



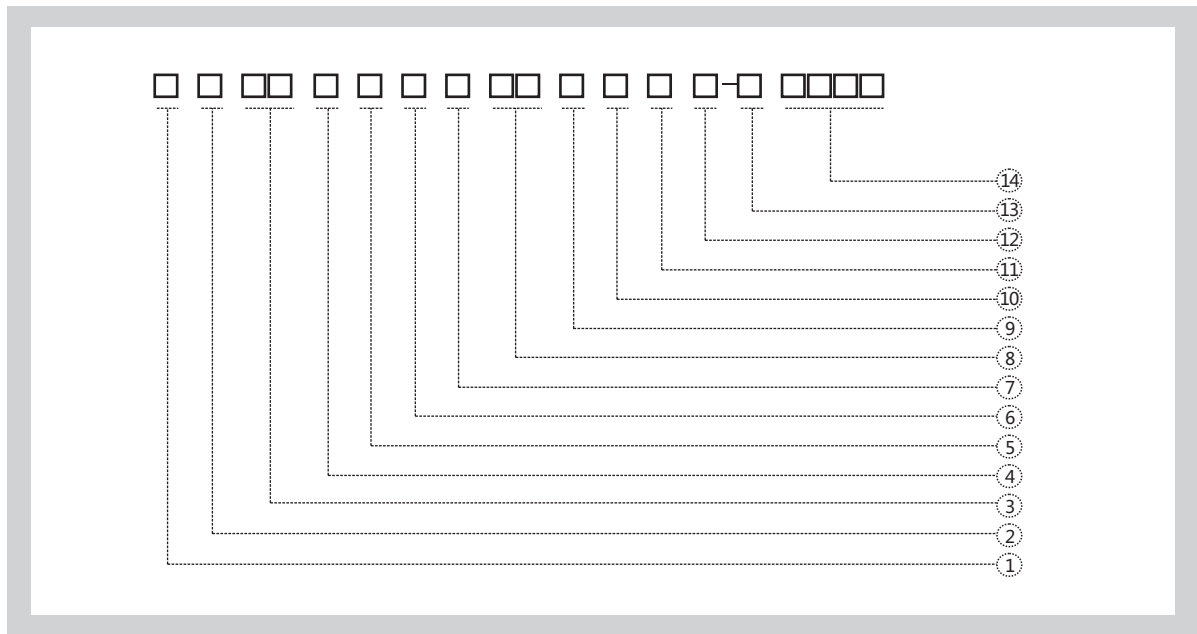
LANBAO SENSOR complete solution for the sensors

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

Extended sensing distance

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Dimension	Housing Material	Connection
CR12S	DC 3Wires	DC10-30V	f/nf	4mm,8mm	M12*1*52	PBT	Cable
CR12S	DC 3Wires	DC10-30V	f/nf	4mm,8mm	M12*1*65	PBT	M12 Connector
CR18S	DC 3/4Wires	DC10-30V	f/nf	8mm,12mm	M18*1*70	PBT	Cable
CR18S	DC 3/4Wires	DC10-30V	f/nf	8mm,12mm	M18*1*83.5	PBT	M12 Connector
CR30S	DC 3/4Wires	DC10-30V	f/nf	15mm,22mm	M30*1.5*62	PBT	Cable
CR30S	DC 3/4Wires	DC10-30V	f/nf	15mm,22mm	M30*1.5*79	PBT	M12 Connector

Delay function type

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Dimension	Housing Material	Connection
CR30S	AC 2Wires	AC20-250V	nf	22mm	M30*1.5*62	PBT	Cable
CQ32S	AC 5Wires	AC20-250V	f	15mm	Φ32*80	PBT	Cable

Pipe liquid level detecting

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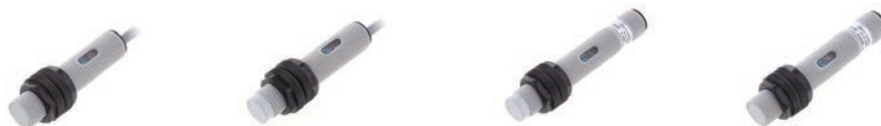
Model	Output	Supply Voltage	Mounting	Sensing Distance	Dimension	Housing Material	Connection
CE10	DC 3 Wires	DC10-30V	nf		43*24*20	PBT	Cable
CE15	DC 3 Wires	DC10-30V	nf		34*33*20	PBT	Cable

High temperature resistant material level detecting

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Dimension	Housing Material	Connection
CE53	DC 3 Wires	DC18-36V	nf		55*22*96	PA66	Cable

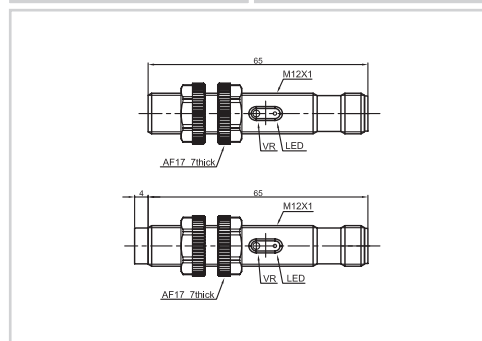
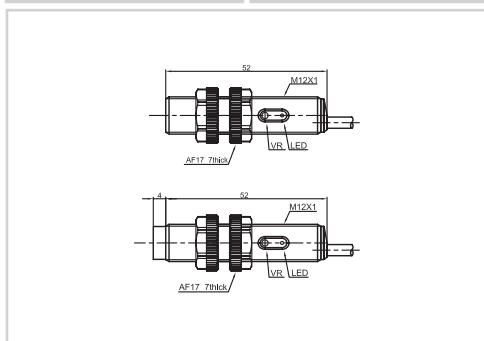
Item Code	CR12S		CR12S	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	4mm	8mm	4mm	8mm



Output	NPN NO	CR12SCF04DNOY	CR12SCN08DNOY	CR12SCF04DNOY-E2	CR12SCN08DNOY-E2
	NPN NC	CR12SCF04DNCY	CR12SCN08DNCY	CR12SCF04DNCY-E2	CR12SCN08DNCY-E2
Output	PNP NO	CR12SCF04DPOY	CR12SCN08DPOY	CR12SCF04DPOY-E2	CR12SCN08DPOY-E2
	PNP NC	CR12SCF04DPCY	CR12SCN08DPCY	CR12SCF04DPCY-E2	CR12SCN08DPCY-E2

Technical Parameter

Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Switch point drift	< ±20% Sr	< ±20% Sr	< ±20% Sr	< ±20% Sr
Load current	<200mA	<200mA	<200mA	<200mA
Voltage drop	<2.5V	<2.5V	<2.5V	<2.5V
Consumption current	<15mA	<15mA	<15mA	<15mA
Hysteresis	3...20%	3...20%	3...20%	3...20%
Repeat accuracy	<5%	<5%	<5%	<5%
Frequency	50Hz	50Hz	50Hz	50Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Impulse voltage withstand	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s
Short-circuit protection	yes	yes	yes	yes
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
Ambient moisture	35...95%	35...95%	35...95%	35...95%
Protection degree	IP67	IP67	IP67	IP67
Housing material	PBT	PBT	PBT	PBT
Connection	2m PVC Cable	2m PVC Cable	M12 Connector	M12 Connector
Certification	CE	CE	CE	CE

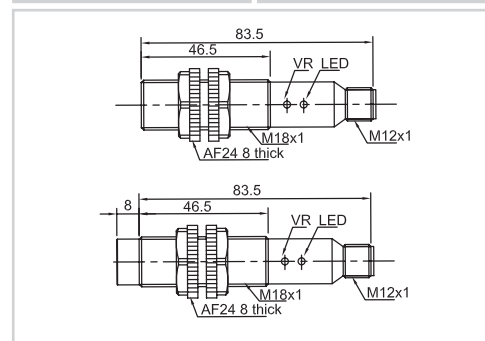
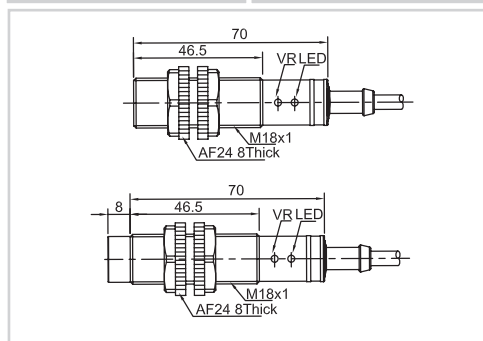


Item Code	CR18S		CR18S	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	8mm	12mm	8mm	12mm



Output	NPN NO	CR18SCF08DNOY	CR18SCN12DNOY	CR18SCF08DNOY-E2	CR18SCN12DNOY-E2
	NPN NC	CR18SCF08DNKY	CR18SCN12DNKY	CR18SCF08DNKY-E2	CR18SCN12DNKY-E2
	NPN NO+NC	CR18SCF08DNRY	CR18SCN12DNRY	CR18SCF08DNRY-E2	CR18SCN12DNRY-E2
Output	PNP NO	CR18SCF08DPOY	CR18SCN12DPOY	CR18SCF08DPOY-E2	CR18SCN12DPOY-E2
	PNP NC	CR18SCF08DPCY	CR18SCN12DPCY	CR18SCF08DPCY-E2	CR18SCN12DPCY-E2
	PNP NO+NC	CR18SCF08DPY	CR18SCN12DPY	CR18SCF08DPY-E2	CR18SCN12DPY-E2

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Switch point drift	< ±20% Sr	< ±20% Sr	< ±20% Sr	< ±20% Sr
Load current	<200mA	<200mA	<200mA	<200mA
Voltage drop	<2.5V	<2.5V	<2.5V	<2.5V
Consumption current	<15mA	<15mA	<15mA	<15mA
Hysteresis	3...20%	3...20%	3...20%	3...20%
Repeat accuracy	<5%	<5%	<5%	<5%
Frequency	50Hz	50Hz	50Hz	50Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Impulse voltage withstand	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s
Short-circuit protection	yes	yes	yes	yes
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
Ambient moisture	35...95%	35...95%	35...95%	35...95%
Protection degree	IP67	IP67	IP67	IP67
Housing material	PBT	PBT	PBT	PBT
Connection	2m PVC Cable	2m PVC Cable	M12 Connector	M12 Connector
Certification	CE	CE	CE	CE



Item Code	CR30S		CR30S	
Mounting	● Flush	○ Non-flush	● Flush	○ Non-flush
Sensing distance	15mm	22mm	15mm	22mm



Output	NPN NO	CR30SCF15DNOY	CR30SCN22DNOY	CR30SCF15DNOY-E2	CR30SCN22DNOY-E2
	NPN NC	CR30SCF15DNKY	CR30SCN22DNKY	CR30SCF15DNKY-E2	CR30SCN22DNKY-E2
	NPN NO+NC	CR30SCF15DNRY	CR30SCN22DNRY	CR30SCF15DNRY-E2	CR30SCN22DNRY-E2
Output	PNP NO	CR30SCF15DPOY	CR30SCN22DPOY	CR30SCF15DPOY-E2	CR30SCN22DPOY-E2
	PNP NC	CR30SCF15DPCY	CR30SCN22DPCY	CR30SCF15DPCY-E2	CR30SCN22DPCY-E2
	PNP NO+NC	CR30SCF15DPRY	CR30SCN22DPRY	CR30SCF15DPRY-E2	CR30SCN22DPRY-E2

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Switch point drift	< ±20% Sr	< ±20% Sr	< ±20% Sr	< ±20% Sr
Load current	<200mA	<200mA	<200mA	<200mA
Voltage drop	<2.5V	<2.5V	<2.5V	<2.5V
Consumption current	<15mA	<15mA	<15mA	<15mA
Hysteresis	3...20%	3...20%	3...20%	3...20%
Repeat accuracy	<5%	<5%	<5%	<5%
Frequency	50Hz	50Hz	50Hz	50Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Impulse voltage withstand	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s	1000V/AC 50/60Hz 60s
Short-circuit protection	yes	yes	yes	yes
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	-25...+70°C
Ambient moisture	35...95%	35...95%	35...95%	35...95%
Protection degree	IP67	IP67	IP67	IP67
Housing material	PBT	PBT	PBT	PBT
Connection	2m PVC Cable	2m PVC Cable	M12 Connector	M12 Connector
Certification	CE	CE	CE	CE

