



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 covers 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 test 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.

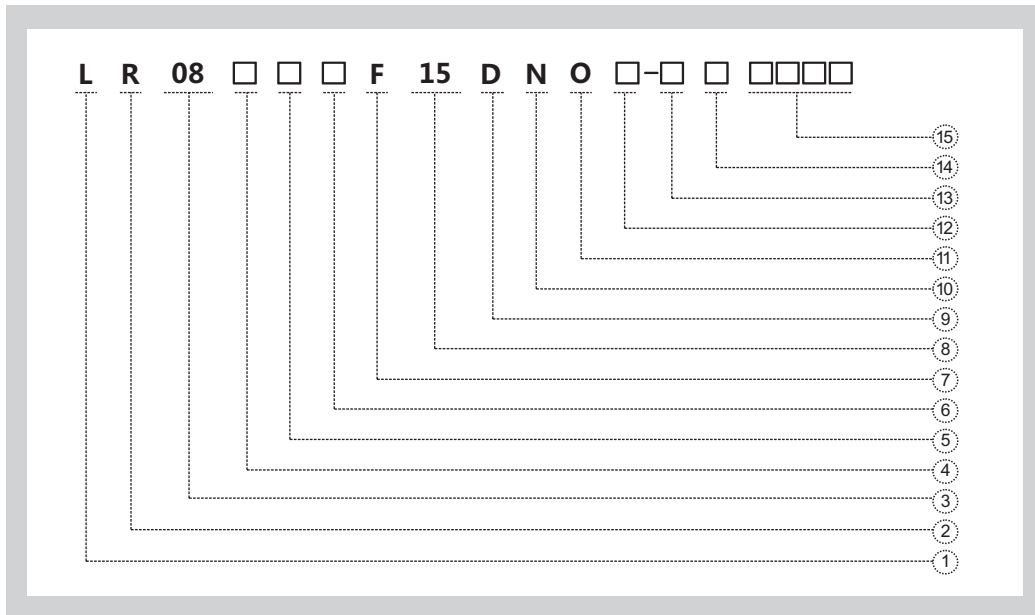
Focus on innovation, quality, service and global market, Lanbao insists on creating maximal value for customers.

Standard function inductive sensors

- Non-contact detecting way effectively avoids abrasion, safe and reliable.
- Built-in ASIC ensures quick response, high frequency, stable performance.
- Complete range of specification:
 - Smooth cylinder series: $\phi 4$ to $\phi 34$ mm;
 - threaded cylinder series :M5 to M30mm;
 - rectangular series: 7*7mm to 80*80mm.



Naming rules



1. Type Code

L:Inductive

2. Shape Code

R:Cylindrical
E:Rectangular

3. Size Code

Number:Housing diameter
e.g. 08:M8

4. Shape Code

Q:Smooth Cylindrical
V:Angle Column
Z:Combination
H:Ring-shaped
U:U-shaped
X:Semi-thread

5. Housing Material

N/A:Copper
S:Plastic
G:Stainless Steel
V:Aluminium

6. Housing Length

A:Short
B:Standard
C:Long

7. Mounting

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

8. Sensing Distance

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

9. Supply Voltage

A:20...250VAC
B:90...250VAC
C:380VAC
D:10...30VDC
E:10...60VDC
F:8.2VDC
G:5...60VDC
L:15...30VDC
H:20...30VDC
I:10...40VDC
J:5VDC
S:20...250VAC/DC
T:12...24VDC

10. Output Way

B:AC/DC 2 wires
L:DC 2 wires
T:AC 2 wires
P:PNP
N:NPN
E:NPN/PNP
F:NPN+PNP
K:Relay

11. Output Status

A:NO/NC Reversible
B:NO/NC Optional
Cable Optional;Potentiometer optional
O:NO
C:NC
R:NO+NC
IU:Voltage+Current
(0...10V,0...20mA)
U:Voltage(0...10V)
I:Current(0...20mA)
I4:Current(4...20mA)

12. By Sensor Function

N/A:Standard function
M:Analogue
N:NAMUR
W:High Temperature Resistant(-25°C...120°C)
W1:Low Temperature Resistant(-40°C...70°C)
W2:High Temperature Resistant(-25°C...100°C)
B:High Pressure Resistant
T:Speed
Z:Self-Diagnosis
Y:Extended Sensing Distance
G:High Frequency
Q:Metal Sensing Face
A:Welding-immune
K:EMI
F:Detect Iron Object
NF:Detect Non-Iron Object
J:Rotation Speed

13. Cable Length

N/A:2m
3M:3m

14. 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

15. Special Requirement

In 4 Digits

Wiring diagram

DC 2 Wires	Lead wire	M8 Connector	M12 Connector	Terminal connect
NO				
NC				

DC 3 Wires	Lead wire	M8 Connector	M12 Connector	Terminal connect
NPN NO				
NPN NC				
PNP NO				
PNP NC				

DC 4 Wires	Lead wire	M12 Connector	Terminal connect
NPN NO+NC			
PNP NO+NC			

AC 2 Wires	Lead wire	M12 Connector	Terminal connect
SCR NO			
SCR NC			

Inductive sensors

AC/DC 2 Wires	Lead wire	M12 Connector	Terminal connect
NO			
NC			
NO/NC			

NAMUR	Lead wire	M8 Connector	M12 Connector	Terminal connect

Analog output	Lead wire	M12 Connector	Terminal connect
3 Wires Voltage output			
3 Wires Current output			
4 Wires Voltage/current output			

Remarks	M8 Connector	M12 Connector
Connector		

Frequency enhanced

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
LR12X	DC 3 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*53	Nickel-copper alloy	Cable
LR12X	DC 3 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*56	Nickel-copper alloy	M12 Connector
LR18X	DC 3 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*53	Nickel-copper alloy	Cable
LR18X	DC 3 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*56	Nickel-copper alloy	M12 Connector

Gear speed monitoring

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
FY12	DC 3 Wires	DC10-30V	f	2mm,2mm	M12*1*53	Nickel-copper alloy	Cable
FY12	DC 3 Wires	DC10-30V	f	2mm,2mm	M12*1*56	Nickel-copper alloy	M12 Connector
FY18	DC 3 Wires	DC10-30V	f	2mm,2mm	M18*1*53	Nickel-copper alloy	Cable
FY18	DC 3 Wires	DC10-30V	f	2mm,2mm	M18*1*56	Nickel-copper alloy	M12 Connector

Full metal housing

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
LR12X	DC 3 Wires	DC10-30V	f	2mm	M12*1*53	Stainless steel	Cable
LR12X	DC 3 Wires	DC10-30V	f	2mm	M12*1*56	Stainless steel	M12 Connector
LR18X	DC 3 Wires	DC10-30V	f	5mm	M18*1*53	Stainless steel	Cable
LR18X	DC 3 Wires	DC10-30V	f	5mm	M18*1*56	Stainless steel	M12 Connector
LR30X	DC 3 Wires	DC10-30V	f	10mm	M30*1.5*53	Stainless steel	Cable
LR30X	DC 3 Wires	DC10-30V	f	10mm	M30*1.5*56	Stainless steel	M12 Connector

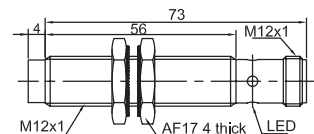
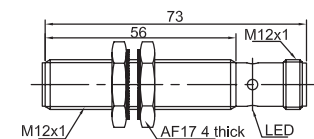
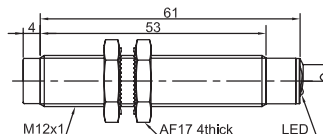
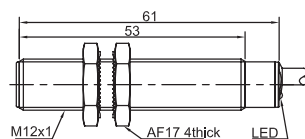
Item Code	LR12X		LR12X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	2mm	4mm	2mm	4mm



Output	NPN NO	LR12XCF02DNOG	LR12XCN04DNOG	LR12XCF02DNOG-E2	LR12XCN04DNOG-E2
	NPN NC	LR12XCF02DNCG	LR12XCN04DNCG	LR12XCF02DNCG-E2	LR12XCN04DNCG-E2
Output	PNP NO	LR12XCF02DPOG	LR12XCN04DPOG	LR12XCF02DPOG-E2	LR12XCN04DPOG-E2
	PNP NC	LR12XCF02DPCG	LR12XCN04DPCG	LR12XCF02DPCG-E2	LR12XCN04DPCG-E2

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Switch point drift	<±10% Sr	<±10% Sr	<±10% Sr	<±10% Sr
Load current	<200mA	<200mA	<200mA	<200mA
Voltage drop	<2.5V	<2.5V	<2.5V	<2.5V
Consumption current	<10mA	<10mA	<10mA	<10mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	4000Hz	3000Hz	4000Hz	3000Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Dielectric strength	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	Nickel-copper alloy	Nickel-copper alloy	Nickel-copper alloy	Nickel-copper alloy
Connection	2m PVC Cable	2m PVC Cable	M12 Connector	M12 Connector
Certification	CE U _L	CE U _L	CE U _L	CE U _L

* Cable material and length can be customized



Item Code	LR18X		LR18X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	5mm	8mm	5mm	8mm



Output	NPN NO	LR18XCF05DNOG	LR18XCN08DNOG	LR18XCF05DNOG-E2	LR18XCN08DNOG-E2
	NPN NC	LR18XCF05DNCG	LR18XCN08DNCG	LR18XCF05DNCG-E2	LR18XCN08DNCG-E2
Output	PNP NO	LR18XCF05DPOG	LR18XCN08DPOG	LR18XCF05DPOG-E2	LR18XCN08DPOG-E2
	PNP NC	LR18XCF05DPCG	LR18XCN08DPCG	LR18XCF05DPCG-E2	LR18XCN08DPCG-E2

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
Switch point drift	< ±10% Sr	< ±10% Sr	< ±10% Sr	< ±10% Sr
Load current	<200mA	<200mA	<200mA	<200mA
Voltage drop	<2.5V	<2.5V	<2.5V	<2.5V
Consumption current	<10mA	<10mA	<10mA	<10mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	2000Hz	1500Hz	2000Hz	1500Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Dielectric strength	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	Nickel-copper alloy	Nickel-copper alloy	Nickel-copper alloy	Nickel-copper alloy
Connection	2m PVC Cable	2m PVC Cable	M12 Connector	M12 Connector
Certification	CE U _L	CE U _L	CE U _L	CE U _L

* Cable material and length can be customized

