



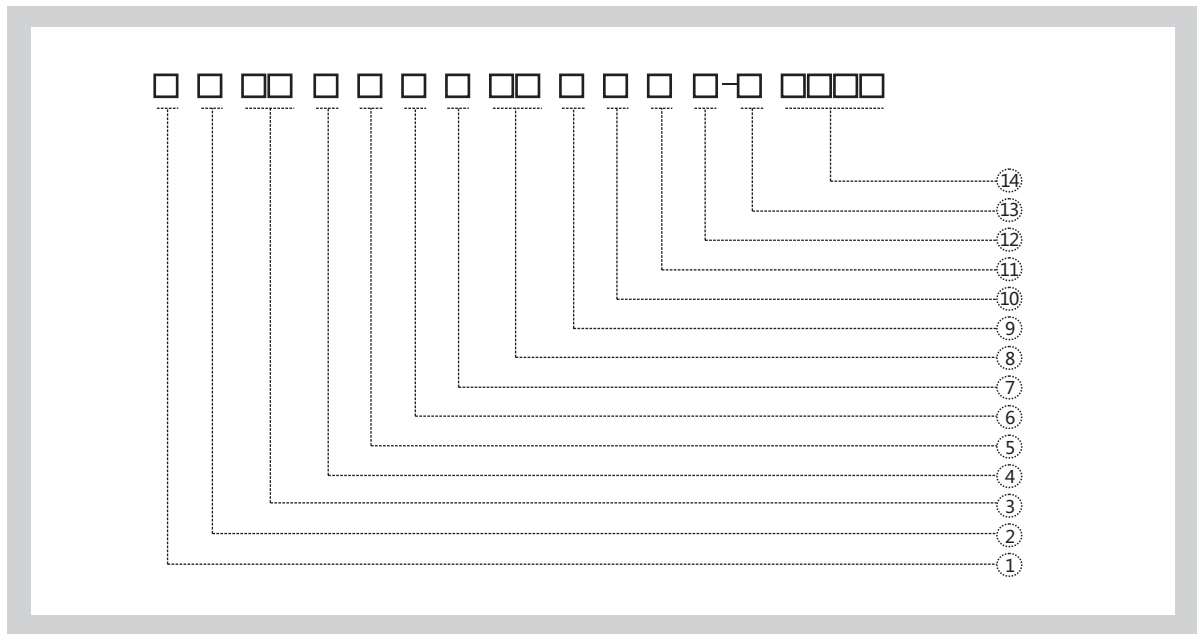
## **LANBAO SENSOR** complete solution for the sensors

Established in 1998, Shanghai Lanbao Sensing Technology Co., Ltd. is a leading industrial automation products supplier in China. Our main businesses are industrial sensors R&D, production, sales and application, providing customers with standard and individual products and systems. Lanbao industrial sensors cover over 30 series, 3000 specifications, main products are inductive sensors, photoelectric sensors, capacitive sensors and pressure sensors. Lanbao has been making continuous breakthrough in new technology and new material application, which laid the foundation of its leading position in sensing technology.

Lanbao is an ISO9001:2008 quality management system and EU RoHS environmental directives implemented enterprise. Our series products are with CE, UL and CCC certification. The strict tests in function, quality, reliability and production feasibility at the design stage of each product and the strict quality management in production ensure excellent quality products.

Focus on innovation, quality, service and global market, Lanbao insists on creating maximal value for customers.

## Naming rules



### 1. Type Code

C:Capacitive

### 2. Shape Code

R:Threaded cylindrical  
Q:Smooth cylindrical  
E:Rectangular

### 3. Size Code

Number:Housing diameter  
e.g: 08:M8

### 4. Housing Material

N/A:Copper  
S:Plastic  
G:Stainless steel

### 5. Housing Length

A:Short  
B:Standard  
C:Long

### 6. Mounting

N:Non-flush(nf)  
F:Flush(f)

### 7. Sensing Distance

02:2mm  
04:4mm  
10:10mm

### 8. Supply Voltage

A:20...250VAC  
D:10...30VDC  
E:10...60VDC  
M:18...36VDC  
S:20...250VAC/DC

### 9. Output Way

B:AC/DC 2 wires  
T:AC 2 wires  
P:PNP  
N:NPN

E:NPN/PNP

F:NPN+PNP

K:Relay

### 10. Output Status

A:NO/NC reversible  
B:NO/NC optional  
Cable optional;Potentiometer optional  
O:NO  
C:NC  
R:NO+NC  
Note:Relay output is optional

### 11. By Sensor Function

N/A:Standard function  
Y:Extended sensing distance  
T1:On-delay function  
T160:60s  
T1600:600s  
T2:Off-delay function  
T260:60s  
T2600:600s

### 12. Cable Length

N/A:2m  
3M:3m

### 13. Connection

N/A:2M cable  
E1:M8 connector (3 pins)  
E2:M12 connector (4 pins)  
E3:M8 connector (4 pins)  
E4:M12 trapezoid connector (4 pins)  
E5:M12 connector (5 pins)  
D:Terminal

### 14. Special Requirement

In 4 Digits

## Wiring diagram

DC 3Wires		NPN NO	NPN NC	PNP NO	PNP NC
Lead cable					
M12 Connector					
DC 4Wires		NPN NO+NC	PNP NO+NC		
Lead cable					
M12 Connector					
AC 2Wires		SCR NO	SCR NC		
Lead cable					
M12 Connector					
AC/DC 2Wires		NO	NC	NO/NC	
Lead cable					
M12 Connector					
AC/DC 5Wires		Lead cable	Terminal connect		
Relay					
Remarks					
Connector	M8 Connector	M12 Connector			

# Capacitive sensors

## Standard function

plastic type

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Dimension	Housing Material	Connection
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### DC 3/4Wires

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CR12S	DC 3Wires	DC10-30V	f/nf	2mm,4mm	M12*1*52	PBT	Cable
CR12S	DC 3Wires	DC10-30V	f/nf	2mm,4mm	M12*1*65	PBT	M12 Connector
CR18S	DC 3/4Wires	DC10-30V	f/nf	5mm,8mm	M18*1*70	PBT	Cable
CR18S	DC 3/4Wires	DC10-30V	f/nf	5mm,8mm	M18*1*83.5	PBT	M12 Connector
CR30S	DC 3/4Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*62	PBT	Cable
CR30S	DC 3/4Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*79	PBT	M12 Connector
CQ20S	DC 3/4Wires	DC10-30V	f/nf	10mm,15mm	Φ20*80	PBT	Cable
CQ32S	DC 3/4Wires	DC10-30V	f/nf	15mm,20mm	Φ32*80	PBT	Cable
CQ34S	DC 3/4Wires	DC10-30V	f/nf	15mm,20mm	Φ34*80	PBT	Cable

### AC 2Wires

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CR18S	AC 2Wires	AC20-250V	f/nf	5mm,8mm	M18*1*70	PBT	Cable
CR18S	AC 2Wires	AC20-250V	f/nf	5mm,8mm	M18*1*83.5	PBT	M12 Connector
CR30S	AC 2Wires	AC20-250V	f/nf	10mm,15mm	M30*1.5*62	PBT	Cable
CR30S	AC 2Wires	AC20-250V	f/nf	10mm,15mm	M30*1.5*79	PBT	M12 Connector
CQ20S	AC 2Wires	AC20-250V	f/nf	10mm,15mm	Φ20*80	PBT	Cable
CQ32S	AC 2Wires	AC20-250V	f/nf	15mm,20mm	Φ32*80	PBT	Cable
CQ34S	AC 2Wires	AC20-250V	f/nf	15mm,20mm	Φ34*80	PBT	Cable

### AC/DC 2Wires

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CR30S	AC/DC 2Wires	AC/DC20-250V	nf	15mm	M30*1*62	PBT	Cable
CR30S	AC/DC 2Wires	AC/DC20-250V	nf	15mm	M30*1*79	PBT	M12 Connector
CQ32S	AC/DC 2Wires	AC/DC20-250V	nf	20mm	Φ32*80	PBT	Cable
CQ34S	AC/DC 2Wires	AC/DC20-250V	nf	20mm	Φ34*80	PBT	Cable

### Rectangular type

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CE07	DC 3Wires	DC10-30V	f/nf	5mm,8mm	30*7*50	PBT	Cable
CE34	DC 3Wires	DC10-30V	nf	10mm	50*7*20	PBT	Cable
CE35	DC 3/4Wires	DC10-30V	f/nf	10mm,15mm	35*15*50	PBT	Cable

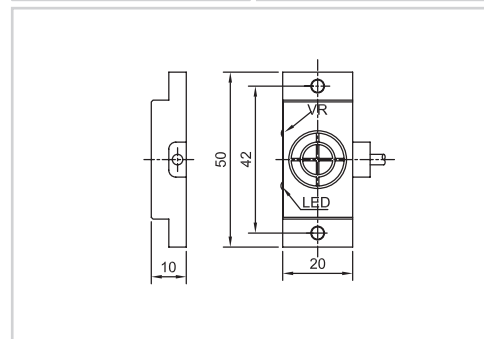
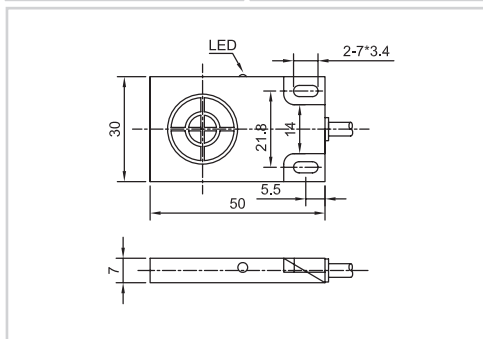
Item Code	CE07		CE34	
Mounting	● Flush	◐ Non-flush	◐ Non-flush	
Sensing distance	5mm	8mm	10mm	



Output	NPN NO	CE07SF05DNO	CE07SN08DNO	CE34SN10DNO	
	NPN NC	CE07SF05DNC	CE07SN08DNC	CE34SN10DNC	
Output	PNP NO	CE07SF05DPO	CE07SN08DPO	CE34SN10DPO	
	PNP NC	CE07SF05DPC	CE07SN08DPC	CE34SN10DPC	

### Technical Parameter

Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	
Switch point drift	< ±20% Sr	< ±20% Sr	< ±20% Sr	
Load current	<200mA	<200mA	<200mA	
Voltage drop	<2.5V	<2.5V	<2.5V	
Consumption current	<15mA	<15mA	<15mA	
Hysteresis	3...20%	3...20%	3...20%	
Repeat accuracy	<3%	<3%	<3%	
Frequency	60Hz	60Hz	30Hz	
Output indicator	Yellow LED	Yellow LED	Yellow LED	
Polarity protection	yes	yes	yes	
Impulse voltage withstand	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	
Short-circuit protection	...	...	...	
Ambient temperature	-10...+55°C	-10...+55°C	-10...+55°C	
Ambient moisture	35...95%	35...95%	35...95%	
Protection degree	IP67	IP67	IP67	
Housing material	PBT	PBT	PBT	
Connection	2m PVC Cable	2m PVC Cable	2m PVC Cable	
Certification	CE	CE	CE	



Item Code	CE35	
Mounting	● Flush	◐ Non-flush
Sensing distance	10mm	15mm



Output	NPN NO	CE35SF10DNO	CE35SN15DNO
	NPN NC	CE35SF10DNC	CE35SN15DNC
Output	PNP NO	CE35SF10DPO	CE35SN15DPO
	PNP NC	CE35SF10DPC	CE35SN15DPC

Technical Parameter	
Supply voltage	10...30 VDC
Switch point drift	< ±20% Sr
Load current	<200mA
Voltage drop	<2.5V
Consumption current	<15mA
Hysteresis	3...20%
Repeat accuracy	<3%
Frequency	50Hz
Output indicator	Yellow LED
Polarity protection	yes
Impulse voltage withstand	1000V/AC 50/60Hz 60s
Short-circuit protection	...
Ambient temperature	-10...+55°C
Ambient moisture	35...95%
Protection degree	IP67
Housing material	PBT
Connection	2m PVC Cable
Certification	CE

