



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.

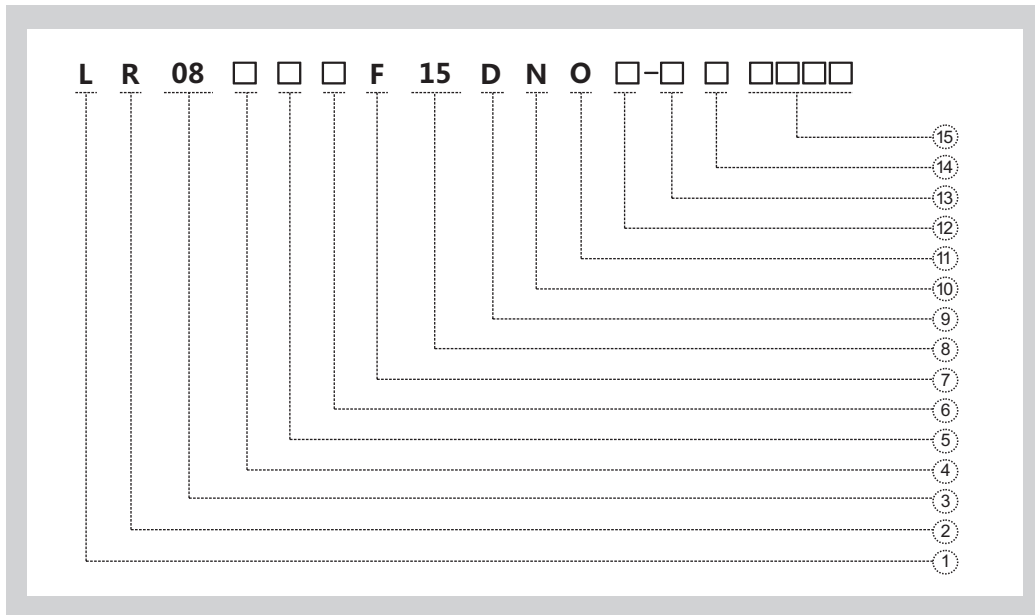
Focus on innovation, quality, service and global market, Lanbao insists on creating maximal value for customers.

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		

Welding-immune

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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*43	Brass+PTFE	Cable
LR12X	DC 3 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*46	Brass+PTFE	M12 Connector
LR18X	DC 3 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*43	Brass+PTFE	Cable
LR18X	DC 3 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*46	Brass+PTFE	M12 Connector
LR30X	DC 3 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*43	Brass+PTFE	Cable
LR30X	DC 3 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*46	Brass+PTFE	M12 Connector
LE40SZ	DC 3 Wires	DC10-30V	f/nf	15mm,20mm	40*40*66	PBT+PTFE	M12 Connector
LE40XZ	DC 3 Wires	DC10-30V	f/nf	15mm,20mm	40*40*120	PBT+PTFE	Terminal connect

Rotation speed monitor

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
LR18X	DC 3 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*53	Nickel-copper alloy	Cable
LR18X	AC 2 Wires	AC20-250V	f/nf	5mm,8mm	M18*1*53	Nickel-copper alloy	Cable
LR30X	DC 3 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*53	Nickel-copper alloy	Cable
LR30X	AC 2 Wires	AC20-250V	f/nf	10mm,15mm	M30*1.5*53	Nickel-copper alloy	Cable

Self-diagnosed

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Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
LR12X	DC 3 Wires	DC20-30V	nf	3.7mm	M12*1*57	Nickel-copper alloy	Cable
LR12X	DC 3 Wires	DC20-30V	nf	3.7mm	M12*1*40	Nickel-copper alloy	M12 Connector
LR12X	DC 3 Wires	DC20-30V	nf	3.7mm	M12*1*60	Nickel-copper alloy	M12 Connector

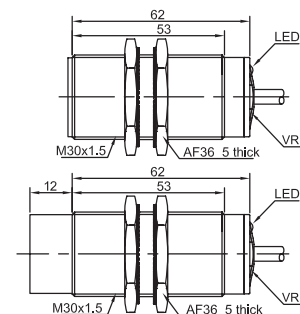
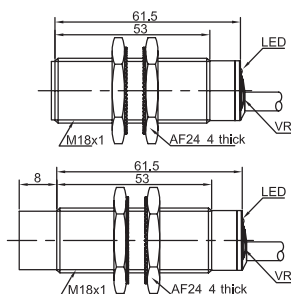
Item Code	LR18X		LR30X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	5mm	8mm	10mm	15mm



Output	NPN NC	LR18XCF05DNCJ	LR18XCN08DNCJ	LR30XCF10DNCJ	LR30XCN15DNCJ
Output	PNP NC	LR18XCF05DPCJ	LR18XCN08DPCJ	LR30XCF10DPCJ	LR30XCN15DPCJ

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	<15mA	<15mA	<15mA	<15mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	...	...	...	...
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	3...3000 /mins	3...3000 /mins	3...3000 /mins	3...3000 /mins
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	2m PVC Cable	2m PVC Cable
Certification	CE	CE	CE	CE

* Cable material and length can be customized



Item Code	LR18X		LR30X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	5mm	8mm	10mm	15mm



Output	AC 2 Wires NC	LR18XCF05ATCJ	LR18XCN08ATCJ	LR30XCF10ATCJ	LR30XCN15ATCJ

Technical Parameter				
Supply voltage	20...250 VAC	20...250 VAC	20...250 VAC	20...250 VAC
Switch point drift	<±10% Sr	<±10% Sr	<±10% Sr	<±10% Sr
Load current	<300mA	<300mA	<300mA	<300mA
Voltage drop	<10V	<10V	<10V	<10V
Leakage current	<3mA	<3mA	<3mA	<3mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	...	...	...	...
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
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	3...1200 /mins	3...1200 /mins	3...1200 /mins	3...1200 /mins
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	2m PVC Cable	2m PVC Cable
Certification	CE	CE	CE	CE

* Cable material and length can be customized

