 Dielectric strength	1500VAC 50/60Hz1分钟 1500VAC 50/60Hz for 1minute				
耐振动 Vibration	10~55Hz(周期1分钟) 振幅1mm X, Y, Z各方向2小时 1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours				
耐冲击 Shock	500m/s ² (50G) X, Y, Z 各方向3次 500m/s ² (approx. 50G) X, Y, Z directions for 3 times				
显示灯 Indicator	动作指示灯(红色LED) Operation indicator(red LED)				
保护电路 Protection circuit	浪涌保护电路, 电源反接保护电路, 过载&短路保护电路 Surge protection circuit, Overcurrent protection circuit, Reverse polarity protection circuit				
使用周围温度 Ambient temperature	-25~+70℃(未结冰状态 No icing)				

规格 Specifications

直流3线式 DC 3wire type

型号名 Model	CJF17E-05DNA CJF17E-05DNB CJF17E-05DPA CJF17E-05DPB	CJF18E-05DNA CJF18E-05DNB CJF18E-05DPA CJF18E-05DPB	CJF25E-08DNA CJF25E-08DNB CJF25E-08DPA CJF25E-08DPB	CJF30E-12DNA CJF30E-12DNB CJF30E-12DPA CJF30E-12DPB	CJF40E-15DNA CJF40E-15DNB CJF40E-15DPA CJF40E-15DPB
保护电路 Protection circuit	内置浪涌保护, 电源反接保护电路, 过流保护电路 Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit				
连接线缆 Cable	φ3.8, 3P, 1.5m		φ4.8, 3P, 1.5m		
	AWG22, 芯线直径:0.1mm, 芯线数:25, 绝缘皮外径: φ1.25mm)		AWG22, 芯线直径:0.1mm, 芯线数:30, 绝缘皮外径: φ1.25mm)		
	AWG22, Core diameter: 0.1mm, Num2er of cores: 25, Insulator diameter: φ1.25		AWG22, Core diameter: 0.1mm, Num2er of cores: 30, Insulator diameter: φ1.25		
材质 Material	外壳: ABS, 一般型线缆(深灰色): 聚氯乙烯(PVC) Case: ABS, Standard Cable(Dark Grey): Polyvinyl chloride(PVC)				
防护等级 Protection	IP67				

规格 Specifications

直流2线式 DC 2-wire type

型号名 Model	CJF17E-05DDA CJF17E-05DDB	CJF18E-05DDA CJF18E-05DDB	CJF25E-08DDA CJF25E-08DDB	CJF30E-12DDA CJF30E-12DDB	CJF40E-15DDA CJF40E-15DDB
检测距离 Sensing distance	5mm	5mm	8mm	12mm	15mm
应差距离 Hysteresis	检测距离的10%以下 Max. 10% of sensing distance				
标准检测物 Standard sensing target	18×18×1mm (铁 Iron)	25×25×1mm (铁 Iron)	30×30×1mm (铁 Iron)	40×40×1mm (铁 Iron)	60×60×1mm (铁 Iron)
设定距离 Setting distance	0~3.5mm	0~3.5mm	0~5.6mm	0~7.5mm	0~12.5mm
工作电压 Working voltage	10-30VDC				
漏电流 Leakage current	0.6mA以下 Max.0.6mA				
应答频率(※1) Response frequency (※1)	500Hz	500Hz	350Hz	250Hz	100Hz
残留电压 Residual voltage	3.5V以下 Max. 3.5V				
温度的影响 Affection by Temp	在-25~+70℃温度范围内+20℃时的检测距离的±10%以内 Max. ±10% for sensing distance at ambient temperature 20℃				
控制输出 Control output	200mA以下 Max. 200mA				
绝缘阻抗 Insulation resistance	50MΩ以上(500VDC为基准) Min. 50MΩ(at 500VDC megger)				
耐电压 Dielectric strength	1500VAC 50/60Hz1分钟 1500VAC 50/60Hz for 1minute				
耐振动 Vibration	10~55Hz(周期1分钟) 振幅1mm X, Y, Z各方向2小时 1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours				
耐冲击 Shock	500m/s ² (50G) X, Y, Z 各方向3次 500m/s ² (approx. 50G) X, Y, Z directions for 3 times				
显示灯 Indicator	动作指示灯(红色LED) Operation indicator(red LED)				
使用周围温度 Ambient temperature	-25~+70℃(未结冰状态 No icing)				
储存温度 Storage temperature	-30~+80℃(未结冰状态 No icing)				
使用周围湿度 Ambient humidity	35~95%RH (未结露状态 No condensation)				
保护电路 Protection circuit	内置浪涌保护, 电源反接保护电路, 过流保护电路 Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit				
连接线缆 Cable	φ3.8, 2P, 1.5m		φ4.8, 2P, 1.5m		
	AWG22, 芯线直径:0.1mm, 芯线数:25, 绝缘皮外径: φ1.25mm) AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: φ1.25		AWG22, 芯线直径:0.1mm, 芯线数:30, 绝缘皮外径: φ1.25mm) AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: φ1.25		
材质 Material	外壳: ABS, 一般型线缆(深灰色): 聚氯乙烯(PVC) Case: ABS, Standard cable(Dark Grey): Polyvinyl chloride(PVC)				
防护等级 Protection	IP67				

(※1) 开关动作的应答频率为平均值。测定条件使用标准检测物, 检测物的间距为标准检测物的2倍, 设定距离为检测距离的1/2。

※ 标准产品和IEC标准的功能和规格是一样的。

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

规格 Specifications

交流2线式 AC 2-wire type

型号名 Model	CJF25E-08AKA CJF25E-08AKB	CJF30E-12AKA CJF30E-12AKB	CJF40E-15AKA CJF40E-15AKB
检测距离 Sensing distance	8mm	12mm	15mm
应差距离 Hysteresis	检测距离的10%以下 Max. 10% of sensing distance		
标准检测物 Standard sensing target	30×30×1mm (铁 Iron)	40×40×1mm (铁 Iron)	60×60×1mm (铁 Iron)
设定距离 Setting distance	0~5.6mm	0~8.4mm	0~10.5mm
工作电压 Working voltage	90-250VAC		
漏电流 Leakage current	10mA以下 Max.10mA		
应答频率(※1) Response frequency(※1)	20Hz		
残留电压 Residual voltage	10V以下 Max. 10V		
温度的影响 Affection by Temp	在-25~+70°C温度范围内+20°C时的检测距离的±10%以内 Max. ±10% for sensing distance at ambient temperature 20°C		
控制输出 Control output	200mA以下 Max. 200mA		
绝缘阻抗 Insulation resistance	50MΩ以上(500VDC为基准) Min. 50MΩ(at 500VDC megger)		
耐电压 Dielectric strength	1500VAC 50/60Hz1分钟 1500VAC 50/60Hz for 1minute		
耐振动 Vibration	10~55Hz(周期1分钟) 振幅1mm X, Y, Z各方向2小时 1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
耐冲击 Shock	500m/s ² (50G) X, Y, Z 各方向3次 500m/s ² (approx. 50G) X, Y, Z directions for 3 times		
显示灯 Indicator	动作指示灯(红色LED) Operation indicator(red LED)		
使用周围温度 Ambient temperature	-25~+70°C(未结冰状态 No icing)		
储存温度 Storage temperature	-30~+80°C(未结冰状态 No icing)		
使用周围湿度 Ambient humidity	35~95%RH (未结露状态 No condensation)		
保护电路 Protection circuit	浪涌保护电路 Surge protection circuit		
连接线缆 Cable	φ4.8, 2P, 1.5m (AWG22, 芯线直径:0.1mm, 芯线数:30, 绝缘皮外径: φ1.25mm) (AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: φ1.25)		
材质 Material	外壳: ABS, 一般型线缆(深灰色): 聚氯乙烯(PVC) Case: ABS, Standard cable(Dark Grey): Polyvinyl chloride(PVC)		
防护等级 Protection	IP67		

(※1) 开关动作的应答频率为平均值。测定条件使用标准检测物，检测物的间距为标准检测物的2倍，设定距离为检测距离的1/2。

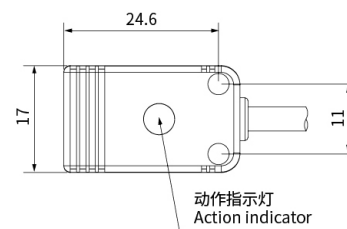
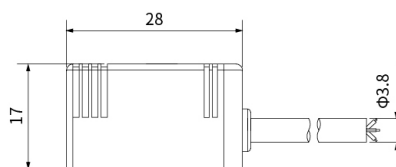
※ 标准产品和IEC标准的功能和规格是一样的。

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

外观和尺寸 Appearance and Dimension

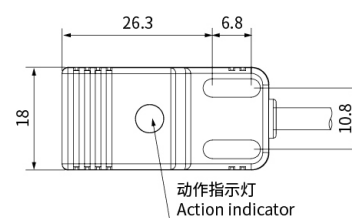
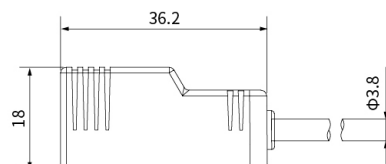
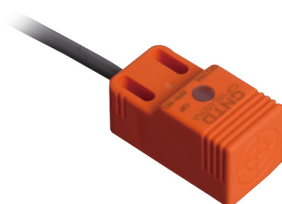
CJF17E-05

方形接近开关
Square proximity switch



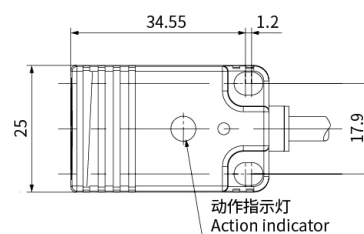
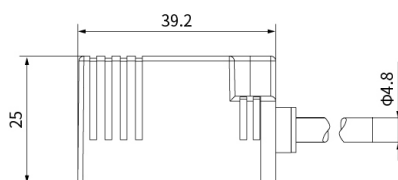
CJF18E-05

方形接近开关
Square proximity switch



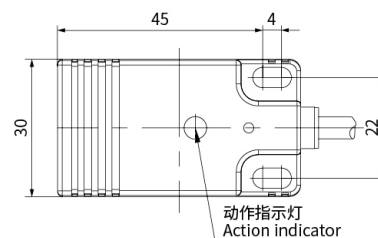
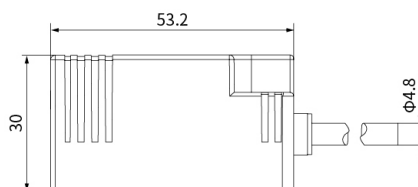
CJF25E-08

方形接近开关
Square proximity switch



CJF30E-12

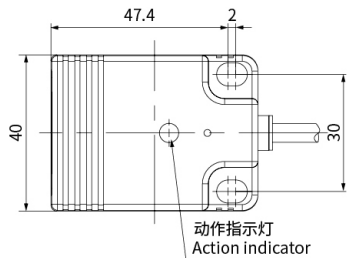
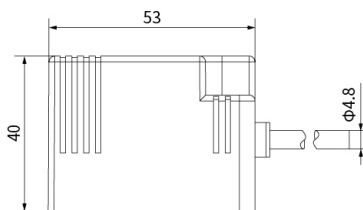
方形接近开关
Square proximity switch



外观和尺寸 Appearance and Dimension

CJF40E-15

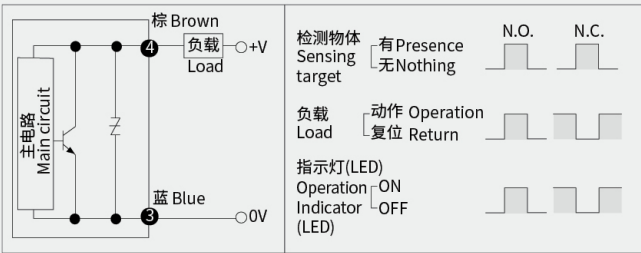
方形接近开关
Square proximity
switch



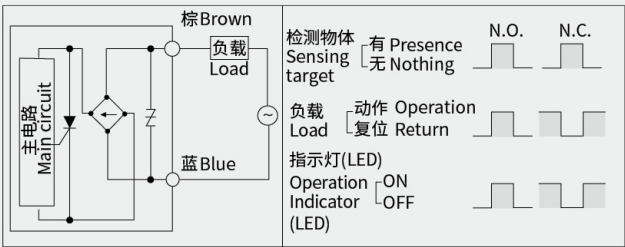
动作指示灯
Action indicator

输出电路 Control Output Diagram

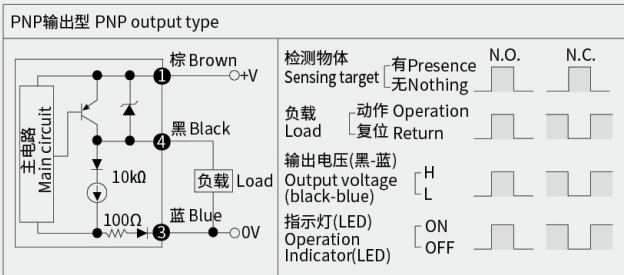
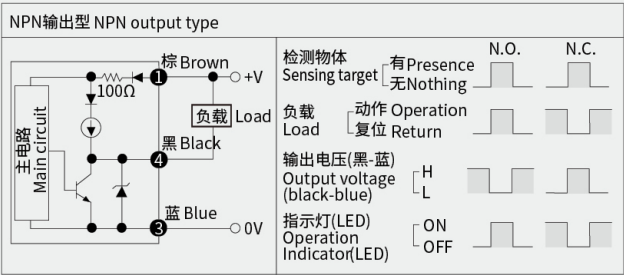
直流2线式 DC 2-wire type



交流2线式 AC 2-wire type

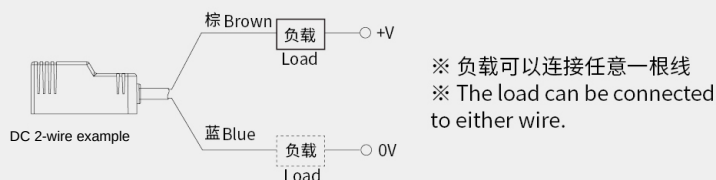


DC 3-wire type

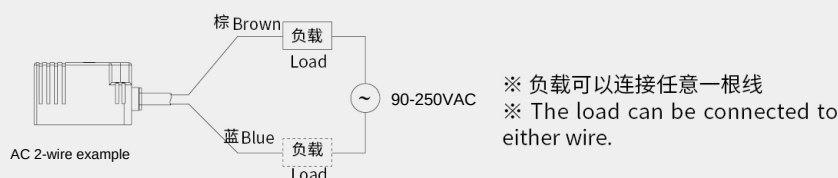


连接 Connections

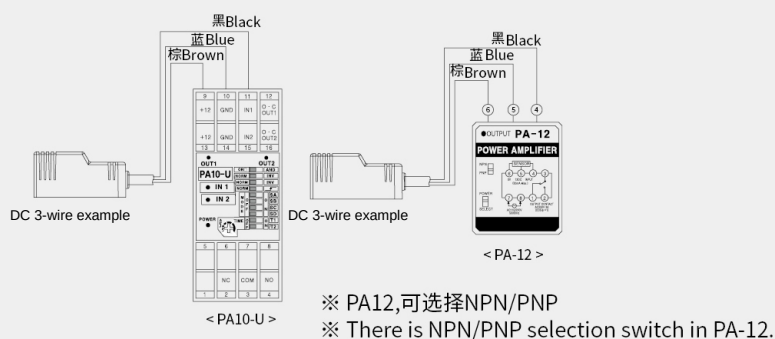
直流2线式 DC 2-wire type



交流2线式 AC 2-wire type



直流3线式 DC 3-wire type

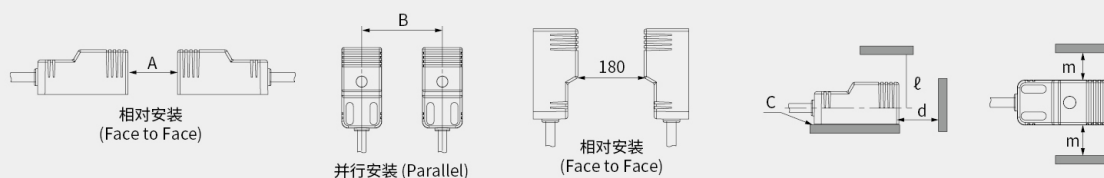


正确使用 Proper Usage

相互干扰 Mutual-interference

当几个接近传感器安装在一起, 会发生相互干扰引起传感器故障, 一般两个传感器之间的间隔的距离如图

When several proximity sensors are mounted close to one another a malfunction of the may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.



型号名Model	CJF17E-05	CJF18E-05	CJF25E-08	CJF30E-12	CJF40E-15
项目Item					
A	30	48	30	60	120
B	36	40	40	50	70
C	5	5	5	5	5
φd	15	24	15	30	60
ℓ	24	33	25	30	45
m	18	20	20	25	35

使用注意事项 Using Precautions

本公司产品是作为工业产品而设计生产，严格遵守工业产品标准。我司明确声明，除非经过特殊设计并得到我司明确书面确认，我司产品不适用于以下应用场合：

- 要求极高可靠性的应用场合，包括核能、燃气、电力等要求长期稳定运行的系统。
- 要求极高安全性的应用场合，涉及人身安全与财产的情况。
- 苛刻条件、严酷环境的应用场合，包括室外、存在化学污染、电磁、振动或冲击影响的环境。
- 有火灾或爆炸风险的应用场合，包括存在易燃易爆性气体、强酸强碱化学品等物质的环境。
- 涉及军工用途、航天航空项目的应用场合。

The company's products are designed and produced as industrial products, in strict compliance with industrial product standards. We expressly declare that, unless specifically designed and expressly confirmed by us in writing, our products are not intended for the following applications:

- Applications that require high reliability, including nuclear, gas, electric and other systems that require long-term stable operation.
- Applications requiring very high security, situations involving personal safety and property.
- Applications in harsh conditions, harsh environments, including outdoor, chemical contamination, electromagnetic, vibration or shock effects.
- Applications where there is a risk of fire or explosion, including environments where flammable and explosive gases, strong acids and alkali chemicals are present.
- Applications involving military use and aerospace projects.