



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.

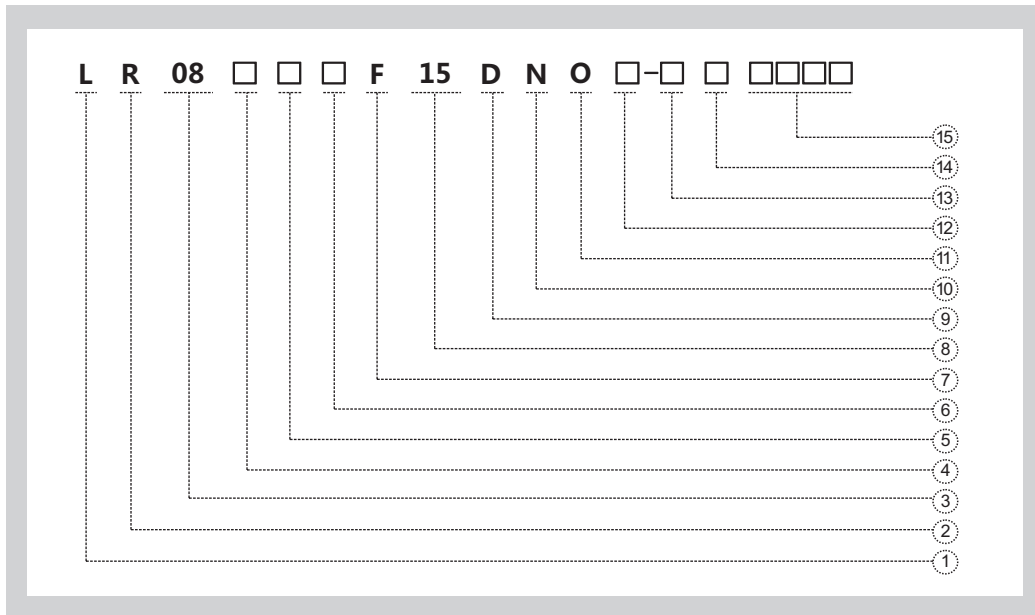
Focus on innovation, quality, service and global market, Lanbao insists on creating maximal value for customers.

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		

Standard function

metal type

P.27

Model	Output	Supply Voltage	Mounting	Sensing Distance	Specifications	Housing Material	Connection
DC 3/4 Wires							P27
LR04Q	DC 3 Wires	DC10-30V	f	0.8mm	Φ4*30	Stainless steel	Cable
LR04Q	DC 3 Wires	DC10-30V	f	0.8mm	Φ4*40	Stainless steel	M8 Connector
LR04XQ	DC 3 Wires	DC10-30V	f	0.8mm	Φ4*30	Stainless steel	Cable
LR05	DC 3 Wires	DC10-30V	f	0.8mm	M5*0.5*30	Stainless steel	Cable
LR05	DC 3 Wires	DC10-30V	f	0.8mm	M5*0.5*40	Stainless steel	M8 Connector
LR05X	DC 3 Wires	DC10-30V	f	0.8mm	M5*0.5*30	Stainless steel	Cable
LR6.5Q	DC 3 Wires	DC10-30V	f/nf	1.5mm,2mm	Φ6.5*40	Stainless steel	Cable
LR6.5Q	DC 3 Wires	DC10-30V	f/nf	1.5mm,2mm	Φ6.5*49	Stainless steel	M8 Connector
LR08	DC 3 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*40	Stainless steel	Cable
LR08	DC 3 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*49	Stainless steel	M8 Connector
LR08	DC 3 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*65	Nickel-copper alloy	M12 Connector
LR12X	DC 3/4 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*51	Nickel-copper alloy	Cable
LR12X	DC 3/4 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*63	Nickel-copper alloy	M12 Connector
LR18X	DC 3/4 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*52	Nickel-copper alloy	Cable
LR18X	DC 3/4 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*63	Nickel-copper alloy	M12 Connector
LR30X	DC 3/4 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*52	Nickel-copper alloy	Cable
LR30X	DC 3/4 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*63	Nickel-copper alloy	M12 Connector
DC 2 Wires							P35
LR6.5Q	DC 2 Wires	DC10-30V	f/nf	1.5mm,2mm	Φ6.5*40	Stainless steel	Cable
LR6.5Q	DC 2 Wires	DC10-30V	f/nf	1.5mm,2mm	Φ6.5*49	Stainless steel	M8 Connector
LR08	DC 2 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*40	Stainless steel	Cable
LR08	DC 2 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*49	Stainless steel	M8 Connector
LR08	DC 2 Wires	DC10-30V	f/nf	1.5mm,2mm	M8*1*65	Nickel-copper alloy	M12 Connector
LR12X	DC 2 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*51	Nickel-copper alloy	Cable
LR12X	DC 2 Wires	DC10-30V	f/nf	2mm,4mm	M12*1*63	Nickel-copper alloy	M12 Connector
LR18X	DC 2 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*52	Nickel-copper alloy	Cable
LR18X	DC 2 Wires	DC10-30V	f/nf	5mm,8mm	M18*1*63	Nickel-copper alloy	M12 Connector
LR30X	DC 2 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*52	Nickel-copper alloy	Cable
LR30X	DC 2 Wires	DC10-30V	f/nf	10mm,15mm	M30*1.5*63	Nickel-copper alloy	M12 Connector
AC 2 Wires							P41
LR12X	AC 2 Wires	AC20-250V	f/nf	2mm,4mm	M12*1*61	Nickel-copper alloy	Cable
LR12X	AC 2 Wires	AC20-250V	f/nf	2mm,4mm	M12*1*73	Nickel-copper alloy	M12 Connector
LR18X	AC 2 Wires	AC20-250V	f/nf	5mm,8mm	M18*1*62	Nickel-copper alloy	Cable
LR18X	AC 2 Wires	AC20-250V	f/nf	5mm,8mm	M18*1*73	Nickel-copper alloy	M12 Connector

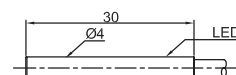
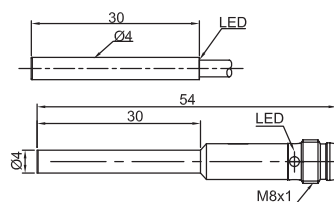
Item Code	LR04Q		LR04XQ	
Mounting	● Flush	● Flush	● Flush	
Sensing distance	0.8 mm	0.8 mm	0.8 mm	



Output	NPN NO	LR04QAF08DNO	LR04QAF08DNO-E1	LR04XQAF08DNO	
	NPN NC	LR04QAF08DNC	LR04QAF08DNC-E1	LR04XQAF08DNC	
Output	PNP NO	LR04QAF08DPO	LR04QAF08DPO-E1	LR04XQAF08DPO	
	PNP NC	LR04QAF08DPC	LR04QAF08DPC-E1	LR04XQAF08DPC	

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	
Switch point drift	< ±10% Sr	< ±10% Sr	< ±10% Sr	
Load current	<100mA	<100mA	<100mA	
Voltage drop	<2.5V	<2.5V	<2.5V	
Consumption current	<10mA	<10mA	<10mA	
Hysteresis	1...20%	1...20%	1...20%	
Repeat accuracy	<3%	<3%	<3%	
Frequency	2000Hz	2000Hz	2000Hz	
Output indicator	Red LED	Red LED	Red LED	
Polarity protection	yes	yes	yes	
Dielectric strength	...	...	...
Short-circuit protection	...	...	...
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	
Ambient moisture	35...95%	35...95%	35...95%	
Protection degree	IP67	IP67	IP67	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Connection	2m PUR Cable	M8 Connector	2m PUR Cable	
Certification	CE	CE	CE	

* Cable material and length can be customized



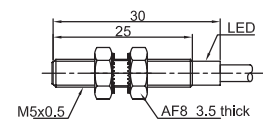
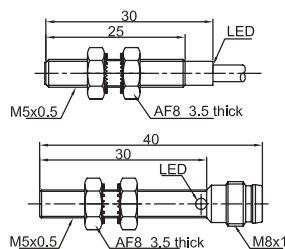
Item Code	LR05		LR05X	
Mounting	● Flush	● Flush	● Flush	
Sensing distance	0.8 mm	0.8 mm	0.8 mm	



Output	NPN NO	LR05AF08DNO	LR05AF08DNO-E1	LR05XAF08DNO	
	NPN NC	LR05AF08DNC	LR05AF08DNC-E1	LR05XAF08DNC	
Output	PNP NO	LR05AF08DPO	LR05AF08DPO-E1	LR05XAF08DPO	
	PNP NC	LR05AF08DPC	LR05AF08DPC-E1	LR05XAF08DPC	

Technical Parameter				
Supply voltage	10...30 VDC	10...30 VDC	10...30 VDC	
Switch point drift	< ±10% Sr	< ±10% Sr	< ±10% Sr	
Load current	<100mA	<100mA	<100mA	
Voltage drop	<2.5V	<2.5V	<2.5V	
Consumption current	<10mA	<10mA	<10mA	
Hysteresis	1...20%	1...20%	1...20%	
Repeat accuracy	<3%	<3%	<3%	
Frequency	2000Hz	2000Hz	2000Hz	
Output indicator	Red LED	Red LED	Red LED	
Polarity protection	yes	yes	yes	
Dielectric strength	...	...	...
Short-circuit protection	...	...	...
Ambient temperature	-25...+70°C	-25...+70°C	-25...+70°C	
Ambient moisture	35...95%	35...95%	35...95%	
Protection degree	IP67	IP67	IP67	
Housing material	Stainless steel	Stainless steel	Stainless steel	
Connection	2m PUR Cable	M8 Connector	2m PUR Cable	
Certification	CE	CE	CE	

* Cable material and length can be customized



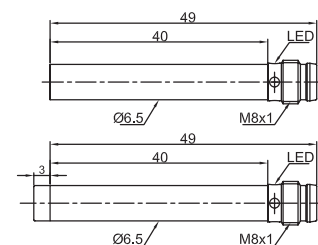
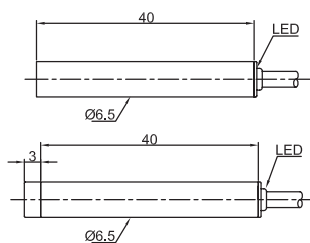
Item Code	LR6.5Q		LR6.5Q	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	1.5 mm	2mm	1.5 mm	2mm



Output	NPN NO	LR6.5QBF15DNO	LR6.5QBN02DNO	LR6.5QBF15DNO-E1	LR6.5QBN02DNO-E1
	NPN NC	LR6.5QBF15DNC	LR6.5QBN02DNC	LR6.5QBF15DNC-E1	LR6.5QBN02DNC-E1
Output	PNP NO	LR6.5QBF15DPO	LR6.5QBN02DPO	LR6.5QBF15DPO-E1	LR6.5QBN02DPO-E1
	PNP NC	LR6.5QBF15DPC	LR6.5QBN02DPC	LR6.5QBF15DPC-E1	LR6.5QBN02DPC-E1

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	<150mA	<150mA	<150mA	<150mA
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	...	...	...	...
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	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Connection	2m PVC Cable	2m PVC Cable	M8 Connector	M8 Connector
Certification	CE	CE	CE	CE

* Cable material and length can be customized



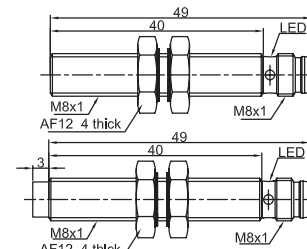
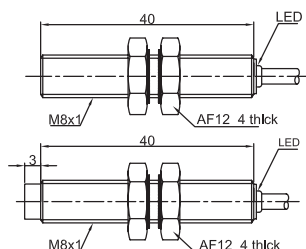
Item Code	LR08		LR08	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	1.5 mm	2mm	1.5 mm	2mm



Output	NPN NO	LR08BF15DNO	LR08BN02DNO	LR08BF15DNO-E1	LR08BN02DNO-E1
	NPN NC	LR08BF15DNC	LR08BN02DNC	LR08BF15DNC-E1	LR08BN02DNC-E1
Output	PNP NO	LR08BF15DPO	LR08BN02DPO	LR08BF15DPO-E1	LR08BN02DPO-E1
	PNP NC	LR08BF15DPC	LR08BN02DPC	LR08BF15DPC-E1	LR08BN02DPC-E1

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	<150mA	<150mA	<150mA	<150mA
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	...	...	...	...
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	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Connection	2m PVC Cable	2m PVC Cable	M8 Connector	M8 Connector
Certification	CE	CE	CE	CE

* Cable material and length can be customized



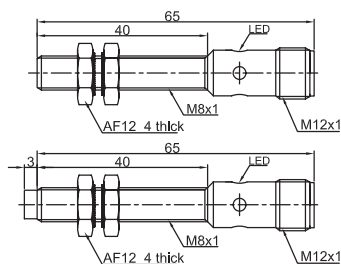
Item Code	LR08	
Mounting	● Flush	◐ Non-flush
Sensing distance	1.5 mm	2mm



Output	NPN NO	LR08BF15DNO-E2	LR08BN02DNO-E2
	NPN NC	LR08BF15DNC-E2	LR08BN02DNC-E2
Output	PNP NO	LR08BF15DPO-E2	LR08BN02DPO-E2
	PNP NC	LR08BF15DPC-E2	LR08BN02DPC-E2

Technical Parameter	
Supply voltage	10...30 VDC
Switch point drift	< ±10% Sr
Load current	<150mA
Voltage drop	<2.5V
Consumption current	<10mA
Hysteresis	1...20%
Repeat accuracy	<3%
Frequency	2000Hz
Output indicator	Yellow LED
Polarity protection	yes
Dielectric strength	...
Short-circuit protection	yes
Ambient temperature	-25...+70°C
Ambient moisture	35...95%
Protection degree	IP67
Housing material	Nickel-copper alloy
Connection	M12 Connector
Certification	CE

* Cable material and length can be customized



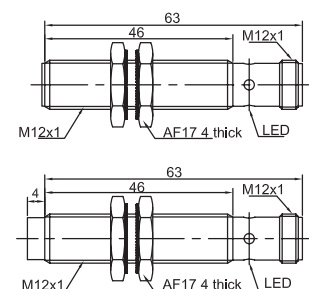
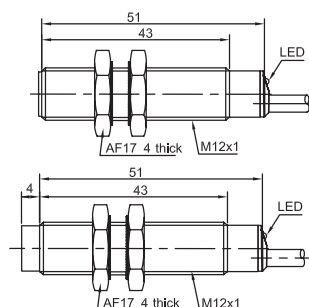
Item Code	LR12X		LR12X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	2mm	4mm	2mm	4mm



Output	NPN NO	LR12XBF02DNO	LR12XBN04DNO	LR12XBF02DNO-E2	LR12XBN04DNO-E2
	NPN NC	LR12XBF02DNC	LR12XBN04DNC	LR12XBF02DNC-E2	LR12XBN04DNC-E2
	NPN NO+NC	LR12XBF02DNR	LR12XBN04DNR	LR12XBF02DNR-E2	LR12XBN04DNR-E2
Output	PNP NO	LR12XBF02DPO	LR12XBN04DPO	LR12XBF02DPO-E2	LR12XBN04DPO-E2
	PNP NC	LR12XBF02DPC	LR12XBN04DPC	LR12XBF02DPC-E2	LR12XBN04DPC-E2
	PNP NO+NC	LR12XBF02DPR	LR12XBN04DPR	LR12XBF02DPR-E2	LR12XBN04DPR-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	<15mA	<15mA	<15mA	<15mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	1500Hz	1000Hz	1500Hz	1000Hz
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



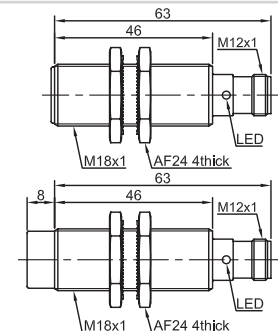
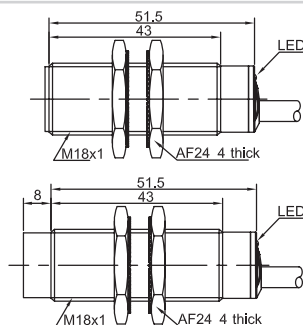
Item Code	LR18X		LR18X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	5mm	8mm	5mm	8mm



Output	NPN NO	LR18XBF05DNO	LR18XBN08DNO	LR18XBF05DNO-E2	LR18XBN08DNO-E2
	NPN NC	LR18XBF05DNC	LR18XBN08DNC	LR18XBF05DNC-E2	LR18XBN08DNC-E2
	NPN NO+NC	LR18XBF05DNR	LR18XBN08DNR	LR18XBF05DNR-E2	LR18XBN08DNR-E2
Output	PNP NO	LR18XBF05DPO	LR18XBN08DPO	LR18XBF05DPO-E2	LR18XBN08DPO-E2
	PNP NC	LR18XBF05DPC	LR18XBN08DPC	LR18XBF05DPC-E2	LR18XBN08DPC-E2
	PNP NO+NC	LR18XBF05DPR	LR18XBN08DPR	LR18XBF05DPR-E2	LR18XBN08DPR-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	<15mA	<15mA	<15mA	<15mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	1000Hz	800Hz	1000Hz	800Hz
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	LR30X		LR30X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	10mm	15mm	10mm	15mm

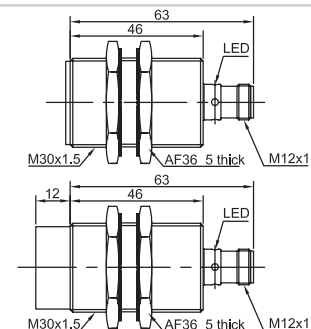
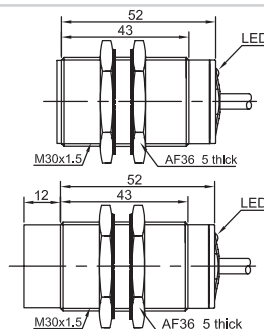


Output	NPN NO	LR30XB10DNO	LR30XBN15DNO	LR30XB10DNO-E2	LR30XBN15DNO-E2
	NPN NC	LR30XB10DNC	LR30XBN15DNC	LR30XB10DNC-E2	LR30XBN15DNC-E2
	NPN NO+NC	LR30XB10DNR	LR30XBN15DNR	LR30XB10DNR-E2	LR30XBN15DNR-E2
Output	PNP NO	LR30XB10DPO	LR30XBN15DPO	LR30XB10DPO-E2	LR30XBN15DPO-E2
	PNP NC	LR30XB10DPC	LR30XBN15DPC	LR30XB10DPC-E2	LR30XBN15DPC-E2
	PNP NO+NC	LR30XB10DPR	LR30XBN15DPR	LR30XB10DPR-E2	LR30XBN15DPR-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	<15mA	<15mA	<15mA	<15mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	500Hz	300Hz	500Hz	300Hz
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	LR6.5Q		LR6.5Q	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	1.5 mm	2mm	1.5 mm	2mm

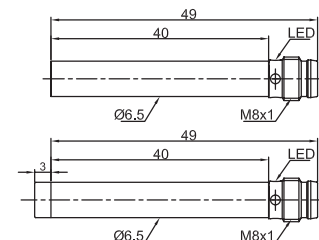
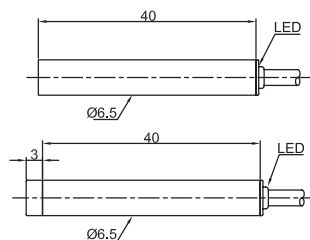


Output	DC 2 Wires NO	LR6.5QBF15DLO	LR6.5QBN02DLO	LR6.5QBF15DLO-E1	LR6.5QBN02DLO-E1
	DC 2 Wires NC	LR6.5QBF15DLC	LR6.5QBN02DLC	LR6.5QBF15DLC-E1	LR6.5QBN02DLC-E1

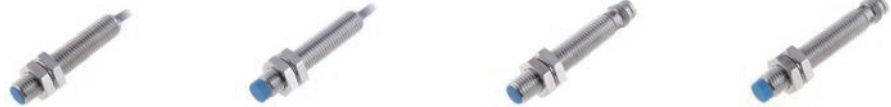
Technical Parameter

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	<100mA	<100mA	<100mA	<100mA
Voltage drop	<8V	<8V	<8V	<8V
Leakage current	<1mA	<1mA	<1mA	<1mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	1000Hz	800Hz	1000Hz	800Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Dielectric strength	...	...	...	...
Short-circuit protection	...	...	...	...
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	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Connection	2m PVC Cable	2m PVC Cable	M8 Connector	M8 Connector
Certification	CE	CE	CE	CE

* Cable material and length can be customized



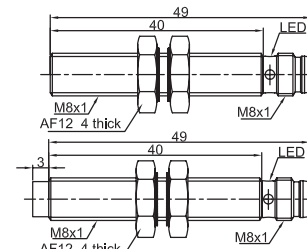
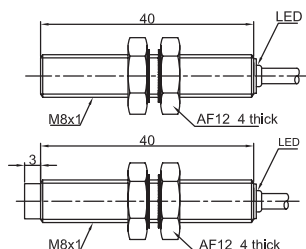
Item Code	LR08		LR08	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	1.5 mm	2mm	1.5 mm	2mm



Output	DC 2 Wires NO	LR08BF15DLO	LR08BN02DLO	LR08BF15DLO-E1	LR08BN02DLO-E1
	DC 2 Wires NC	LR08BF15DLC	LR08BN02DLC	LR08BF15DLC-E1	LR08BN02DLC-E1

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	<100mA	<100mA	<100mA	<100mA
Voltage drop	<8V	<8V	<8V	<8V
Leakage current	<1mA	<1mA	<1mA	<1mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	1000Hz	800Hz	1000Hz	800Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	yes	yes	yes	yes
Dielectric strength	...	...	...	...
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	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Connection	2m PVC Cable	2m PVC Cable	M8 Connector	M8 Connector
Certification	CE	CE	CE	CE

* Cable material and length can be customized

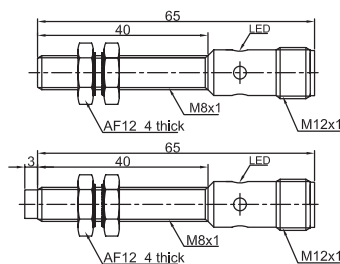


Item Code	LR08			
Mounting	● Flush	◐ Non-flush		
Sensing distance	1.5 mm	2mm		



Output	DC 2 Wires NO	LR08BF15DLO-E2	LR08BN02DLO-E2		
	DC 2 Wires NC	LR08BF15DLC-E2	LR08BN02DLC-E2		

Technical Parameter					
Supply voltage		10...30 VDC	10...30 VDC		
Switch point drift		< ±10% Sr	< ±10% Sr		
Load current		<100mA	<100mA		
Voltage drop		<8V	<8V		
Leakage current		<1mA	<1mA		
Hysteresis		1...20%	1...20%		
Repeat accuracy		<3%	<3%		
Frequency		1000Hz	800Hz		
Output indicator		Yellow LED	Yellow LED		
Polarity protection		yes	yes		
Dielectric strength		...	...
Short-circuit protection		yes	yes		
Ambient temperature		-25...+70°C	-25...+70°C		
Ambient moisture		35...95%	35...95%		
Protection degree		IP67	IP67		
Housing material		Nickel-copper alloy	Nickel-copper alloy		
Connection		M12 Connector	M12 Connector		
Certification		CE	CE		



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

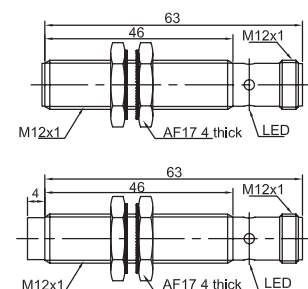
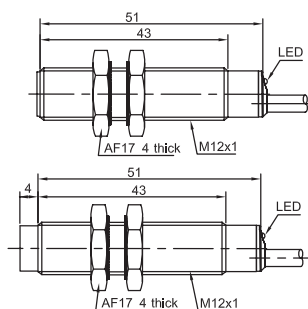


Output	DC 2 Wires NO	LR12XBF02DLO	LR12XBN04DLO	LR12XBF02DLO-E2	LR12XBN04DLO-E2
	DC 2 Wires NC	LR12XBF02DLC	LR12XBN04DLC	LR12XBF02DLC-E2	LR12XBN04DLC-E2

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	<100mA	<100mA	<100mA	<100mA
Voltage drop	<6V	<6V	<6V	<6V
Leakage current	<1mA	<1mA	<1mA	<1mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	800Hz	500Hz	800Hz	500Hz
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	5 mm	8mm	5 mm	8mm

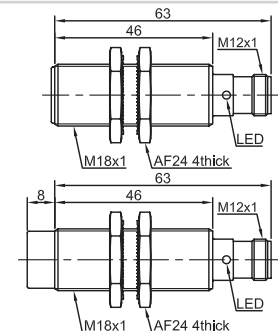
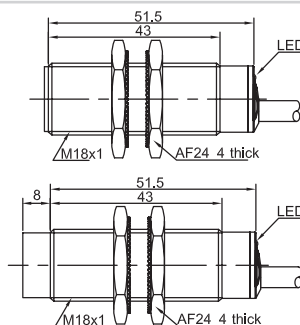


Output	DC 2 Wires NO	LR18XBF05DLO	LR18XBN08DLO	LR18XBF05DLO-E2	LR18XBN08DLO-E2
	DC 2 Wires NC	LR18XBF05DLC	LR18XBN08DLC	LR18XBF05DLC-E2	LR18XBN08DLC-E2

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	<100mA	<100mA	<100mA	<100mA
Voltage drop	<6V	<6V	<6V	<6V
Leakage current	<1mA	<1mA	<1mA	<1mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	500Hz	300Hz	500Hz	300Hz
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	LR30X		LR30X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	10mm	15mm	10mm	15mm

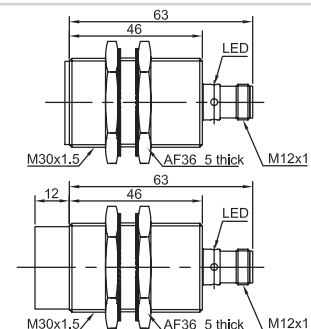
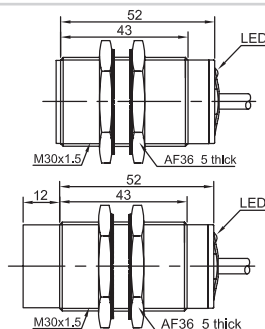


Output	DC 2 Wires NO	LR30XBF10DLO	LR30XBN15DLO	LR30XBF10DLO-E2	LR30XBN15DLO-E2
	DC 2 Wires NC	LR30XBF10DLC	LR30XBN15DLC	LR30XBF10DLC-E2	LR30XBN15DLC-E2

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	<100mA	<100mA	<100mA	<100mA
Voltage drop	<6V	<6V	<6V	<6V
Leakage current	<1mA	<1mA	<1mA	<1mA
Hysteresis	1...20%	1...20%	1...20%	1...20%
Repeat accuracy	<3%	<3%	<3%	<3%
Frequency	300Hz	200Hz	300Hz	200Hz
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	LR12X		LR12X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	2mm	4mm	2mm	4mm

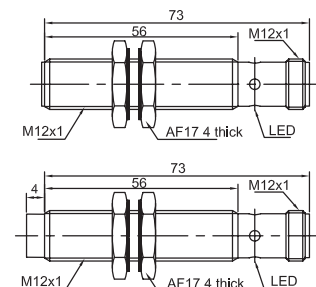
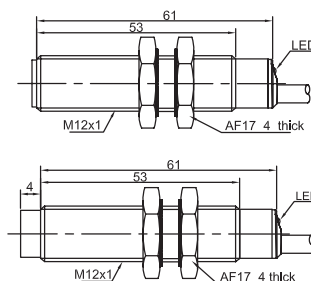


Output	AC 2 Wires NO	LR12XCF02ATO	LR12XCN04ATO	LR12XCF02ATO-E2	LR12XCN04ATO-E2
	AC 2 Wires NC	LR12XCF02ATC	LR12XCN04ATC	LR12XCF02ATC-E2	LR12XCN04ATC-E2

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	<200mA	<200mA	<200mA	<200mA
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	20Hz	20Hz	20Hz	20Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
Dielectric strength	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s
Short-circuit protection	...	...	...	...
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



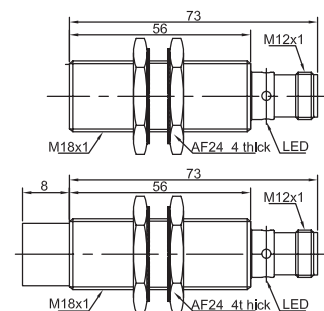
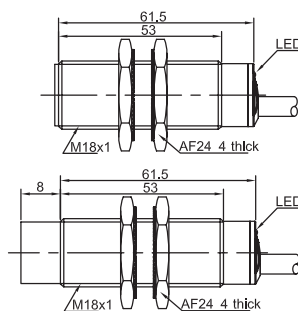
Item Code	LR18X		LR18X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	5mm	8mm	5mm	8mm



Output	AC 2 Wires NO	LR18XCF05ATO	LR18XCN08ATO	LR18XCF05ATO-E2	LR18XCN08ATO-E2
	AC 2 Wires NC	LR18XCF05ATC	LR18XCN08ATC	LR18XCF05ATC-E2	LR18XCN08ATC-E2

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	20Hz	20Hz	20Hz	20Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
Dielectric strength	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s
Short-circuit protection	...	...	...	...
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	LR30X		LR30X	
Mounting	● Flush	◐ Non-flush	● Flush	◐ Non-flush
Sensing distance	10mm	15mm	10mm	15mm

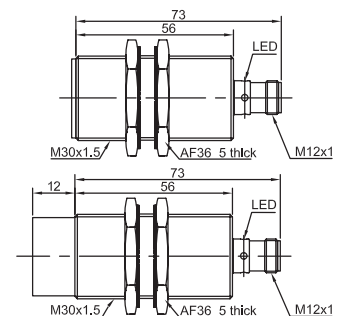
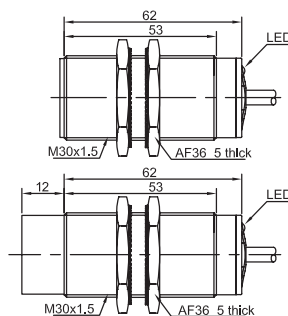


Output	AC 2 Wires NO	LR30XCF10ATO	LR30XCN15ATO	LR30XCF10ATO-E2	LR30XCN15ATO-E2
	AC 2 Wires NC	LR30XCF10ATC	LR30XCN15ATC	LR30XCF10ATC-E2	LR30XCN15ATC-E2

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	20Hz	20Hz	20Hz	20Hz
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
Dielectric strength	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s
Short-circuit protection	...	...	...	...
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

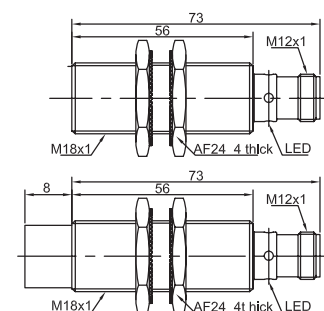
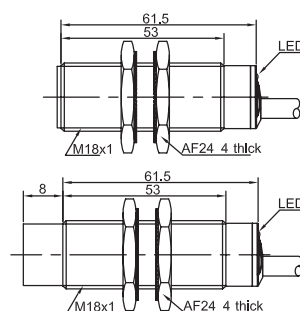


Output	DC/AC 2 Wires NO	LR18XCF05SBO	LR18XC�08SBO	LR18XCF05SBO-E2	LR18XC�08SBO-E2
	DC/AC 2 Wires NC	LR18XCF05SBC	LR18XC�08SBC	LR18XCF05SBC-E2	LR18XC�08SBC-E2

Technical Parameter

Supply voltage	20-250VAC/DC		20-250VAC/DC	
Switch point drift	$\pm 10\%$ Sr		$\pm 10\%$ Sr	
Load current	AC: <300mA, DC: <100mA		AC: <300mA, DC: <100mA	
Voltage drop	AC:<10V, DC:<8V		AC:<10V, DC:<8V	
Leakage current	AC: <3mA, DC: <1mA		AC: <3mA, DC: <1mA	
Hysteresis	1...20%		1...20%	
Repeat accuracy	<3%		<3%	
Frequency	AC: 20Hz, DC: 500Hz		AC: 20Hz, DC: 500Hz	
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
Dielectric strength	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s
Short-circuit protection	...	...	...	...
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	CE	CE	CE

* Cable material and length can be customized



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



Output	DC/AC 2 Wires NO	LR30XCF10SBO	LR30XCN15SBO	LR30XCF10SBO-E2	LR30XCN15SBO-E2
	DC/AC 2 Wires NC	LR30XCF10SBC	LR30XCN15SBC	LR30XCF10SBC-E2	LR30XCN15SBC-E2

Technical Parameter

Supply voltage	20-250VAC/DC		20-250VAC/DC	
Switch point drift	$\leq \pm 10\%$ Sr		$\leq \pm 10\%$ Sr	
Load current	AC: <300mA, DC: <100mA		AC: <300mA, DC: <100mA	
Voltage drop	AC:<10V, DC:<8V		AC:<10V, DC:<8V	
Leakage current	AC: <3mA, DC: <1mA		AC: <3mA, DC: <1mA	
Hysteresis	1...20%		1...20%	
Repeat accuracy	<3%		<3%	
Frequency	AC: 20Hz, DC: 500Hz		AC: 20Hz, DC: 500Hz	
Output indicator	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Polarity protection	...	...	...	...
Dielectric strength	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s	2000V/AC 50/60Hz 60s
Short-circuit protection	...	...	...	...
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	CE	CE	CE

* Cable material and length can be customized

