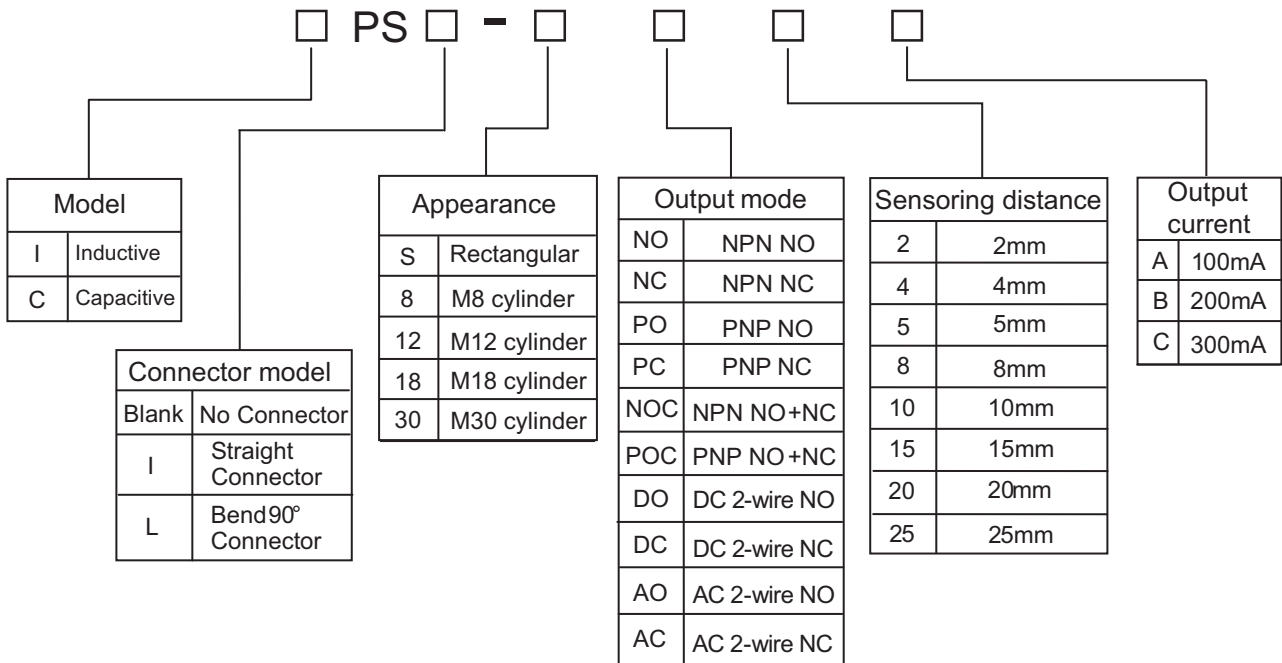


Dear clients, Thanks for choosing IBEST proximity sensors! Before installing and operating the sensors, please read this instruction manual carefully. For any questions, please contact our sales people immediately.

1.FEATURES

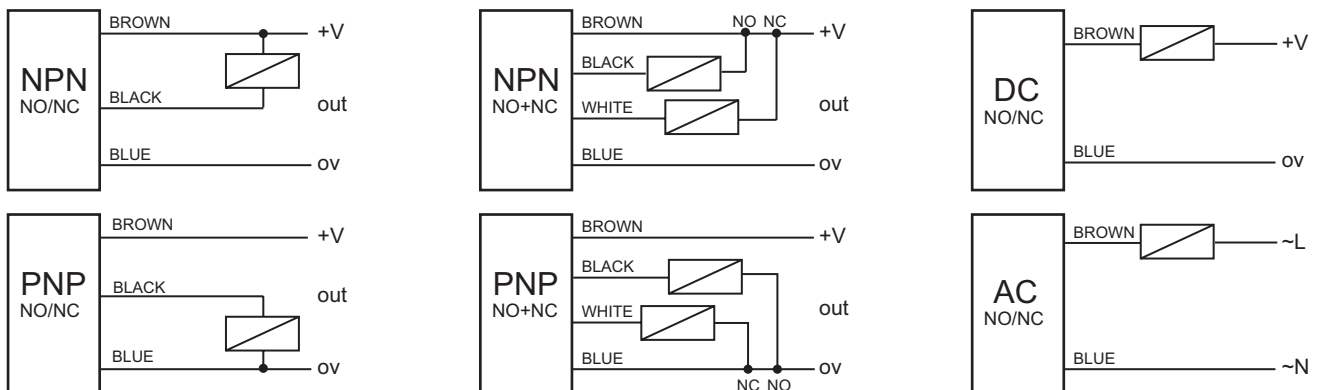
- Inductive and capacitive proximity sensor
- Style: cylinder shape (M8, M12, M18, M30), and rectangular shape
- Shielded or unshielded type;
- DC 2-wire (10-30V DC), DC 3-wire(10-30V DC), DC 4-wire(10-30V DC),AC 2-wire (90-250 AC) type
- Connection mode: 3/4 wire or 3/4 pin connector
- Mounting distance: M8 (1/2mm), M12(2/4mm), M18(5/8mm), M30(10/15mm), "R" style: 5, 10, 15, 20mm
- With LED operation indicator, easily identifiable
- Brass chrome plated, proof of oil, water acid, alkaline
- Standard sensing object: inductive sensor: ferrous metals; capacitive sensor: metal or non-metal objects.
- Protection rate: IP67, water resistant
- Over-current protection
- Widely applied in measuring, Counting, Rpm measuring in mechanism, chemical, paper manufacture light industry, etc

2.ORDERING CODE



For special request of sensors (i.e.appearace,function), please indicate when order.

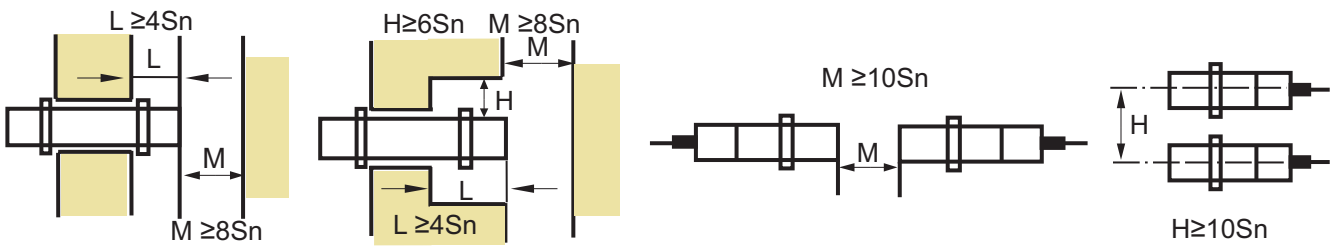
3.CONNECTION



4.INSTALLATION DEMAND

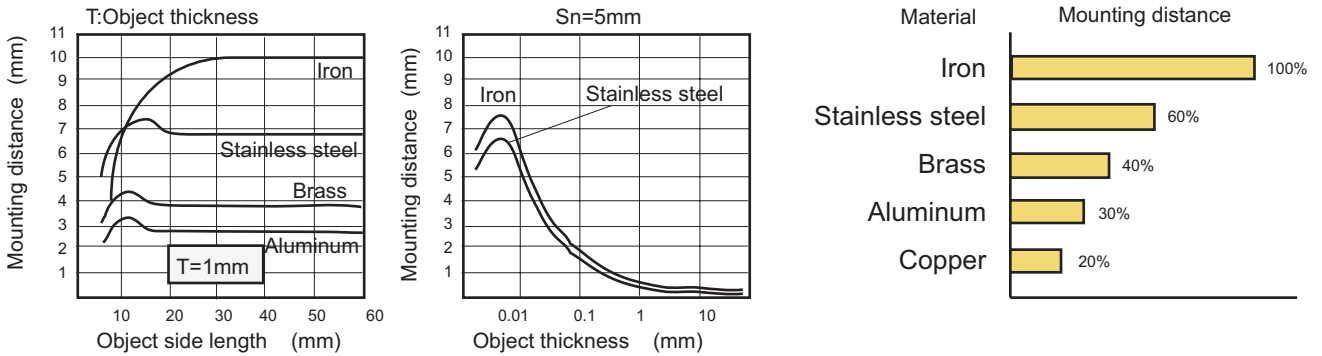
If used in an area surrounded by metal or juxtaposed , Install the proximity Sensor as follows . (Sn Sensing distance)

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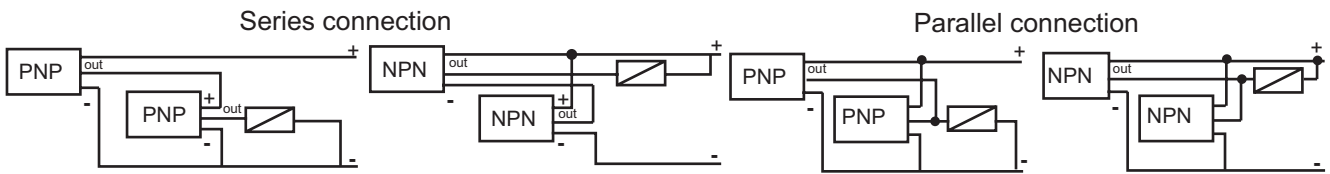


5.IPS INDUCTIVE PROXIMITY APPLICATION DIRECTION

- a. You had better set mounting distance equal 80% sn.
- b. Please set mounting distance equals 50%sn, when sensor applies in measuring mounting frequency or operating in high speed circumstance.
- c. Mounting distance varies with measuring object (iron, stainless steel, brass, copper and aluminum).



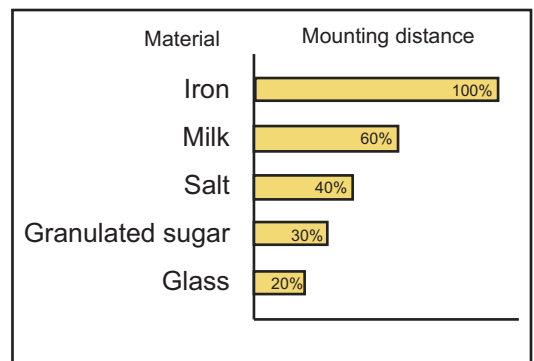
d. Ips series connection and parallel connection



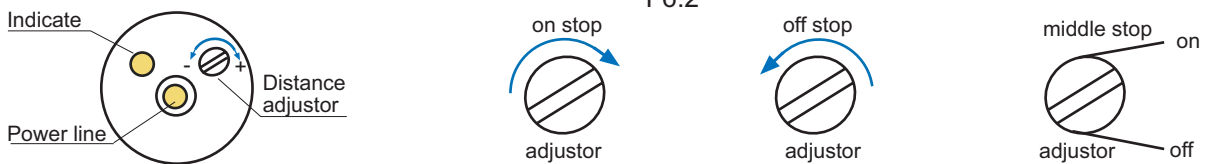
6.CPS CAPACITIVE PROXIMITY SENSOR MOUNTING DISTANCE SETTING

- a. Capacitive proximity sensor can measure both metal and non-metal objects, such as iron, water, oil, glass, plastic...etc. The mounting distance varies with different objects because of different object conductivity, permittivity and water absorption. If the metal connects with ground (GND), the max. Mounting distance can be obtained.
- b. Different objects, the mounting distance is different, refer to F6.1
- c. The mounting distance of CPS Capacitive proximity sensor can be adjusted, and the mounting distance must be adjusted before installing, not after. Adjustment please refer to F6.2
- d. When operating, the capacitive proximity sensor should be far away from the high frequency electromagnetism circumstance, for example, supersonic wave emitter, high frequency welding machine...etc.

F6.1



F6.2



- Adjustor turns right Sn increases, turns left Sn decreases, the circle of Sn adjuster about ten
- Without object, turn adjuster right to the on stop
- Approaching object, turn adjuster left to the off stop
- At last set the adjust in the middle of on and off position

7. ORDERING CODE AND TECHNICAL SPECIFICATIONS:

a. Inductive proximity sensor

Ordering code		IPS□-8□□□		IPS□-18□□□		IPS□-30□□□			
Dimension									
Out put		DC		DC		AC	DC		AC
		NPN	PNP	NPN	PNP		NPN	PNP	
Mode	NO	IPS(I/L)-8NO1(2)A	IPS(I/L)-8PO1(2)A	IPS(I/L)-18NO5(8)B	IPS(I/L)-18PO5(8)B	IPS(I/L)-18AO5(8)C	IPS(I/L)-30NO10(15)B	IPS(I/L)-30PO10(15)B	IPS(I/L)-30AO10(15)C
	NC	IPS(I/L)-8NC1(2)A	IPS(I/L)-8PC1(2)A	IPS(I/L)-18NC5(8)B	IPS(I/L)-18PC5(8)B	IPS(I/L)-18AC5(8)C	IPS(I/L)-30NC10(15)B	IPS(I/L)-30PC10(15)B	IPS(I/L)-30AC10(15)C
	NO+NC	/	/	IPS(I/L)-18NOC5(8)B	IPS(I/L)-18POC5(8)B	/	IPS(I/L)-30NOC10(15)B	IPS(I/L)-30POC10(15)B	/
	DO	IPS(I/L)-8DO1(2)A		IPS(I/L)-18DO5(8)B		/	IPS(I/L)-30DO10(15)B		/
	DC	IPS(I/L)-8DC1(2)A		IPS(I/L)-18DC5(8)B		/	IPS(I/L)-30DC10(15)B		/
Mounting distance	1mm/2mm		5mm/8mm		10mm/15mm				
Sensing distance	0~0.8mm/0~1.8mm		0~4mm/0~6.4mm		0~8mm/0~12mm				
Power supply	DC 10~30V		DC 10~30V		AC 90~250V	DC 10~30V		AC 90~250V	
Frequency	≤600Hz		≤400Hz / ≤200Hz		≤20Hz	≤200Hz		≤20Hz	
Current output	≤100mA		≤200mA		≤300mA	≤200mA		≤300mA	
Ambient temperture	-20°C ~70°C		-20°C ~70°C		-20°C ~70°C	-20°C ~70°C		-20°C ~70°C	
Protection	over-current/polarity		over-current/polarity		/	over-current/polarity		/	
IP rating	IP67		IP67		IP67	IP67		IP67	

Ordering code		IPS□-12□□□		IPS□-S□□□		IPS□-S□□□			
Dimension									
Out put		DC		DC		AC	DC		AC
		NPN	PNP	NPN	PNP		NPN	PNP	
Mode	NO	IPS(I/L)-12NO2(4)B	IPS(I/L)-12PO2(4)B	IPS(I/L)-SNO5B	IPS(I/L)-SPO5B	/	IPS(I/L)-SNO10B	IPS(I/L)-SPO10B	IPS(I/L)-SAO10C
	NC	IPS(I/L)-12NC2(4)B	IPS(I/L)-12PC2(4)B	IPS(I/L)-SNC5B	IPS(I/L)-SPC5B	/	IPS(I/L)-SNC10B	IPS(I/L)-SPC10B	IPS(I/L)-SAC10C
	NO+NC	IPS(I/L)-12NOC2(4)B	IPS(I/L)-12POC2(4)B	IPS(I/L)-SNOC5B	IPS(I/L)-SPOC5B	/	IPS(I/L)-SNOC10B	IPS(I/L)-SPOC10B	/
	DO	IPS(I/L)-12DO2(4)B		IPS(I/L)-SDO5B		/	IPS(I/L)-SDO10B		/
	DC	IPS(I/L)-12DC2(4)B		IPS(I/L)-SDC5B		/	IPS(I/L)-SDC10B		/
Mounting distance	2mm/4mm		5mm		/	10mm		10mm	
Sensing distance	0~1.6mm/0~3.2mm		0~4mm		/	0~8mm		0~8mm	
Power supply	DC 10~30V		DC 10~30V		/	DC 10~30V		AC 90~250V	
Frequency	≤600Hz / ≤400Hz		≤400Hz		/	≤200Hz		≤20Hz	
Current output	≤200mA		≤200mA		/	≤200mA		≤300mA	
Ambient temperture	-20°C ~70°C		-20°C ~70°C		/	-20°C ~70°C		-20°C ~70°C	
Protection	over-current/polarity		/		/	over-current/polarity		/	
IP rating	IP67		IP67		/	IP67		IP67	

Notice: If you want the sensors have OVER-CURRENT PROTECTION, please indicate when order.

8. Cautions:

- DC power connection should use insulation transformer, non self-couple transformer should be used.
- Make sure the power is off when connect the wires, connection according to the connection diagram on the prod uct.
- If there are other electrical wires around the sensor wires, please use a steel tube to cover the sensor wires so as to avoid misworking and damage to the sensor. Refer to F8.1
- For AC-2wire proximity sensors, if there are two or more sensors working together, a relay should be used for Series-connection or Parallel-connection; Do not connect the sensors directly. Refer to F8.2
- For AC-2wire proximity sensors, the sensor must connect with load, instead of connecting to power supply directly, otherwise the sensor might be damaged. Refer to F8.3
- The cable of the proximity sensor should be no more than 200mm in order to avode causing lowering voltage.

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b.Capacitive proximity sensor

Ordering code		CPS□-12□□□		CPS□-18□□□		CPS□-30□□□			
Dimension									
Out put		DC		DC		AC	DC		AC
		NPN	PNP	NPN	PNP		NPN	PNP	
Mode	NO	CPS(I/L)-12NO4B	CPS(I/L)-12PO4B	CPS(I/L)-18NO10B	CPS(I/L)-18PO10B	CPS(I/L)-18AO10C	CPS(I/L)-30NO25B	CPS(I/L)-30PO25B	CPS(I/L)-30AO25C
	NC	CPS(I/L)-12NC4B	CPS(I/L)-12PC4B	CPS(I/L)-18NC10B	CPS(I/L)-18PC10B	CPS(I/L)-18AC510C	CPS(I/L)-30NC25B	CPS(I/L)-30PC25B	CPS(I/L)-30AC25C
	NO+NC	CPS(I/L)-12NOC4B	CPS(I/L)-12POC4B	CPS(I/L)-18NOC10B	CPS(I/L)-18POC10B	/	CPS(I/L)-30NOC25B	CPS(I/L)-30POC25B	/
	DO	CPS(I/L)-12DO4B		CPS(I/L)-18DO10B		/	CPS(I/L)-30DO25B		/
	DC	CPS(I/L)-12DC4B		CPS(I/L)-18DC10B		/	CPS(I/L)-30DC25B		/
Mounting distance	4mm		10mm		10mm	25mm		25mm	
Sensing distance	0~3.2mm		1~10mm		1~10mm	3~25mm		3~25mm	
Power supply	DC 10~30V		DC 10~30V		AC 90~250V	DC 10~30V		AC 90~250V	
Frequency	≤50Hz		≤50Hz		≤10Hz	≤50Hz		≤10Hz	
Current output	≤200mA		≤200mA		≤300mA	≤200mA		≤300mA	
Ambient temperature	-20℃ ~70℃		-20℃ ~70℃		-20℃ ~70℃	-20℃ ~70℃		-20℃ ~70℃	
Protection	over-current/polarity		over-current/polarity		/	over-current/polarity		/	
IP rating	IP67		IP67		IP67	IP67		IP67	

Ordering code		CPS□-S□□□		CPS□-S□□□			
Dimension							
Out put		DC		DC		AC	
		NPN	PNP	NPN	PNP		
Mode	NO	CPS(I/L)-SNO10B	CPS(I/L)-SPO10B	CPS(I/L)-SNO20B	CPS(I/L)-SPO20B	CPS(I/L)-SAO20C	
	NC	CPS(I/L)-SNC10B	CPS(I/L)-SPC10B	CPS(I/L)-SNC20B	CPS(I/L)-SPC20B	CPS(I/L)-SAC20C	
	NO+NC	CPS(I/L)-SNOC10B	CPS(I/L)-SPOC10B	CPS(I/L)-SNOC20B	CPS(I/L)-SPOC20B	/	
	DO	CPS(I/L)-SDO10B		CPS(I/L)-SDO20B		/	
	DC	CPS(I/L)-SDC10B		CPS(I/L)-SDC20B		/	
Mounting distance	10mm		20mm		20mm		
Sensing distance	1~10mm		2~20mm		2~20mm		
Power supply	DC 10~30V		DC 10~30V		AC 90~250V		
Frequency	≤50Hz		≤50Hz		≤10Hz		
Current output	≤200mA		≤200mA		≤300mA		
Ambient temperature	-20℃ ~70℃		-20℃ ~70℃		/		
Protection	over-current/polarity		over-current/polarity		/		
IP rating	IP67		IP67		IP67		

