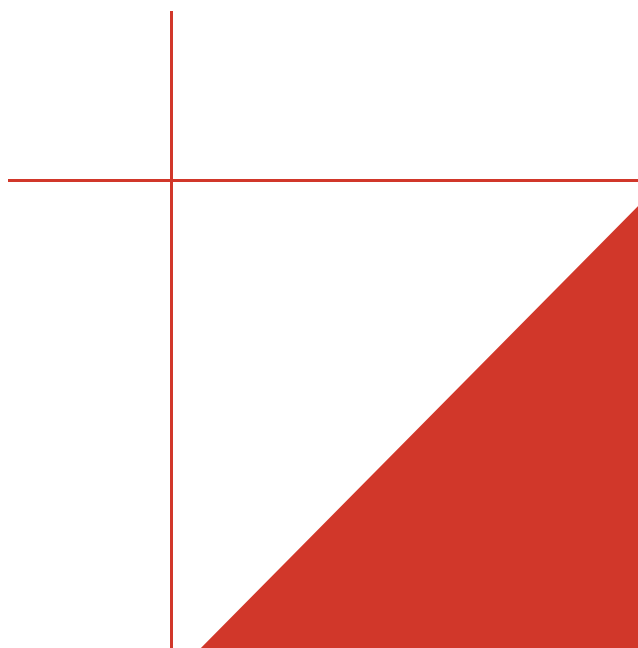
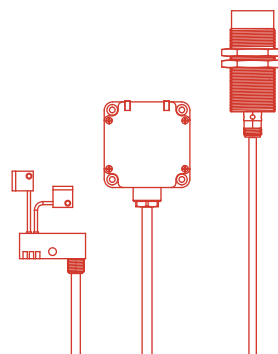
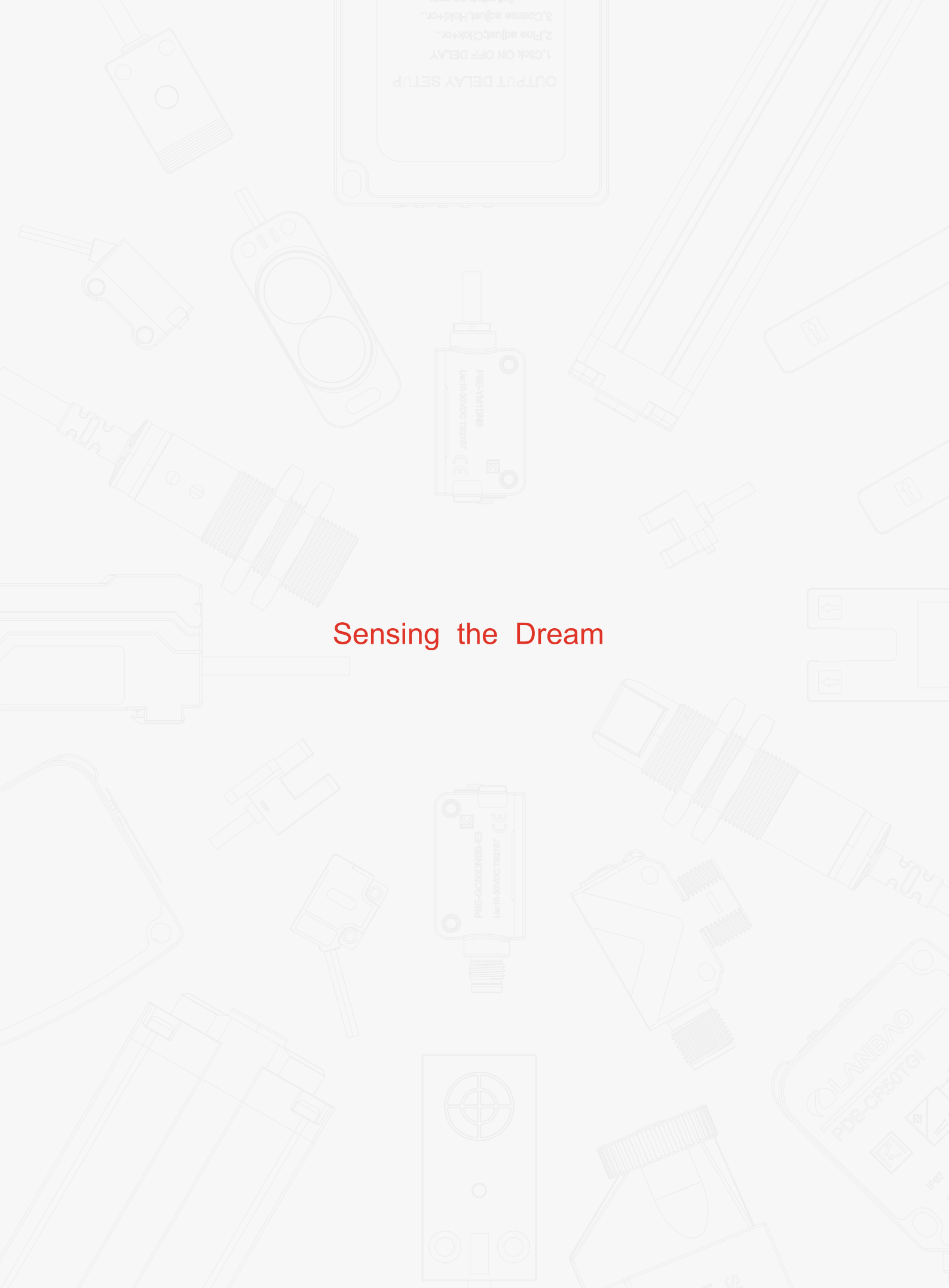


Inductive Sensors





Sensing the Dream



About Us

Shanghai Lanbao Sensing Technology Co., Ltd., established in 1998, is a leading Chinese provider of industrial automation solutions. We specialize in developing innovative sensing technologies and systems, driving advancements in intelligent manufacturing. Our products are widely used across various industries, including electronics, automotive and energy, enhancing efficiency, safety and sustainability.

Lanbao offers a comprehensive range of sensors, including photoelectric, inductive, capacitive, laser, millimeter wave, ultrasonic and 3D laser measurement. Our solutions cater to diverse applications, from industrial robotics and automation to advanced manufacturing processes.



In 1998
Established



360+
Patents and
copyrights



120+
Countries



99,000m²
Factory



15,000,000
Pcs/year



CORE PRODUCTS



Based on intelligent sensing technology, internet of things, cloud computing, big data, mobile internet and other advanced technologies, Lanbao improved the intelligence level of various products to help customers transform their production mode from artificial to intelligent and digital. In this way, we're able to elevate the level of intelligent manufacturing to empower customers with high competitiveness.



Inductive Sensors

- Standard function cylindrical series
- Standard function square series
- High protection series
- Temperature extended series
- Factor one series
- Welding immune series
- Extended distance series
- Full metal housing series
- Clamp position series
- Analog output series
- Self-diagnosis series
- Speed monitoring series
- NAMUR series
- High pressure resistant series
- Inductive distance measuring series



Capacitive Sensors

- Standard function cylindrical series
- Standard function square series
- Extended sensing distance series
- Pipe liquid level series
- High temperature resistant material level series
- Corrosion resistant series
- Frequency enhanced series



Photoelectric Sensor

- Ultra thin series
- Micro square series
- Slot series
- Optical fiber series
- Little square series
- Large square series
- Color series
- Label series
- Round and square series
- Cylindrical series
- Color mark series

Measurement and Vision Sensor



Laser distance measuring sensor
PDA/PDB

OLED digital display, convenient operation, button/remote teach-in, multiple Specification Parameter available.



Laser displacement sensor
PDA/PDB/PDE

OLED digital display, easy operation, small size with high precision, flexible output mode, multiple Specification Parameter available.



CCD Laser diameter measuring sensor
PDT/PDM

Exquisite wide range, high precision, a variety of measurement modes, compatible with one-to-two, multi-controller cascading.



2D Laser scanner sensor
PDL

High-performance lidar to meet multiple applications widely used in manufacturing, warehousing, logistics, medical and service robot industries.



LVDT displacement sensor
LVR/LVA

Digital/analog/RS48 measurement accuracy reaches micron level.



Ultrasonic sensor
UR12/18/30 US40

With features such as anti-pollution, anti-dust, anti-moisture, and strong penetration ability, it is widely used in fields like liquid level monitoring, robot anti-collision, single and double sheet detection, etc.



Millimeter wave radar sensor
MRA

Long-distance and high-precision ranging to meet micro-change monitoring in complex environments.



Code reader
PID

Wide resolution coverage and multiple series to meet industrial-level information traceability needs.



3D line scan sensor
PHM

In use of high-precision CMOS sensors and unique algorithms, with ultra high linear accuracy to realize non-contact and wear-free measurement.

Sensing the Dream

Safety and Control



Light curtain

SFB/SFE/SFG/SFN/SFS
MH20/MH40

SFx series high-level safety protective light curtains are widely used in forging and stamping industries, automotive manufacturing, and electrical and electronics manufacturing industries. MHxx series measuring light curtains can measure the size of objects and are extensively used in product quality inspection and passing detection.



Safety door switch

SLB-D/SLC-D/SLAS-D/SLD/
Operation keys

Combining ease of use and reliability, with various sizes and contact points available for selection.



Encoder

ENI38K/38S/50S/58K/58S
ENA39S/58S

Applied to machine tool feed axes, servo motion control, and industrial robots, the encoder features high rigidity, high response, and high positioning accuracy.



Gas Pressure Sensor

DPG

Gas pressure sensors, with their high precision, rapid response, strong environmental adaptability, and diverse outputs, have become the core device for gas pressure monitoring.

Industrial Network Module and Connection System



Industrial network module

Master/hub

Stable and reliable communication transmission, robust metal casing, excellent cost-performance ratio, aiding in the realization of Industry 4.0.



Junction box

DB08/DB12

Consolidate multiple power and data signals, reducing the amount of wiring needed.



Connection cable

QE8/QE12

Designed to connect various electronic devices for data transmission and power supply.



Connector

QE8/QE12

For electric connections, making the design and production process more convenient and flexible.

Contents

01 Standard function cylindrical series

LR6.5Q/08/12X/18X/30X series L01-009

02 Standard function square series

LE17/18/25/40 series L02-001

LE40SZ/40XZ/80XZ series L02-014

LE05 series L02-019

LE08/08X/09/11/12/12X/15 series L02-021

LE81/82 series L02-023

LE10/16/20/30/36/50/68 series L02-024

03 High protection series

LR12E/18E/30E L03-001

LE40E series L03-005

04 Temperature extended series

LR12X/18X/30X series L04-001

LE40SZ/40XZ/80XZ series L04-008

05 Factor one series

LR12X/18X/30X series L05-001

06 Welding immune series

LR12X/18X/30X series L06-001

07 Extended distance series

LR12X/18X/30X series L07-001

08 Full metal housing series

LR18X/30X series L08-001

09 Clamp position series

LT18/20 series L09-001

10 Analog output series

LR12X/18X/30X series L10-001
E40SZ/40XZ/80XZ series L10-005

11 Self-diagnosis series

LR12X series L11-001

12 Speed monitoring series

LR18X/30X series L12-001

13 NAMUR series

LR05/08/12X/18X/30X series L13-001

14 High pressure resistant series

LR12X/14X/16X/18X series L14-0031

15 Inductive distance measuring series

LR18/18X/30/30X series L15-001

L R 12 X □ B F 02 D P O □ - □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

1. Classification

L: Inductive sensor

2. Appearance code

R: Threaded cylindrical

Q: Smooth cylindrical

E: Square

T: Combination

3. Size code

Number: 01...99mm

4. Shape code

V: Angular column

Z: Combination

SZ: Short combination type

(40...80mm)

XZ: Long combination type

(80...140mm)

X,E,F,...: Represents appearance

5. Housing material

Blank: Metal copper shell

G: Stainless steel

S: Plastic

V: Aluminium

6. Housing size

Blank: Square shell

A: Short

B: Standard

C: Long

D: Super long

7. Mounting

F: Flush

N: Non-flush

8. Sensing distance

01...100: 0...100mm

e.g. 01: 1mm

9. Supply voltage

A: 20...250V AC

B: 90...250V AC

D: 10...30V DC

H: 20...30V DC

L: 15...30V DC

S: 20...250V AC/DC

E: 10...60V DC

F: 8.2V DC

10. Output logic

Blank: Analog

N: NPN

P: PNP

B: AC/DC 2 wires

L: DC 2 wires

T: AC 2 wires

11. Output status

O: NO

C: NC

R: NO+NC

B: NO/NC Optional

I: Current (0...20mA)

I4: Current (4...20mA)

IU: Coltage+current

(0...10V, 0...20mA)

U: Voltage (0...10V)

L: IO-Link

12. Switch function

Blank: Standard function

D/M: Analog voltage output

N: NAMUR

W: Wide temperature

(-25°C...120°C)

W1: Wide temperature

(-40°C...70°C)

W2: Wide temperature

(-25°C...100°C)

W3: Wide temperature

(-40°C...85°C)

W4: Wide temperature

(-25°C...180°C)

B: High pressure resistant

Y: Extended distance

Z: Self-diagnosis

Q: Full metal housing

G: Enhanced frequency

J: Speed monitoring

A: Welding immune

U: Factor one

13. Connection

Blank: Cable

E1: M8 3-pins Connector

E2: M12 4-pins Connector

E3: M8 4-pins Connector

E5: M12 5-pins Connector

Fx: Cable+Connector

(x: Number)

D: Terminal

14. Special requirement

4 Digits or letters

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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Official Website

Standard function cylindrical series

High-quality, cost-effective proximity sensors for general use in the industry.



A01-07 LR04/05/6.5
08/12/18/30

Standard function square series

High-quality, cost-effective proximity sensors for general use in the industry.



A02-01 LE05/08/08X/09/11/12/12X/15
LE17/18/25/40SZ/40XZ/80

High protection series

Applied to engineering machinery, port machinery and other industries, meeting the EMC standards for automotive industry.



A03-01 LR12E/18E/30E/LE40E

Temperature extended series

Applied to harsh conditions, such as outdoors, metal foundry or glass industry.



A04-01 LR12X/18X/30X-W
LE40SZ/40XZ/80XZ-W

Factor one series

Factor 1 for all metals, applied to automotive equipment, new energy etc.



A05-01 LR12X/18X/30X-U

Welding immune series

Applied to strong magnetic environments such as automotive equipment.



A06-01 LR12/18/30-A

Extended distance series

Long sensing distance, easy target setting and space saving.



A07-01 LR12X/18X/30X-Y

Full metal housing series

Applied to food, chemical and other special industries.



A08-01 LR12X/18X/30X-Q

Clamp position series

Dual-channel detection, widely used in automotive welding, clamping position etc.



A09-01 LT18/20-A

Analog output series

Applied to displacement measurement, thickness measurement.



A10-01 LR12/18/30
LE40SZ/40XZ/80XZ-M

Self-diagnosis series

Diagnostic output for sensor and feedback signal monitoring.



A11-01 LR12X/18X
LE25-Z

Speed monitoring series

Widely used for equipment overspeed or low speed operation status monitoring.



A12-01 LR18X/30X-J

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
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- Naming rules

Product family

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Product Family

Inductive Sensors

NAMUR series

Low voltage and low current design, applied to flammable and explosive fields such as textile, petroleum, chemical industry, etc.

A13-01

 LR05/6.5Q/08
12X/18X/30X-N


High pressure resistant series

Widely used in high hydraulic and high air pressure fields.

A14-01

LR10/12/14/16/18-B



Inductive distance measuring series

The measurement accuracy is $\pm 1\%$, with switch output, +0-10V or 4-20mA.

A15-01

LR18XB/LR30XB-M/D



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Series	Shape Detection distance	Moun- ting	Cylindrical						Square				
			LR04	LR05	LR6.5	LR08	LR12	LR18	LR30	LE17/18	LE25	LE40SZ/40XZ	LE80XZ
Standard function	F		0.8/1.5mm		1.5/2mm		2/4mm	5/8mm	10/15mm	5mm	7mm	15/20mm	40/50mm
	NF				2/4mm		4/8mm	8/12mm	15/22mm	8mm	10mm	20/40mm	50/70mm
High protection	F						4mm	8mm	15mm				
	NF						8mm	12mm	22mm				
Temperature extended	F						2mm	5mm	10mm			15mm	40mm
	NF						4mm	8mm	15mm			20mm	50mm
Factor one	F						4mm	8mm	15mm				
	NF						8mm	12mm	22mm				
Welding immune	F						4mm	8mm	15mm				
	NF						8mm	12mm	22mm				
Extended distance	F						6mm	12mm	22mm				
	NF						10mm	20mm	40mm				
Full metal housing	F						2mm	5mm	10mm				
	NF						2mm	8mm	15mm				

Series	Shape Detection distance	Moun- ting	Square						
			LE05	LE08/08X	LE09	LE11	LE12	LE12X	LE15
Square	F		0.8mm						5mm
	NF			2.5mm	2.5mm	3mm	4/6mm	4mm	8mm

Series	Shape Detection distance	Moun- ting	Square								
			LE81/82	LE10	LE16	LE20	LE30	LE36	LE40	LE50	LE68
Customizable	F		1.5mm	5mm	2mm	5mm	10mm	5mm	15mm	5mm	15mm
	NF			8mm	4mm	8mm	15mm	8mm	20mm	8mm	25mm

Series	Model Detection distance	Moun- ting	LT18				LT20			
Clamp position	NF		2mm				2mm			

Series	Shape Detection distance	Moun- ting	Cylindrical			Square	
			LR12X-M	LR18X-M	LR30X-M	LE40SZ/XZ-M	LE80XZ-M
Analog output	F		2mm	5mm	10mm	10mm	40mm
	NF		4mm	8mm	15mm	15mm	50mm

Series	Shape Detection distance	Moun- ting	Cylindrical					Square
			LR05	LR6.5Q	LR08	LR12X	LR18X	LR30X
Self-diagnosis	F				3.7mm			
	NF				8mm	12mm		8mm
Speed monitoring	F					5mm	10mm	
	NF					8mm	15mm	
Namur	F	0.8mm	1.5mm	1.5mm	2mm	5mm	10mm	
	NF		2mm	2mm	4mm	8mm	15mm	

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Quick Selection

Shape Detection distance Series	Moun- ting	Cylindrical				
		LR10A	LR12X	LR14X	LR16-B	LR18-B
High pressure resistant	F	0.8mm	1.5mm	1.5/3mm	2mm	2mm

Shape Detection distance Series	Moun- ting	Cylindrical	
		LR18XB	LR30XB
Inductive distance measuring	NF	5mm	10mm
	NF	8mm	15mm

Unit:mm

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

Inductive
distance
measuring

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Inductive Sensors

Standard Function Cylindrical Series

**Stable performance**

Dedicated IC production, stable detection distance.

Rich product Specification Parameter

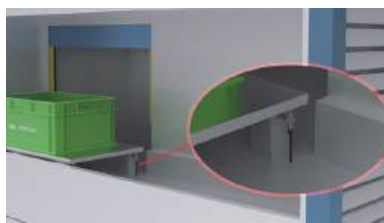
Specification Parameter range from $\phi 4$ to M30, with various lengths available.

Multiple connection modes

With cable, M8/M12 Connector.

Withstand harsh environments

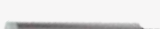
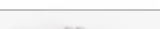
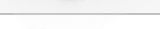
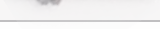
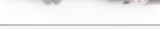
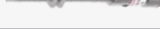
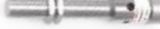
IP67 rating, effectively preventing the ingress of liquids such as water and oil, ensuring reliable performance.

Application

Container lifting



Cylindrical DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	φ6.5*40	Flush	2m cable	1.5mm	NO	LR6.5QBF15DNO	LR6.5QBF15DPO
					NC	LR6.5QBF15DNC	LR6.5QBF15DPC
	φ6.5*43	Non-flush	2m cable	2mm	NO	LR6.5QBN02DNO	LR6.5QBN02DPO
					NC	LR6.5QBN02DNC	LR6.5QBN02DPC
	φ6.5*49	Flush	Connector	1.5mm	NO	LR6.5QBF15DNO-E1 ^①	LR6.5QBF15DPO-E1 ^①
					NC	LR6.5QBF15DNC-E1 ^①	LR6.5QBF15DPC-E1 ^①
	φ6.5*52	Non-flush	Connector	2mm	NO	LR6.5QBN02DNO-E1 ^①	LR6.5QBN02DPO-E1 ^①
					NC	LR6.5QBN02DNC-E1 ^①	LR6.5QBN02DPC-E1 ^①
	φ6.5*40	Flush	2m cable	2mm	NO	LR6.5QBF02DNOY	LR6.5QBF02DPOY
					NC	LR6.5QBF02DNCY	LR6.5QBF02DPCY
	φ6.5*43	Non-flush	2m cable	4mm	NO	LR6.5QBN04DNOY	LR6.5QBN04DPOY
					NC	LR6.5QBN04DNCY	LR6.5QBN04DPCY
	φ6.5*54	Flush	Connector	2mm	NO	LR6.5QBF02DNOY-E1 ^①	LR6.5QBF02DPOY-E1 ^①
					NC	LR6.5QBF02DNCY-E1 ^①	LR6.5QBF02DPCY-E1 ^①
	φ6.5*57	Non-flush	Connector	4mm	NO	LR6.5QBN04DNOY-E1 ^①	LR6.5QBN04DPOY-E1 ^①
					NC	LR6.5QBN04DNCY-E1 ^①	LR6.5QBN04DPCY-E1 ^①
	M8*1*40	Flush	2m cable	1.5mm	NO	LR08BF15DNO	LR08BF15DPO
					NC	LR08BF15DNC	LR08BF15DPC
	M8*1*43	Non-flush	2m cable	2mm	NO	LR08BN02DNO	LR08BN02DPO
					NC	LR08BN02DNC	LR08BN02DPC
	M8*1*49	Flush	Connector	1.5mm	NO	LR08BF15DNO-E1 ^①	LR08BF15DPO-E1 ^①
					NC	LR08BF15DNC-E1 ^①	LR08BF15DPC-E1 ^①
	M8*1*52	Non-flush	Connector	2mm	NO	LR08BN02DNO-E1 ^①	LR08BN02DPO-E1 ^①
					NC	LR08BN02DNC-E1 ^①	LR08BN02DPC-E1 ^①
	M8*1*65	Flush	Connector	1.5mm	NO	LR08BF15DNO-E2 ^②	LR08BF15DPO-E2 ^②
					NC	LR08BF15DNC-E2 ^②	LR08BF15DPC-E2 ^②
	M8*1*68	Non-flush	Connector	2mm	NO	LR08BN02DNO-E2 ^②	LR08BN02DPO-E2 ^②
					NC	LR08BN02DNC-E2 ^②	LR08BN02DPC-E2 ^②
	M8*1*40	Flush	2m cable	2mm	NO	LR08BF02DNOY	LR08BF02DPOY
					NC	LR08BF02DNCY	LR08BF02DPCY
	M8*1*43	Non-flush	2m cable	4mm	NO	LR08BN04DNOY	LR08BN04DPOY
					NC	LR08BN04DNCY	LR08BN04DPCY
	M8*1*54	Flush	Connector	2mm	NO	LR08BF02DNOY-E1 ^①	LR08BF02DPOY-E1 ^①
					NC	LR08BF02DNCY-E1 ^①	LR08BF02DPCY-E1 ^①
	M8*1*57	Non-flush	Connector	4mm	NO	LR08BN04DNOY-E1 ^①	LR08BN04DPOY-E1 ^①
					NC	LR08BN04DNCY-E1 ^①	LR08BN04DPCY-E1 ^①
	M8*1*65	Flush	Connector	2mm	NO	LR08BF02DNOY-E2 ^②	LR08BF02DPOY-E2 ^②
					NC	LR08BF02DNCY-E2 ^②	LR08BF02DPCY-E2 ^②
	M8*1*68	Non-flush	Connector	4mm	NO	LR08BN04DNOY-E2 ^②	LR08BN04DPOY-E2 ^②
					NC	LR08BN04DNCY-E2 ^②	LR08BN04DPCY-E2 ^②
	M12*1*51	Flush	2m cable	2mm	NO	LR12XBF02DNO	LR12XBF02DPO
					NC	LR12XBF02DNC	LR12XBF02DPC
					NO+NC	LR12XBF02DNR	LR12XBF02DPR

①E1:M8 Three-pin ②E2:M12 Four-pin Connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Selection List

Standard Function Cylindrical Series

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*55	Non-flush	2m cable	4mm	NO	LR12XBN04DNO	LR12XBN04DPO
					NC	LR12XBN04DNC	LR12XBN04DPC
					NO+NC	LR12XBN04DNR	LR12XBN04DPR
	M12*1*63	Flush	Connector	2mm	NO	LR12XBF02DNO-E2 ^②	LR12XBF02DPO-E2 ^②
					NC	LR12XBF02DNC-E2 ^②	LR12XBF02DPC-E2 ^②
					NO+NC	LR12XBF02DNR-E2 ^②	LR12XBF02DPR-E2 ^②
	M12*1*67	Non-flush	Connector	4mm	NO	LR12XBN04DNO-E2 ^②	LR12XBN04DPO-E2 ^②
					NC	LR12XBN04DNC-E2 ^②	LR12XBN04DPC-E2 ^②
					NO+NC	LR12XBN04DNR-E2 ^②	LR12XBN04DPR-E2 ^②
	M12*1*61	Flush	2m cable	2mm	NO	LR12XCF02DNOG	LR12XCF02DPOG
					NC	LR12XCF02DNCG	LR12XCF02DPCG
	M12*1*65	Non-flush	2m cable	4mm	NO	LR12XCN04DNOG	LR12XCN04DPOG
					NC	LR12XCN04DNCG	LR12XCN04DPCG
	M12*1*73	Flush	Connector	2mm	NO	LR12XCF02DNOG-E2 ^②	LR12XCF02DPOG-E2 ^②
					NC	LR12XCF02DNCG-E2 ^②	LR12XCF02DPCG-E2 ^②
	M12*1*77	Non-flush	Connector	4mm	NO	LR12XCN04DNOG-E2 ^②	LR12XCN04DPOG-E2 ^②
					NC	LR12XCN04DNCG-E2 ^②	LR12XCN04DPCG-E2 ^②
	M12*1*51	Flush	2m cable	4mm	NO	LR12XBF04DNOY	LR12XBF04DPOY
					NC	LR12XBF04DNCY	LR12XBF04DPCY
					NO+NC	LR12XBF04DNRY	LR12XBF04DPRY
	M12*1*59	Non-flush	2m cable	8mm	NO	LR12XBN08DNOY	LR12XBN08DPOY
					NC	LR12XBN08DNCY	LR12XBN08DPCY
					NO+NC	LR12XBN08DNRY	LR12XBN08DPRY
	M12*1*63	Flush	Connector	8mm	NO	LR12XBF04DNOY-E2 ^②	LR12XBF04DPOY-E2 ^②
					NC	LR12XBF04DNCY-E2 ^②	LR12XBF04DPCY-E2 ^②
					NO+NC	LR12XBF04DNRY-E2 ^②	LR12XBF04DPRY-E2 ^②
	M12*1*71	Non-flush	Connector	8mm	NO	LR12XBN08DNOY-E2 ^②	LR12XBN08DPOY-E2 ^②
					NC	LR12XBN08DNCY-E2 ^②	LR12XBN08DPCY-E2 ^②
					NO+NC	LR12XBN08DNRY-E2 ^②	LR12XBN08DPRY-E2 ^②
	M18*51.5	Flush	2m cable	5mm	NO	LR18XBF05DNO	LR18XBF05DPO
					NC	LR18XBF05DNC	LR18XBF05DPC
					NO+NC	LR18XBF05DNR	LR18XBF05DPR
	M18*59.5	Non-flush	2m cable	8mm	NO	LR18XBN08DNO	LR18XBN08DPO
					NC	LR18XBN08DNC	LR18XBN08DPC
					NO+NC	LR18XBN08DNR	LR18XBN08DPR
	M18*63	Flush	Connector	5mm	NO	LR18XBF05DNO-E2 ^②	LR18XBF05DPO-E2 ^②
					NC	LR18XBF05DNC-E2 ^②	LR18XBF05DPC-E2 ^②
					NO+NC	LR18XBF05DNR-E2 ^②	LR18XBF05DPR-E2 ^②
	M18*71	Non-flush	Connector	8mm	NO	LR18XBN08DNO-E2 ^②	LR18XBN08DPO-E2 ^②
					NC	LR18XBN08DNC-E2 ^②	LR18XBN08DPC-E2 ^②
					NO+NC	LR18XBN08DNR-E2 ^②	LR18XBN08DPR-E2 ^②
	M18*61.5	Flush	2m cable	5mm	NO	LR18XCF05DNOG	LR18XCF05DPOG
					NC	LR18XCF05DNCG	LR18XCF05DPCG
	M18*69.5	Non-flush	2m cable	8mm	NO	LR18XCN08DNOG	LR18XCN08DPOG
					NC	LR18XCN08DNCG	LR18XCN08DPCG

②E2:M12 Four-pin Connector



Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M18*1*73	Flush	Connector	5mm	NO	LR18XCF05DNOG-E2 ^②	LR18XCF05DPOG-E2 ^②
					NC	LR18XCF05DNCG-E2 ^②	LR18XCF05DPCG-E2 ^②
	M18*1*85	Non-flush	Connector	8mm	NO	LR18XCN08DNOG-E2 ^②	LR18XCN08DPOG-E2 ^②
					NC	LR18XCN08DNCG-E2 ^②	LR18XCN08DPCG-E2 ^②
	M18*1*51.5	Flush	2m cable	8mm	NO	LR18XBF08DNOY	LR18XBF08DPOY
					NC	LR18XBF08DNCY	LR18XBF08DPCY
					NO+NC	LR18XBF08DNRY	LR18XBF08DPRY
	M18*1*63.5	Non-flush	2m cable	12mm	NO	LR18XBN12DNOY	LR18XBN12DPOY
					NC	LR18XBN12DNCY	LR18XBN12DPCY
					NO+NC	LR18XBN12DNRY	LR18XBN12DPRY
	M18*1*63	Flush	Connector	8mm	NO	LR18XBF08DNOY-E2 ^②	LR18XBF08DPOY-E2 ^②
					NC	LR18XBF08DNCY-E2 ^②	LR18XBF08DPCY-E2 ^②
					NO+NC	LR18XBF08DNRY-E2 ^②	LR18XBF08DPRY-E2 ^②
	M18*1*75	Non-flush	Connector	12mm	NO	LR18XBN12DNOY-E2 ^②	LR18XBN12DPOY-E2 ^②
					NC	LR18XBN12DNCY-E2 ^②	LR18XBN12DPCY-E2 ^②
					NO+NC	LR18XBN12DNRY-E2 ^②	LR18XBN12DPRY-E2 ^②
	M30*1.5*52	Flush	2m cable	10mm	NO	LR30XBF10DNO	LR30XBF10DPO
					NC	LR30XBF10DNC	LR30XBF10DPC
					NO+NC	LR30XBF10DNR	LR30XBF10DPR
	M30*1.5*64	Non-flush	2m cable	15mm	NO	LR30XBN15DNO	LR30XBN15DPO
					NC	LR30XBN15DNC	LR30XBN15DPC
					NO+NC	LR30XBN15DNR	LR30XBN15DPR
	M30*1.5*63	Flush	Connector	10mm	NO	LR30XBF10DNO-E2 ^②	LR30XBF10DPO-E2 ^②
					NC	LR30XBF10DNC-E2 ^②	LR30XBF10DPC-E2 ^②
					NO+NC	LR30XBF10DNR-E2 ^②	LR30XBF10DPR-E2 ^②
	M30*1.5*75	Non-flush	Connector	15mm	NO	LR30XBN15DNO-E2 ^②	LR30XBN15DPO-E2 ^②
					NC	LR30XBN15DNC-E2 ^②	LR30XBN15DPC-E2 ^②
					NO+NC	LR30XBN15DNR-E2 ^②	LR30XBN15DPR-E2 ^②
	M30*1.5*52	Flush	2m cable	15mm	NO	LR30XBF15DNOY	LR30XBF15DPOY
					NC	LR30XBF15DNCY	LR30XBF15DPCY
					NO+NC	LR30XBF15DNRY	LR30XBF15DPRY
	M30*1.5*67	Non-flush	2m cable	22mm	NO	LR30XBN22DNOY	LR30XBN22DPOY
					NC	LR30XBN22DNCY	LR30XBN22DPCY
					NO+NC	LR30XBN22DNRY	LR30XBN22DPRY
	M30*1.5*63	Flush	Connector	15mm	NO	LR30XBF15DNOY-E2 ^②	LR30XBF15DPOY-E2 ^②
					NC	LR30XBF15DNCY-E2 ^②	LR30XBF15DPCY-E2 ^②
					NO+NC	LR30XBF15DNRY-E2 ^②	LR30XBF15DPRY-E2 ^②
	M30*1.5*78	Non-flush	Connector	22mm	NO	LR30XBN22DNOY-E2 ^②	LR30XBN22DPOY-E2 ^②
					NC	LR30XBN22DNCY-E2 ^②	LR30XBN22DPCY-E2 ^②
					NO+NC	LR30XBN22DNRY-E2 ^②	LR30XBN22DPRY-E2 ^②

②E2:M12 Four-pin Connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

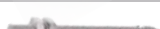
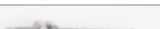
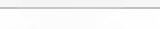
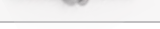
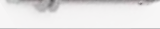
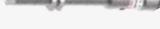
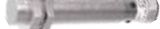
Installation guide

Technical guide



Official Website

Cylindrical DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	φ6.5*40	Flush	2m cable	1.5mm	LR6.5QBF15DLO	LR6.5QBF15DLC
	φ6.5*43	Non-flush	2m cable	2mm	LR6.5QBN02DLO	LR6.5QBN02DLC
	φ6.5*49	Flush	Connector	1.5mm	LR6.5QBF15DLO-E1 ^①	LR6.5QBF15DLC-E1 ^①
	φ6.5*52	Non-flush	Connector	2mm	LR6.5QBN02DLO-E1 ^①	LR6.5QBN02DLC-E1 ^①
	M8*1*40	Flush	2m cable	1.5mm	LR08BF15DLO	LR08BF15DLC
	M8*1*43	Non-flush	2m cable	2mm	LR08BN02DLO	LR08BN02DLC
	M8*1*49	Flush	Connector	1.5mm	LR08BF15DLO-E1 ^①	LR08BF15DLC-E1 ^①
	M8*1*52	Non-flush	Connector	2mm	LR08BN02DLO-E1 ^①	LR08BN02DLC-E1 ^①
	M8*1*65	Flush	Connector	1.5mm	LR08BF15DLO-E2 ^②	LR08BF15DLC-E2 ^②
	M8*1*68	Non-flush	Connector	2mm	LR08BN02DLO-E2 ^②	LR08BN02DLC-E2 ^②
	M8*1*40	Flush	2m cable	2mm	LR08BF02DLOY	LR08BF02DLCY
	M8*1*43	Non-flush	2m cable	4mm	LR08BN04DLOY	LR08BN04DLCY
	M8*1*54	Flush	Connector	2mm	LR08BF02DLOY-E1 ^①	LR08BF02DLCY-E1 ^①
	M8*1*57	Non-flush	Connector	4mm	LR08BN04DLOY-E1 ^①	LR08BN04DLCY-E1 ^①
	M8*1*65	Flush	Connector	2mm	LR08BF02DLOY-E2 ^②	LR08BF02DLCY-E2 ^②
	M8*1*68	Non-flush	Connector	4mm	LR08BN04DLOY-E2 ^②	LR08BN04DLCY-E2 ^②
	M12*1*51	Flush	2m cable	2mm	LR12XBF02DLO	LR12XBF02DLC
	M12*1*55	Non-flush	2m cable	4mm	LR12XBN04DLO	LR12XBN04DLC
	M12*1*63	Flush	Connector	2mm	LR12XBF02DLO-E2 ^②	LR12XBF02DLC-E2 ^②
	M12*1*67	Non-flush	Connector	4mm	LR12XBN04DLO-E2 ^②	LR12XBN04DLC-E2 ^②
	M12*1*51	Flush	2m cable	4mm	LR12XBF04DLOY	LR12XBF04DLCY
	M12*1*59	Non-flush	2m cable	8mm	LR12XBN08DLOY	LR12XBN08DLCY

①E1:M8 Three-pin ②E2:M12 Four-pin Connector



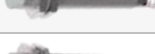
Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	M12*1*63	Flush	Connector	4mm	LR12XBF04DLOY-E2 ^②	LR12XBF04DLCY-E2 ^②
	M12*1*71	Non-flush	Connector	8mm	LR12XBN08DLOY-E2 ^②	LR12XBN08DLCY-E2 ^②
	M18*1*51.5	Flush	2m cable	5mm	LR18XBF05DLO	LR18XBF05DLC
	M18*1*59.5	Non-flush	2m cable	8mm	LR18XBN08DLO	LR18XBN08DLC
	M18*1*63	Flush	Connector	5mm	LR18XBF05DLO-E2 ^②	LR18XBF05DLC-E2 ^②
	M18*1*71	Non-flush	Connector	8mm	LR18XBN08DLO-E2 ^②	LR18XBN08DLC-E2 ^②
	M18*1*51.5	Flush	2m cable	8mm	LR18XBF08DLOY	LR18XBF08DLCY
	M18*1*63.5	Non-flush	2m cable	12mm	LR18XBN12DLOY	LR18XBN12DLCY
	M18*1*63	Flush	Connector	8mm	LR18XBF08DLOY-E2 ^②	LR18XBF08DLCY-E2 ^②
	M18*1*75	Non-flush	Connector	12mm	LR18XBN12DLOY-E2 ^②	LR18XBN12DLCY-E2 ^②
	M30*1.5*52	Flush	2m cable	10mm	LR30XBF10DLO	LR30XBF10DLC
	M30*1.5*64	Non-flush	2m cable	15mm	LR30XBN15DLO	LR30XBN15DLC
	M30*1.5*63	Flush	Connector	10mm	LR30XBF10DLO-E2 ^②	LR30XBF10DLC-E2 ^②
	M30*1.5*75	Non-flush	Connector	15mm	LR30XBN15DLO-E2 ^②	LR30XBN15DLC-E2 ^②
	M30*1.5*52	Flush	2m cable	15mm	LR30XBF15DLOY	LR30XBF15DLCY
	M30*1.5*67	Non-flush	2m cable	22mm	LR30XBN22DLOY	LR30XBN22DLCY
	M30*1.5*63	Flush	Connector	15mm	LR30XBF15DLOY-E2 ^②	LR30XBF15DLCY-E2 ^②
	M30*1.5*78	Non-flush	Connector	22mm	LR30XBN22DLOY-E2 ^②	LR30XBN22DLCY-E2 ^②

②E2:M12 Four-pin Connector



Official Website

Cylindrical DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	M12*1*61	Flush	2m cable	2mm	LR12XCF02ATO	LR12XCF02ATC
	M12*1*65	Non-flush	2m cable	4mm	LR12XCN04ATO	LR12XCN04ATC
	M12*1*73	Flush	Connector	2mm	LR12XCF02ATO-E2 ^②	LR12XCF02ATC-E2 ^②
	M12*1*77	Non-flush	Connector	4mm	LR12XCN04ATO-E2 ^②	LR12XCN04ATC-E2 ^②
	M12*1*61	Flush	2m cable	4mm	LR12XCF04ATOY	LR12XCF04ATCY
	M12*1*69	Non-flush	2m cable	8mm	LR12XCN08ATOY	LR12XCN08ATCY
	M12*1*73	Flush	Connector	4mm	LR12XCF04ATOY-E2 ^②	LR12XCF04ATCY-E2 ^②
	M12*1*81	Non-flush	Connector	8mm	LR12XCN08ATOY-E2 ^②	LR12XCN08ATCY-E2 ^②
	M18*1*61.5	Flush	2m cable	5mm	LR18XCF05ATO	LR18XCF05ATC
	M18*1*69.5	Non-flush	2m cable	8mm	LR18XCN08ATO	LR18XCN08ATC
	M18*1*73	Flush	Connector	5mm	LR18XCF05ATO-E2 ^②	LR18XCF05ATC-E2 ^②
	M18*1*81	Non-flush	Connector	8mm	LR18XCN08ATO-E2 ^②	LR18XCN08ATC-E2 ^②
	M18*1*61.5	Flush	2m cable	8mm	LR18XCF08ATOY	LR18XCF08ATCY
	M18*1*73.5	Non-flush	2m cable	12mm	LR18XCN12ATOY	LR18XCN12ATCY
	M18*1*73	Flush	Connector	8mm	LR18XCF08ATOY-E2 ^②	LR18XCF08ATCY-E2 ^②
	M18*1*85	Non-flush	Connector	12mm	LR18XCN12ATOY-E2 ^②	LR18XCN12ATCY-E2 ^②
	M30*1.5*62	Flush	2m cable	10mm	LR30XCF10ATO	LR30XCF10ATC
	M30*1.5*74	Non-flush	2m cable	15mm	LR30XCN15ATO	LR30XCN15ATC
	M30*1.5*73	Flush	Connector	10mm	LR30XCF10ATO-E2 ^②	LR30XCF10ATC-E2 ^②
	M30*1.5*85	Non-flush	Connector	15mm	LR30XCN15ATO-E2 ^②	LR30XCN15ATC-E2 ^②
	M30*1.5*62	Flush	2m cable	15mm	LR30XCF15ATOY	LR30XCF15ATCY
	M30*1.5*77	Non-flush	2m cable	22mm	LR30XCN22ATOY	LR30XCN22ATCY

② E2: M12 Four-pin Connector



Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	M30*1.5*73	Flush	Connector	15mm	LR30XCF15ATOY-E2 ^②	LR30XCF15ATCY-E2 ^②
	M30*1.5*88	Non-flush	Connector	22mm	LR30XCN22ATOY-E2 ^②	LR30XCN22ATCY-E2 ^②

②E2:M12 Four-pin Connector

Cylindrical AC/DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	M18*1*61.5	Flush	2m cable	5mm	LR18XCF05SBO	LR18XCF05SBC
	M18*1*73	Non-flush	2m cable	8mm	LR18XCN08SBO	LR18XCN08SBC
	M18*1*69.5	Flush	Connector	5mm	LR18XCF05SBO-E2 ^②	LR18XCF05SBC-E2 ^②
	M18*1*81	Non-flush	Connector	8mm	LR18XCN08SBO-E2 ^②	LR18XCN08SBC-E2 ^②
	M18*1*61.5	Flush	2m cable	8mm	LR18XCF08SBOY	LR18XCF08SBCY
	M18*1*73	Non-flush	2m cable	12mm	LR18XCN12SBOY	LR18XCN12SBCY
	M18*1*73.5	Flush	Connector	8mm	LR18XCF08SBOY-E2 ^②	LR18XCF08SBCY-E2 ^②
	M18*1*85	Non-flush	Connector	12mm	LR18XCN12SBOY-E2 ^②	LR18XCN12SBCY-E2 ^②
	M30*1.5*62	Flush	2m cable	10mm	LR30XCF10SBO	LR30XCF10SBC
	M30*1.5*73	Non-flush	2m cable	15mm	LR30XCN15SBO	LR30XCN15SBC
	M30*1.5*74	Flush	Connector	10mm	LR30XCF10SBO-E2 ^②	LR30XCF10SBC-E2 ^②
	M30*1.5*85	Non-flush	Connector	15mm	LR30XCN15SBO-E2 ^②	LR30XCN15SBC-E2 ^②
	M30*1.5*62	Flush	2m cable	15mm	LR30XCF15SBOY	LR30XCF15SBCY
	M30*1.5*73	Non-flush	2m cable	22mm	LR30XCN22SBOY	LR30XCN22SBCY
	M30*1.5*77	Flush	Connector	15mm	LR30XCF15SBOY-E2 ^②	LR30XCF15SBCY-E2 ^②
	M30*1.5*88	Non-flush	Connector	22mm	LR30XCN22SBOY-E2 ^②	LR30XCN22SBCY-E2 ^②

②E2:M12 Four-pin Connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

Specification Parameter

Standard Function Cylindrical Series-DC 3/4 wires

I Standard distance/Long distance

Series	LR6.5Q			
Model	LR6.5QB□□D□□□-□			
Mounting	Flush		Non-flush	
Detection distance	1.5mm	2mm	2mm	4mm
Switching frequency	2000Hz	1000Hz	1500Hz	800Hz
Ensure distance	0...1.2mm	0...1.6mm		0...3.2mm
Standard target	Fe 8*8*1t			Fe 12*12*1t
Shape specification	B model (dimensional drawing see page L01-023 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤150mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Stainless steel			

Series	LR08				LR12X			
Model	LR08B□□D□□□-□				LR12X□□□D□□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	1.5mm	2mm	2mm	4mm	2mm	4mm	4mm	8mm
Switching frequency	2000Hz	1000Hz	1500Hz	1000Hz	1500、4000Hz	800Hz	1000、3000Hz	500Hz
Ensure distance	0...1.2mm	0...1.6mm		0...3.2mm	0...1.6mm	0...3.2mm		0...6.4mm
Standard target	Fe 8*8*1t			Fe 12*12*1t	Fe 12*12*1t			Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L01-024/025 for details)				B, C model optional (dimensional drawing see page L01-026/027 for details)			
Connection	Cable type (standard length 2m), connector optional							
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤150mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA				Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%							
Current consumption	≤10mA				≤10mA ^① 、≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70℃; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	Stainless steel, Nickel copper alloy				Nickel copper alloy			

Note: ① For LR12X, 3000/4000 Hz are high-frequency versions (current ≤10 mA); other frequencies consume ≤15 mA.



I Standard distance/Long distance

Series	LR18X				LR30X			
Model	LR18X□□□D□□□-□				LR30X□□□D□□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	5mm	8mm	8mm	12mm	10mm	15mm	15mm	22mm
Switching frequency	1000、2000Hz	400	800、1500Hz	200Hz	500Hz	300Hz		150Hz
Ensure distance	0...4mm	0...6.4mm		0...9.6mm	0...8mm	0...12mm		0...17.6mm
Standard target	Fe 18*18*1t	Fe 24*24*1t		Fe 36*36*1t	Fe 30*30*1t	Fe 45*45*1t		Fe 66*66*1t
Shape specification	B, C model optional (dimensional drawing see page L01-028/029 for details)				B model (dimensional drawing see page L01-030 for details)			
Connection	Cable type (standard length 2m), connector optional							
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA							
Hysteresis	1...20%							
Current consumption	Current consumption: ≤10mA ^① 、≤15mA				Current consumption: ≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	Nickel copper alloy							

Note: ① For LR18X, 1500/2000 Hz are high-frequency versions (current ≤10 mA); other frequencies consume ≤15 mA.

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Specification Parameter

Standard Function Cylindrical Series-DC 3/4 wires

I Standard distance/Long distance

Series	LR6.5Q			
Model	LR6.5QB□□D□□□-□			
Mounting	Flush		Non-flush	
Detection distance	1.5mm	2mm	2mm	4mm
Switching frequency	1000Hz		800Hz	
Ensure distance	0...1.2mm	0...1.6mm		0...3.2mm
Standard target	Fe 8*8*1t			Fe 12*12*1t
Shape specification	B model (dimensional drawing see page L01-023 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: Standard distance ≤8V, Long distance ≤6; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Stainless steel			

Series	LR08				LR12X			
Model	LR08B□□DL□□-□				LR12XB□□DL□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	1.5mm	2mm	2mm	4mm	2mm	4mm	4mm	8mm
Switching frequency	1000Hz		800Hz		800Hz		500Hz	
Ensure distance	0...1.2mm	0...1.6mm		0...3.2mm	0...1.6mm	0...3.2mm		0...6.4mm
Standard target	Fe 8*8*1t			Fe 12*12*1t	Fe 12*12*1t			Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L01-024/025 for details)				B, C model optional (dimensional drawing see page L01-026 for details)			
Connection	Cable type (standard length 2m), connector optional							
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤200mA; Leakage current: ≤1mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	Stainless steel, Nickel copper alloy				Nickel copper alloy			

Note: LR08: Voltage drop: Standard distance ≤8V / Long distance ≤6V;
LR12X: ≤6V.



I Standard distance/Long distance

Series	LR18X				LR30X			
Model	LR18XB□□DL□□-□				LR30XB□□DL□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	5mm	8mm	8mm	12mm	10mm	15mm	15mm	22mm
Switching frequency	500Hz	400Hz	300Hz	200Hz	300Hz	300Hz	200Hz	150Hz
Ensure distance	0...4mm	0...6.4mm		0...9.6mm	0...8mm	0...12mm		0...17.6mm
Standard target	Fe 18*18*1t	Fe 24*24*1t		Fe 36*36*1t	Fe 30*30*1t	Fe 45*45*1t		Fe 66*66*1t
Shape specification	B model (dimensional drawing see page L01-028 for details)				B model (dimensional drawing see page L01-030 for details)			
Connection	Cable type (standard length 2m); Connector optional							
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	Nickel copper alloy							

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Specification Parameter

Standard Function Cylindrical Series-DC 3/4 wires

I Standard distance/Long distance

Series	LR12X				LR18X			
Model	LR12XC□□AT□□-□				LR18XC□□AT□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	2mm	4mm	4mm	8mm	5mm	8mm	8mm	12mm
Switching frequency	20Hz				20Hz			
Ensure distance	0...1.6mm	0...3.2mm		0...6.4mm	0...4mm	0...6.4mm		0...9.6mm
Standard target	Fe 12*12*1t			Fe 24*24*1t	Fe 18*18*1t	Fe 24*24*1t		Fe36*36*1t
Shape specification	C model (dimensional drawing see page L01-027 for details)				C model (dimensional drawing see page L01-029 for details)			
Connection	Cable type (standard length 2m), connector optional							
Repeat accuracy	≤3%							
Supply voltage	20...250V DC							
Electrical otput	Load current: ≤200mA;Voltage drop: ≤10V; Leakage current: ≤3mA				Load current: ≤300mA;Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	/							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C;Ambient humidity:35...95%							
Protection degree	IP67							
Housing material	Nickel copper alloy							

Series	LR30X			
Model	LR30XC□□AT□□-□			
Mounting	Flush		Non-flush	
Detection distance	10mm	15mm	15mm	22mm
Switching frequency	20Hz			
Ensure distance	0...8mm	0...12mm		0...17.6mm
Standard target	Fe 30*30*1t	Fe 45*45*1t		Fe 66*66*1t
Shape specification	C model (dimensional drawing see page L01-031 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤3%			
Supply voltage	20...250V DC			
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			



I Standard distance/Long distance

Series	LR18X				LR30X			
Model	LR18XC□□SB□□-□				LR30XC□□SB□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	5mm	8mm	8mm	12mm	10mm	15mm	15mm	22mm
Switching frequency	AC:20Hz DC:500Hz	AC:20Hz DC:400Hz	AC:20Hz DC:500Hz	AC:20Hz DC:400Hz	AC:20Hz DC:500Hz	AC:20Hz DC:300Hz	AC:20Hz DC:500Hz	AC:20Hz DC:300Hz
Ensure distance	0...4mm	0...6.4mm		0...9.6mm	0...8mm	0...12mm		0...17.6mm
Standard target	Fe 18*18*1t	Fe 24*24*1t		Fe 36*36*1t	Fe 30*30*1t	Fe 45*45*1t		Fe 66*66*1t
Shape specification	C model (dimensional drawing see page L01-029 for details)				C model (dimensional drawing see page L01-031 for details)			
Connection	Cable type (standard length 2m), connector optional							
Repeat accuracy	≤3%							
Supply voltage	20...250V DC							
Output	Load current:AC: ≤100mA, DC: 100mA;Voltage drop:AC: ≤10V, DC: ≤8V;Leakage current:AC: ≤3mA, DC: 1mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%							
Protection degree	IP67							
Housing material	Nickel copper alloy							

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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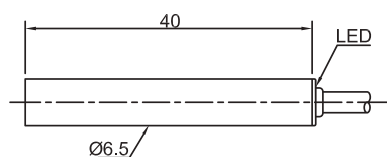
Official Website

Product Dimension Diagram

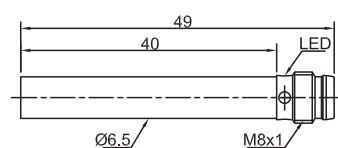
Standard Function Cylindrical Series

I Standard distance-LR6.5Q

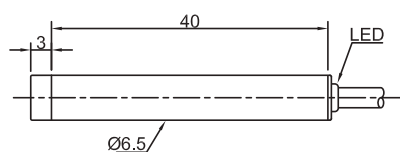
Flush—Cable



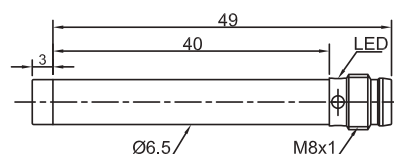
Flush—M8 Connector



Non-flush—Cable

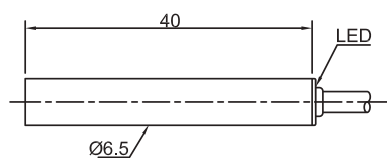


Non-flush—M8 Connector

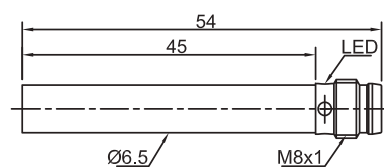


I Long distance-LR6.5Q

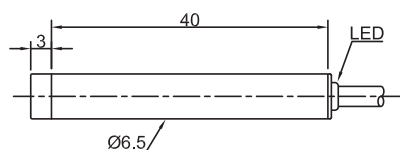
Flush—Cable



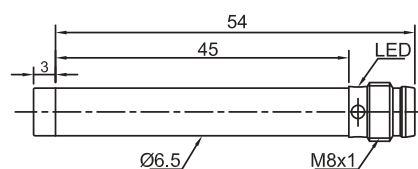
Flush—M8 Connector



Non-flush—Cable

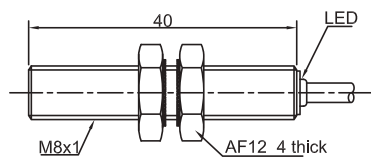


Non-flush—M8 Connector

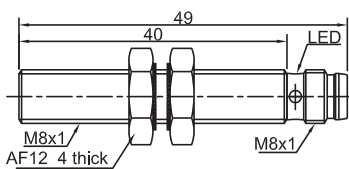


Standard distance-LR08

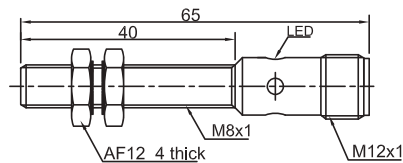
Flush—Cable



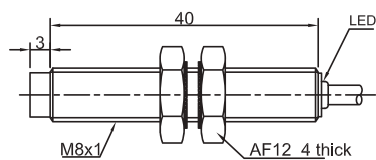
Flush—M8 Connector



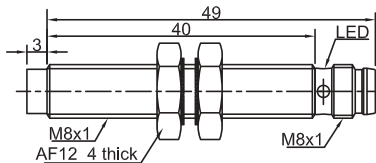
Flush—M12 Connector



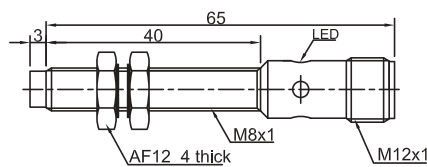
Non-flush—Cable



Non-flush—M8 Connector



Non-flush—M12 Connector



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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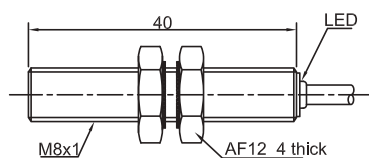
Official Website

Product Dimension Diagram

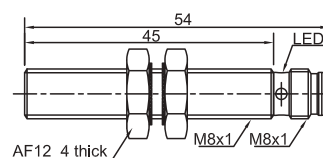
Standard Function Cylindrical Series

I Long distance-LR08

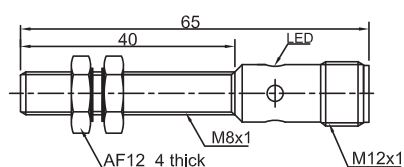
Flush—Cable



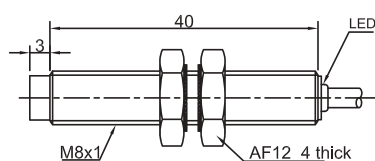
Flush—M8 Connector



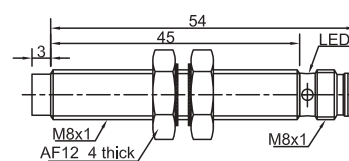
Flush—M12 Connector



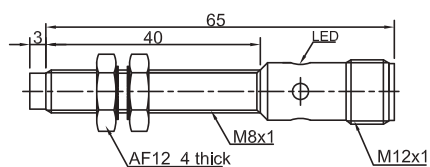
Non-flush—Cable



Non-flush—M8 Connector

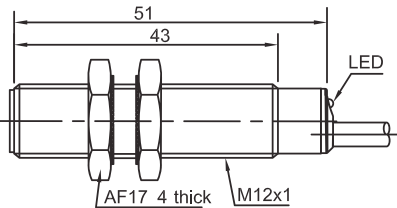


Non-flush—M12 Connector

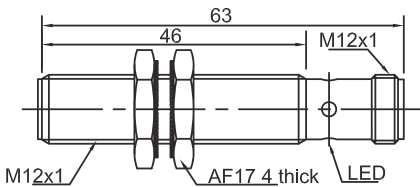


Standard distance-LR12XB

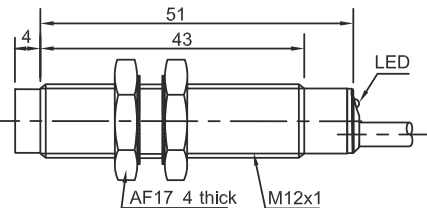
Flush—Cable



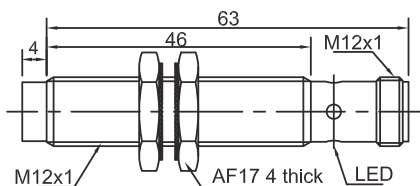
Flush—M12 Connector



Non-flush—Cable

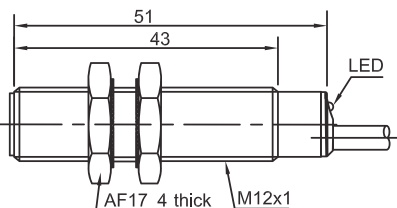


Non-flush—M12 Connector

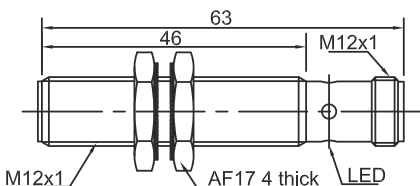


Long distance-LR12XB

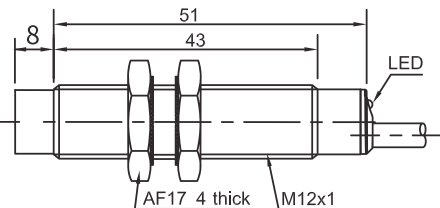
Flush—Cable



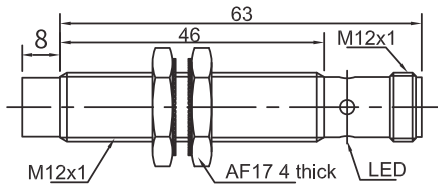
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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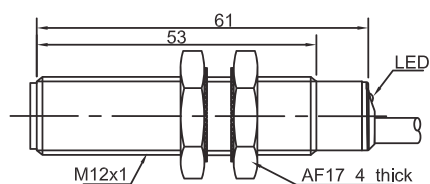
Official Website

Product Dimension Diagram

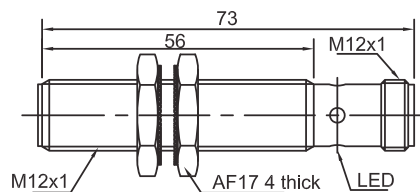
Standard Function Cylindrical Series

Standard distance-LR12XC

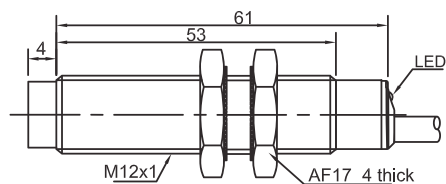
Flush—Cable



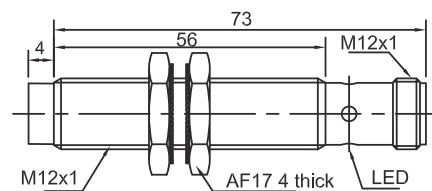
Flush—M12 Connector



Non-flush—Cable

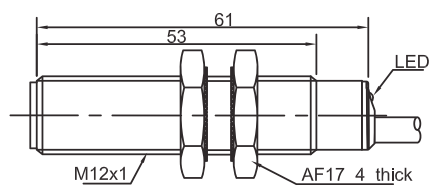


Non-flush—M12 Connector

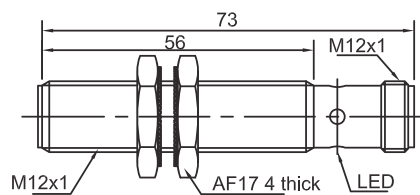


Long distance-LR12XC

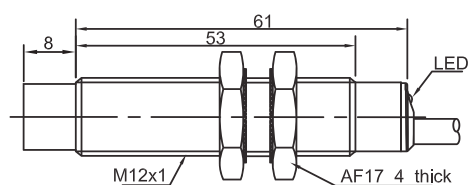
Flush—Cable



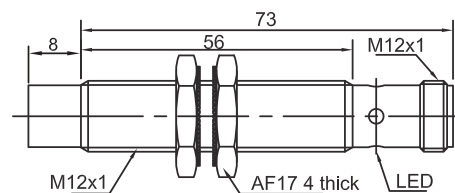
Flush—M12 Connector



Non-flush—Cable

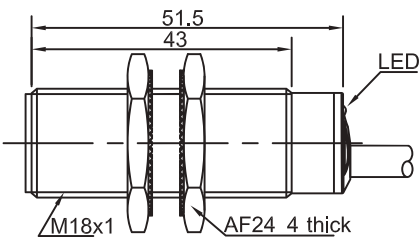


Non-flush—M12 Connector

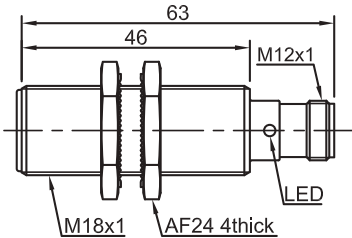


Standard distance-LR18XB

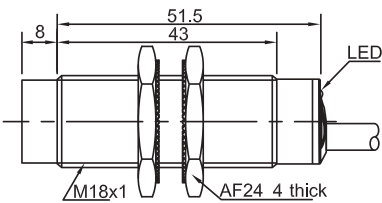
Flush—Cable



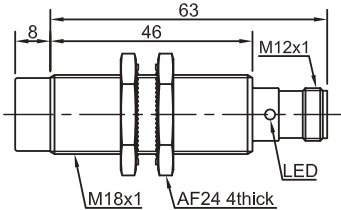
Flush—M12 Connector



Non-flush—Cable

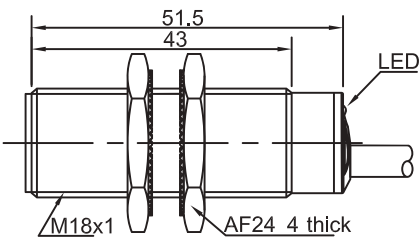


Non-flush—M12 Connector

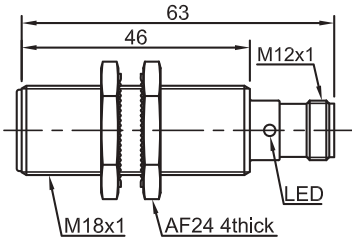


Long distance-LR18XB

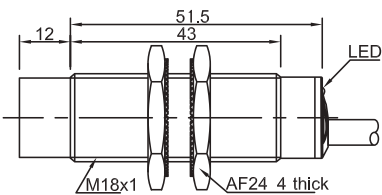
Flush—Cable



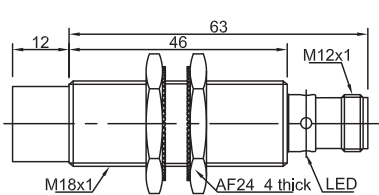
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Standard square cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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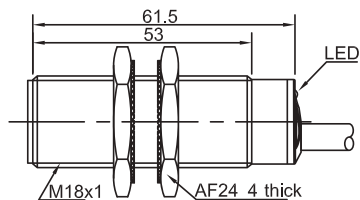


Product Dimension Diagram

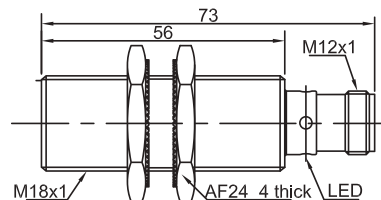
Standard Function Cylindrical Series

I Standard distance-LR18XC

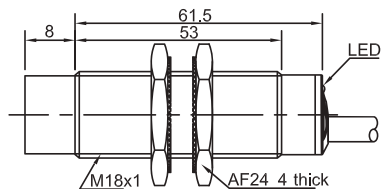
Flush—Cable



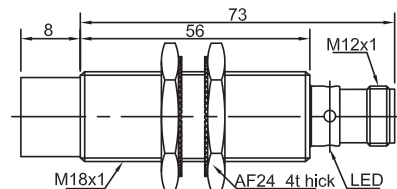
Flush—M12 Connector



Non-flush—Cable

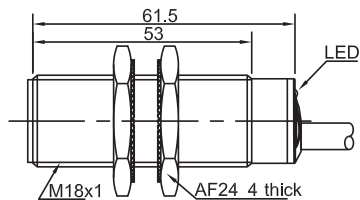


Non-flush—M12 Connector

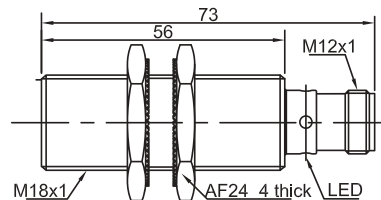


I Long distance-LR18XC

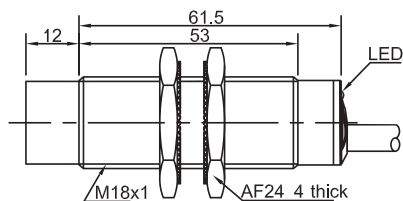
Flush—Cable



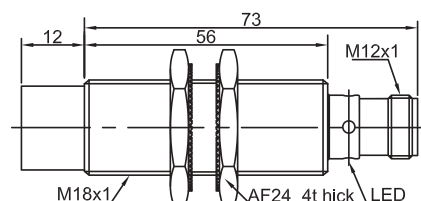
Flush—M12 Connector



Non-flush—Cable



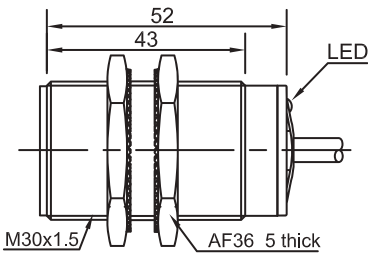
Non-flush—M12 Connector



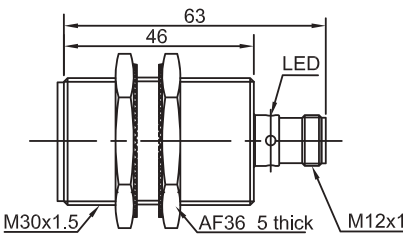


Standard distance-LR30XB

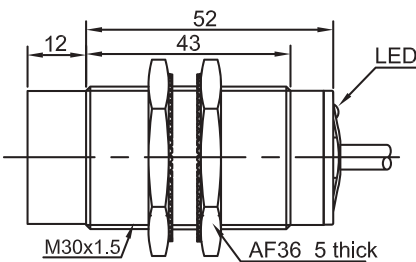
Flush—Cable



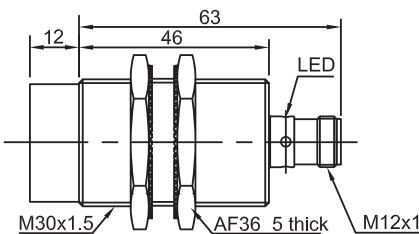
Flush—M12 Connector



Non-flush—Cable

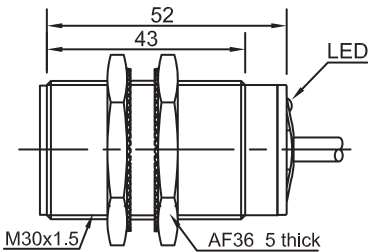


Non-flush—M12 Connector

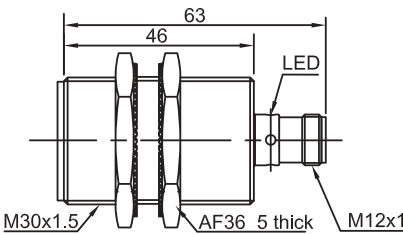


Long distance-LR30XB

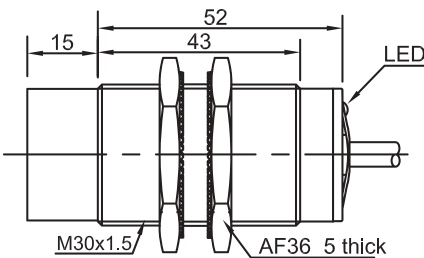
Flush—Cable



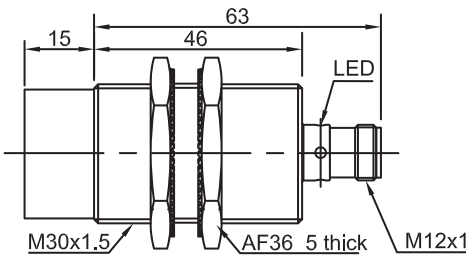
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



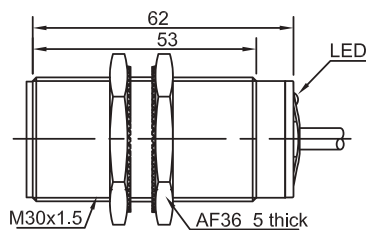


Product Dimension Diagram

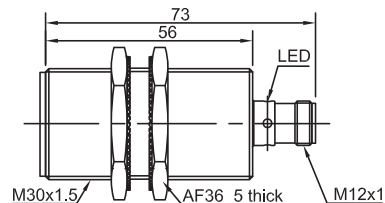
Standard Function Cylindrical Series

I Standard distance-LR30XC

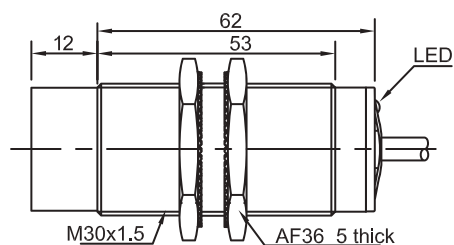
Flush—Cable



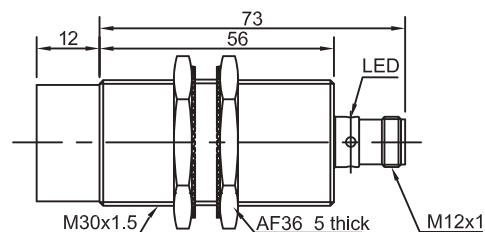
Flush—M12 Connector



Non-flush—Cable

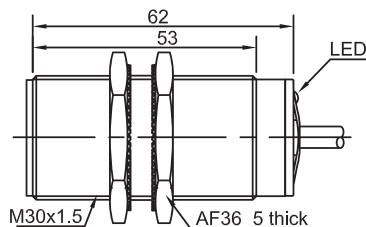


Non-flush—M12 Connector

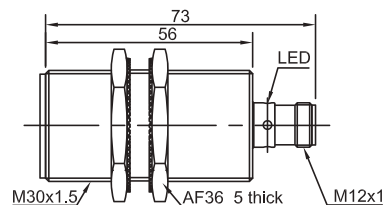


I Long distance-LR30XC

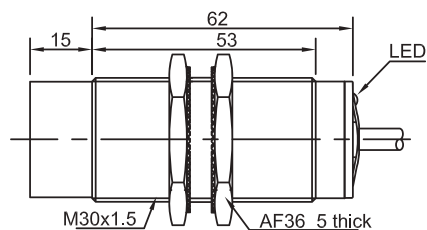
Flush—Cable



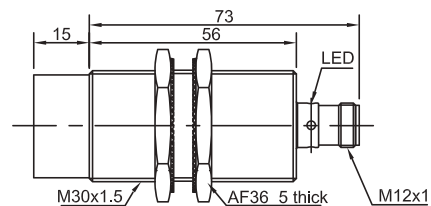
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

Inductive
distance
measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

Inductive Sensors

Standard Function Square Series

**Easy installation**

Multiple installation direction optional.

Reliable circuit design

With short circuit, reverse polarity and overload protection.

Various dimensions

Product sizes range from LE05 to LE82.

Strong anti-interference ability

Automotive-grade EMC environmental test.

High protection degree

IP67, dustproof and waterproof.

Application

Metal parts detection on assembly line



DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	28*17*17	Flush	2m cable	5mm	NO	LE17SF05DNO	LE17SF05DPO
					NC	LE17SF05DNC	LE17SF05DPC
		Non-flush	2m cable	8mm	NO	LE17SN08DNO	LE17SN08DPO
					NC	LE17SN08DNC	LE17SN08DPC
	36*18*18	Flush	2m cable	5mm	NO	LE18SF05DNO	LE18SF05DPO
					NC	LE18SF05DNC	LE18SF05DPC
		Non-flush	2m cable	8mm	NO	LE18SN08DNO	LE18SN08DPO
					NC	LE18SN08DNC	LE18SN08DPC
	39*25*25	Flush	2m cable	7mm	NO	LE25SF07DNO	LE25SF07DPO
					NC	LE25SF07DNC	LE25SF07DPC
		Non-flush	2m cable	10mm	NO	LE25SN10DNO	LE25SN10DPO
					NC	LE25SN10DNC	LE25SN10DPC
	53*40*40	Flush	2m cable	15mm	NO	LE40SF15DNO	LE40SF15DPO
					NC	LE40SF15DNC	LE40SF15DPC
					NO+NC	LE40SF15DNR	LE40SF15DPR
		Non-flush	2m cable	20mm	NO	LE40SN20DNO	LE40SN20DPO
					NC	LE40SN20DNC	LE40SN20DPC
					NO+NC	LE40SN20DNR	LE40SN20DPR
	66*40*40	Flush	Connector	15mm	NO	LE40SZSF15DNO-E2 ^②	LE40SZSF15DPO-E2 ^②
					NC	LE40SZSF15DNC-E2 ^②	LE40SZSF15DPC-E2 ^②
					NO+NC	LE40SZSF15DNR-E2 ^②	LE40SZSF15DPR-E2 ^②
		Non-flush	Connector	20mm	NO	LE40SZSN20DNO-E2 ^②	LE40SZSN20DPO-E2 ^②
					NC	LE40SZSN20DNC-E2 ^②	LE40SZSN20DPC-E2 ^②
					NO+NC	LE40SZSN20DNR-E2 ^②	LE40SZSN20DPR-E2 ^②
	66*40*40	Flush	Connector	20mm	NO	LE40SZSF20DNOY-E2 ^②	LE40SZSF20DPOY-E2 ^②
					NC	LE40SZSF20DNCY-E2 ^②	LE40SZSF20DPCY-E2 ^②
					NO+NC	LE40SZSF20DNRY-E2 ^②	LE40SZSF20DPRY-E2 ^②
		Non-flush	Connector	40mm	NO	LE40SZSN40DNOY-E2 ^②	LE40SZSN40DPOY-E2 ^②
					NC	LE40SZSN40DNCY-E2 ^②	LE40SZSN40DPCY-E2 ^②
					NO+NC	LE40SZSN40DNRY-E2 ^②	LE40SZSN40DPRY-E2 ^②
	129*40*40	Flush	Connector	15mm	NO	LE40XZSF15DNO-E2 ^②	LE40XZSF15DPO-E2 ^②
					NC	LE40XZSF15DNC-E2 ^②	LE40XZSF15DPC-E2 ^②
					NO+NC	LE40XZSF15DNR-E2 ^②	LE40XZSF15DPR-E2 ^②
		Non-flush	Connector	20mm	NO	LE40XZSN20DNO-E2 ^②	LE40XZSN20DPO-E2 ^②
					NC	LE40XZSN20DNC-E2 ^②	LE40XZSN20DPC-E2 ^②
					NO+NC	LE40XZSN20DNR-E2 ^②	LE40XZSN20DPR-E2 ^②
	140*40*40	Flush	Terminal	15mm	NO	LE40XZSF15DNO-D ^④	LE40XZSF15DPO-D ^④
					NC	LE40XZSF15DNC-D ^④	LE40XZSF15DPC-D ^④
					NO+NC	LE40XZSF15DNR-D ^④	LE40XZSF15DPR-D ^④
		Non-flush	Terminal	20mm	NO	LE40XZSN20DNO-D ^④	LE40XZSN20DPO-D ^④
					NC	LE40XZSN20DNC-D ^④	LE40XZSN20DPC-D ^④
					NO+NC	LE40XZSN20DNR-D ^④	LE40XZSN20DPR-D ^④

②E2:M12 4-pin connector ④D:Terminal

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

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Technical guide



Official Website

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	129*40*40	Flush	Connector	20mm	NO	LE40XZSF20DNOY-E2 ^②	LE40XZSF20DPOY-E2 ^②
					NC	LE40XZSF20DN CY-E2 ^②	LE40XZSF20DPCY-E2 ^②
					NO+NC	LE40XZSF20DNRY-E2 ^②	LE40XZSF20DPRY-E2 ^②
		Non-flush	Connector	40mm	NO	LE40XZSN40DNOY-E2 ^②	LE40XZSN40DPOY-E2 ^②
					NC	LE40XZSN40DN CY-E2 ^②	LE40XZSN40DPCY-E2 ^②
					NO+NC	LE40XZSN40DNRY-E2 ^②	LE40XZSN40DPRY-E2 ^②
	140*40*40	Flush	Terminal	20mm	NO	LE40XZSF20DNOY-D ^④	LE40XZSF20DPOY-D ^④
					NC	LE40XZSF20DN CY-D ^④	LE40XZSF20DPCY-D ^④
					NO+NC	LE40XZSF20DNRY-D ^④	LE40XZSF20DPRY-D ^④
		Non-flush	Terminal	40mm	NO	LE40XZSN40DNOY-D ^④	LE40XZSN40DPOY-D ^④
					NC	LE40XZSN40DN CY-D ^④	LE40XZSN40DPCY-D ^④
					NO+NC	LE40XZSN40DNRY-D ^④	LE40XZSN40DPRY-D ^④
	104*80*40	Flush	Connector	40mm	NO	LE80XZSF40DNO-E2 ^②	LE80XZSF40DPO-E2 ^②
					NC	LE80XZSF40DN C-E2 ^②	LE80XZSF40DPC-E2 ^②
					NO+NC	LE80XZSF40DN R-E2 ^②	LE80XZSF40DPR-E2 ^②
		Non-flush	Connector	50mm	NO	LE80XZSN50DNO-E2 ^②	LE80XZSN50DPO-E2 ^②
					NC	LE80XZSN50DN C-E2 ^②	LE80XZSN50DPC-E2 ^②
					NO+NC	LE80XZSN50DN R-E2 ^②	LE80XZSN50DPR-E2 ^②
	98*80*40	Flush	Terminal	40mm	NO	LE80XZSF40DNO-D ^④	LE80XZSF40DPO-D ^④
					NC	LE80XZSF40DN C-D ^④	LE80XZSF40DPC-D ^④
					NO+NC	LE80XZSF40DN R-D ^④	LE80XZSF40DPR-D ^④
		Non-flush	Terminal	50mm	NO	LE80XZSN50DNO-D ^④	LE80XZSN50DPO-D ^④
					NC	LE80XZSN50DN C-D ^④	LE80XZSN50DPC-D ^④
					NO+NC	LE80XZSN50DN R-D ^④	LE80XZSN50DPR-D ^④
	104*80*40	Flush	Connector	50mm	NO	LE80XZSF50DNOY-E2	LE80XZSF50DPOY-E2 ^②
					NC	LE80XZSF50DN CY-E2	LE80XZSF50DPCY-E2 ^②
					NO+NC	LE80XZSF50DNRY-E2	LE80XZSF50DPRY-E2 ^②
		Non-flush	Connector	70mm	NO	LE80XZSN70DNOY-E2	LE80XZSN70DPOY-E2 ^②
					NC	LE80XZSN70DN CY-E2	LE80XZSN70DPCY-E2 ^②
					NO+NC	LE80XZSN70DNRY-E2	LE80XZSN70DPRY-E2 ^②
	98*80*40	Flush	Terminal	50mm	NO	LE80XZSF50DNROY-D ^④	LE80XZSF50DPOY-D ^④
					NC	LE80XZSF50DNRCY-D ^④	LE80XZSF50DPCY-D ^④
					NO+NC	LE80XZSF50DNRY-D ^④	LE80XZSF50DPRY-D ^④
		Non-flush	Terminal	70mm	NO	LE80XZSN70DNROY-D ^④	LE80XZSN70DPOY-D ^④
					NC	LE80XZSN70DNRCY-D ^④	LE80XZSN70DPCY-D ^④
					NO+NC	LE80XZSN70DNRY-D ^④	LE80XZSN70DPRY-D ^④

②E2:M12 4-pin connector ④D:Terminal

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Official Website

DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	28*17*17	Flush	2m cable	5mm	LE17SF05DLO	LE17SF05DLC
		Non-flush	2m cable	8mm	LE17SN08DLO	LE17SN08DLC
	36*18*18	Flush	2m cable	5mm	LE18SF05DLO	LE18SF05DLC
		Non-flush	2m cable	8mm	LE18SN08DLO	LE18SN08DLC
	39*25*25	Flush	2m cable	7mm	LE25SF07DLO	LE25SF07DLC
		Non-flush	2m cable	10mm	LE25SN10DLO	LE25SN10DLC
	53*40*40	Flush	2m cable	15mm	LE40SF15DLO	LE40SF15DLC
		Non-flush	2m cable	20mm	LE40SN20DLO	LE40SN20DLC
	66*44*44	Flush	Connector	15mm	LE40SZSF15DLO-E2 ^②	LE40SZSF15DLC-E2 ^②
		Non-flush	Connector	20mm	LE40SZSN20DLO-E2 ^②	LE40SZSN20DLC-E2 ^②
	66*44*44	Flush	Connector	20mm	LE40SZSF20DLOY-E2 ^②	LE40SZSF20DLCY-E2 ^②
		Non-flush	Connector	40mm	LE40SZSN40DLOY-E2 ^②	LE40SZSN40DLCY-E2 ^②
	129*40*40	Flush	Connector	15mm	LE40XZSF15DLO-E2 ^②	LE40XZSF15DLC-E2 ^②
		Non-flush	Connector	20mm	LE40XZSN20DLO-E2 ^②	LE40XZSN20DLC-E2 ^②
	140*40*40	Flush	Terminal	15mm	LE40XZSF15DLO-D ^④	LE40XZSF15DLC-D ^④
		Non-flush	Terminal	20mm	LE40XZSN20DLO-D ^④	LE40XZSN20DLC-D ^④
	129*40*40	Flush	Connector	20mm	LE40XZSF20DLOY-E2 ^②	LE40XZSF20DLCY-E2 ^②
		Non-flush	Connector	40mm	LE40XZSN40DLOY-E2 ^②	LE40XZSN40DLCY-E2 ^②
	140*40*40	Flush	Terminal	20mm	LE40XZSF20DLOY-D ^④	LE40XZSF20DLCY-D ^④
		Non-flush	Terminal	40mm	LE40XZSN40DLOY-D ^④	LE40XZSN40DLCY-D ^④
	104*80*40	Flush	Connector	40mm	LE80XZSF40DLO-E2 ^②	LE80XZSF40DLC-E2 ^②
		Non-flush	Connector	50mm	LE80XZSN50DLO-E2 ^②	LE80XZSN50DLC-E2 ^②

②E2:M12 4-pin connector ④D:Terminal

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

Inductive

Standard cylindrical

Standard square

- High protection
- Temperature extended
- Factor one
- Welding immune

- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
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- Technical guide



Official Website

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	98*80*40	Flush	Terminal	40mm	LE80XZSF40DLO-D ^④	LE80XZSF40DLC-D ^④
		Non-flush	Terminal	50mm	LE80XZSN50DLO-D ^④	LE80XZSN50DLC-D ^④
	104*80*40	Flush	Terminal	50mm	LE80XZSF50DLOY-E2 ^②	LE80XZSF50DLCY-E2 ^②
		Non-flush	Terminal	70mm	LE80XZSN70DLOY-E2 ^②	LE80XZSN70DLCY-E2 ^②
	98*80*40	Flush	Terminal	50mm	LE80XZSF50DLOY-D ^④	LE80XZSF50DLCY-D ^④
		Non-flush	Terminal	70mm	LE80XZSN70DLOY-D ^④	LE80XZSN70DLCY-D ^④

②E2:M12 4-pins connector ④D:Terminal

AC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	28*17*17	Flush	2m cable	5mm	LE17SF05BTO	LE17SF05BTC
		Non-flush	2m cable	8mm	LE17SN08BTO	LE17SN08BTC
	36*18*18	Flush	2m cable	5mm	LE18SF05BTO	LE18SF05BTC
		Non-flush	2m cable	8mm	LE18SN08BTO	LE18SN08BTC
	39*25*25	Flush	2m cable	7mm	LE25SF07BTO	LE25SF07BTC
		Non-flush	2m cable	10mm	LE25SN10BTO	LE25SN10BTC
	53*40*40	Flush	2m cable	15mm	LE40SF15ATO	LE40SF15ATC
		Non-flush	2m cable	20mm	LE40SN20ATO	LE40SN20ATC
	66*40*40	Flush	Connector	15mm	LE40SZSF15ATO-E2 ^②	LE40SZSF15ATC-E2 ^②
		Non-flush	Connector	20mm	LE40SZSN20ATO-E2 ^②	LE40SZSN20ATC-E2 ^②
	66*40*40	Flush	Connector	20mm	LE40SZSF20ATOY-E2 ^②	LE40SZSF20ATCY-E2 ^②
		Non-flush	Connector	40mm	LE40SZSN40ATOY-E2 ^②	LE40SZSN40ATCY-E2 ^②

②E2:M12 4-pin connector

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	129*40*40	Flush	Connector	15mm	LE40XZSF15ATO-E2 ^②	LE40XZSF15ATC-E2 ^②
		Non-flush	Connector	20mm	LE40XZSN20ATO-E2 ^②	LE40XZSN20ATC-E2 ^②
	140*40*40	Flush	Connector	15mm	LE40XZSF15ATO-D ^④	LE40XZSF15ATC-D ^④
		Non-flush	Connector	20mm	LE40XZSN20ATO-D ^④	LE40XZSN20ATC-D ^④
	129*40*40	Flush	Connector	20mm	LE40XZSF20ATOY-E2 ^②	LE40XZSF20ATCY-E2 ^②
		Non-flush	Connector	40mm	LE40XZSN40ATOY-E2 ^②	LE40XZSN40ATCY-E2 ^②
	140*40*40	Flush	Terminal	20mm	LE40XZSF20ATOY-D ^④	LE40XZSF20ATCY-D ^④
		Non-flush	Terminal	40mm	LE40XZSN40ATOY-D ^④	LE40XZSN40ATCY-D ^④
	104*80*40	Flush	Connector	40mm	LE80XZSF40ATO-E2 ^②	LE80XZSF40ATC-E2 ^②
		Non-flush	Connector	50mm	LE80XZSN50ATO-E2 ^②	LE80XZSN50ATC-E2 ^②
	98*80*40	Flush	Terminal	40mm	LE80XZSF40ATO-D ^④	LE80XZSF40ATC-D ^④
		Non-flush	Terminal	50mm	LE80XZSN50ATO-D ^④	LE80XZSN50ATC-D ^④
	104*80*40	Flush	Connector	50mm	LE80XZSF50ATOY-E2 ^②	LE80XZSF50ATCY-E2 ^②
		Non-flush	Connector	70mm	LE80XZSN70ATOY-E2 ^②	LE80XZSN70ATCY-E2 ^②
	98*80*40	Flush	Terminal	50mm	LE80XZSF50ATOY-D ^④	LE80XZSF50ATCY-D ^④
		Non-flush	Terminal	70mm	LE80XZSN70ATOY-D ^④	LE80XZSN70ATCY-D ^④

②E2:M12 4-pin connector ④D:Terminal

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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Official Website

AC/DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model		
					NO	NC	NO/NC
	66*40*40	Flush	Connector	15mm	LE40SZSF15SBO-E2 ^②	LE40SZSF15SBC-E2 ^②	LE40SZSF15SBB-E2 ^②
		Non-flush	Connector	20mm	LE40SZSN20SBO-E2 ^②	LE40SZSN20SBC-E2 ^②	LE40SZSN20SBB-E2 ^②
	66*40*40	Flush	Connector	20mm	LE40SZSF20SBOY-E2 ^②	LE40SZSF20SBCY-E2 ^②	LE40SZSF20SBBY-E2 ^②
		Non-flush	Connector	40mm	LE40SZSN40SBOY-E2 ^②	LE40SZSN40SBCY-E2 ^②	LE40SZSN40SBBY-E2 ^②
	129*40*40	Flush	Connector	15mm	LE40XZSF15SBO-E2 ^②	LE40XZSF15SBC-E2 ^②	LE40XZSF15SBB-E2 ^②
		Non-flush	Connector	20mm	LE40XZSN20SBO-E2 ^②	LE40XZSN20SBC-E2 ^②	LE40XZSN20SBB-E2 ^②
	140*40*40	Flush	Terminal	15mm	LE40XZSF15SBO-D ^④	LE40XZSF15SBC-D ^④	LE40XZSF15SBB-D ^④
		Non-flush	Terminal	20mm	LE40XZSN20SBO-D ^④	LE40XZSN20SBC-D ^④	LE40XZSN20SBB-D ^④
	129*40*40	Flush	Connector	20mm	LE40XZSN20SBOY-E2 ^②	LE40XZSF20SBCY-E2 ^②	LE40XZSF20SBBY-E2 ^②
		Non-flush	Connector	40mm	LE40XZSN40SBOY-E2 ^②	LE40XZSN40SBCY-E2 ^②	LE40XZSN40SBBY-E2 ^②
	140*40*40	Flush	Terminal	20mm	LE40XZSF20SBOY-D ^④	LE40XZSF20SBCY-D ^④	LE40XZSF20SBBY-D ^④
		Non-flush	Terminal	40mm	LE40XZSN40SBOY-D ^④	LE40XZSN40SBCY-D ^④	LE40XZSN40SBBY-D ^④
	104*80*40	Flush	Connector	40mm	LE80XZSF40SBO-E2 ^②	LE80XZSF40SBC-E2 ^②	LE80XZSF40SBB-E2 ^②
		Non-flush	Connector	50mm	LE80XZSN50SBO-E2 ^②	LE80XZSN50SBC-E2 ^②	LE80XZSN50SBB-E2 ^②
	98*80*40	Flush	Terminal	40mm	LE80XZSF40SBO-D ^④	LE80XZSF40SBC-D ^④	LE80XZSF40SBB-D ^④
		Non-flush	Terminal	50mm	LE80XZSN50SBO-D ^④	LE80XZSN50SBC-D ^④	LE80XZSN50SBB-D ^④
	104*80*40	Flush	Connector	50mm	LE80XZSF50SBOY-E2 ^②	LE80XZSF50SBCY-E2 ^②	LE80XZSF50SBBY-E2 ^②
		Non-flush	Connector	70mm	LE80XZSN70SBOY-E2 ^②	LE80XZSN70SBCY-E2 ^②	LE80XZSN70SBBY-E2 ^②
	98*80*40	Flush	Terminal	50mm	LE80XZSF50SBOY-D ^④	LE80XZSF50SBCY-D ^④	LE80XZSF50SBBY-D ^④
		Non-flush	Terminal	70mm	LE80XZSN70SBOY-D ^④	LE80XZSN70SBCY-D ^④	LE80XZSN70SBBY-D ^④

②E2:M12 4-pin connector ④D:Terminal



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	25*5*5	Flush	2m cable	0.8mm	NO	LE05VF08DNO	LE05VF08DPO
					NC	LE05VF08DNC	LE05VF08DPC
	25*5*5	Flush	Pigtail connection	0.8mm	NO	LE05VF08DNO-F1 ^③	LE05VF08DPO-F1 ^③
					NC	LE05VF08DNC-F1 ^③	LE05VF08DPC-F1 ^③
	23*8*7.5	Non-flush	2m cable	2.5mm	NO	LE08SN25DNO	LE08SN25DPO
					NC	LE08SN25DNC	LE08SN25DPC
	23*7.7*7.5	Non-flush	2m cable	2.5mm	NO	LE08XSN25DNO	LE08XSN25DPO
					NC	LE08XSN25DNC	LE08XSN25DPC
	23*8*8	Non-flush	2m cable	2.5mm	NO	LE09SN25DNO	LE09SN25DPO
					NC	LE09SN25DNC	LE09SN25DPC
	27*10*5.8	Non-flush	2m cable	3mm	NO	LE11SN03DNO	LE11SN03DPO
					NC	LE11SN03DNC	LE11SN03DPC
	27.8*12*7.1	Non-flush	2m cable	4mm	NO	LE12SN04DNO	LE12SN04DPO
					NC	LE12SN04DNC	LE12SN04DPC
	31.8*12*14.5	Non-flush	2m cable	4mm	NO	LE12XSN04DNO	LE12XSN04DPO
					NC	LE12XSN04DNC	LE12XSN04DPC
	31.5*15*8	Flush	2m cable	5mm	NO	LE15SF05DNO	LE15SF05DPO
					NC	LE15SF05DNC	LE15SF05DPC
	31.5*15*8	Non-flush	2m cable	8mm	NO	LE15SN08DNO	LE15SN08DPO
					NC	LE15SN08DNC	LE15SN08DPC

③F1:M8 3-pin connector + 0.2m cable

DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	25*5*5	Flush	2m cable	8mm	LE05VF08DLO	LE05VF08DLC
	25*5*5	Flush	Pigtail connection	8mm	LE05VF08DLO-F1 ^③	LE05VF08DLC-F1 ^③

③F1:M8 3-pin connector + 0.2m cable

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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DC 3/4 wires customized series

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	40*8*8	Flush	2m cable	1.5mm	NO	LE81VF15DNO	LE81VF15DPO
					NC	LE81VF15DNC	LE81VF15DPC
	59*8*8	Flush	Connector	1.5mm	NO	LE81VF15DNO-E1 ^①	LE81VF15DPO-E1 ^①
					NC	LE81VF15DNC-E1 ^①	LE81VF15DPC-E1 ^①
	40*8*8	Flush	2m cable	1.5mm	NO	LE82VF15DNO	LE82VF15DPO
					NC	LE82VF15DNC	LE82VF15DPC
	59*8*8	Flush	Connector	1.5mm	NO	LE82VF15DNO-E1 ^①	LE82VF15DPO-E1 ^①
					NC	LE82VF15DNC-E1 ^①	LE82VF15DPC-E1 ^①
	30*18*10	Flush	2m cable	5mm	NO	LE10SF05DNO	LE10SF05DPO
					NC	LE10SF05DNC	LE10SF05DPC
		Non-flush	2m cable	8mm	NO	LE10SN08DNO	LE10SN08DPO
					NC	LE10SN08DNC	LE10SN08DPC
	28*12*16	Flush	2m cable	2mm	NO	LE16SF02DNO	LE16SF02DPO
					NC	LE16SF02DNC	LE16SF02DPC
		Non-flush	2m cable	4mm	NO	LE16SN04DNO	LE16SN04DPO
					NC	LE16SN04DNC	LE16SN04DPC
	38*20*20	Flush	2m cable	5mm	NO	LE20SF05DNO	LE20SF05DPO
					NC	LE20SF05DNC	LE20SF05DPC
		Non-flush	2m cable	8mm	NO	LE20SN08DNO	LE20SN08DPO
					NC	LE20SN08DNC	LE20SN08DPC
	53*30*30	Flush	2m cable	10mm	NO	LE30SF10DNO	LE30SF10DPO
					NC	LE30SF10DNC	LE30SF10DPC
					NO+NC	LE30SF10DNR	LE30SF10DPR
		Non-flush	2m cable	15mm	NO	LE30SN15DNO	LE30SN15DPO
					NC	LE30SN15DNC	LE30SN15DPC
					NO+NC	LE30SN15DNR	LE30SN15DPR
	60*36*8	Flush	2m cable	5mm	NO	LE36SF05DNO	LE36SF05DPO
					NC	LE36SF05DNC	LE36SF05DPC
		Non-flush	2m cable	8mm	NO	LE36SN08DNO	LE36SN08DPO
					NC	LE36SN08DNC	LE36SN08DPC
	50*25*10	Flush	2m cable	5mm	NO	LE50SF05DNO	LE50SF05DPO
					NC	LE50SF05DNC	LE50SF05DPC
		Non-flush	2m cable	8mm	NO	LE50SN08DNO	LE50SN08DPO
					NC	LE50SN08DNC	LE50SN08DPC
	68*40*20	Flush	2m cable	15mm	NO	LE68SF15DNO	LE68SF15DPO
					NC	LE68SF15DNC	LE68SF15DPC
					NO+NC	LE68SF15DNR	LE68SF15DPR
		Non-flush	2m cable	25mm	NO	LE68SN25DNO	LE68SN25DPO
					NC	LE68SN25DNC	LE68SN25DPC
					NO+NC	LE68SN25DNR	LE68SN25DPR
	68*40*20	Flush	Connector	15mm	NO	LE68SF15DNO-E2 ^②	LE68SF15DPO-E2 ^②
					NC	LE68SF15DNC-E2 ^②	LE68SF15DPC-E2 ^②
					NO+NC	LE68SF15DNR-E2 ^②	LE68SF15DPR-E2 ^②
		Non-flush	Connector	25mm	NO	LE68SN25DNO-E2 ^②	LE68SN25DPO-E2 ^②
					NC	LE68SN25DNC-E2 ^②	LE68SN25DPC-E2 ^②
					NO+NC	LE68SN25DNR-E2 ^②	LE68SN25DPR-E2 ^②

①E1:M8 3-pin connector ②E2:M12 4-pin connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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Official Website

DC 2 wires customized series

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	38*20*20	Flush	2m cable	5mm	LE20SF05DLO	LE20SF05DLC
		Non-flush	2m cable	8mm	LE20SN08DLO	LE20SN08DLC
	53*30*30	Flush	2m cable	10mm	LE30SF10DLO	LE30SF10DLC
		Non-flush	2m cable	15mm	LE30SN15DLO	LE30SN15DLC
	60*36*8	Flush	2m cable	5mm	LE36SF05DLO	LE36SF05DLC
		Non-flush	2m cable	8mm	LE36SN08DLO	LE36SN08DLC
	68*40*20	Flush	2m cable	15mm	LE68SF15DLO	LE68SF15DLC
		Non-flush	2m cable	25mm	LE68SN25DLO	LE68SN25DLC
	68*40*20	Flush	Connector	15mm	LE68SF15DLO-E2 ^②	LE68SF15DLC-E2 ^②
		Non-flush	Connector	25mm	LE68SN25DLO-E2 ^②	LE68SN25DLC-E2 ^②

②E2:M12 4-pin connector

AC 2 wires customized series

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NO	NC
	38*20*20	Flush	2m cable	5mm	LE20SF05ATO	LE20SF05ATC
		Non-flush	2m cable	8mm	LE20SN08ATO	LE20SN08ATC
	53*30*30	Flush	2m cable	10mm	LE30SF10ATO	LE30SF10ATC
		Non-flush	2m cable	15mm	LE30SN15ATO	LE30SN15ATC
	50*25*10	Flush	2m cable	5mm	LE50SF05ATO	LE50SF05ATC
		Non-flush	2m cable	8mm	LE50SN08ATO	LE50SN08ATC
	68*40*20	Flush	2m cable	15mm	LE68SF15ATO	LE68SF15ATC
		Non-flush	2m cable	25mm	LE68SN25ATO	LE68SN25ATC
	68*40*20	Flush	Connector	15mm	LE68SF15ATO-E2 ^②	LE68SF15ATC-E2 ^②
		Non-flush	Connector	25mm	LE68SN25ATO-E2 ^②	LE68SN25ATC-E2 ^②

②E2:M12 4-pin connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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I Standard square-Standard distance

Series	LE17		LE18	
Model	LE17S□□D□□		LE18S□□D□□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	5mm	8mm
Switching frequency	700Hz	500Hz	700Hz	500Hz
Ensure distance	0...4mm	0...6.4mm	0...4mm	0...6.4mm
Standard target	Fe 17*17*1t	Fe 24*24*1t	Fe 18*18*1t	Fe 24*24*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE25		LE40	
Model	LE25S□□D□□		LE40S□□D□□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	7mm	10mm	15mm	20mm
Switching frequency	700Hz	500Hz	400Hz	200Hz
Ensure distance	0...5.6mm	0...8mm	0...12mm	0...16mm
Standard target	Fe 25*25*1t	Fe 30*30*1t	Fe 45*45*1t	Fe 60*60*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)		Standard square (dimensional drawing see page L02-030 for details)	
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA		Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
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- Analog output
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I Standard square-Standard distance

Series	LE17		LE18	
Model	LE17S□□DL□		LE18S□□DL□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	5mm	8mm
Switching frequency	500Hz	300Hz	500Hz	300Hz
Ensure distance	0...4mm	0...6.4mm	0...4mm	0...6.4mm
Standard target	Fe 17*17*1t	Fe 24*24*1t	Fe 18*18*1t	Fe 24*24*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤8V; Leakage current: ≤1mA		Load current: ≤200mA; Voltage drop: ≤8V; Leakage current: ≤1mA	
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	Reverse polarity			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE25		LE40	
Model	LE25S□□DL□		LE40S□□DL□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	7mm	10mm	15mm	20mm
Switching frequency	500Hz	300Hz	500Hz	300Hz
Ensure distance	0...5.6mm	0...8mm	0...12mm	0...16mm
Standard target	Fe 25*25*1t	Fe 30*30*1t	Fe 45*45*1t	Fe 60*60*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)		Standard square (dimensional drawing see page L02-030 for details)	
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤8V; Leakage current: ≤1mA		Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA	
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
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I Standard square-Standard distance

Series	LE17		LE18	
Model	LE17S□□BT□		LE18S□□BT□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	5mm	8mm
Switching frequency	20Hz		20Hz	
Ensure distance	0...4mm	0...6.4mm	0...4mm	0...6.4mm
Standard target	Fe 17*17*1t	Fe 24*24*1t	Fe 18*18*1t	Fe 24*24*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	90...250V AC			
Output	Load current: ≤200mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE25		LE40	
Model	LE25S□□BT□		LE40S□□AT□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	7mm	10mm	15mm	20mm
Switching frequency	20Hz		20Hz	
Ensure distance	0...5.6mm	0...8mm	0...12mm	0...16mm
Standard target	Fe 25*25*1t	Fe 30*30*1t	Fe 45*45*1t	Fe 60*60*1t
Shape specification	Standard square (dimensional drawing see page L02-029 for details)		Standard square (dimensional drawing see page L02-030 for details)	
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	90...250V AC		20...250V AC	
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
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Official Website

Composite shape-Standard distance/Long distance

Series	LE40SZ				LE40XZ			
Model	LE40SZS□□D□□□-□				LE40XZS□□D□□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	15mm	20mm	20mm	40mm	15mm	20mm	20mm	40mm
Switching frequency	500Hz	200Hz	300Hz	100Hz	500Hz	200Hz	300Hz	100Hz
Ensure distance	0...12mm	0...16mm	0...16mm	0...32mm	0...12mm	0...6mm	0...16mm	0...32mm
Standard target	Fe 45*45*1t	Fe 60*60*1t	Fe 60*60*1t	Fe 120*120*1t	Fe 45*45*1t	Fe 75*75*1t	Fe 60*60*1t	Fe 120*120*1t
Shape specification	Composite shape (dimensional drawing see page L02-030 for details)				Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector				Connector, terminal optional			
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA							
Hysteresis	1...20%							
Current consumption	≤10mA							
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	PBT							

Series	LE80XZ			
Model	LE80XZS□□D□□□□-□			
Mounting	Flush		Non-flush	
Detection distance	40mm	50mm	50mm	70mm
Switching frequency	100Hz	50Hz	50Hz	30Hz
Ensure distance	0...32mm	0...40mm	0...40mm	0...56mm
Standard target	Fe 120*120*1t	Fe 150*150*1t	Fe 150*150*1t	Fe 210*210*1t
Shape specification	Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector, terminal optional			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

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I Composite shape-Standard distance/Long distance

Series	LE40SZ				LE40XZ			
Model	LE40SZS□□DL□□-□				LE40XZS□□DL□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	15mm	20mm	20mm	40mm	15mm	20mm	20mm	40mm
Switching frequency	500Hz	200Hz	300Hz	100Hz	500Hz	200Hz	300Hz	100Hz
Ensure distance	0...12mm	0...16mm	0...16mm	0...32mm	0...12mm	0...16mm	0...16mm	0...32mm
Standard target	Fe 45*45*1t	Fe 75*75*1t	Fe 60*60*1t	Fe 120*120*1t	Fe 45*45*1t	Fe 75*75*1t	Fe 60*60*1t	Fe 120*120*1t
Shape specification	Composite shape (dimensional drawing see page L02-030 for details)				Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector				Connector, terminal optional			
Repeat accuracy	≤3%							
Supply voltage	10...30V DC							
Output	Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	Short circuit protection, reverse polarity, overload protection							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	PBT							

Series	LE80XZ			
Model	LE80XZS□□DL□□-□			
Mounting	Flush		Non-flush	
Detection distance	40mm	50mm	50mm	70mm
Switching frequency	80Hz	50Hz	40Hz	30Hz
Ensure distance	0...32mm	0...40mm	0...40mm	0...56mm
Standard target	Fe 120*120*1t	Fe 150*150*1t	Fe 150*150*1t	Fe 210*210*1t
Shape specification	Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector, terminal optional			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
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Composite shape-Standard distance/Long distance

Series	LE40SZ				LE40XZ			
Model	LE40SZS□□AT□□-□				LE40XZS□□AT□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	15mm	20mm	20mm	40mm	15mm	20mm	20mm	40mm
Switching frequency	20Hz				20Hz			
Ensure distance	0...12mm	0...16mm	0...16mm	0...32mm	0...12mm	0...16mm	0...16mm	0...32mm
Standard target	Fe 45*45*1t	Fe 66*66*1t	Fe 66*66*1t	Fe 120*120*1t	Fe 45*45*1t	Fe 66*66*1t	Fe 66*66*1t	Fe 120*120*1t
Shape specification	Composite shape (dimensional drawing see page L02-030 for details)				Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector				Connector, terminal optional			
Repeat accuracy	≤3%							
Supply voltage	20...250V AC							
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	/							
Indicator	Yellow: output indication							
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%							
Protection degree	IP67							
Housing material	PBT							

Series	LE80XZ			
Model	LE80XZS□□AT□□-□			
Mounting	Flush		Non-flush	
Detection distance	40mm	50mm	50mm	70mm
Switching frequency	20Hz			
Ensure distance	0...32mm	0...40mm	0...40mm	0...56mm
Standard target	Fe 120*120*1t	Fe 150*150*1t	Fe 150*150*1t	Fe 210*210*1t
Shape specification	Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector, terminal optional			
Repeat accuracy	≤3%			
Supply voltage	20...250V AC			
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

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I Composite shape-Standard distance/Long distance

Series	LE40SZ				LE40XZ			
Model	LE40SZ□□SB□□-□				LE40XZS□□SB□□-□			
Mounting	Flush		Non-flush		Flush		Non-flush	
Detection distance	15mm	20mm	20mm	40mm	15mm	20mm	20mm	40mm
Switching frequency	AC:20Hz, DC:100Hz				AC:20Hz, DC:100Hz			
Ensure distance	0...12mm	0...16mm	0...16mm	0...32mm	0...12mm	0...16mm	0...16mm	0...32mm
Standard target	Fe 45*45*1t	Fe 66*66*1t	Fe 66*66*1t	Fe 120*120*1t	Fe 45*45*1t	Fe 66*66*1t	Fe 66*66*1t	Fe 120*120*1t
Shape specification	Composite shape (dimensional drawing see page L02-030 for details)				Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector				Connector, terminal optional			
Repeat accuracy	≤3%							
Supply voltage	20...250V AC/DC							
Output	Load current:AC:300mA, DC:100mA;Voltage drop:AC:10V, DC:8V;Leakage current:AC: ≤3mA, DC: ≤1mA							
Hysteresis	1...20%							
Current consumption	/							
Circuit protection	/							
Indicator	Yellow:output indication							
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%							
Protection degree	IP67							
Housing material	PBT							

Series	LE80XZ			
Model	LE80XZ□□SB□□-□			
Mounting	Flush		Non-flush	
Detection distance	40mm	50mm	50mm	70mm
Switching frequency	AC:20Hz, DC:40Hz	AC:20Hz, DC:30Hz	AC:20Hz, DC:40Hz	AC:20Hz, DC:30Hz
Ensure distance	0...32mm	0...40mm	0...40mm	0...56mm
Standard target	Fe 120*120*1t	Fe 150*150*1t	Fe 150*150*1t	Fe 210*210*1t
Shape specification	Composite shape (dimensional drawing see page L02-031 for details)			
Connection	Connector, terminal optional			
Repeat accuracy	≤3%			
Supply voltage	20...250V AC/DC			
Output	Load current: AC:300mA, DC:100mA; Voltage drop: AC:10V, DC:8V; Leakage current: AC: ≤3mA, DC: ≤1mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			



Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

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High pressure
resistant

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I Micro square-Standard distance

Series	LE05
Model	LE05VF□D□□-□
Mounting	Flush
Detection distance	0.8mm
Switching frequency	1800Hz
Ensure distance	0...0.64mm
Standard target	Fe 6*6*1t
Shape specification	Micro square (dimensional drawing see page L02-032 for details)
Connection	Cable type (standard length 2m), Pigtail connection optional
Repeat accuracy	≤5%
Supply voltage	10...30V DC
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA
Hysteresis	1...20%
Current consumption	≤15mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Red: output indication
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%
Protection degree	IP67
Housing material	Aluminum alloy

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
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I Micro square-Standard distance

Series	LE05
Model	LE05VF□DL□-□
Mounting	Flush
Detection distance	0.8mm
Switching frequency	1500Hz
Ensure distance	0...0.64mm
Standard target	Fe 6*6*1t
Shape specification	Micro square (dimensional drawing see page L02-032 for details)
Connection	Cable type (standard length 2m), Pigtail connection optional
Repeat accuracy	≤5%
Supply voltage	10...30V DC
Output	Load current: ≤100mA; Voltage drop: ≤8V; Leakage current: ≤1mA
Hysteresis	1...20%
Current consumption	≤15mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Red: output indication
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%
Protection degree	IP67
Housing material	Aluminum alloy

Inductive

- Standard cylindrical
- Standard square
- High protection
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I Little square-Standard distance

Series	LE08	LE08X
Model	LE08SN25D□□	LE08XSN25D□□
Mounting	Non-flush	
Detection distance	2.5mm	
Switching frequency	1000Hz	
Ensure distance	0...2mm	
Standard target	Fe 8*8*1t	
Shape specification	Little square (dimensional drawing see page L02-032 for details)	Little square (dimensional drawing see page L02-033 for details)
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤10mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Red: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PC	

Series	LE09	LE11
Model	LE09SN25D□□	LE11SN03D□□
Mounting	Flush	Non-flush
Detection distance	2.5mm	3mm
Switching frequency	1000Hz	1000Hz
Ensure distance	0...2mm	0...2.4mm
Standard target	Fe 8*8*1t	Fe 10*10*1t
Shape specification	Little square (dimensional drawing see page L02-033 for details)	
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤10mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Red: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PC	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
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Little square-Standard distance

Series	LE12	LE12X
Model	LE12SN04D□□	LE12XSN04D□□
Mounting	Non-flush	
Detection distance	4mm	
Switching frequency	800Hz	
Ensure distance	0...3.2mm	
Standard target	Fe 12*12*1t	
Shape specification	Little square (dimensional drawing see page L02-034 for details)	
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤1V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Red: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PC	

Series	LE15	
Model	LE15S□D□□	
Mounting	Flush	Non-flush
Detection distance	5mm	8mm
Switching frequency	500Hz	300Hz
Ensure distance	0...4mm	0...6.4mm
Standard target	Fe 12*12*1t	Fe 24*24*1t
Shape specification	Little square (dimensional drawing see page L02-034 for details)	
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤1.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Red: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP65	
Housing material	PC	

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

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I Micro square-Standard distance

Series	LE81	LE82
Model	LE81VF□D□□-□	LE82VF□D□□-□
Mounting	Flush	Non-flush
Detection distance	1.5mm	1.5mm
Switching frequency	2000Hz	2000Hz
Ensure distance	0...1.2mm	0...1.2mm
Standard target	Fe 8*8*1t	Fe 8*8*1t
Shape specification	Micro square (dimensional drawing see page L02-035 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current : ≤100mA; Voltage drop : ≤2.5V; Leakage current : ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤10mA	
Circuit protection	Reverse polarity	
Indicator	Yellow : output indication	
Working environments	Ambient temperature : -25...70°C; Ambient humidity : 35...95%	
Protection degree	IP67	
Housing material	Aluminum alloy	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
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I Standard square-Standard distance

Series	LE10		LE16	
Model	LE10S□□D□□		LE16S□□D□□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	2mm	4mm
Switching frequency	1000Hz	800Hz	1000Hz	800Hz
Ensure distance	0...4mm	0...6.4mm	0...1.6mm	0...3.2mm
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 13*13*1t	
Shape specification	Standard square (dimensional drawing see page L02-035 for details)		Standard square (dimensional drawing see page L02-036 for details)	
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA		Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE20		LE30	
Model	LE20S□□D□□		LE30S□□D□□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	10mm	15mm
Switching frequency	700Hz	500Hz	500Hz	300Hz
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 20*20*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	Standard square (dimensional drawing see page L02-036 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA		Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

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I Standard square-Standard distance

Series	LE36		LE50	
Model	LE36S□□D□□		LE50S□□D□□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	5mm	8mm
Switching frequency	700Hz	500Hz	700Hz	500Hz
Ensure distance	0...4mm	0...6.4mm	0...4mm	0...6.4mm
Standard target	Fe 20*20*1t	Fe 25*25*1t	Fe 20*20*1t	Fe 25*25*1t
Shape specification	Standard square (dimensional drawing see page L02-037 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤10mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE68	
Model	LE68S□□D□□-□	
Mounting	Flush	Non-flush
Detection distance	15mm	25mm
Switching frequency	500Hz	300Hz
Ensure distance	0...12mm	0...20mm
Standard target	Fe 45*45*1t	Fe 75*75*1t
Shape specification	Standard square (dimensional drawing see page L02-037 for details)	
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤10mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PBT	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
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I Standard square-Standard distance

Series	LE20		LE30	
Model	LE20S□□DL□		LE30S□□DL□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	10mm	15mm
Switching frequency	500Hz	300Hz	500Hz	300Hz
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 20*20*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	Standard square (dimensional drawing see page L02-036 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤8V; Leakage current: ≤1mA		Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA	
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE36		LE68	
Model	LE36S□□DL□		LE68S□□DL□-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	15mm	25mm
Switching frequency	500Hz	500Hz	500Hz	300Hz
Ensure distance	0...4mm	0...6.4mm	0...12mm	0...20mm
Standard target	Fe 20*20*1t	Fe 25*25*1t	Fe 45*45*1t	Fe 75*75*1t
Shape specification	Standard square (dimensional drawing see page L02-037 for details)			
Connection	Cable type (standard length 2m)		Cable type (standard length 2m), Connector optional	
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤8V; Leakage current: ≤1mA		Load current: ≤100mA; Voltage drop: ≤6V; Leakage current: ≤1mA	
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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I Standard square-Standard distance

Series	LE20		LE30	
Model	LE20S□□AT□		LE30S□□AT□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	10mm	15mm
Switching frequency	20Hz		20Hz	
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 20*20*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	Standard square (dimensional drawing see page L02-037 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	20...250V AC			
Output	Load current: ≤200mA; Voltage drop: ≤10V; Leakage current: ≤3mA		Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA	
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/		Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE50		LE68	
Model	LE50S□□AT□		LE68S□□AT□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	15mm	25mm
Switching frequency	20Hz		20Hz	
Ensure distance	0...4mm	0...6.4mm	0...12mm	0...20mm
Standard target	Fe 20*20*1t	Fe 25*25*1t	Fe 68*68*1t	Fe 75*75*1t
Shape specification	Standard square (dimensional drawing see page L02-037 for details)			
Connection	Cable type (standard length 2m)		Cable type (standard length 2m), connector optional	
Repeat accuracy	≤3%			
Supply voltage	20...250V AC			
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...15%		1...20%	
Current consumption	/			
Circuit protection	Surge protection		/	
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

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Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

Inductive
distance
measuring

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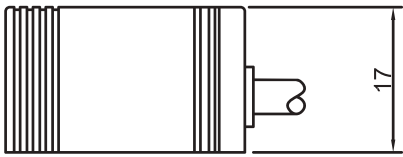
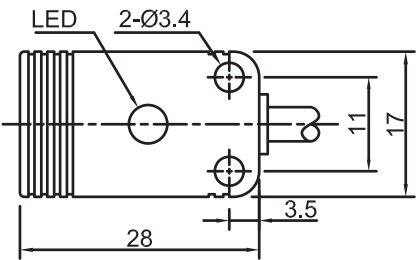
Technical guide



Official Website

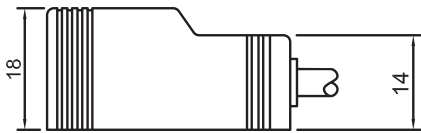
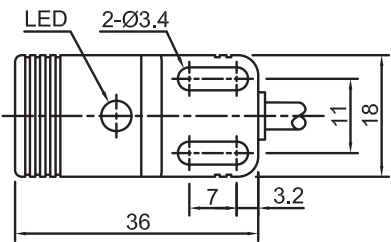
Standard distance-LE17

Flush/Non-flush—Cable



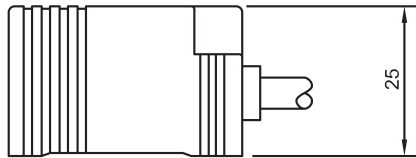
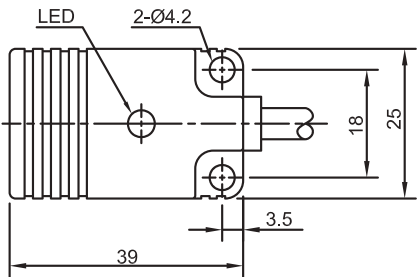
Standard distance-LE18

Flush/Non-flush—Cable



Standard distance-LE25

Flush/Non-flush—Cable

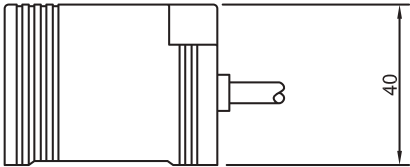
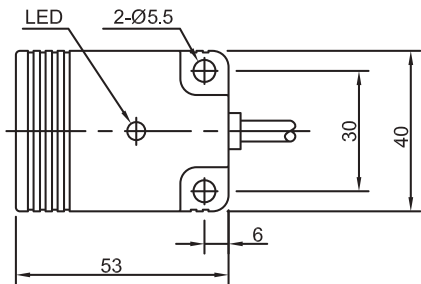


- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
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- Inductive distance measuring
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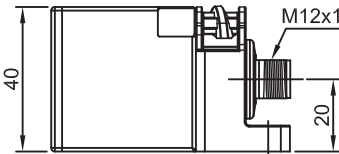
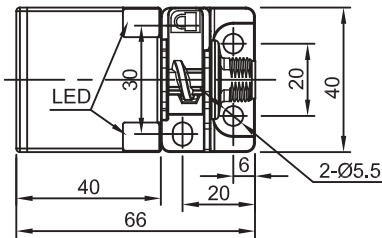
Standard distance-LE40

Flush/Non-flush—Cable



Standard distance/Long distance-LE40SZ

Flush/Non-flush—M12 Connector



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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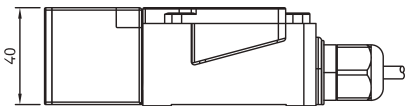
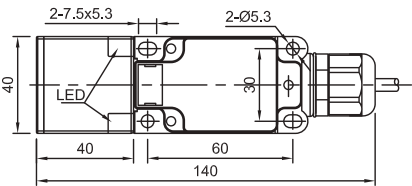
Technical guide



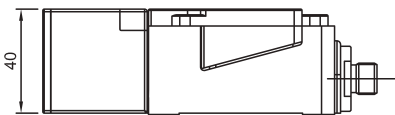
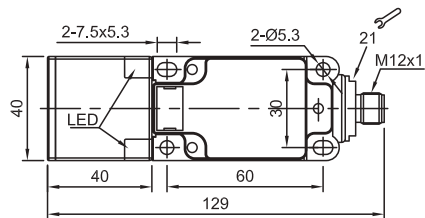
Official Website

Standard distance/Long distance-LE40XZ

Flush/Non-flush—Terminal

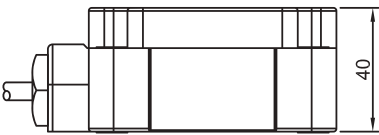
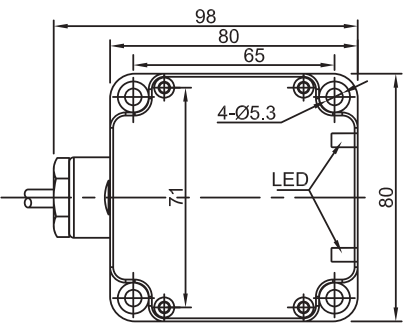


Flush/Non-flush—M12 Connector

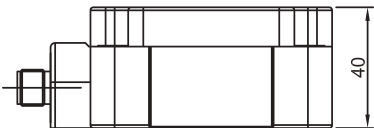
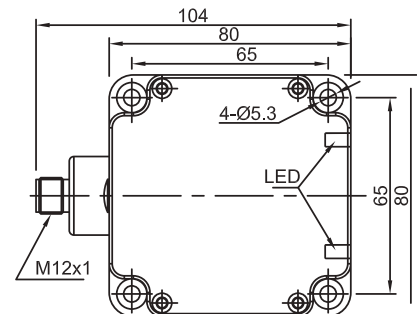


Standard distance/Long distance-LE80XZ

Flush/Non-flush—Terminal



Flush/Non-flush—M12 Connector



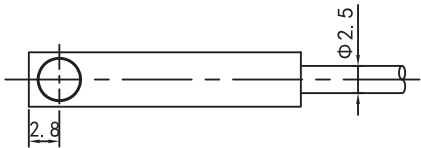
Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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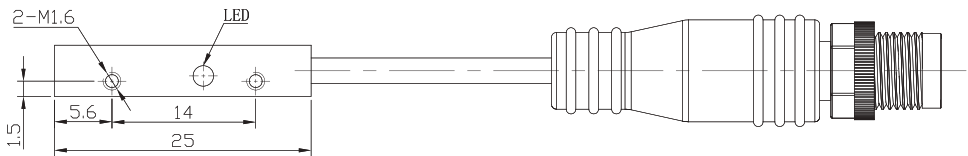


Standard distance-LE05

Flush—Cable

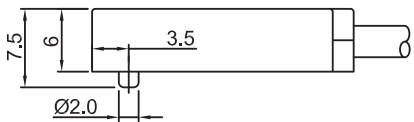
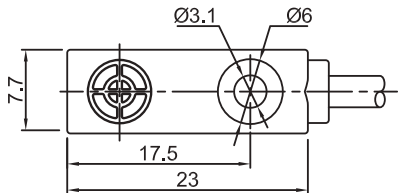


Flush—Pigtail connection



Standard distance-LE08

Non-flush—Cable



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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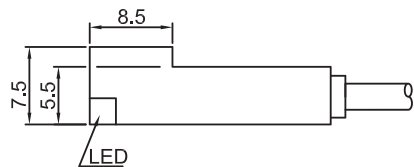
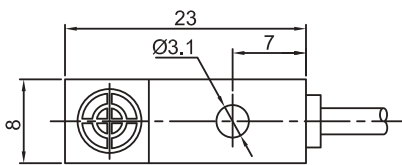
Technical guide



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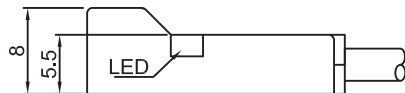
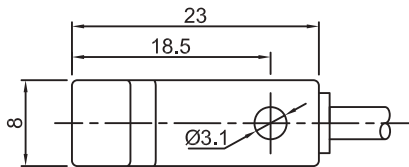
Standard distance-LE08X

Non-flush—Cable



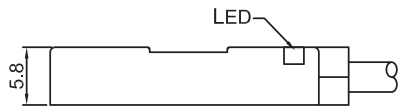
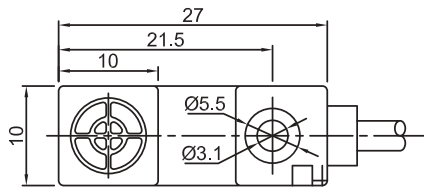
Standard distance-LE09

Non-flush—Cable



Standard distance-LE11

Non-flush—Cable

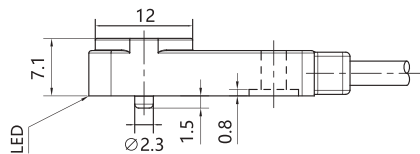
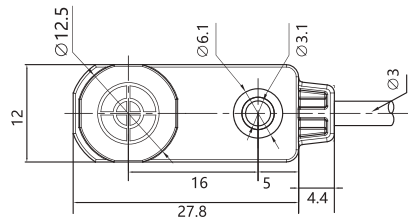


- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
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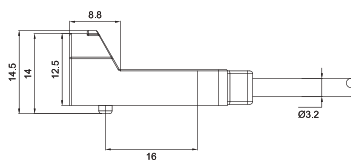
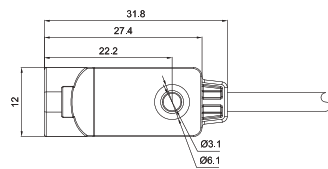
Standard distance-LE12

Non-flush—Cable



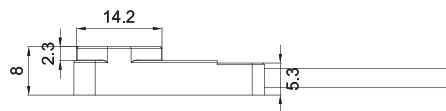
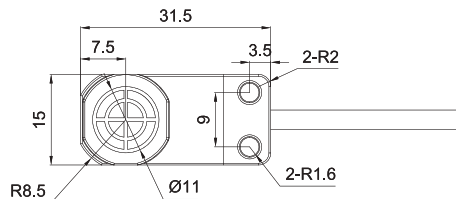
Standard distance-LE12X

Non-flush—Cable



Standard distance-LE15

Flush/Non-flush—Cable



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

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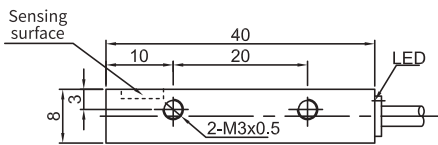
Technical guide



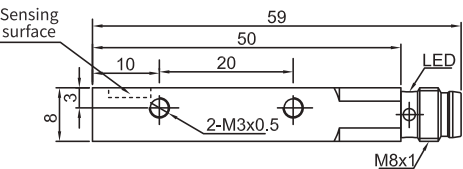
Official Website

Standard distance-LE81

Flush—Cable

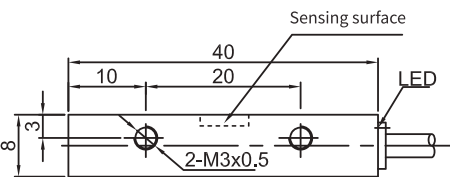


Flush—M8 Connector

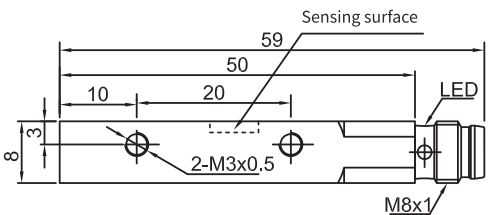


Standard distance-LE82

Flush—Cable

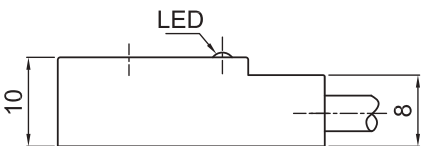
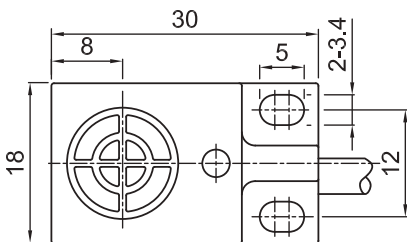


Flush—M8 Connector



Standard distance-LE10

Flush/Non-flush—Cable

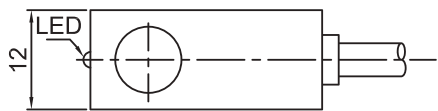
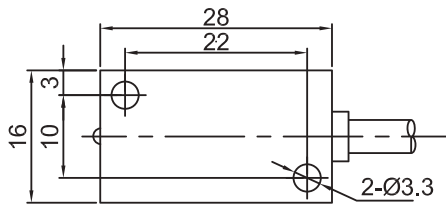


- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
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- Inductive distance measuring
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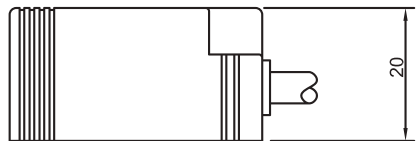
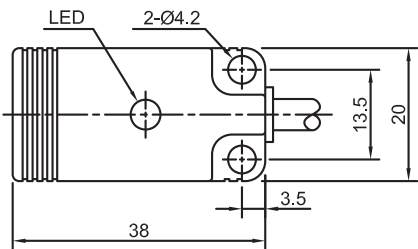
Standard distance-LE16

Flush/Non-flush—Cable



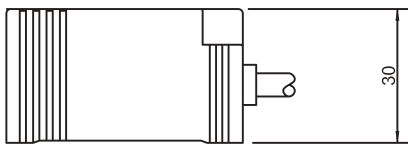
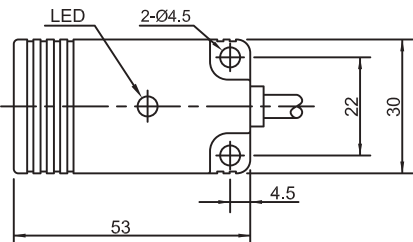
Standard distance-LE20

Flush/Non-flush—Cable



Standard distance-LE30

Flush/Non-flush—Cable



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

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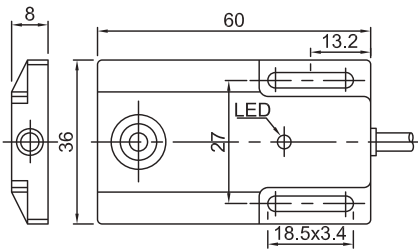
Technical guide



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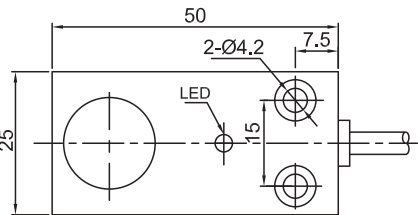
Standard distance-LE36

Flush/Non-flush—Cable



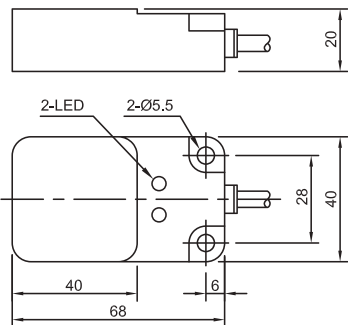
Standard distance-LE50

Flush/Non-flush—Cable

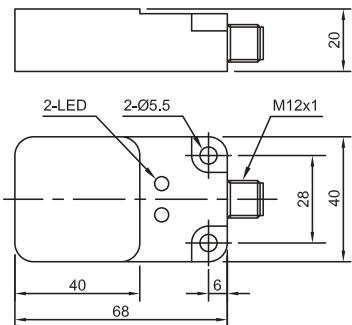


Standard distance-LE68

Flush/Non-flush—Cable



Flush/Non-flush—M8 Connector



Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
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High pressure
resistantInductive
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Standard
cylindrical

Standard square

High protectionTemperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
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NAMUR

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Inductive Sensors

High protection series

**High protection degree**

IP68, dustproof and waterproof.

Wide temperature range

The temperature range can reach -40...85°C

Strong anti-interference ability

Automotive-grade EMC environmental test.

Resistant to vibration and mechanical shock

Enhanced resistance to mechanical shock, suitable for applications in industries such as construction machinery.

Application



Truck crane (cab return detection)



Official Website

Cylindrical DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*50	Flush	2m cable	4mm	NO	LR12EBF04DNOY	LR12EBF04DPOY
					NC	LR12EBF04DNCY	LR12EBF04DPCY
		Non-flush	2m cable	8mm	NO	LR12EBN08DNOY	LR12EBN08DPOY
					NC	LR12EBN08DNCY	LR12EBN08DPCY
	M12*1*65	Flush	Connector	4mm	NO	LR12EBF04DNOY-E2 ^②	LR12EBF04DPOY-E2 ^②
					NC	LR12EBF04DNCY-E2 ^②	LR12EBF04DPCY-E2 ^②
		Non-flush	Connector	8mm	NO	LR12EBN08DNOY-E2 ^②	LR12EBN08DPOY-E2 ^②
					NC	LR12EBN08DNCY-E2 ^②	LR12EBN08DPCY-E2 ^②
	M18*1*50	Flush	2m cable	8mm	NO	LR18EBF08DNOY	LR18EBF08DPOY
					NC	LR18EBF08DNCY	LR18EBF08DPCY
		Non-flush	2m cable	12mm	NO	LR18EBN12DNOY	LR18EBN12DPOY
					NC	LR18EBN12DNCY	LR18EBN12DPCY
	M18*1*65	Flush	Connector	8mm	NO	LR18EBF08DNOY-E2 ^②	LR18EBF08DPOY-E2 ^②
					NC	LR18EBF08DNCY-E2 ^②	LR18EBF08DPCY-E2 ^②
		Non-flush	Connector	12mm	NO	LR18EBN12DNOY-E2 ^②	LR18EBN12DPOY-E2 ^②
					NC	LR18EBN12DNCY-E2 ^②	LR18EBN12DPCY-E2 ^②
	M30*1.5*50	Flush	2m cable	15mm	NO	LR30EBF15DNOY	LR30EBF15DPOY
					NC	LR30EBF15DNCY	LR30EBF15DPCY
		Non-flush	2m cable	22mm	NO	LR30EBN22DNOY	LR30EBN22DPOY
					NC	LR30EBN22DNCY	LR30EBN22DPCY
	M30*1.5*65	Flush	Connector	15mm	NO	LR30EBF15DNOY-E2 ^②	LR30EBF15DPOY-E2 ^②
					NC	LR30EBF15DNCY-E2 ^②	LR30EBF15DPCY-E2 ^②
		Non-flush	Connector	22mm	NO	LR30EBN22DNOY-E2 ^②	LR30EBN22DPOY-E2 ^②
					NC	LR30EBN22DNCY-E2 ^②	LR30EBN22DPCY-E2 ^②

②E2:M12 4-pin connector

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
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- High pressure resistant
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Official Website

Inductive

Square DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	40*40*54	Flush	2m cable	20mm	NO	LE40ESF20DNOY	LE40ESF20DPOY
					NC	LE40ESF20DNCY	LE40ESF20DPCY
					NO+NC	LE40ESF20DNRY	LE40ESF20DPRY
		Non-flush	2m cable	40mm	NO	LE40ESN40DNOY	LE40ESN40DPOY
					NC	LE40ESN40DNCY	LE40ESN40DPCY
					NO+NC	LE40ESN40DNRY	LE40ESN40DPRY

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
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- Clamp position
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Official Website

Long distance

Series	LR12E		LR18E	
Model	LR12EB□□D□□Y-□		LR18EB□□D□□Y-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	4mm	8mm	8mm	12mm
Switching frequency	800Hz	500Hz	500Hz	200Hz
Ensure distance	0...3.06mm	0...6.12mm	0...6.12mm	0...9.18mm
Standard target	Fe 12*12*1t	Fe 24*24*1t	Fe 24*24*1t	Fe 36*36*1t
Shape specification	B model (dimensional drawing see page L03-006 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤5%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2V; Leakage current: ≤0.1mA			
Hysteresis	3...15%			
Current consumption	≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -40...85°C; Ambient humidity: 35...95%			
Protection degree	IP68 ^①			
Housing material	Nickel copper alloy			

Note: ① The IP68 test was conducted at a pressure of 100 kPa (≈10 m water depth) for a duration of 120 minutes.

Series	LR30E	
Model	LR30EB□□D□□Y-□	
Mounting	Flush	Non-flush
Detection distance	15mm	22mm
Switching frequency	400Hz	150Hz
Ensure distance	0...11.47mm	0...16.83mm
Standard target	Fe 45*45*1t	Fe 66*66*1t
Shape specification	B model (dimensional drawing see page L03-007 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	3...15%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -40...85°C; Ambient humidity: 35...95%	
Protection degree	IP68 ^①	
Housing material	Nickel copper alloy	

Note: ① The IP68 test was conducted at a pressure of 100 kPa (≈10 m water depth) for a duration of 120 minutes.

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

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Official Website

Inductive

I Long distance

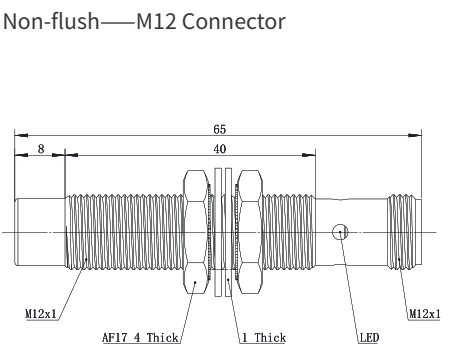
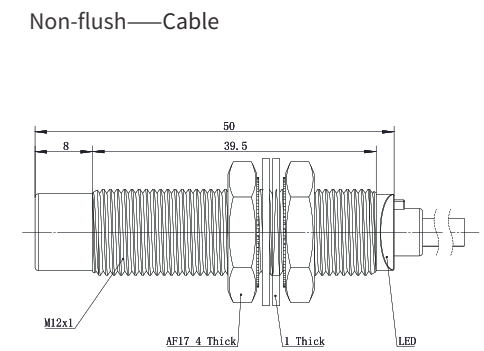
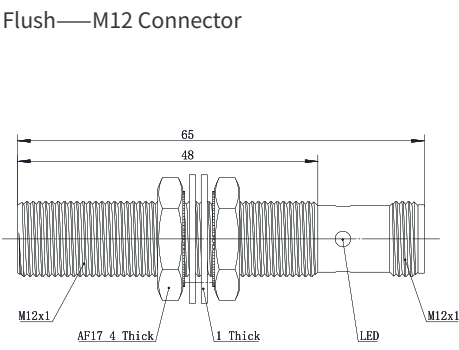
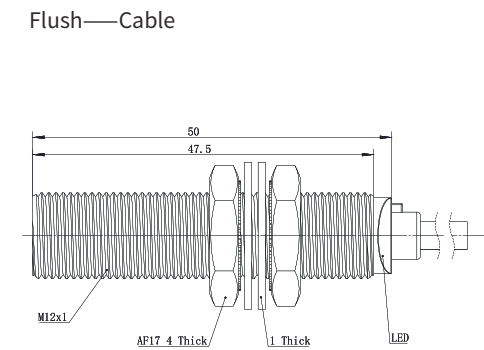
Series	LE40E	
Model	LE40S□□D□□Y	
Mounting	Flush	Non-flush
Detection distance	20mm	40mm
Switching frequency	200Hz	100Hz
Ensure distance	0...15.3mm	0...30.6mm
Standard target	Fe 60*60*1t	Fe 120*120*1t
Shape specification	Square (dimensional drawing see page L03-007 for details)	
Connection	Cable type (standard length 2m)	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2V	
Hysteresis	3...15%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication; Green: power indication	
Working environments	Ambient temperature: -40...85°C; Ambient humidity: 35...95%	
Protection degree	IP68 ^①	
Housing material	PC	

Note: ① The IP68 test was conducted at a pressure of 100 kPa (≈10 m water depth) for a duration of 120 minutes.

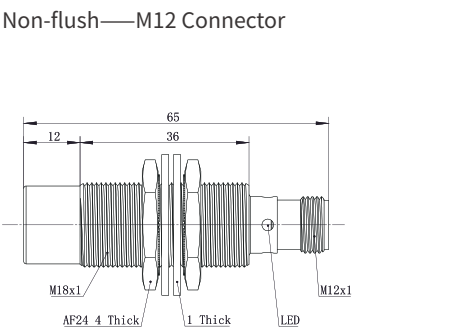
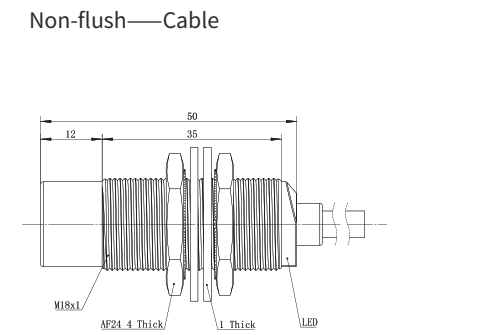
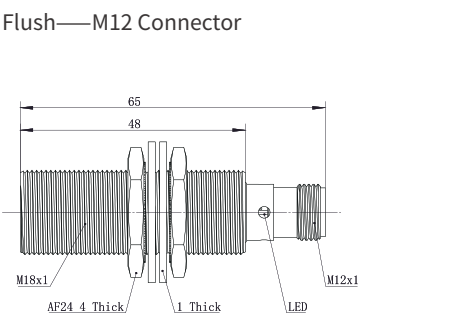
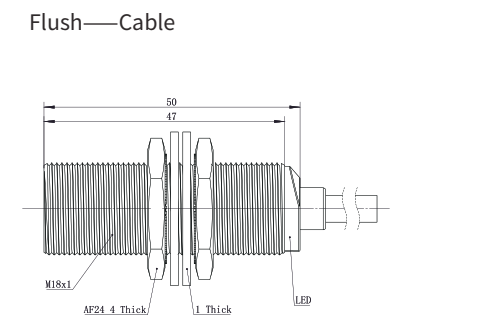
- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Long distance-LR12E



Long distance-LR18E



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
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- Wiring diagram
- Installation guide
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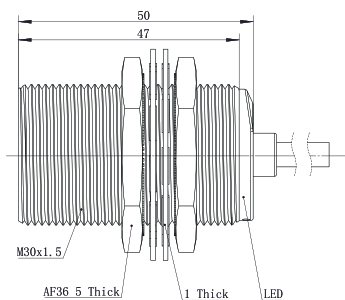


Product Dimension Diagram

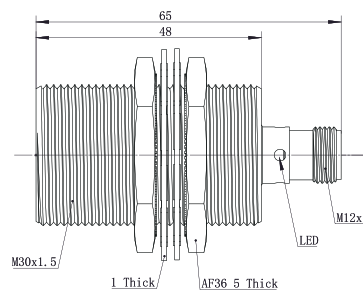
High protection series

Long distance-LR30E

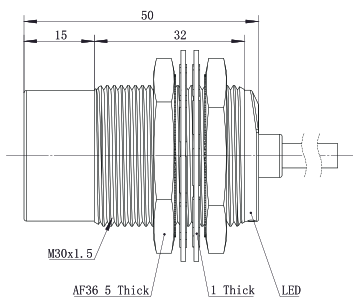
Flush—Cable



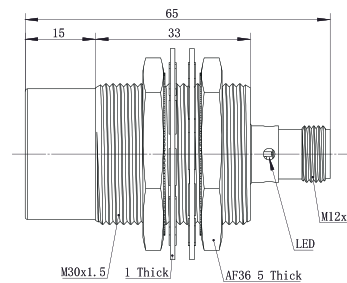
Flush—M12 Connector



Non-flush—Cable

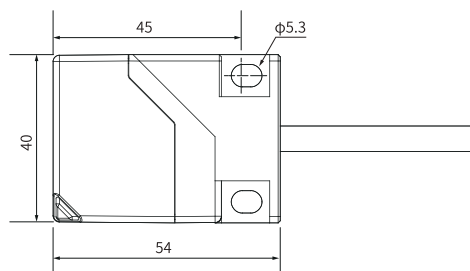


Non-flush—M12 Connector



Long distance-LE40E

Flush/Non-flush—Cable

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
distance
measuring

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Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

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resistant

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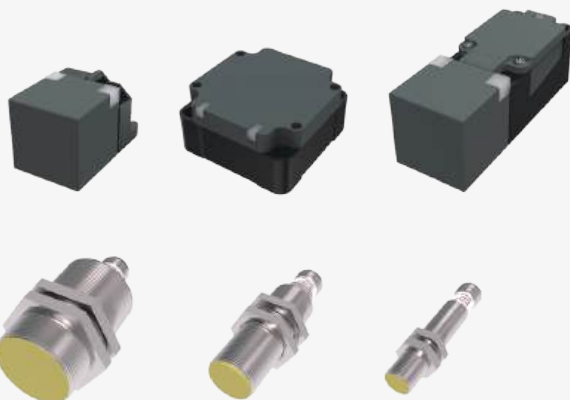
Technical guide



Official Website

Inductive Sensors

Temperature Extended Series



For specifications, certification, usage and model list, please scan the product QR code.



High protection degree

IP67/IP68 rated for harsh environments.

Extreme temperature

Low temperature resistant series can reach -40°C, high temperature resistant series can reach 180°C.

High precision

Compensation circuit design, high-precision detection within wide temperature range, with a repeatability of $\leq 3\%$.

Wide application environment

In harsh environments such as steel, metallurgy, and glass manufacturing.

Application



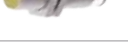
Internal position control of wind power equipment

Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position
Analog output
Self-diagnosis
Speed monitoring
NAMUR
High pressure resistant
Inductive distance measuring

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Cylindrical DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*51	Flush	2m cable	2mm	NO	LR12XBF02DNOW1	LR12XBF02DPOW1
					NC	LR12XBF02DNCW1	LR12XBF02DPCW1
	M12*1*55	Non-flush	2m cable	4mm	NO	LR12XBN04DNOW1	LR12XBN04DPOW1
					NC	LR12XBN04DNCW1	LR12XBN04DPCW1
	M12*1*63	Flush	Connector	2mm	NO	LR12XBF02DNOW1-E2 ^②	LR12XBF02DPOW1-E2 ^②
					NC	LR12XBF02DNCW1-E2 ^②	LR12XBF02DPCW1-E2 ^②
	M12*1*67	Non-flush	Connector	4mm	NO	LR12XBN04DNOW1-E2 ^②	LR12XBN04DPOW1-E2 ^②
					NC	LR12XBN04DNCW1-E2 ^②	LR12XBN04DPCW1-E2 ^②
	M18*1*51.5	Flush	2m cable	5mm	NO	LR18XBF05DNOW1	LR18XBF05DPOW1
					NC	LR18XBF05DNCW1	LR18XBF05DPCW1
	M18*1*59.5	Non-flush	2m cable	8mm	NO	LR18XBN08DNOW1	LR18XBN08DPOW1
					NC	LR18XBN08DNCW1	LR18XBN08DPCW1
	M18*1*63	Flush	Connector	5mm	NO	LR18XBF05DNOW1-E2 ^②	LR18XBF05DPOW1-E2 ^②
					NC	LR18XBF05DNCW1-E2 ^②	LR18XBF05DPCW1-E2 ^②
	M18*1*71	Non-flush	Connector	8mm	NO	LR18XBN08DNOW1-E2 ^②	LR18XBN08DPOW1-E2 ^②
					NC	LR18XBN08DNCW1-E2 ^②	LR18XBN08DPCW1-E2 ^②
	M30*1.5*52	Flush	2m cable	10mm	NO	LR30XBF10DNOW1	LR30XBF10DPOW1
					NC	LR30XBF10DNCW1	LR30XBF10DPCW1
	M30*1.5*64	Non-flush	2m cable	15mm	NO	LR30XBN15DNOW1	LR30XBN15DPOW1
					NC	LR30XBN15DNCW1	LR30XBN15DPCW1
	M30*1.5*63	Flush	Connector	10mm	NO	LR30XBF10DNOW1-E2 ^②	LR30XBF10DPOW1-E2 ^②
					NC	LR30XBF10DNCW1-E2 ^②	LR30XBF10DPCW1-E2 ^②
	M30*1.5*75	Non-flush	Connector	15mm	NO	LR30XBN15DNOW1-E2 ^②	LR30XBN15DPOW1-E2 ^②
					NC	LR30XBN15DNCW1-E2 ^②	LR30XBN15DPCW1-E2 ^②
	M12*1*51	Flush	2m cable	2mm	NO	LR12XBF02DNOW	LR12XBF02DPOW
					NC	LR12XBF02DNCW	LR12XBF02DPCW
	M12*1*55	Non-flush	2m cable	4mm	NO	LR12XBN04DNOW	LR12XBN04DPOW
					NC	LR12XBN04DNCW	LR12XBN04DPCW
	M12*1*63	Flush	Connector	2mm	NO	LR12XBF02DNOW-E2 ^②	LR12XBF02DPOW-E2 ^②
					NC	LR12XBF02DNCW-E2 ^②	LR12XBF02DPCW-E2 ^②
	M12*1*67	Non-flush	Connector	4mm	NO	LR12XBN04DNOW-E2 ^②	LR12XBN04DPOW-E2 ^②
					NC	LR12XBN04DNCW-E2 ^②	LR12XBN04DPCW-E2 ^②
	M18*1*51.5	Flush	2m cable	5mm	NO	LR18XBF05DNOW	LR18XBF05DPOW
					NC	LR18XBF05DNCW	LR18XBF05DPCW

②E2:M12 4-pin connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Inductive

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M18*1*59.5	Non-flush	2m cable	8mm	NO	LR18XBN08DNCW	LR18XBN08DPCW
					NC	LR18XBN08DNCW	LR18XBN08DPCW
	M18*1*63	Flush	Connector	5mm	NO	LR18XBF05DNCW-E2 ^②	LR18XBF05DPCW-E2 ^②
					NC	LR18XBF05DNCW-E2 ^②	LR18XBF05DPCW-E2 ^②
	M18*1*71	Non-flush	Connector	8mm	NO	LR18XBN08DNCW-E2 ^②	LR18XBN08DPCW-E2 ^②
					NC	LR18XBN08DNCW-E2 ^②	LR18XBN08DPCW-E2 ^②
	M30*1.5*51.5	Flush	2m cable	10mm	NO	LR30XBF10DNCW	LR30XBF10DPCW
					NC	LR30XBF10DNCW	LR30XBF10DPCW
	M30*1.5*63.5	Non-flush	2m cable	15mm	NO	LR30XBN15DNCW	LR30XBN15DPCW
					NC	LR30XBN15DNCW	LR30XBN15DPCW
	M30*1.5*63	Flush	Connector	10mm	NO	LR30XBF10DNCW-E2 ^②	LR30XBF10DPCW-E2 ^②
					NC	LR30XBF10DNCW-E2 ^②	LR30XBF10DPCW-E2 ^②
	M30*1.5*75	Non-flush	Connector	15mm	NO	LR30XBN15DNCW-E2 ^②	LR30XBN15DPCW-E2 ^②
					NC	LR30XBN15DNCW-E2 ^②	LR30XBN15DPCW-E2 ^②
	M30*1.5*101	Flush	2m cable	10mm	NO	LR30XBF10DNCW4	LR30XBF10DPCW4
					NC	LR30XBF10DNCW4	LR30XBF10DPCW4
	M30*1.5*121	Non-flush	2m cable	15mm	NO	LR30XBN15DNCW4	LR30XBN15DPCW4
					NC	LR30XBN15DNCW4	LR30XBN15DPCW4

②E2:M12 4-pin connector

Square DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	66*40*40	Flush	Connector	15mm	NO	LE40SZSF15DNCW1-E2 ^②	LE40SZSF15DPCW1-E2 ^②
					NC	LE40SZSF15DNCW1-E2 ^②	LE40SZSF15DPCW1-E2 ^②
					NO+NC	LE40SZSF15DNCW1-E2 ^②	LE40SZSF15DPCW1-E2 ^②
		Non-flush	Connector	20mm	NO	LE40SZSN20DNCW1-E2 ^②	LE40SZSN20DPCW1-E2 ^②
					NC	LE40SZSN20DNCW1-E2 ^②	LE40SZSN20DPCW1-E2 ^②
					NO+NC	LE40SZSN20DNCW1-E2 ^②	LE40SZSN20DPCW1-E2 ^②
	129*40*40	Flush	Connector	15mm	NO	LE40XZSF15DNCW1-E2 ^②	LE40XZSF15DPCW1-E2 ^②
					NC	LE40XZSF15DNCW1-E2 ^②	LE40XZSF15DPCW1-E2 ^②
					NO+NC	LE40XZSF15DNCW1-E2 ^②	LE40XZSF15DPCW1-E2 ^②
		Non-flush	Connector	20mm	NO	LE40XZSN20DNCW1-E2 ^②	LE40XZSN20DPCW1-E2 ^②
					NC	LE40XZSN20DNCW1-E2 ^②	LE40XZSN20DPCW1-E2 ^②
					NO+NC	LE40XZSN20DNCW1-E2 ^②	LE40XZSN20DPCW1-E2 ^②



Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	140*40*40	Flush	Terminal	15mm	NO	LE40XZSF15DNCW1-D ^④	LE40XZSF15DPCW1-D ^④
					NC	LE40XZSF15DNCW1-D ^④	LE40XZSF15DPCW1-D ^④
					NO+NC	LE40XZSF15DNCW1-D ^④	LE40XZSF15DPCW1-D ^④
		Non-flush	Terminal	20mm	NO	LE40XZSN20DNCW1-D ^④	LE40XZSN20DPCW1-D ^④
					NC	LE40XZSN20DNCW1-D ^④	LE40XZSN20DPCW1-D ^④
					NO+NC	LE40XZSN20DNCW1-D ^④	LE40XZSN20DPCW1-D ^④
	104*80*40	Flush	Connector	40mm	NO	LE80XZSF40DNCW1-E2 ^②	LE80XZSF40DPCW1-E2 ^②
					NC	LE80XZSF40DNCW1-E2 ^②	LE80XZSF40DPCW1-E2 ^②
					NO+NC	LE80XZSF40DNCW1-E2 ^②	LE80XZSF40DPCW1-E2 ^②
		Non-flush	Connector	50mm	NO	LE80XZSN50DNCW1-E2 ^②	LE80XZSN50DPCW1-E2 ^②
					NC	LE80XZSN50DNCW1-E2 ^②	LE80XZSN50DPCW1-E2 ^②
					NO+NC	LE80XZSN50DNCW1-E2 ^②	LE80XZSN50DPCW1-E2 ^②
	98*80*40	Flush	Terminal	40mm	NO	LE80XZSF40DNCW1-D ^④	LE80XZSF40DPCW1-D ^④
					NC	LE80XZSF40DNCW1-D ^④	LE80XZSF40DPCW1-D ^④
					NO+NC	LE80XZSF40DNCW1-D ^④	LE80XZSF40DPCW1-D ^④
		Non-flush	Terminal	50mm	NO	LE80XZSN50DNCW1-D ^④	LE80XZSN50DPCW1-D ^④
					NC	LE80XZSN50DNCW1-D ^④	LE80XZSN50DPCW1-D ^④
					NO+NC	LE80XZSN50DNCW1-D ^④	LE80XZSN50DPCW1-D ^④
	66*40*40	Flush	Connector	15mm	NO	LE40SZSF15DNCW2-E2 ^②	LE40SZSF15DPCW2-E2 ^②
					NC	LE40SZSF15DNCW2-E2 ^②	LE40SZSF15DPCW2-E2 ^②
					NO+NC	LE40SZSF15DNCW2-E2 ^②	LE40SZSF15DPCW2-E2 ^②
		Non-flush	Connector	20mm	NO	LE40SZSN20DNCW2-E2 ^②	LE40SZSN20DPCW2-E2 ^②
					NC	LE40SZSN20DNCW2-E2 ^②	LE40SZSN20DPCW2-E2 ^②
					NO+NC	LE40SZSN20DNCW2-E2 ^②	LE40SZSN20DPCW2-E2 ^②
	129*40*40	Flush	Connector	15mm	NO	LE40XZSF15DNCW2-E2 ^②	LE40XZSF15DPCW2-E2 ^②
					NC	LE40XZSF15DNCW2-E2 ^②	LE40XZSF15DPCW2-E2 ^②
					NO+NC	LE40XZSF15DNCW2-E2 ^②	LE40XZSF15DPCW2-E2 ^②
		Non-flush	Connector	20mm	NO	LE40XZSN20DNCW2-E2 ^②	LE40XZSN20DPCW2-E2 ^②
					NC	LE40XZSN20DNCW2-E2 ^②	LE40XZSN20DPCW2-E2 ^②
					NO+NC	LE40XZSN20DNCW2-E2 ^②	LE40XZSN20DPCW2-E2 ^②
	140*40*40	Flush	Terminal	15mm	NO	LE40XZSF15DNCW2-D ^④	LE40XZSF15DPCW2-D ^④
					NC	LE40XZSF15DNCW2-D ^④	LE40XZSF15DPCW2-D ^④
					NO+NC	LE40XZSF15DNCW2-D ^④	LE40XZSF15DPCW2-D ^④
		Non-flush	Terminal	20mm	NO	LE40XZSN20DNCW2-D ^④	LE40XZSN20DPCW2-D ^④
					NC	LE40XZSN20DNCW2-D ^④	LE40XZSN20DPCW2-D ^④
					NO+NC	LE40XZSN20DNCW2-D ^④	LE40XZSN20DPCW2-D ^④
	104*80*40	Flush	Connector	40mm	NO	LE80XZSF40DNCW2-E2 ^②	LE80XZSF40DPCW2-E2 ^②
					NC	LE80XZSF40DNCW2-E2 ^②	LE80XZSF40DPCW2-E2 ^②
					NO+NC	LE80XZSF40DNCW2-E2 ^②	LE80XZSF40DPCW2-E2 ^②
		Non-flush	Connector	50mm	NO	LE80XZSN50DNCW2-E2 ^②	LE80XZSN50DPCW2-E2 ^②
					NC	LE80XZSN50DNCW2-E2 ^②	LE80XZSN50DPCW2-E2 ^②
					NO+NC	LE80XZSN50DNCW2-E2 ^②	LE80XZSN50DPCW2-E2 ^②

②E2:M12 4-pin connector

④D: Terminal connection

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Selection List

Temperature Extended Series

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	98*80*40	Flush	Terminal	40mm	NO	LE80XZSF40DNOW2-D ^④	LE80XZSF40DPOW2-D ^④
					NC	LE80XZSF40DNCW2-D ^④	LE80XZSF40DPCW2-D ^④
					NO+NC	LE80XZSF40DNRW2-D ^④	LE80XZSF40DPRW2-D ^④
		Non-flush	Terminal	50mm	NO	LE80XZSN50DNOW2-D ^④	LE80XZSN50DPOW2-D ^④
					NC	LE80XZSN50DNCW2-D ^④	LE80XZSN50DPCW2-D ^④
					NO+NC	LE80XZSN50DNRW2-D ^④	LE80XZSN50DPRW2-D ^④

④D: Terminal connection

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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- Technical guide



Resistant to low temperatures

Series	LR12X		LR18X	
Model	LR12XB□□D□□W1-□		LR18XB□□D□□W1-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	2mm	4mm	5mm	8mm
Switching frequency	1500Hz	1000Hz	1000Hz	800Hz
Ensure distance	0...1.6mm	0...3.2mm	0...4mm	0...6.4mm
Standard target	Fe 12*12*1t		Fe 18*18*1t	Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L04-010 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

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Series	LR30X	
Model	LR30XB□□D□□W1-□	
Mounting	Flush	Non-flush
Detection distance	10mm	15mm
Switching frequency	500Hz	300Hz
Ensure distance	0...8mm	0...12mm
Standard target	Fe 30*30*1t	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L04-011 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Nickel copper alloy	



Official Website

Specification Parameter

Temperature Extended Series-DC 3 wires

I Resistant to high temperatures

Series	LR12X		LR18X	
Model	LR12XB□□D□□W-□		LR18XB□□D□□W-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	2mm	4mm	5mm	8mm
Switching frequency	1500Hz	1000Hz	1000Hz	800Hz
Ensure distance	0...1.6mm	0...3.2mm	0...4mm	0...6.4mm
Standard target	Fe 12*12*1t		Fe 18*18*1t	Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L04-010 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤5%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Reverse polarity protection			
Indicator	/			
Working environments	Ambient temperature: -25...120°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Series	LR30X			
Model	LR30XB□□D□□□-□			
Mounting	Flush		Non-flush	
Detection distance	10mm		15mm	
Switching frequency	500Hz	200Hz	300Hz	100Hz
Ensure distance	0...8mm		0...12mm	
Standard target	Fe 30*30*1t		Fe 45*45*1t	
Shape specification	B model (dimensional drawing see page L04-011 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤5%			
Supply voltage	10...30V DC			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Reverse polarity protection			
Indicator	/			
Working environments	-25...120°C	-25...180°C	-25...120°C	-25...180°C
Protection degree	IP67	IP68	IP67	IP68
Housing material	Nickel copper alloy	Stainless steel	Nickel copper alloy	Stainless steel



Resistant to low temperatures

Series	LE40SZ		LE40XZ	
Model	LE40SZS□□D□□W1-□		LE40XZS□□D□□W1-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	15mm	20mm	15mm	20mm
Switching frequency	300Hz	200Hz	300Hz	200Hz
Ensure distance	0...12mm	0...16mm	0...12mm	0...16mm
Standard target	Fe 45*45*1t	Fe 66*66*1t	Fe 45*45*1t	Fe 66*66*1t
Shape specification	Composite (dimensional drawing see page L04-012 for details)			
Connection	Connector		Connector, cable type optional	
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE80XZ	
Model	LE80XZS□□D□□W1-□	
Mounting	Flush	Non-flush
Detection distance	40mm	50mm
Switching frequency	100Hz	50Hz
Ensure distance	0...32mm	0...40mm
Standard target	Fe 120*120*1t	Fe 150*150*1t
Shape specification	Composite (dimensional drawing see page L04-012 for details)	
Connection	Connector, cable type optional	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PBT	

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

Specification Parameter

Temperature Extended Series-DC 3 wires

Resistant to high temperatures

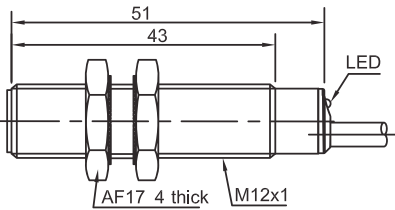
Series	LE40SZ		LE40XZ	
Model	LE40SZS□□D□□W2-□		LE40XZS□□D□□W2-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	15mm	20mm	15mm	20mm
Switching frequency	300Hz	200Hz	300Hz	200Hz
Ensure distance	0...12mm	0...16mm	0...12mm	0...16mm
Standard target	Fe 45*45*1t	Fe 66*66*1t	Fe 45*45*1t	Fe 66*66*1t
Shape specification	Composite (dimensional drawing see page L04-012 for details)			
Connection	Connector		Connector, cable type optional	
Repeat accuracy	≤5%			
Supply voltage	10...30V DC			
Output	Load current: ≤150mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Reverse polarity protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...100°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	PBT			

Series	LE80XZ	
Model	LE80XZ□□D□□W2-□	
Mounting	Flush	Non-flush
Detection distance	40mm	50mm
Switching frequency	100Hz	50Hz
Ensure distance	0...32mm	0...40mm
Standard target	Fe 120*120*1t	Fe 150*150*1t
Shape specification	Composite (dimensional drawing see page L04-013 for details)	
Connection	Connector, cable type optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤150mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Reverse polarity protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...100°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	PBT	

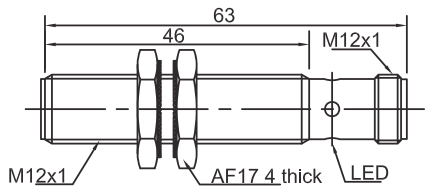


Resistant to low temperatures/Resistant to high temperatures-LR12X

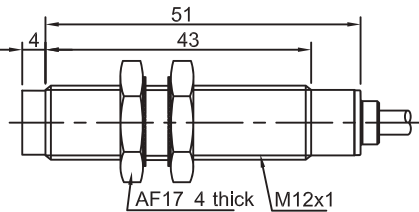
Flush—Cable



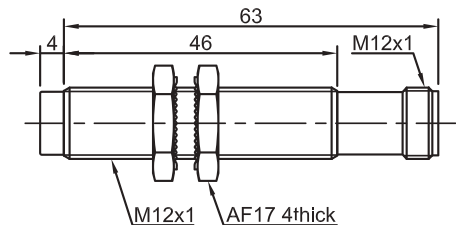
Flush—M12 Connector



Non-flush—Cable

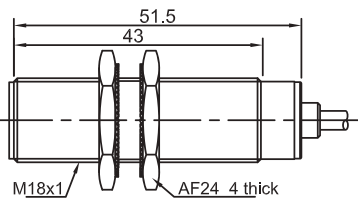


Non-flush—M12 Connector

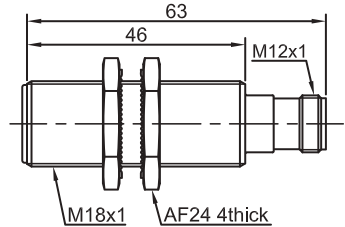


Resistant to low temperatures/Resistant to high temperatures-LR18X

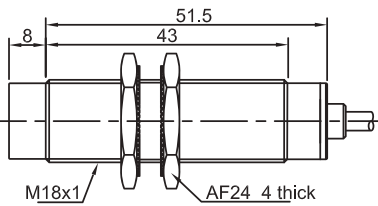
Flush—Cable



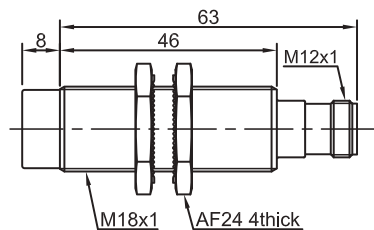
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector

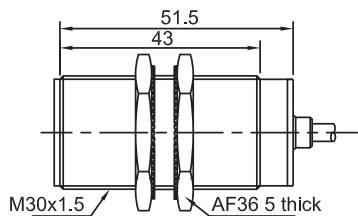


- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide

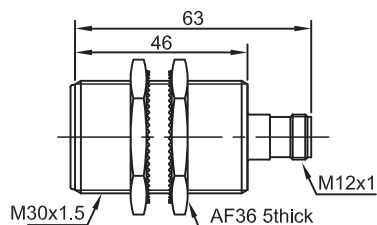


I Resistant to low temperatures/Resistant to high temperatures-LR30X

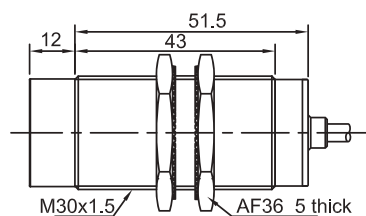
Flush—Cable



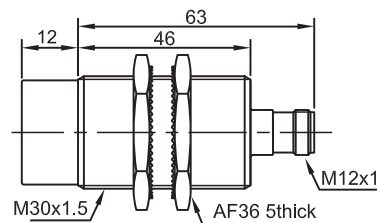
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
distance
measuring

Naming rules

Product family

Wiring diagram

Installation guide

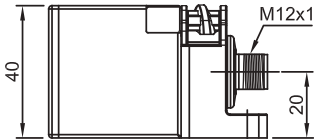
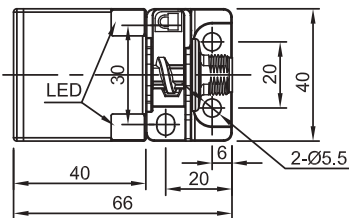
Technical guide



Official Website

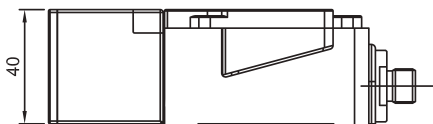
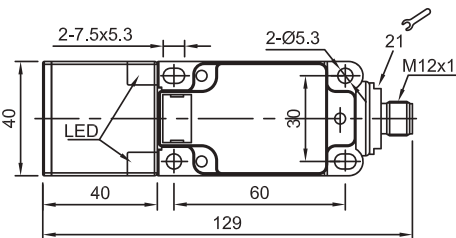
Resistant to low temperatures/Resistant to high temperatures-LE40SZ

Flush/Non-flush—M12 Connector

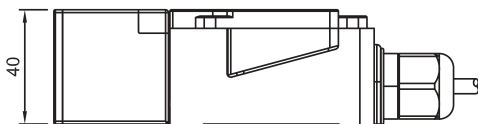
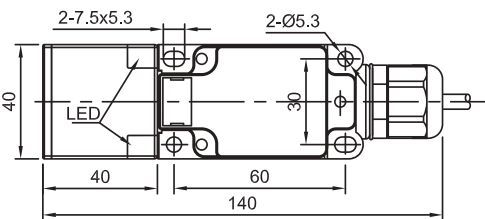


Resistant to low temperatures/Resistant to high temperatures-LE40XZ

Flush/Non-flush—M12 Connector



Flush/Non-flush—Terminal



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

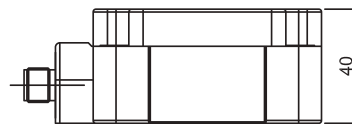
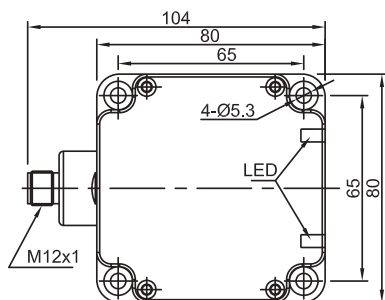
Technical guide



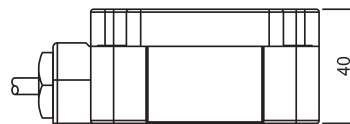
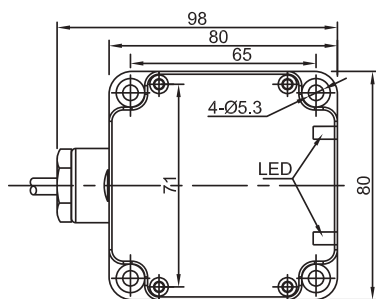
Official Website

I Resistant to low temperatures/Resistant to high temperatures-LE80XZ

Flush/Non-flush—M12 Connector



Flush/Non-flush—Terminal

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
distance
measuring

Naming rules

Product family

Wiring diagram

Installation guide

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Official Website

Inductive

Standard
cylindrical

Standard square

High protection

**Temperature
extended**

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
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Official Website

Inductive Sensors

Factor One Series



For specifications, certification, usage and model list, please scan the product QR code.



No attenuation detection

Factor 1 for all metals.

Wide range of applications

Support detection of various metal materials to meet different industrial needs.

Wide Detection Range

Extended sensing range and flexible installation.

Strong anti-interference ability

Resistant to strong magnetic field interference, passing EMC temperature test.

Application



Car battery swap station
chassis positioning detection

Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position
Analog output
Self-diagnosis
Speed monitoring
NAMUR
High pressure resistant
Inductive distance measuring

Naming rules
Product family
Wiring diagram
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Technical guide



Official Website

DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*50	Flush	2m cable	4mm	NO	LR12XBF04DNOU	LR12XBF04DPOU
					NC	LR12XBF04DNCU	LR12XBF04DPCU
	M12*1*60	Flush	Connector	4mm	NO	LR12XBF04DNOU-E2 ^②	LR12XBF04DPOU-E2 ^②
					NC	LR12XBF04DNCU-E2 ^②	LR12XBF04DPCU-E2 ^②
	M18*1*50	Flush	2m cable	8mm	NO	LR18XBF08DNOU	LR18XBF08DPOU
					NC	LR18XBF08DNCU	LR18XBF08DPCU
	M18*1*60	Flush	Connector	8mm	NO	LR18XBF08DNOU-E2 ^②	LR18XBF08DPOU-E2 ^②
					NC	LR18XBF08DNCU-E2 ^②	LR18XBF08DPCU-E2 ^②
	M30*1.5*50	Flush	2m cable	15mm	NO	LR30XBF15DNOU	LR30XBF15DPOU
					NC	LR30XBF15DNCU	LR30XBF15DPCU
	M30*1.5*60	Flush	Connector	15mm	NO	LR30XBF15DNOU-E2 ^②	LR30XBF15DPOU-E2 ^②
					NC	LR30XBF15DNCU-E2 ^②	LR30XBF15DPCU-E2 ^②

②E2:M12 4-pin connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Official Website

Inductive

I Standard distance

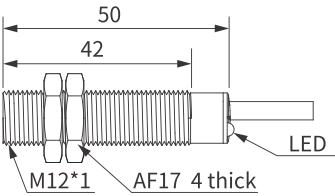
Series	LR12X	LR18X
Model	LR12XBF□D□□U-□	LR18XBF□D□□U-□
Mounting	Flush	Flush
Detection distance	4mm	8mm
Switching frequency	1000Hz	800Hz
Ensure distance	0...3.06mm	0...6.12mm
Standard target	Fe 12*12*1t	Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L05-04 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Magnetic Immunity	≥100mT	
Specific Characteristics	Attenuation coefficient: ≈1, Variation (Fe, Al, SS): < ±10%	
Output	Load current: ≤100mA; Voltage drop: ≤2V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Nickel copper alloy	

Series	LR30X
Model	LR30XBF□D□□U-□
Mounting	Flush
Detection distance	15mm
Switching frequency	500Hz
Ensure distance	0...11.47mm
Standard target	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L05-04 for details)
Connection	Cable type (standard length 2m), connector optional
Repeat accuracy	≤5%
Supply voltage	10...30V DC
Magnetic Immunity	≥100mT
Specific Characteristics	Attenuation coefficient: ≈1, Variation (Fe, Al, SS): < ±10%
Output	Load current: ≤100mA; Voltage drop: ≤2V; Leakage current: ≤0.1mA
Hysteresis	1...20%
Current consumption	≤15mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Yellow: output indication
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%
Protection degree	IP67
Housing material	Nickel copper alloy

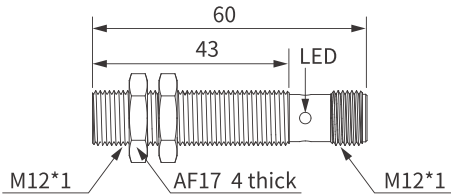


Standard distance-LR12X

Flush—Cable

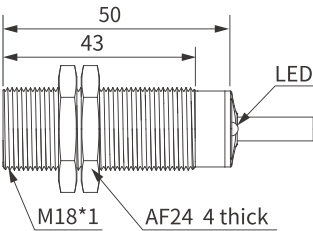


Flush—M12 Connector

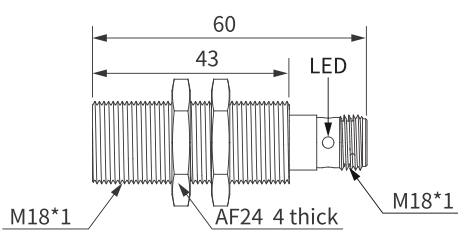


Standard distance-LR18X

Flush—Cable

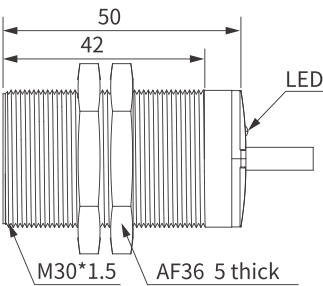


Flush—M12 Connector

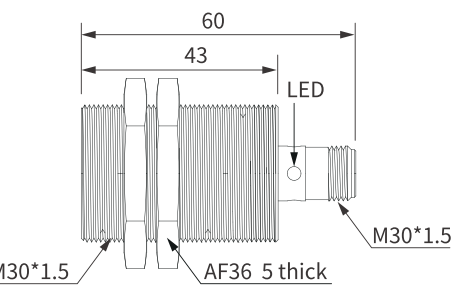


Standard distance-LR30X

Flush—Cable



Flush—M12 Connector



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Inductive Sensors

Welding Immune Series



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Anti-welding slag

High-quality teflon material to effectively prevent welding slag from sticking.

No attenuation detection

Factor 1 for all metals.

High resistance to magnetic field interference

With $\geq 100\text{mT}$ anti-magnetic field interference capability, suitable for strong magnetic field environments such as welding.

Wide operating temperature range

The operating temperature range is extended to $-40\sim 70^{\circ}\text{C}$, adapting to various extreme environments.

Application



Door welding inspection



Official Website

DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*60	Flush	Connector	4mm	NO	LR12XBF04DNOA-E2 ^②	LR12XBF04DPOA-E2 ^②
					NC	LR12XBF04DNCA-E2 ^②	LR12XBF04DPCA-E2 ^②
	M18*1*60	Flush	Connector	8mm	NO	LR18XBF08DNOA-E2 ^②	LR18XBF08DPOA-E2 ^②
					NC	LR18XBF08DNCA-E2 ^②	LR18XBF08DPCA-E2 ^②
	M30*1.5*60	Flush	Connector	15mm	NO	LR30XBF15DNOA-E2 ^②	LR30XBF15DPOA-E2 ^②
					NC	LR30XBF15DNCA-E2 ^②	LR30XBF15DPCA-E2 ^②

②E2:M12 4-pin connector

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Inductive

I Standard distance

Series	LR12X	LR18X
Model	LR12XBF□D□□A-□	LR18XBF□D□□A-□
Mounting	Flush	Flush
Detection distance	4mm	8mm
Switching frequency	800Hz	800Hz
Ensure distance	0...3.06mm	0...6.12mm
Standard target	Fe 12*12*1t	Fe 25*25*1t
Shape specification	B model (dimensional drawing see page L06-004 for details)	
Connection	Connector	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Magnetic Immunity	≥100mT	
Specific Characteristics	Attenuation coefficient: ≈1, Variation (Fe, Al, SS): < ±10%	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤20mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Brass, PTFE coating	

Series	LR30X
Model	LR30XBF□D□□A-□
Mounting	Flush
Detection distance	15mm
Switching frequency	500Hz
Ensure distance	0...11.75mm
Standard target	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L06-004 for details)
Connection	Connector
Repeat accuracy	≤5%
Supply voltage	10...30V DC
Magnetic Immunity	≥100mT
Specific Characteristics	Attenuation coefficient: ≈1, Variation (Fe, Al, SS): < ±10%
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA
Hysteresis	1...20%
Current consumption	≤20mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Yellow: output indication
Working environments	Ambient temperature: -40...70°C; Ambient humidity: 35...95%
Protection degree	IP67
Housing material	Brass, PTFE coating

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one

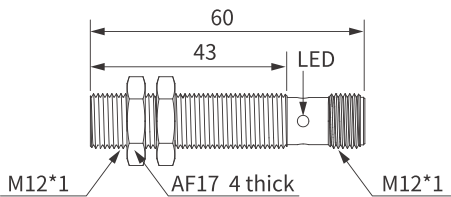
Welding immune

- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



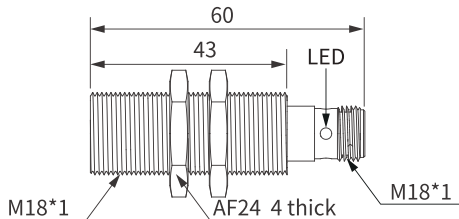
Standard distance-LR12X

Flush—M12 Connector



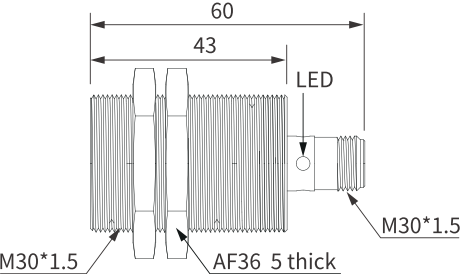
Standard distance-LR18X

Flush—M12 Connector



Standard distance-LR30X

Flush—M12 Connector



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

Inductive Sensors

Extended Distance Series



For specifications, certification, usage and model list, please scan the product QR code.



Stable performance

Lanbao ASIC technology for enhanced stability and $\pm 3\%$ repeatability.

High protection rating

With an IP67 protection degree, which can withstand.

Extended detection range

Long-range detection: up to 40 mm.

Sturdy metal case

Optional stainless steel material, resistant to corrosive oils and cooling fluids.

Application



Battery shell position detection

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Official Website

DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*61	Flush	2m cable	6mm	NO	LR12XCF06DNOY	LR12XCF06DPOY
					NC	LR12XCF06DNCY	LR12XCF06DPCY
	M12*1*69	Non-flush	2m cable	10mm	NO	LR12XCN10DNOY	LR12XCN10DPOY
					NC	LR12XCN10DNCY	LR12XCN10DPCY
	M12*1*73	Flush	Connector	6mm	NO	LR12XCF06DNOY-E2 ^②	LR12XCF06DPOY-E2 ^②
					NC	LR12XCF06DNCY-E2 ^②	LR12XCF06DPCY-E2 ^②
	M12*1*81	Non-flush	Connector	10mm	NO	LR12XCN10DNOY-E2 ^②	LR12XCN10DPOY-E2 ^②
					NC	LR12XCN10DNCY-E2 ^②	LR12XCN10DPCY-E2 ^②
	M18*1*61.5	Flush	2m cable	12mm	NO	LR18XCF12DNOY	LR18XCF12DPOY
					NC	LR18XCF12DNCY	LR18XCF12DPCY
	M18*1*73.5	Non-flush	2m cable	20mm	NO	LR18XCN20DNOY	LR18XCN20DPOY
					NC	LR18XCN20DNCY	LR18XCN20DPCY
	M18*1*73	Flush	Connector	12mm	NO	LR18XCF12DNOY-E2 ^②	LR18XCF12DPOY-E2 ^②
					NC	LR18XCF12DNCY-E2 ^②	LR18XCF12DPCY-E2 ^②
	M18*1*85	Non-flush	Connector	20mm	NO	LR18XCN20DNOY-E2 ^②	LR18XCN20DPOY-E2 ^②
					NC	LR18XCN20DNCY-E2 ^②	LR18XCN20DPCY-E2 ^②
	M30*1.5*62	Flush	2m cable	22mm	NO	LR30XCF22DNOY	LR30XCF22DPOY
					NC	LR30XCF22DNCY	LR30XCF22DPCY
	M30*1.5*77	Non-flush	2m cable	40mm	NO	LR30XCN40DNOY	LR30XCN40DPOY
					NC	LR30XCN40DNCY	LR30XCN40DPCY
	M30*1.5*73	Flush	Connector	22mm	NO	LR30XCF22DNOY-E2 ^②	LR30XCF22DPOY-E2 ^②
					NC	LR30XCF22DNCY-E2 ^②	LR30XCF22DPCY-E2 ^②
	M30*1.5*88	Non-flush	Connector	40mm	NO	LR30XCN40DNOY-E2 ^②	LR30XCN40DPOY-E2 ^②
					NC	LR30XCN40DNCY-E2 ^②	LR30XCN40DPCY-E2 ^②

②E2:M12 4-pin connector

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

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Official Website

Specification Parameter

Extended Distance Series-DC 3 wires

Extended distance

Series	LR12X		LR18X	
Model	LR12XC□□D□□Y-□		LR18XC□□D□□Y-□	
Mounting	Quasi-flush	Non-flush	Quasi-flush	Non-flush
Detection distance	6mm	10mm	12mm	20mm
Switching frequency	500Hz	300Hz	300Hz	150Hz
Ensure distance	0...4.3mm	0...7.2mm	0...8.6mm	0...14.4mm
Standard target	Fe 18*18*1t	Fe 30*30*1t	Fe 36*36*1t	Fe 60*60*1t
Shape specification	C model (dimensional drawing see page L07-004 for details)			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	≤5%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	Current consumption: ≤15mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

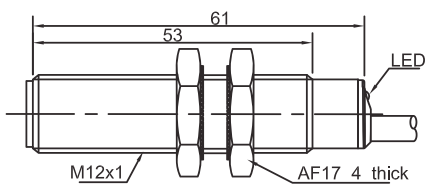
Extended distance

Series	LR30X	
Model	LR30XC□□D□□Y-□	
Mounting	Quasi-flush	Non-flush
Detection distance	22mm	40mm
Switching frequency	100Hz	50Hz
Ensure distance	0...15.8mm	0...28.8mm
Standard target	Fe 66*66*1t	Fe 120*120*1t
Shape specification	C model (dimensional drawing see page L07-005 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	Current consumption: ≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Nickel copper alloy	

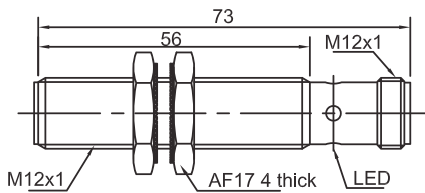


Extended distance-LR12X

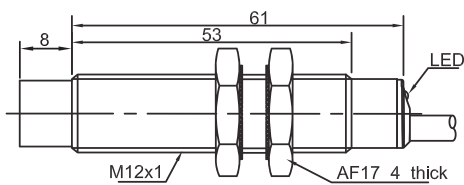
Flush/Quasi-flush—Cable



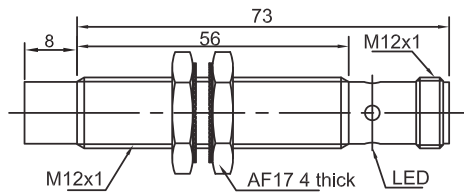
Flush/Quasi-flush—M12 Connector



Non-flush—Cable

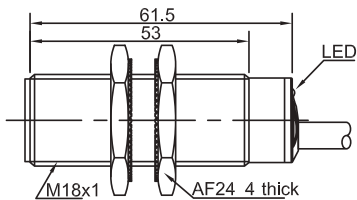


Non-flush—M12 Connector

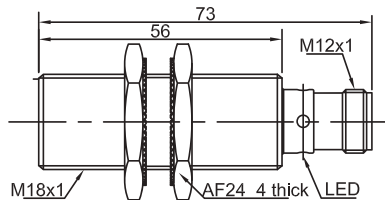


Extended distance-LR18X

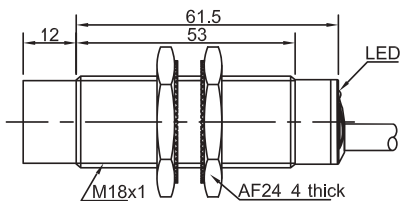
Flush—Cable



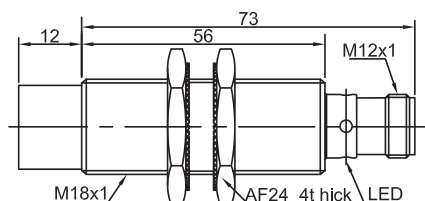
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

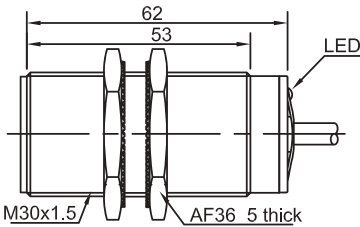
Technical guide



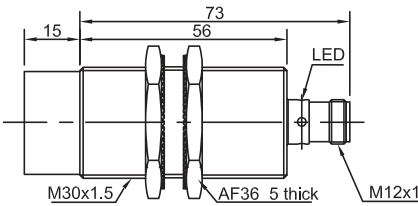
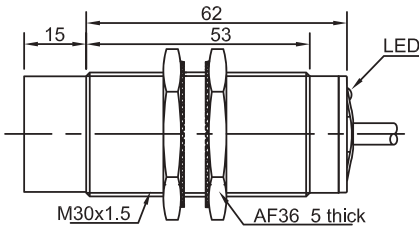
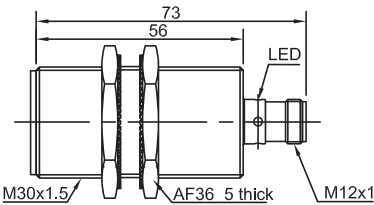
Official Website

Extended distance-LR30X

Quasi-flush—Cable



Quasi-flush—M12 Connector



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance**
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

Inductive
distance
measuring

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Official Website

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance**Full metal
housing**

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
distance
measuring

Naming rules

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Official Website

Inductive Sensors

Full Metal Housing Series



For specifications, certification, usage and model list, please scan the product QR code.



Sturdy and durable

Full 316L stainless steel design, significantly increase service life.

Excellent stability

One-piece stainless steel design: Robust and corrosion-resistant.

Stronger torque resistance

Thick and strong housing can withstand greater torque and avoid loosening due to vibration or impact.

Excellent environmental adaptability performance

Integrated design of stainless steel material, more reliable and corrosion-resistant.

Application



Double position detection of valve blocks

DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M18*1*74	Flush	Connector	5mm	NO	LR18XCF05DNOQ-E2 ^②	LR18XCF05DPOQ-E2 ^②
					NC	LR18XCF05DNCQ-E2 ^②	LR18XCF05DPCQ-E2 ^②
	M18*1*74	Non-flush	Connector	8mm	NO	LR18XCN08DNOQ-E2 ^②	LR18XCN08DPOQ-E2 ^②
					NC	LR18XCN08DNCQ-E2 ^②	LR18XCN08DPCQ-E2 ^②
	M30*1.5*74	Flush	Connector	10mm	NO	LR30XCF10DNOQ-E2 ^②	LR30XCF10DPOQ-E2 ^②
					NC	LR30XCF10DNCQ-E2 ^②	LR30XCF10DPCQ-E2 ^②
	M30*1.5*74	Non-flush	Connector	15mm	NO	LR30XCN15DNOQ-E2 ^②	LR30XCN15DPOQ-E2 ^②
					NC	LR30XCN15DNCQ-E2 ^②	LR30XCN15DPCQ-E2 ^②

②E2:M12 Four-pin Connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
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Official Website

I Standard distance

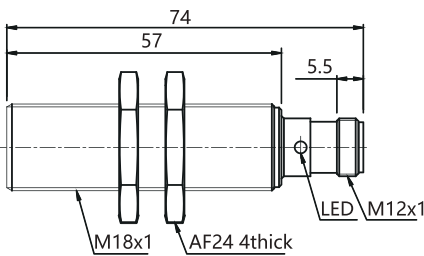
Series	LR18X	
Model	LR18XC□□D□□Q-E2	
Mounting	Flush	Non-flush
Detection distance	5mm	8mm
Switching frequency	200Hz	50Hz
Ensure distance	0...4mm	0...6.48mm
Standard target	Fe 18*18*1t	Fe 24*24*1t
Shape specification	C model (dimensional drawing see page L08-004 for details)	
Connection	Connector	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Stainless steel	

Series	LR30X	
Model	LR30XC□□D□□Q-E2	
Mounting	Flush	Non-flush
Detection distance	10mm	15mm
Switching frequency	100Hz	25Hz
Ensure distance	0...8mm	0...12.15mm
Standard target	Fe 30*30*1t	Fe 45*45*1t
Shape specification	C model (dimensional drawing see page L08-004 for details)	
Connection	Connector optional	
Repeat accuracy	≤3%	
Supply voltage	10...30V DC	
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Stainless steel	

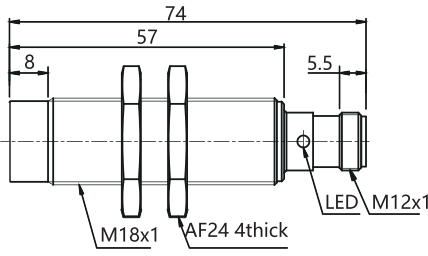


Standard distance-LR18X

Flush—M12 Connector

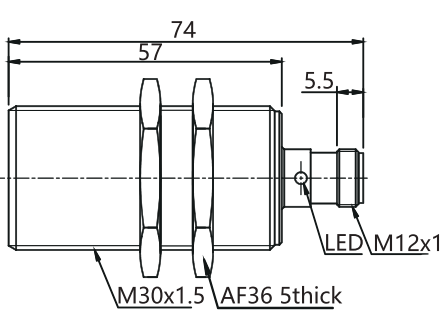


Non-flush—M12 Connector

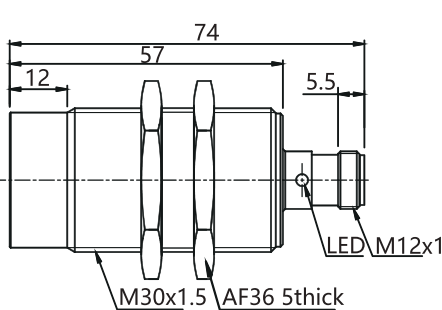


Standard distance-LR30X

Flush—M12 Connector



Non-flush—M12 Connector



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

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Official Website

Inductive Sensors

Clamp Position Series



For specifications, certification, usage and model list, please scan the product QR code.



Accurate detection

2-way detection head, dual logic output, accurate detection of clamp movement position.

Anti-magnetic interference

Anti-magnetic interference $\geq 100\text{mT}$, used in strong magnetic environments such as welding.

Flexible installation

The plug-in head can be rotated 0° , 45° , and 90° , allowing flexible wiring.

Visible working status

Adoption of three indicator lights of red, green and yellow for display.

Application



Clamp position detection

Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing

Clamp position

Analog output
Self-diagnosis
Speed monitoring
NAMUR
High pressure resistant
Inductive distance measuring

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Technical guide



Official Website

DC 4 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	Main body: 46.9*19.5*35 Detection head: 15*14*9.5	Non-flush	Connector	2mm	NO	LT18SN02DNOA-E2 1001 ^②	LT18SN02DPOA-E2 1001 ^②
							LT18SN02DPOA-E2 1002 ^②
							LT18SN02DPOA-E2 1003 ^②
	Main body: 46.9*19.5*35 Detection head: 11.1*9.4*8.8	Non-flush	Connector	2mm	NO		LT18SN02DPOA-E2 2001 ^②
							LT18SN02DPOA-E2 2002 ^②
	Main body: 46.9*19.5*35 Detection head: 16*8*4.7	Non-flush	Connector	2mm	NO	LT18SN02DPOA-E2 3001 ^②	LT18SN02DNOA-E2 3001 ^②
	Main body: 46.9*19.5*35 Detection head: 18*6.5*6	Non-flush	Connector	2mm	NO	LT18SN02DPOA-E2 4001 ^②	LT18SN02DNOA-E2 4001 ^②
	Main body: 47*18*28.5 Detection head: 14*9.5*6.5	Non-flush	Connector	2mm	NO	LT20SN02DPOA-E2 1001 ^②	LT20SN02DNOA-E2 1001 ^②

②E2:M12 4-pin connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
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- Technical guide



I Standard distance

Series	LT18
Model	LT18SN02D□OA-E2 □
Mounting	Non-flush
Detection distance	S01:2mm;S02:2mm
Switching frequency	30Hz
Ensure distance	S01:0...1.6mm;S02:0...1.6mm
Detection head wire length	100/150/200mm optional
Standard target	Fe 5*5*1t
Shape specification	Split type (dimensional drawing see page L09-004/005 for details)
Connection	Connector
Repeat accuracy	≤3%
Supply voltage	10...30V DC
Output	Load current: ≤150mA;Voltage drop: ≤2.5V;Leakage current: ≤0.1mA
Hysteresis	3...15%
Current consumption	≤20mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Output indication:S01:Yellow, S02:Red;Power Indicator:Green
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%
Protection degree	IP67
Housing material	PA66+20%GF Lampshade:PC

Series	LT20
Model	LT20SN02D□OA-E2 □
Mounting	Non-flush
Detection distance	S01:2mm;S02:2mm
Switching frequency	1000Hz
Ensure distance	S01:0...1.6mm;S02:0...1.6mm
Detection head wire length	100mm
Standard target	Fe 8*8*1t
Shape specification	Split type (dimensional drawing see page L09-006 for details)
Connection	Connector
Repeat accuracy	≤3%
Supply voltage	10...30V DC
Output	Load current: ≤150mA;Voltage drop: ≤2.5V;Leakage current: ≤0.1mA
Hysteresis	3...15%
Current consumption	≤20mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	Output indication:S01:Yellow, S02:Red;Power Indicator:Green
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%
Protection degree	IP67
Housing material	PA66+20%GF Lampshade:PC

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing

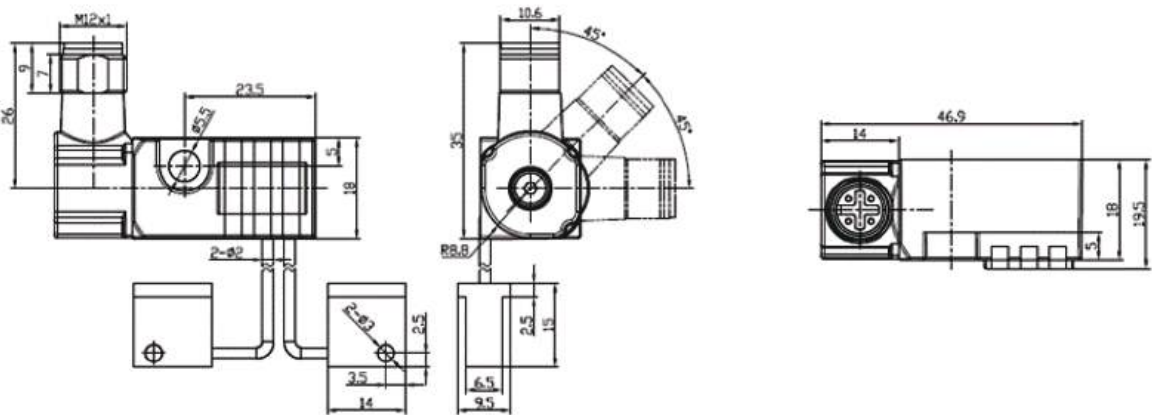
Clamp position

- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
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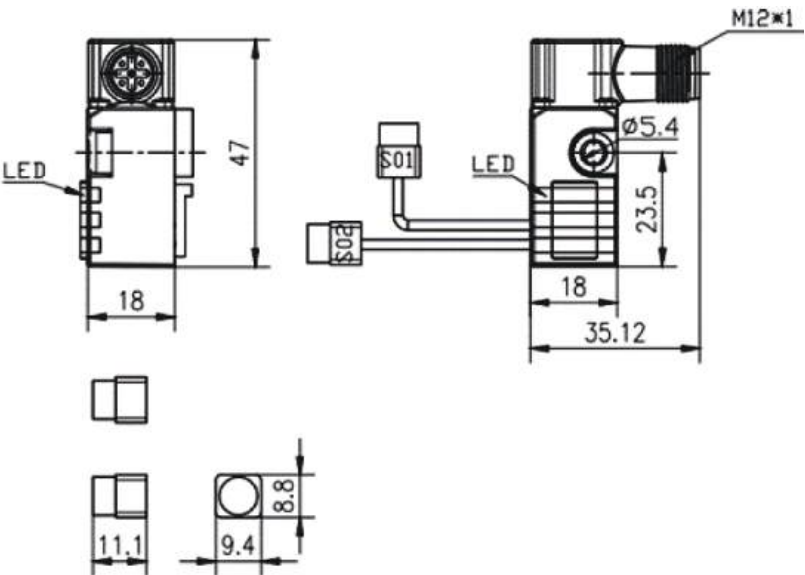


Official Website

Standard distance-LT81 100x



Standard distance-LT81 200x



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing

Clamp position

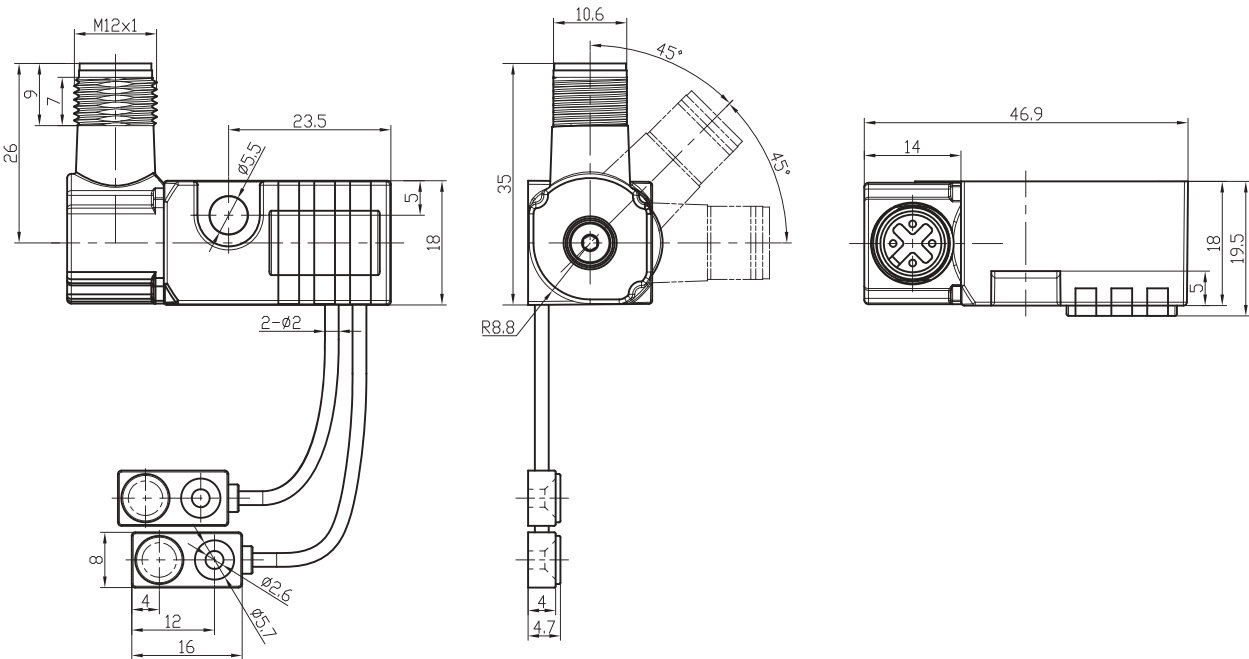
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide

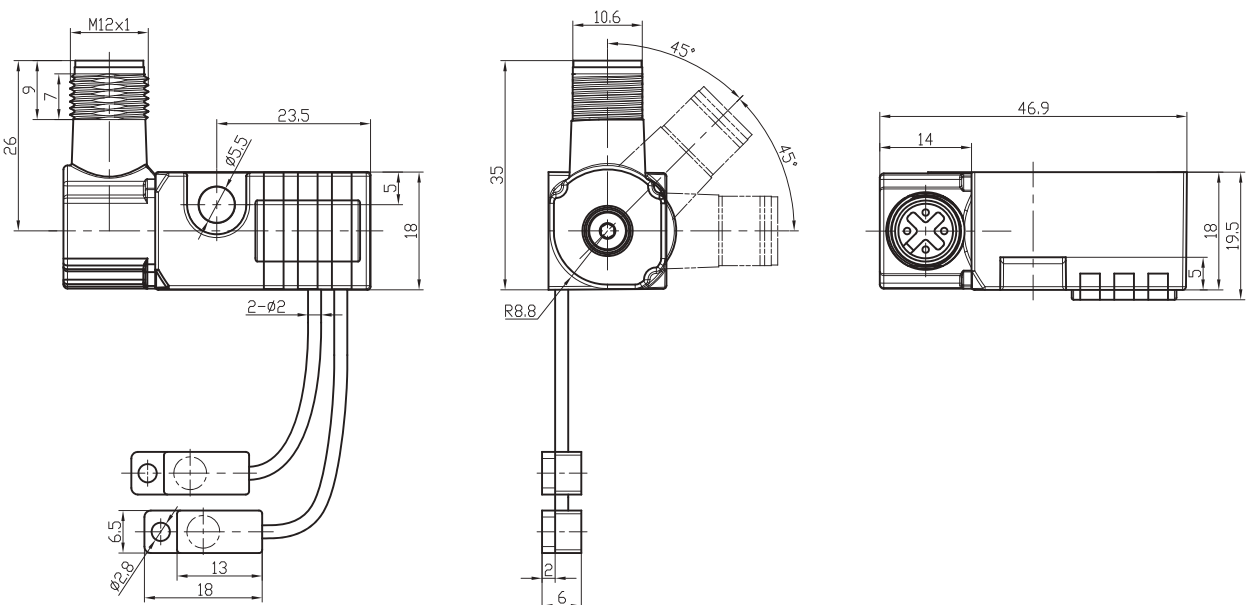


Official Website

Standard distance-LT18 3001



Standard distance-LT18 4001



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing

Clamp position

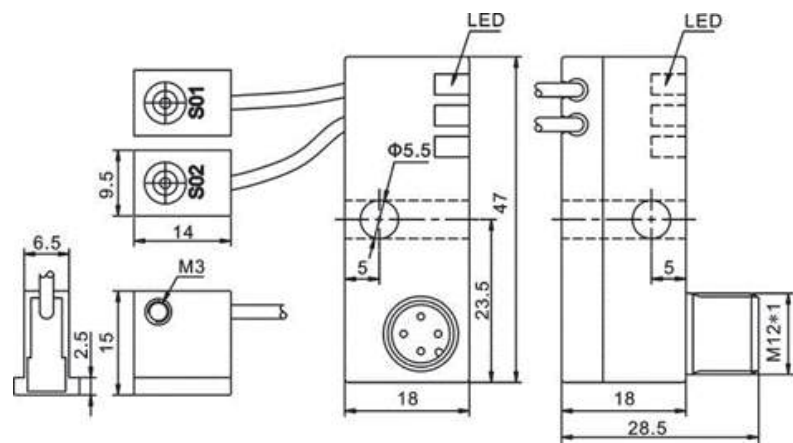
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Official Website

Standard distance-LT20



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing

Clamp position

- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
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- Wiring diagram
- Installation guide
- Technical guide



Official Website

Inductive Sensors

Analog Output Series



For specifications, certification, usage and model list, please scan the product QR code.



Various output modes

0...10V, 0...20mA, 4...20mA, 0...10V+0...20mA optional.

Good stability

High repeatability, stable and reliable.

Good linearity and high precision

Widely used in distance measurement and thickness measurement.

Excellent environmental adaptability

Small temperature drift, ensuring linear output even under extreme temperatures.

Application



Saw blade position detection

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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Wiring diagram

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Official Website

DC 3/4 wires Cylindrical

Appearance	Dimension (mm)	Mounting	Sensing distance	Model			
				0...10V	0...20mA	4...20mA	0...10V+0...20mA
	M12*1*61	Flush	0.4...2mm	LR12XBF02LUM	LR12XBF02LIM	LR12XBF02LI4M	LR12XBF02LIUM
	M12*1*65	Non-flush	0.8...4mm	LR12XBN04LUM	LR12XBN04LIM	LR12XBN04LI4M	LR12XBN04LIUM
	M12*1*73	Flush	0.4...2mm	LR12XBF02LUM-E2 ^②	LR12XBF02LIM-E2 ^②	LR12XBF02LI4M-E2 ^②	LR12XBF02LIUM-E2 ^②
	M12*1*77	Non-flush	0.8...4mm	LR12XBN04LUM-E2 ^②	LR12XBN04LIM-E2 ^②	LR12XBN04LI4M-E2 ^②	LR12XBN04LIUM-E2 ^②
	M18*1*61.5	Flush	1...5mm	LR18XBF05LUM	LR18XBF05LIM	LR18XBF05LI4M	LR18XBF05LIUM
	M18*1*69.5	Non-flush	1.6...8mm	LR18XBN08LUM	LR18XBN08LIM	LR18XBN08LI4M	LR18XBN08LIUM
	M18*1*73	Flush	1...5mm	LR18XBF05LUM-E2 ^②	LR18XBF05LIM-E2 ^②	LR18XBF05LI4M-E2 ^②	LR18XBF05LIUM-E2 ^②
	M18*1*81	Non-flush	1.6...8mm	LR18XBN08LUM-E2 ^②	LR18XBN08LIM-E2 ^②	LR18XBN08LI4M-E2 ^②	LR18XBN08LIUM-E2 ^②
	M30*1.5*62	Flush	2...10mm	LR30XBF10LUM	LR30XBF10LIM	LR30XBF10LI4M	LR30XBF10LIUM
	M30*1.5*74	Non-flush	3...15mm	LR30XBN15LUM	LR30XBN15LIM	LR30XBN15LI4M	LR30XBN15LIUM
	M30*1.5*73	Flush	2...10mm	LR30XBF10LUM-E2 ^②	LR30XBF10LIM-E2 ^②	LR30XBF10LI4M-E2 ^②	LR30XBF10LIUM-E2 ^②
	M30*1.5*85	Non-flush	3...15mm	LR30XBN15LUM-E2 ^②	LR30XBN15LIM-E2 ^②	LR30XBN15LI4M-E2 ^②	LR30XBN15LIUM-E2 ^②

②E2:M12 4-pin connector

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

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Technical guide



Official Website

DC 3/4 wires Square

Appearance	Dimension (mm)	Mounting	Sensing distance	Model			
				0...10V	0...20mA	4...20mA	0...10V+0...20mA
	66*40*40	Flush	2...10mm	LE40SZSF10LUM-E2 ^②	LE40SZSF10LIM-E2 ^②	LE40SZSF10LI4M-E2 ^②	LE40SZSF10LIUM-E2 ^②
		Non-flush	3...15mm	LE40SZSN15LUM-E2 ^②	LE40SZSN15LIM-E2 ^②	LE40SZSN15LI4M-E2 ^②	LE40SZSN15LIUM-E2 ^②
	140*40*40	Flush	2...10mm	LE40XZSF10LUM-D ^④	LE40XZSF10LIM-D ^④	LE40XZSF10LI4M-D ^④	LE40XZSF10LIUM-D ^④
		Non-flush	3...15mm	LE40XZSN15LUM-D ^④	LE40XZSN15LIM-D ^④	LE40XZSN15LI4M-D ^④	LE40XZSN15LIUM-D ^④
	129*40*40	Flush	2...10mm	LE40XZSF10LUM-E2 ^②	LE40XZSF10LIM-E2 ^②	LE40XZSF10LI4M-E2 ^②	LE40XZSF10LIUM-E2 ^②
		Non-flush	3...15mm	LE40XZSN15LUM-E2 ^②	LE40XZSN15LIM-E2 ^②	LE40XZSN15LI4M-E2 ^②	LE40XZSN15LIUM-E2 ^②
	98*80*40	Flush	8...40mm	LE80XZSF40LUM-D ^④	LE80XZSF40LIM-D ^④	LE80XZSF40LI4M-D ^④	LE80XZSF40LIUM-D ^④
		Non-flush	10...50mm	LE80XZSN50LUM-D ^④	LE80XZSN50LIM-D ^④	LE80XZSN50LI4M-D ^④	LE80XZSN50LIUM-D ^④
	104*80*40	Flush	8...40mm	LE80XZSF40LUM-E2 ^②	LE80XZSF40LIM-E2 ^②	LE80XZSF40LI4M-E2 ^②	LE80XZSF40LIUM-E2 ^②
		Non-flush	10...50mm	LE80XZSN50LUM-E2 ^②	LE80XZSN50LIM-E2 ^②	LE80XZSN50LI4M-E2 ^②	LE80XZSN50LIUM-E2 ^②

②E2:M12 4-pin connector ④D:Terminal

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Official Website

I Standard distance

Series	LR12X		LR18X	
Model	LR12XB□□L□□M-□		LR18XB□□L□□M-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	2mm	4mm	5mm	8mm
Switching frequency	200Hz	100Hz	200Hz	100Hz
Ensure distance	0.4...2mm	0.8...4mm	1...5mm	1.6...8mm
Standard target	Fe 12*12*1t		Fe 18*18*1t	Fe 24*24*1t
Shape specification	B model (dimensional drawing see page L10-006 for details)			
Output type	0-10V, 0-20mA, 4-20mA optional			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	$\leq \pm 3\%$			
Supply voltage	15...30V DC			
Load current	$\geq 4.7K\Omega$ (Voltage output), $\leq 470\Omega$ (Current output)			
Linearity	$\leq \pm 5\%$			
Current consumption	$\leq 20mA$			
Circuit protection	Reverse polarity			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

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Technical guide

Series	LR30X	
Model	LR30XB□□L□□M-□	
Mounting	Flush	Non-flush
Detection distance	10mm	15mm
Switching frequency	200Hz	100Hz
Ensure distance	2...10mm	3...15mm
Standard target	Fe 30*30*1t	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L10-007 for details)	
Output type	0-10V, 0-20mA, 4-20mA optional	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	$\leq \pm 3\%$	
Supply voltage	15...30V DC	
Load current	$\geq 4.7K\Omega$ (Voltage output), $\leq 470\Omega$ (Current output)	
Linearity	$\leq \pm 5\%$	
Current consumption	$\leq 20mA$	
Circuit protection	Reverse polarity	
Indicator	Yellow: output indication	
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%	
Protection degree	IP67	
Housing material	Nickel copper alloy	



Official Website

I Standard distance

Series	LE40SZ		LE40XZ	
Model	LE40SZS□□L□□M-□		LE40SZS□□L□□M-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	10mm	15mm	10mm	15mm
Switching frequency	100Hz	50Hz	100Hz	50Hz
Ensure distance	2...10mm	3...15mm	1...5mm	1.6...8mm
Standard target	Fe 40*40*1t	Fe 45*45*1t	Fe 40*40*1t	Fe 45*45*1t
Shape specification	Standard square (dimensional drawing see page L10-007 for details)		Standard square (dimensional drawing see page L10-008 for details)	
Output type	0-10V, 0-20mA, 4-20mA optional			
Connection	Connector		Connector, terminal optional	
Repeat accuracy	≤±3%			
Supply voltage	15...30V DC			
Load current	≥4.7KΩ (Voltage output), ≤470Ω (Current output)			
Linearity	≤±5%			
Current consumption	≤20mA			
Circuit protection	Reverse polarity			
Indicator	Yellow:output indication			
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Series	LE80XZ	
Model	LE80XZS□□L□□M-□	
Mounting	Flush	Non-flush
Detection distance	40mm	50mm
Switching frequency	80Hz	40Hz
Ensure distance	8...40mm	10...50mm
Standard target	Fe 120*120*1t	Fe 150*150*1t
Shape specification	Standard square (dimensional drawing see page L10-008 for details)	
Output type	0-10V, 0-20mA, 4-20mA optional	
Connection	Connector, terminal optional	
Repeat accuracy	≤±3%	
Supply voltage	15...30V DC	
Load current	≥4.7KΩ (Voltage output), ≤470Ω (Current output)	
Linearity	≤±5%	
Current consumption	≤20mA	
Circuit protection	Reverse polarity	
Indicator	Yellow:output indication	
Working environments	Ambient temperature:-25...70°C;Ambient humidity:35...95%	
Protection degree	IP67	
Housing material	PBT	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position

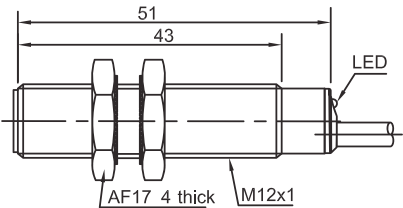
Analog output

- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide

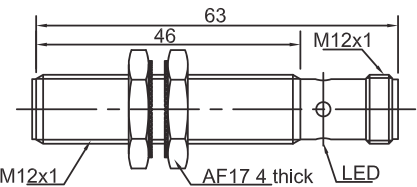


Standard distance-LR12X

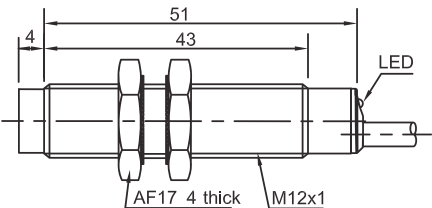
Flush—Cable



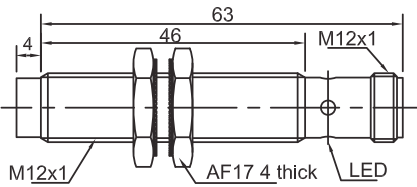
Flush—M12 Connector



Non-flush—Cable

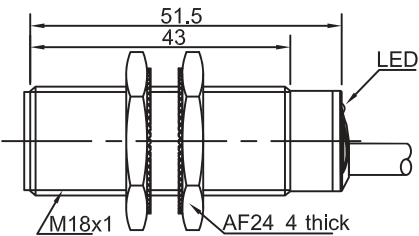


Non-flush—M12 Connector

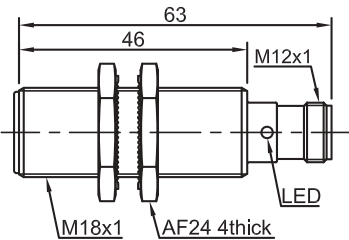


Standard distance-LR18X

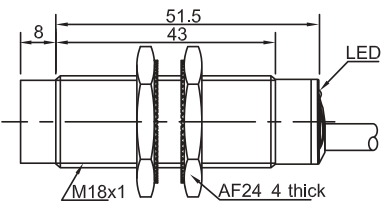
Flush—Cable



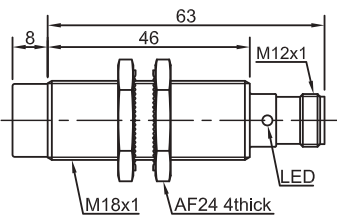
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position

Analog output

Self-diagnosis
Speed monitoring
NAMUR
High pressure resistant
Inductive distance measuring

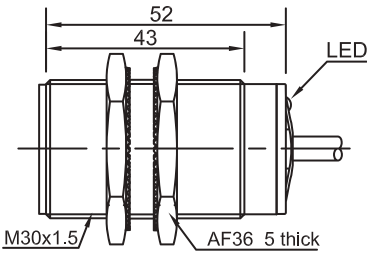
Naming rules
Product family
Wiring diagram
Installation guide
Technical guide



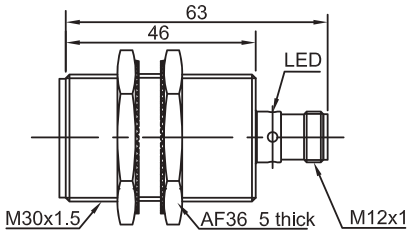
Official Website

Standard distance-LR30X

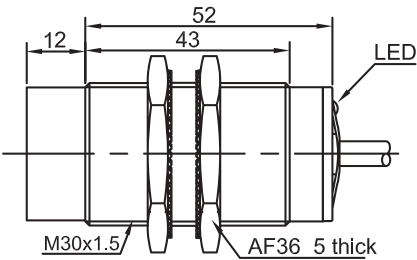
Flush—Cable



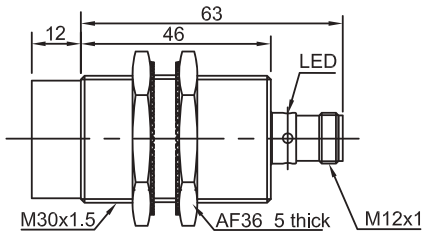
Flush—M12 Connector



Non-flush—Cable

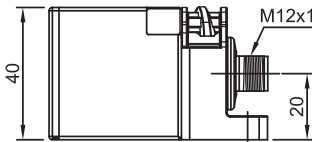
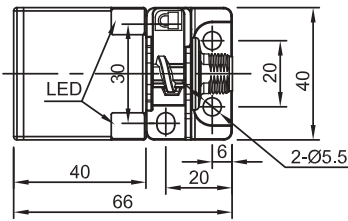


Non-flush—M12 Connector



Standard distance-LE40SZ

Flush/Non-flush—M12 Connector



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position

Analog output

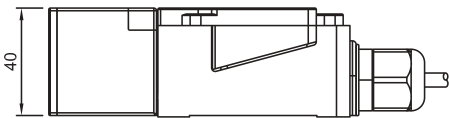
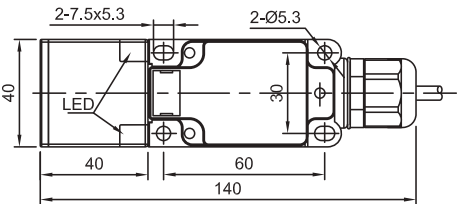
- Self-diagnosis
- Speed monitoring
- NAMUR
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- Inductive distance measuring
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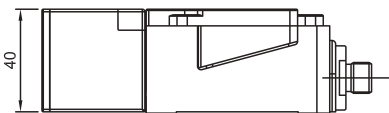
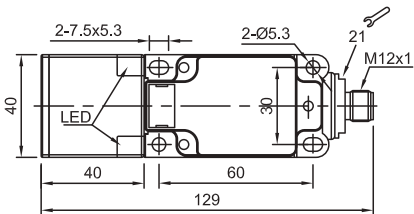
Official Website

Standard distance-LE40XZ

Flush/Non-flush—Terminal

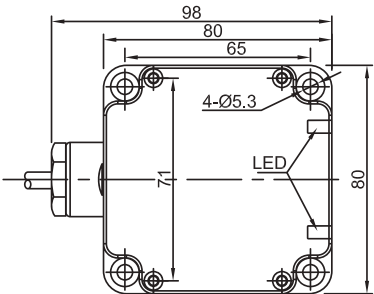


Flush/Non-flush—M12 Connector

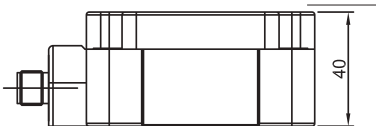
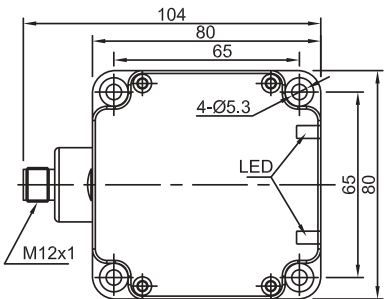


Standard distance-LE80XZ

Flush/Non-flush—Terminal



Flush/Non-flush—M12 Connector



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position

Analog output

- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Inductive Sensors

Self-Diagnosis Series



For specifications, certification, usage and model list, please scan the product QR code.



Intelligent self-diagnosis, fault warning

Fault prediction and rapid fault location to ensure production efficiency.

Various output methods

Supports multiple output modes such as PNP/NPN, NO/NC, and HERAT.

Strong anti-interference capability

Effectively resists external electromagnetic interference, ensuring stable operation even in complex environments.

Intelligent design

Monitor sensors and feedback signals through program settings.

Application



Tobacco machinery equipment operation detection

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis**
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
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- Installation guide
- Technical guide



DC 3线

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model
						PNP
	M12*1*69	Non-flush	Connector	3.7mm	NO	LR12XBN37HPOZ-E2 ^②
					NC	LR12XBN37HPCZ-E2 ^②
	M12*1*70	Non-flush	2m cable	3.7mm	NO	LR12XCN37HPOZ
					NC	LR12XCN37HPCZ
	M12*1*89	Non-flush	Connector	3.7mm	NO	LR12XDN37HPOZ-E2 ^②
					NO	LR12XDN37HPCZ-E2 ^②

②E2:M12 4-pins connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
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Official Website

Inductive

I Standard distance

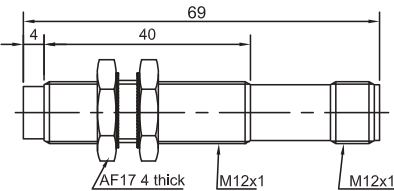
Series	LR12X
Model	LR12X□N37HP□Z-□
Mounting	Non-flush
Detection distance	3.7mm
Switching frequency	300Hz
Ensure distance	0...2.96mm
Standard target	Fe 12*12*1t
Shape specification	B、C、D model optional (dimensional drawing see page L11-004 for details)
Connection	Cable type (standard length 2m), connector optional
Repeat accuracy	≤5%
Supply voltage	20...30V DC
Output	Load current: ≤130mA; Voltage drop: ≤5V
Hysteresis	1...20%
Current consumption	≤25mA
Circuit protection	Short circuit protection, reverse polarity, overload protection
Indicator	/
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%
Protection degree	IP67
Housing material	Nickel copper alloy

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
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- NAMUR
- High pressure resistant
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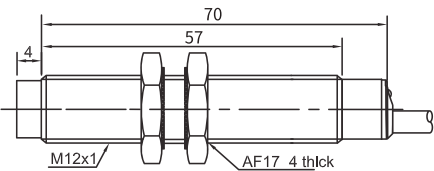
Standard distance-LR12XB

Non-flush—M12 Connector



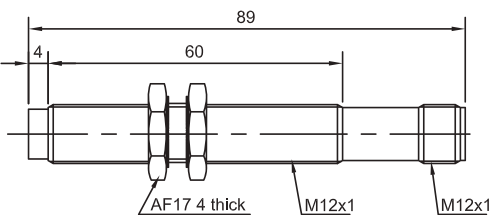
Standard distance-LR12XC

Non-flush—Cable



Standard distance-LR12XD

Non-flush—M12 Connector



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
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- Installation guide
- Technical guide



Inductive Sensors

Speed Monitoring Series



CE UK
CA

For specifications, certification, usage and model list,
please scan the product QR code.



High-precision speed measurement

Using the principle of electromagnetic induction to achieve high-precision speed measurement.

Real-time monitoring and feedback

Able to monitor the speed changes of rotating equipment in real time and provide instant feedback.

Strong anti-interference ability

Effectively resist external electromagnetic interference to ensure stable operation in complex environments.

Multi-band setting function

Customers can flexibly set the speed according to their needs.

Application



Cotton spinning machine speed detection

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring**
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M18*1*61.5	Flush	2m cable	5mm	NC	LR18XCF05DNCJ	LR18XCF05DPCJ
	M18*1*69.5	Non-flush	2m cable	8mm	NC	LR18XCN08DNCJ	LR18XCN08DPCJ
	M30*1.5*62	Flush	2m cable	10mm	NC	LR30XCF10DNCJ	LR30XCF10DPCJ
	M30*1.5*74	Non-flush	2m cable	15mm	NC	LR30XCN15DNCJ	LR30XCN15DPCJ

AC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model	
					NC	
	M18*1*61.5	Flush	2m cable	5mm	LR18XCF05ATCJ	
	M18*1*69.5	Non-flush	2m cable	8mm	LR18XCN08ATCJ	
	M30*1.5*62	Flush	2m cable	10mm	LR30XCF10ATCJ	
	M30*1.5*74	Non-flush	2m cable	15mm	LR30XCN15ATCJ	

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

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Technical guide



Official Website

I Standard distance

Series	LR18X		LR30X	
Model	LR18XC□□D□CJ		LR30XC□□D□CJ	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8 mm	10mm	15mm
Monitoring pulse	3...3000 times/min			
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	C model (dimensional drawing see page L12-005 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	10...30V DC			
Output	Load current: ≤200mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA			
Hysteresis	1...20%			
Current consumption	≤15mA			
Circuit protection	Reverse polarity			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

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Official Website

I Standard distance

Series	LR18X		LR30X	
Model	LR18XC□□ATCJ		LR30XC□□ATCJ	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8 mm	10mm	15mm
Monitoring pulse	3...1200 times/min			
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	C model (dimensional drawing see page L12-005 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	20...250V AC			
Output	Load current: ≤300mA; Voltage drop: ≤10V; Leakage current: ≤3mA			
Hysteresis	1...20%			
Current consumption	/			
Circuit protection	/			
Indicator	Yellow: output indication			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

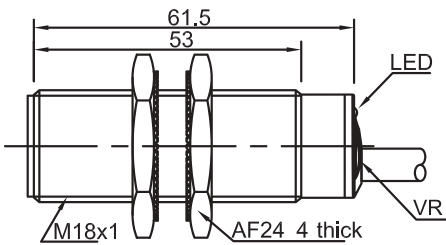
Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
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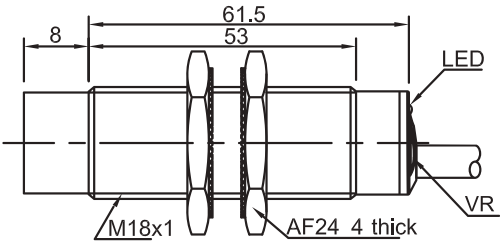


Standard distance-LR18X

Flush—Cable

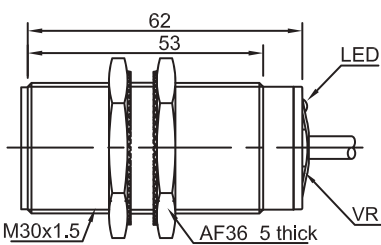


Non-flush—Cable

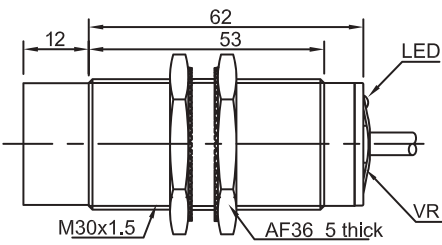


Standard distance-LR30X

Flush—Cable



Non-flush—Cable



Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

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Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

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distance
measuring

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Official Website

Inductive Sensors

NAMUR Series

**High security**

Applicable to flammable and explosive environments to ensure production safety.

High reliability

Multiple circuit protections, stable and reliable output signals.

Non-contact type, no wear

Non-contact detection, no mechanical wear, and long service life.

Equipped with a matching NAMUR switch amplifier

The NAMUR 2-wire output facilitates integration with isolated safety barriers.

Application



Pot-flower line-propellant loading operation

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring

NAMUR

- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family
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- Installation guide
- Technical guide



DC 2 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Model
					NAMUR
	M5*0.5*30	Flush	2m cable	0.8mm	LR05AF08FLCN
	M8*1*22	Flush	2m cable	1.5mm	LR08AF15FLCN
	M8*1*25	Non-flush	2m cable	2mm	LR08AN02FLCN
	M12*1*31	Flush	2m cable	2mm	LR12XAF02FLCN
	M12*1*35	Non-flush	2m cable	4mm	LR12XAN04FLCN
	M18*1*31.5	Flush	2m cable	5mm	LR18XAF05FLCN
	M18*1*39.5	Non-flush	2m cable	8mm	LR18XAN08FLCN
	M30*1.5*32	Flush	2m cable	10mm	LR30XAF10FLCN
	M30*1.5*44	Non-flush	2m cable	15mm	LR30XAN15FLCN

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR**
- High pressure resistant
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Official Website

I Standard distance

Series	LR05		
Model	LR05AF08FLCN		
Mounting	Flush		
Detection distance	0.8mm		
Switching frequency	3000Hz		
Ensure distance	0...0.64mm		
Standard target	Fe 5*5*1t		
Shape specification	A model (dimensional drawing see page L13-005 for details)		
Connection	Cable type (standard length 2m)		
Repeat accuracy	≤3%		
Supply voltage	8.2V DC		
Output current	Triggered: ≤1mA; Not triggered: ≥2.2mA		
Load impedance	≥1KΩ		
Hysteresis	1...20%		
Circuit protection	/		
Indicator	/		
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%		
Protection degree	IP67		
Housing material	Stainless steel		

Series	LR08		LR12X	
Model	LR08A□□FLCN-□		LR12XA□□FLCN-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	1.5mm	2mm	2mm	4mm
Switching frequency	2500Hz	2000Hz	2000Hz	1500Hz
Ensure distance	0...1.2mm	0...1.6mm	0...1.6mm	0...3.6mm
Standard target	Fe 8*8*1t		Fe 12*12*1t	
Shape specification	A model (dimensional drawing see page L13-005 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	8.2V DC			
Output current	Triggered: ≤1mA; Not triggered: ≥2.2mA			
Load impedance	≥1KΩ			
Hysteresis	1...20%			
Circuit protection	/			
Indicator	/			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Stainless steel		Nickel copper alloy	



I Standard distance

Series	LR18X		LR30X	
Model	LR18XA□□FLCN		LR30XA□□FLCN	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	5mm	8mm	10mm	15mm
Switching frequency	1500Hz	1000Hz	1000Hz	800Hz
Ensure distance	0...4mm	0...6.4mm	0...8mm	0...12mm
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	A model (dimensional drawing see page L13-005 for details)			
Connection	Cable type (standard length 2m)			
Repeat accuracy	≤3%			
Supply voltage	8.2V DC			
Output current	Triggered: ≤1mA; Not triggered: ≥2.2mA			
Load impedance	≥1KΩ			
Hysteresis	1...20%			
Circuit protection	/			
Indicator	/			
Working environments	Ambient temperature: -25...70°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Inductive

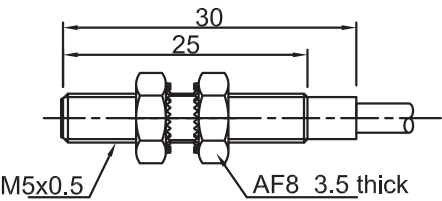
- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
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Inductive

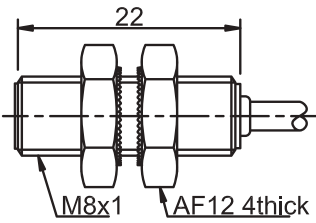
Standard distance-LR05

Flush—Cable

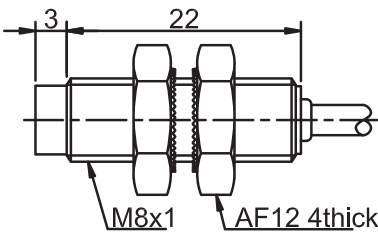


Standard distance-LR08

Flush—Cable

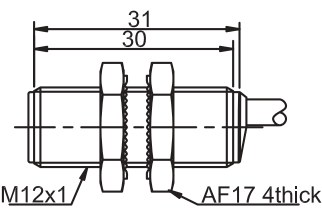


Non-flush—Cable

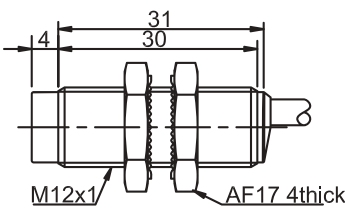


Standard distance-LR12X

Flush—Cable



Non-flush—Cable



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring

NAMUR

- High pressure resistant
- Inductive distance measuring

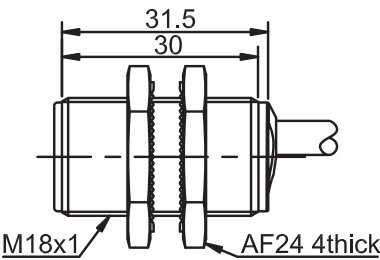
- Naming rules
- Product family
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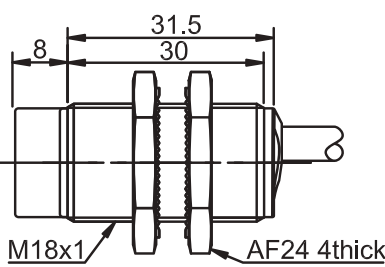
Official Website

Standard distance-LR18X

Flush—Cable

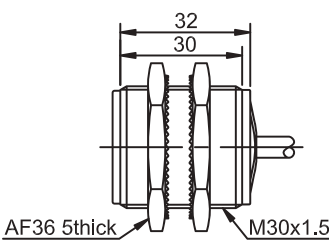


Non-flush—Cable

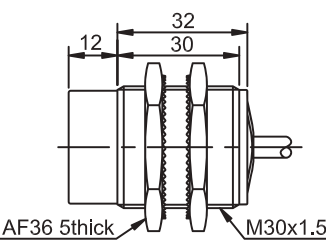


Standard distance-LR30X

Flush—Cable



Non-flush—Cable



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring

NAMUR

- High pressure resistant
- Inductive distance measuring
- Naming rules
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- Technical guide



Inductive Sensors

High Pressure Resistant Series



For specifications, certification, usage and model list, please scan the product QR code.



High pressure resistance design

Designed for high pressure environments, rated to withstand 500 bar.

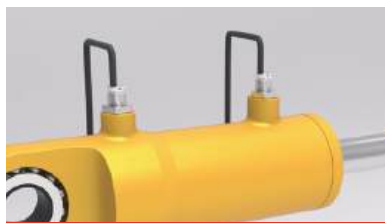
High protection

IP68 protection degree.

Sturdy and durable

Adopting integrated stainless steel housing for a more robust overall structure.

Application



Piston position detection inside cylinders

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distance

Full metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

**High pressure
resistant**

Inductive
distance
measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

DC 3 wires

Appearance	Dimension (mm)	Mounting	Connection	Sensing distance	Type	Model	
						NPN	PNP
	M12*1*62	Flush	2m cable	1.5mm	NO	LR12XBF15DNOB	LR12XBF15DPOB
					NC	LR12XBF15DNCB	LR12XBF15DPCB
	M12*1*77	Flush	Connector	1.5mm	NO	LR12XBF15DNOB-E2 ^②	LR12XBF15DPOB-E2 ^②
					NC	LR12XBF15DNCB-E2 ^②	LR12XBF15DPCB-E2 ^②
	M14*1.5*53.4	Flush	2m cable	1.5mm	NO	LR14XBF15DNOB	LR14XBF15DPOB
					NC	LR14XBF15DNCB	LR14XBF15DPCB
	M14*1.5*53.4	Flush	Connector	3mm	NO	LR14XBF03DNOB	LR14XBF03DPOB
					NC	LR14XBF03DNCB	LR14XBF03DPCB
	M14*1.5*63.4	Flush	2m cable	1.5mm	NO	LR14XBF15DNOB-E2 ^②	LR14XBF15DPOB-E2 ^②
					NC	LR14XBF15DNCB-E2 ^②	LR14XBF15DPCB-E2 ^②
	M14*1.5*63.4	Flush	Connector	3mm	NO	LR14XBF03DNOB-E2 ^②	LR14XBF03DPOB-E2 ^②
					NC	LR14XBF03DNCB-E2 ^②	LR14XBF03DPCB-E2 ^②
	M16*1*63	Flush	2m cable	2mm	NO	LR16XBF02DNOB	LR16XBF02DPOB
					NC	LR16XBF02DNCB	LR16XBF02DPCB
	M16*1*73	Flush	Connector	2mm	NO	LR16XBF02DNOB-E2 ^②	LR16XBF02DPOB-E2 ^②
					NC	LR16XBF02DNCB-E2 ^②	LR16XBF02DPCB-E2 ^②
	M18*1*58	Flush	2m cable	2mm	NO	LR18XBF02DNOB	LR18XBF02DPOB
					NC	LR18XBF02DNCB	LR18XBF02DPCB
	M18*1*74	Flush	Connector	2mm	NO	LR18XBF02DNOB-E2 ^②	LR18XBF02DPOB-E2 ^②
					NC	LR18XBF02DNCB-E2 ^②	LR18XBF02DPCB-E2 ^②

②E2:M12 4-pin connector

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

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Official Website

I Standard distance

Series	LR12X	
Model	LR12XBF15D□□B-□	
Mounting	Flush	
Detection distance	1.5mm	
Switching frequency	600Hz	
Ensure distance	0...1.2mm	
Standard target	Fe 12*12*1t	
Shape specification	B model (dimensional drawing see page L14-005 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Withstand pressure	500bar	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	/	
Working environments	Ambient temperature: -25...80°C; Ambient humidity: 35...95%	
Protection degree	IP68	
Housing material	Stainless steel	

Series	LR14X	
Model	LR14XBF□D□□B-□	
Mounting	Flush	
Detection distance	1.5mm	3mm
Switching frequency	600Hz	400Hz
Ensure distance	0...1.2mm	0...2.4mm
Standard target	Fe 12*12*1t	Fe 12*12*1t
Shape specification	B model (dimensional drawing see page L14-005 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Withstand pressure	500bar	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	/	
Working environments	Ambient temperature: -25...80°C; Ambient humidity: 35...95%	
Protection degree	IP68	
Housing material	Stainless steel	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
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I Standard distance

Series	LR16X	LR18X
Model	LR16XBF02D□□B-□	LR18XBF02D□□B-□
Mounting	Flush	Flush
Detection distance	2mm	2mm
Switching frequency	600Hz	200Hz
Ensure distance	0...1.6mm	0...1.6mm
Standard target	Fe 16*16*1t	Fe 18*18*1t
Shape specification	B model (dimensional drawing see page L14-005/006 for details)	
Connection	Cable type (standard length 2m), connector optional	
Repeat accuracy	≤5%	
Supply voltage	10...30V DC	
Output	Load current: ≤100mA; Voltage drop: ≤2.5V; Leakage current: ≤0.1mA	
Withstand pressure	500bar	
Hysteresis	1...20%	
Current consumption	≤15mA	
Circuit protection	Short circuit protection, reverse polarity, overload protection	
Indicator	/	
Working environments	Ambient temperature: -25...80°C; Ambient humidity: 35...95%	
Protection degree	IP68	
Housing material	Stainless steel	

Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
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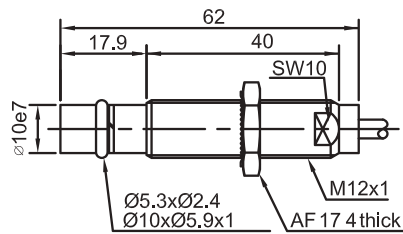
- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
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- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
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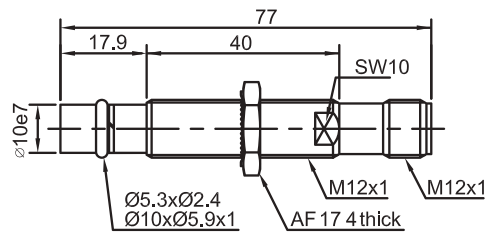


Standard distance-LR12X

Flush—Cable

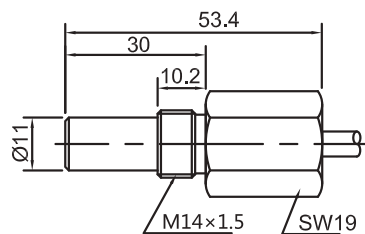


Flush—M12 Connector

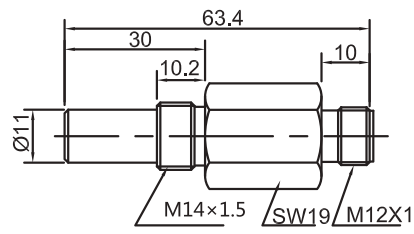


Standard distance-LR14X

Flush—Cable

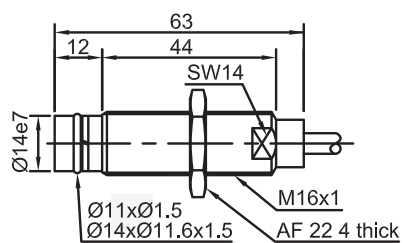


Flush—M12 Connector

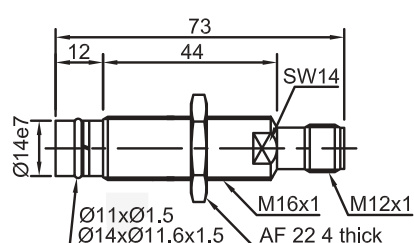


Standard distance-LR16X

Flush—Cable

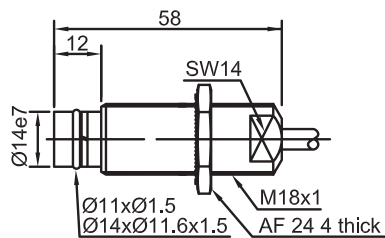


Flush—M12 Connector

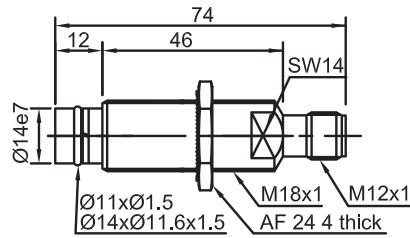


Standard distance-R18X

Flush—Cable



Flush—M12 Connector



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide



Official Website

Inductive Sensors

Inductive Distance Measuring Series



Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

High precision

The measurement accuracy reaches $\pm 1\%$, capturing minute changes with precision and delivering dependable data.

High stability

Both repeat ability and linearity are held to $\pm 1\%$, ensuring stable and reliable performance for long-term use.

Various output methods

With 4-20mA, 0-10V and digital signal output.

Application



Rotation-stability monitoring for wind-turbine hubs



Official Website

DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Repeat accuracy	Sensing distance	Type	Model	
						0...10V	4...20mA
	M18*1*50	Flush	±1%	0.5...5mm	NO	LR18XBF05LNOD	LR18XBF05LNOM
					NC	LR18XBF05LNCD	LR18XBF05LNCM
					NO	LR18XBF05LPOD	LR18XBF05LPOM
					NC	LR18XBF05LPCD	LR18XBF05LPCM
	M18*1*60	Non-flush	±1%	0.5...8mm	NO	LR18XBN08LNOD	LR18XBN08LNOM
					NC	LR18XBN08LNCD	LR18XBN08LNCM
					NO	LR18XBN08LPOD	LR18XBN08LPOM
					NC	LR18XBN08LPCD	LR18XBN08LPCM
	M18*1*65	Flush	±1%	0.5...5mm	NO	LR18XBF05LNOD-E2 ^②	LR18XBF05LNOM-E2 ^②
					NC	LR18XBF05LNCD-E2 ^②	LR18XBF05LNCM-E2 ^②
					NO	LR18XBF05LPOD-E2 ^②	LR18XBF05LPOM-E2 ^②
					NC	LR18XBF05LPCD-E2 ^②	LR18XBF05LPCM-E2 ^②
	M18*1*75	Non-flush	±1%	0.5...8mm	NO	LR18XBN08LNOD-E2 ^②	LR18XBN08LNOM-E2 ^②
					NC	LR18XBN08LNCD-E2 ^②	LR18XBN08LNCM-E2 ^②
					NO	LR18XBN08LPOD-E2 ^②	LR18XBN08LPOM-E2 ^②
					NC	LR18XBN08LPCD-E2 ^②	LR18XBN08LPCM-E2 ^②
	M18*1*50	Flush	±5%	0.5...5mm	NO	LR18BF05LNOD	LR18BF05LNOM
					NC	LR18BF05LNCD	LR18BF05LNCM
					NO	LR18BF05LPOD	LR18BF05LPOM
					NC	LR18BF05LPCD	LR18BF05LPCM
	M18*1*60	Non-flush	±5%	0.5...8mm	NO	LR18BN08LNOD	LR18BN08LNOM
					NC	LR18BN08LNCD	LR18BN08LNCM
					NO	LR18BN08LPOD	LR18BN08LPOM
					NC	LR18BN08LPCD	LR18BN08LPCM
	M18*1*65	Flush	±5%	0.5...5mm	NO	LR18BF05LNOD-E2 ^②	LR18BF05LNOM-E2 ^②
					NC	LR18BF05LNCD-E2 ^②	LR18BF05LNCM-E2 ^②
					NO	LR18BF05LPOD-E2 ^②	LR18BF05LPOM-E2 ^②
					NC	LR18BF05LPCD-E2 ^②	LR18BF05LPCM-E2 ^②
	M18*1*75	Non-flush	±5%	0.5...8mm	NO	LR18BN08LNOD-E2 ^②	LR18BN08LNOM-E2 ^②
					NC	LR18BN08LNCD-E2 ^②	LR18BN08LNCM-E2 ^②
					NO	LR18BN08LPOD-E2 ^②	LR18BN08LPOM-E2 ^②
					NC	LR18BN08LPCD-E2 ^②	LR18BN08LPCM-E2 ^②

②E2:M12 4-pin connector

Inductive

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

Wiring diagram

Installation guide

Technical guide



Official Website

DC 3/4 wires

Appearance	Dimension (mm)	Mounting	Repeat accuracy	Sensing distance	Type	Model	
						0...10V	4...20mA
	M30*1.5*50	Flush	±1%	1...10mm	NO	LR30XBF10LNOD	LR30XBF10LNOM
					NC	LR30XBF10LNCD	LR30XBF10LNCM
					NO	LR30XBF10LPOD	LR30XBF10LPOM
					NC	LR30XBF10LPCD	LR30XBF10LPCM
	M30*1.5*65	Non-flush	±1%	1...15mm	NO	LR30XBN15LNOD	LR30XBN15LNOM
					NC	LR30XBN15LNCD	LR30XBN15LNCM
					NO	LR30XBN15LPOD	LR30XBN15LPOM
					NC	LR30XBN15LPCD	LR30XBN15LPCM
	M30*1.5*65	Flush	±1%	1...10mm	NO	LR30XBF10LNOD-E2 ^②	LR30XBF10LNOM-E2 ^②
					NC	LR30XBF10LNCD-E2 ^②	LR30XBF10LNCM-E2 ^②
					NO	LR30XBF10LPOD-E2 ^②	LR30XBF10LPOM-E2 ^②
					NC	LR30XBF10LPCD-E2 ^②	LR30XBF10LPCM-E2 ^②
	M30*1.5*80	Non-flush	±1%	1...15mm	NO	LR30XBN15LNOD-E2 ^②	LR30XBN15LNOM-E2 ^②
					NC	LR30XBN15LNCD-E2 ^②	LR30XBN15LNCM-E2 ^②
					NO	LR30XBN15LPOD-E2 ^②	LR30XBN15LPOM-E2 ^②
					NC	LR30XBN15PCD-E2 ^②	LR30XBN15LPCM-E2 ^②
	M30*1.5*50	Flush	±5%	1...10mm	NO	LR30BF10LNOD	LR30BF10LNOM
					NC	LR30BF10LNCD	LR30BF10LNCM
					NO	LR30BF10LPOD	LR30BF10LPOM
					NC	LR30BF10LPCD	LR30BF10LPCM
	M30*1.5*65	Non-flush	±5%	1...15mm	NO	LR30BN15LNOD	LR30BN15LNOM
					NC	LR30BN15LNCD	LR30BN15LNCM
					NO	LR30BN15LPOD	LR30BN15LPOM
					NC	LR30BN15LPCD	LR30BN15LPCM
	M30*1.5*65	Flush	±5%	1...10mm	NO	LR30BF10LNOD-E2 ^②	LR30BF10LNOM-E2 ^②
					NC	LR30BF10LNCD-E2 ^②	LR30BF10LNCM-E2 ^②
					NO	LR30BF10LPOD-E2 ^②	LR30BF10LPOM-E2 ^②
					NC	LR30BF10LPCD-E2 ^②	LR30BF10LPCM-E2 ^②
	M30*1.5*80	Non-flush	±5%	1...15mm	NO	LR30BN15LNOD-E2 ^②	LR30BN15LNOM-E2 ^②
					NC	LR30BN15LNCD-E2 ^②	LR30BN15LNCM-E2 ^②
					NO	LR30BN15LPOD-E2 ^②	LR30BN15LPOM-E2 ^②
					NC	LR30BN15LPCD-E2 ^②	LR30BN15LPCM-E2 ^②

②E2:M12 4-pins connector



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring
- Naming rules
- Product family
- Wiring diagram
- Installation guide
- Technical guide

I Standard distance 1% accuracy

Series	LR18X		LR30X	
Model	LR18XB□□L□□□-□		LR30XB□□L□□□-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	0.5...5mm	0.8...8mm	5mm	8mm
Switching frequency	300Hz		300Hz	
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L15-005 for details)			
Output type	0-10V, 4-20mA optional			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	±1% (the range final value)			
Linear accuracy	≤1% (23±3°C the range final value)			
Supply voltage	15...30V DC			
Load resistance	≥4700Ω(Voltage output), ≤470Ω (Current output)			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V			
Current consumption	≤20mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication (The yellow LED flashe outside the measurement range)			
Working environments	Ambient temperature: -25...60°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			

Standard cylindrical

Standard square

High protection

Temperature extended

Factor one

Welding immune

Extended distance

Full metal housing

Clamp position

Analog output

Self-diagnosis

Speed monitoring

NAMUR

High pressure resistant

Inductive distance measuring

Naming rules

Product family

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Technical guide

I Standard distance 5% accuracy

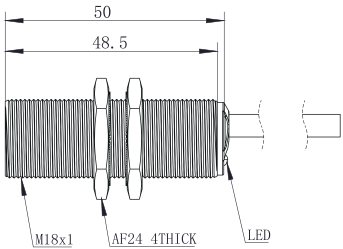
Series	LR18		LR30	
Model	LR18B□□L□□□-□		LR30B□□L□□□-□	
Mounting	Flush	Non-flush	Flush	Non-flush
Detection distance	0.5...5mm	0.8...8mm	5mm	8mm
Switching frequency	300Hz		300Hz	
Standard target	Fe 18*18*1t	Fe 24*24*1t	Fe 30*30*1t	Fe 45*45*1t
Shape specification	B model (dimensional drawing see page L15-005 for details)			
Output type	0-10V, 4-20mA optional			
Connection	Cable type (standard length 2m), connector optional			
Repeat accuracy	±5% (the range final value)			
Linear accuracy	≤1% (23±3°C the range final value)			
Supply voltage	15...30V DC			
Load resistance	≥4700Ω(Voltage output), ≤470Ω (Current output)			
Output	Load current: ≤100mA; Voltage drop: ≤2.5V			
Current consumption	≤20mA			
Circuit protection	Short circuit protection, reverse polarity, overload protection			
Indicator	Yellow: output indication (The yellow LED flashe outside the measurement range)			
Working environments	Ambient temperature: -25...60°C; Ambient humidity: 35...95%			
Protection degree	IP67			
Housing material	Nickel copper alloy			



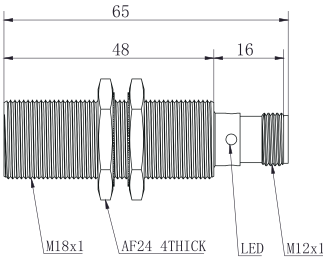
Official Website

Standard distance-LR18/LR18X

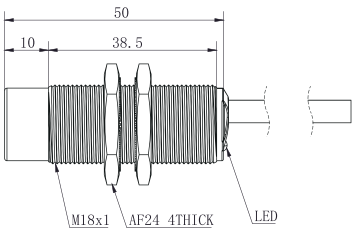
Flush—Cable



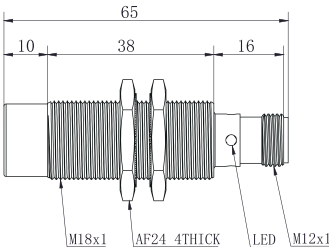
Flush—M12 Connector



Non-flush—Cable

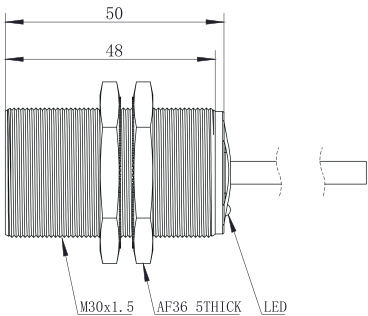


Non-flush—M12 Connector

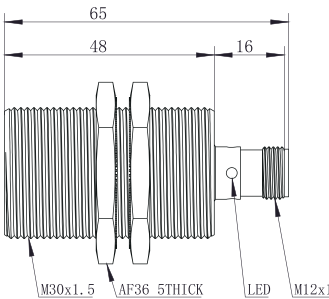


Standard distance-LR30/LR30X

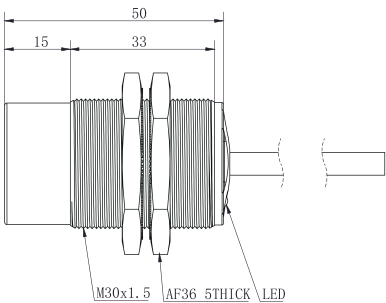
Flush—Cable



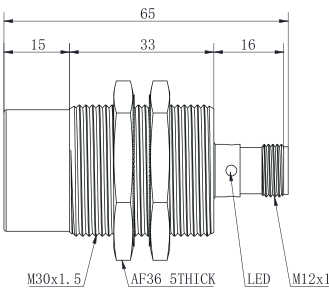
Flush—M12 Connector



Non-flush—Cable



Non-flush—M12 Connector



Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant**Inductive
distance
measuring**

Naming rules

Product family

Wiring diagram

Installation guide

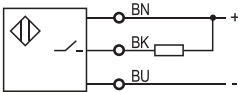
Technical guide



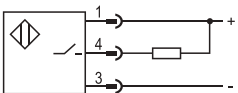
Official Website

DC 3 wires

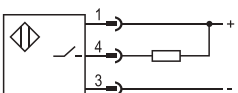
Cable
NPN NO



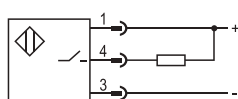
M8 connector
NPN NO



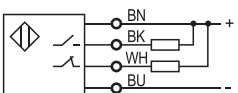
M12 connector
NPN NO



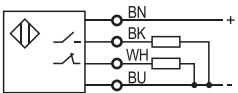
Terminal
NPN NO



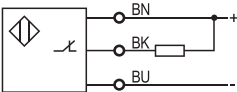
M12 connector
NPN NO+NC



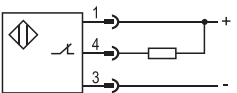
M12 connector
PNP NO+NC



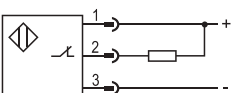
Cable
NPN NC



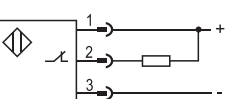
M8 connector
NPN NC



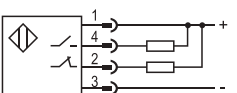
M12 connector
NPN NC



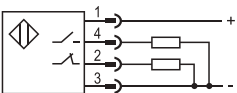
Terminal
NPN NC



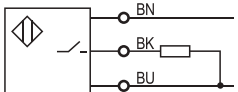
M12 connector
NPN NO+NC



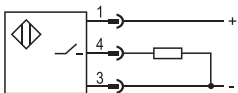
M12 connector
PNP NO+NC



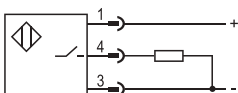
Cable
PNP NO



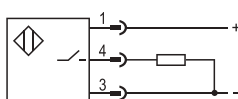
M8 connector
PNP NO



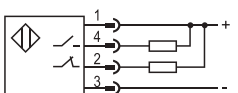
M12 connector
PNP NO



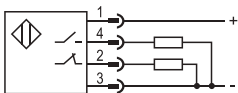
Terminal
PNP NO



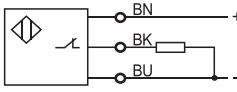
Terminal
NPN NO+NC



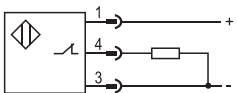
Terminal
PNP NO+NC



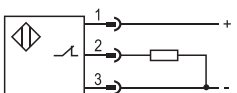
Cable
PNP NC



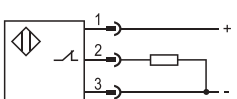
M8 connector
PNP NC



M12 connector
PNP NC

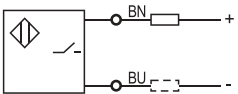


Terminal
PNP NC

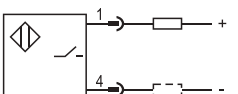


DC 2 wires

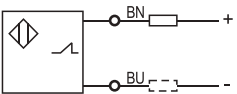
Cable
NO



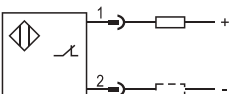
M12 connector
NO



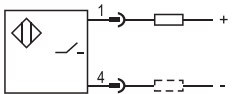
Cable
NC



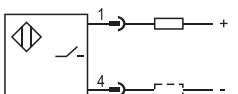
M12 connector
NC



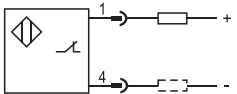
M8 connector
NO



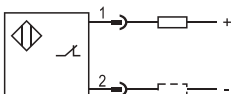
Terminal
NO



M8 connector
NC



Terminal
NC



Inductive

- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family

Wiring diagram

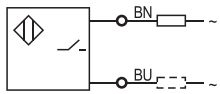
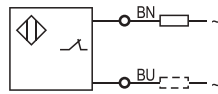
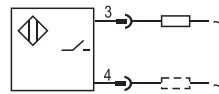
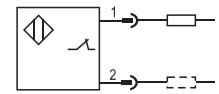
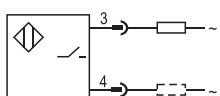
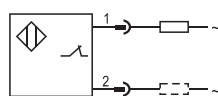
Installation guide

Technical guide

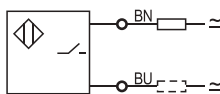
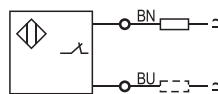
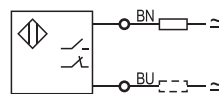
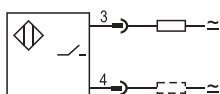
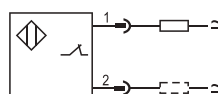
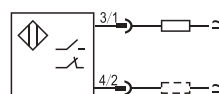
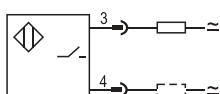
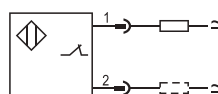
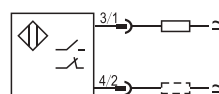


Official Website

AC 2 wires

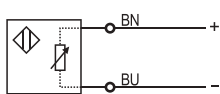
Cable
SCR NOCable
SCR NCM8 connector
SCR NOM8 connector
SCR NCTerminal
SCR NOTerminal
SCR NC

AC/DC 2 wires

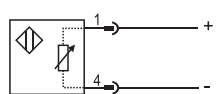
Cable
NOCable
NCCable
NO/NCM8 connector
NOM8 connector
NCM8 connector
NO/NCTerminal
NOTerminal
NCTerminal
NO/NC

NAMUR

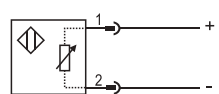
Cable



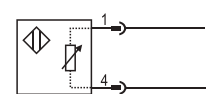
M8 connector



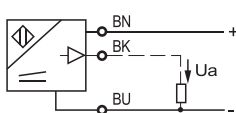
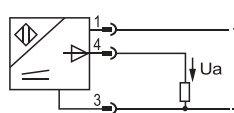
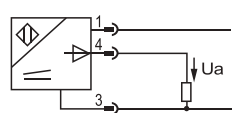
M12 connector



Terminal



Analog output

3 wires voltage output
Cable3 wires voltage output
M12 connector3 wires voltage output
Terminal

Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position
Analog output
Self-diagnosis
Speed monitoring
NAMUR
High pressure resistant
Inductive distance measuring

Naming rules

Product family

Wiring diagram

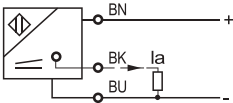
Installation guide

Technical guide

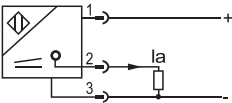


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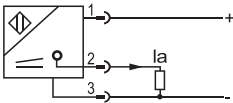
3 wires current output
Cable



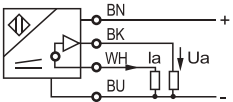
3 wires current output
M12 connector



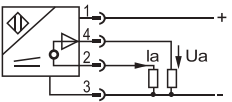
3 wires current output
Terminal



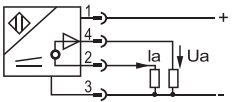
4 wires voltage/current output
Cable



4 wires voltage/current output
M12 connector



4 wires voltage/current output
Terminal



Connector

M8 connector
3-Pins



M8 connector
4-Pins



M12 connector
3-Pins



M12 connector
4-Pins



- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant
- Inductive distance measuring

- Naming rules
- Product family

Wiring diagram

Installation guide

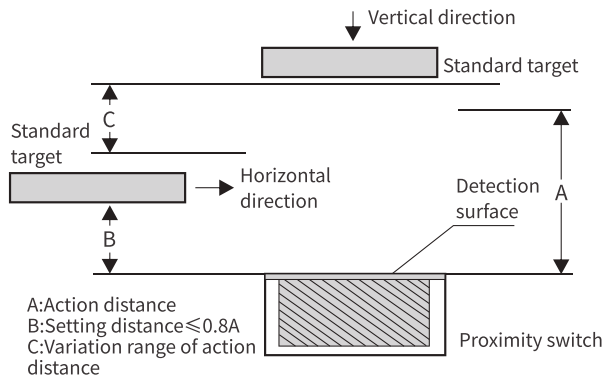
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Position setting of the detected target

The sensing distance of the sensor may vary slightly due to changes in ambient conditions such as changes in ambient temperature and voltage. Therefore, in order to make the sensor work stably, the maximum approach position of the detection body needs to be smaller than the sensing distance. When using standard detection, set the actual sensing distance to be less than 80% of the operating distance. In addition, when the shape of the target is smaller than the standard target or a target other than iron is used, since the sensing distance is shortened, the actual sensing distance must be shortened accordingly. For details, please refer to the specification.

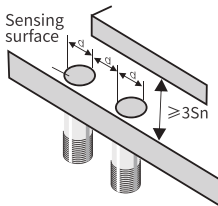


Installation for flush, quasi-flush and non-flush

According to the installation method, proximity sensors can be divided into flush, quasi-flush, and non-flush. The flush type can be embedded in the metal for use. The quasi-flush type must be installed and used at a certain distance beyond the metal surface. The non-flush type must not be embedded in metal; however, they offer a longer sensing distance than flush type.

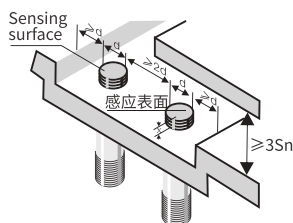
Flush mounting

The sensor can be mounted with its sensing face flush to the metal surface, the distance between the switch surface and the metal object opposite to it should be $\geq 3S_n$, and the distance between two adjacent switches must be $\geq d$.



Quasi-flush mounting

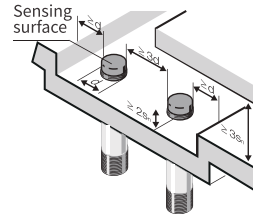
There needs to be a certain distance between the sensing surface and the mounting surface without magnetic conductive material. When this condition is met, the switching distance is effective and unlimited. Dimension "X" (see figure on the right) refers to the min distance from the sensing surface to the magnetical material below it. The distance from the surface of the switch to the opposite metal object should be $\geq 3S_n$, and the distance between two adjacent switches must be $\geq 2d$.



Note: For the "X" values of different series of products, please contact the technicians of Lanbao.

Non-flush mounting

Non-flush mounting sensor can be identified by their sensing head, the area around the non-flush sensing surfaces has no metal casing. The distance from the sensing surface to the metal mounting medium must be $\geq 2S_n$. The distance between the sensing surface and the opposite metal object must be $\geq 3S_n$, and the distance between the other two adjacent proximity switches must be $\geq 3d$.



The advantages of flush mounting inductive sensors are that they have better mechanical protection and are less sensitive to false electrical influences than non-flush mounting sensors.

Sensor connection

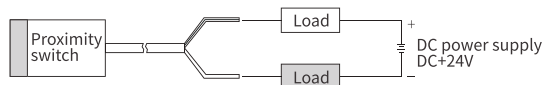
Cable
Terminal
Connector

Sensor connection notes

2 wire

Connection

Please connect the sensor cable correctly and reliably. If the wiring is wrong or unreliable, the sensor and peripheral devices will be damaged. Please refer to the right figure for the wiring method.



Cabel connection

When connecting the sensor cable, separate the cable from the power line and high-voltage line. Please absolutely avoid using the same wiring duct and the same conduit for wiring, otherwise it will cause malfunction. If the cable needs to be lengthened, please choose a cable with a cross-section of 0.3mm or more when it is less than 30m, and a cable with a conductor impedance of less than 100 Ω /km when it is more than 30m. Factors such as capacitance will distort the output waveform, please pay special attention.

Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position
Analog output
Self-diagnosis
Speed monitoring
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The logical AND, logical OR connection of sensors

In principle, 2-wire DC switching output sensors must not be wired in AND or OR. Also, they must not be connected in series with any mechanical contact.

Connection to programmable controller

The DC input module of the programmable controller can be connected to a 2-wire DC switching-output sensor, but the connection with the DC input module must be confirmed at ON and OFF before use. For example:

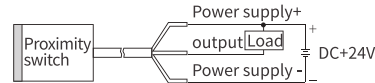
- 1, When ON
(Power supply voltage) - (operation voltage of input module) ≥ (saturation voltage of sensor) or (power supply voltage) - (minimum ON current of input module x internal impedance) ≥ (saturation voltage of sensor)
- 2, When OFF
(Minimum OFF current of input module) ≥ (Leakage current of sensor)

3 wire

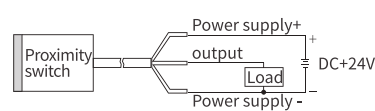
Connection

3-wire DC switching output sensor can be wired in AND or OR logic, with output NPN and PNP optional. They can drive DC loads such as power relays, solenoids, and counters.

NPN output



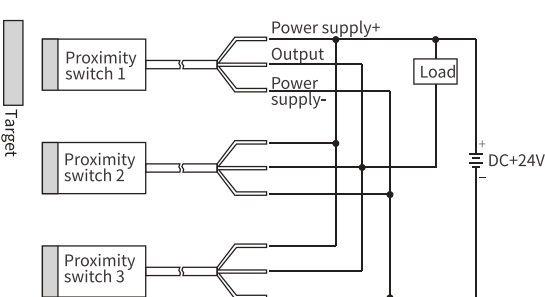
PNP output



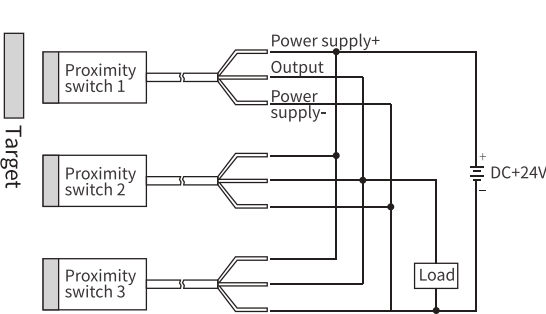
OR connection

When sensors are wired in OR logic, the load can be driven even single sensor act. The number of sensors depends on the sum of the leakage current, and as long as it does not affect the load operation, multiple connections can be made. NPN and PNP cannot be mixed.

NPN output OR connection



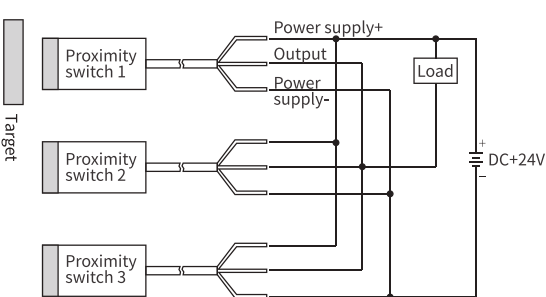
PNP output OR connection



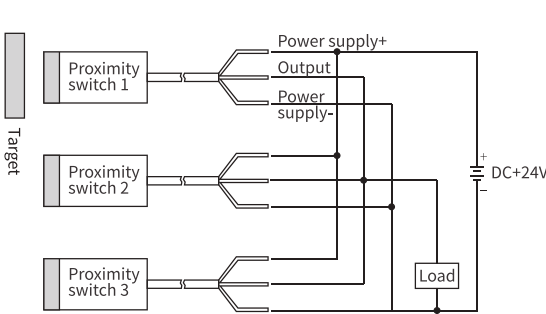
AND connection

When sensors are wired in AND logic, the load is driven only when all sensors act. The number of sensors depends on the sum of their saturation voltages. As long as it does not affect the supply voltage and load driving voltage of the sensor, multiple connections can be made. The response speed of the sensor is the sum of the initial reset of each sensor.

NPN output OR



NPN output OR

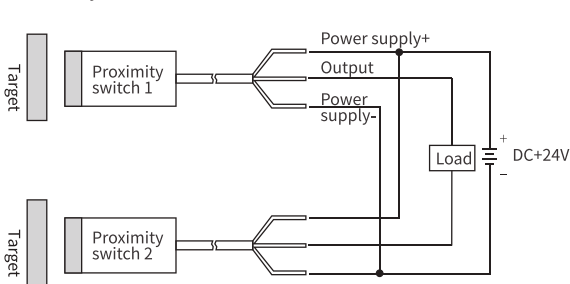


Sensor 1 : PNP output

Sensor 2: NPN output

Advantages: The saturation voltage of the sensor does not affect the voltage when the sensor operates. The action of the sensor depends on its own response speed.

NPN.PNP hybrid AND connection



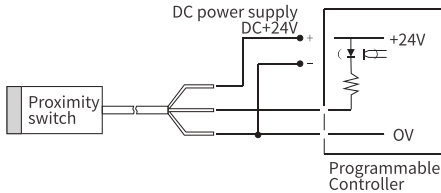
- Standard cylindrical
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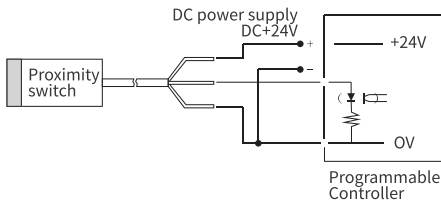
connection with programmable controller

The DC input module of the programmable controller can be connected directly to the output of a 3-wire DC-switch sensor of either NPN or PNP type. Please power the sensor from a regulated +24V DC supply.

NPN output



PNP output



Cable connection

(same as 2-wire cable connection)

Electroplating of detected target

If the surface of the detected target is plated, the operating distance will change. Especially after iron surface treatment, the action distance will be shortened by 10-30% according to the type of electroplating.

Precautions when turning the power on or off

The output state of the sensor is always OFF while the power is turned on or off, regardless of, whether it is detection or non-detection status, is OFF. In particular, when the power is turned on, the operation that the output state is turned off for a certain period of time is called initial reset. However, in the following cases, the output will be in an instant ON (OFF) state. This time is proportional to the length of the sensor's operating distance, about 10-100ms. When connecting the sensor to the counter and programmable controller, there is no problem because the counter and programmable controller have an initial reset circuit inside. In other cases, please take care to avoid the following situations.

- ❶ The detected object is located near the detection distance of the sensor.
- ❷ For DC voltage type and DC switching type sensors, when the power is turned on (off), the time constant rises (drops) significantly.
- ❸ The AC switch type sensor may be self-excited and noisy when the power is turned on (off).

Capacitor, lamp load

For both DC and AC switching-type sensors, do not connect capacitors or incandescent lamps as loads directly to their outputs. Please connect or connect a currentlimiting resistor in series through a relay.

The peak current set by the current limiting resistor R is within the load current of the sensor:

$$\frac{\text{power supply voltage } V}{\text{The maximum load current value of the proximity switch mA}} \leq R (\text{K}\Omega)$$

Allowable loss of capacitor R (w)

$$\frac{\text{power supply voltage } V^2}{R(\Omega)} \times \text{More than 2 times}$$

When the load is in parallel with the capacitor and lamp

$$\frac{\text{power supply voltage } V}{\text{The maximum load current value of the proximity switch mA}} \leq R (\text{K}\Omega)$$

Allowable loss of capacitor R (w)

$$\frac{\text{power supply voltage } V^2}{R(\Omega)} \times \text{More than 2 times}$$

Load short circuit protection

When the current exceeds two times the maximum load current of the sensor due to malfunction of the sensor, load damage, etc., the load short-circuit protection will cut off the load current and protect the output of the sensor.

Precautions for wiring checking

Do not use buzzers, lamps, or similar devices for wiring checking they can generate high voltage or current and may damage the sensor.

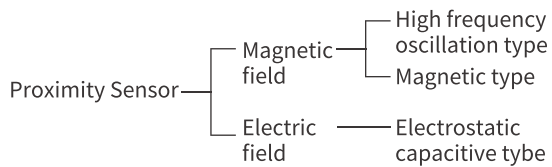
Standard cylindrical
Standard square
High protection
Temperature extended
Factor one
Welding immune
Extended distance
Full metal housing
Clamp position
Analog output
Self-diagnosis
Speed monitoring
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Concept of proximity sensor

Proximity sensor utilize their sensitivity to approaching objects to detect presenece without contact and operate a switching circuit. Among the common types, they are classified by sensing principle as high-frequency oscillation, magnetic, and electrostatic capacitive.

Principle

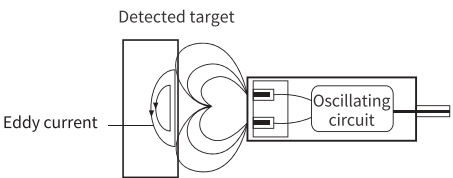


Proximity sensor features

- 1 No mechanical contact during detection, not easy to damage, no wear and little error;
- 2 Not affected by the surrounding working environment, normal detection even in harsh environments;
- 3 High detection repeatability and accurate positioning;
- 4 High response frequency, suitable for detection of fast moving objects.

Basic concepts of capacitive sensors

Inductive sensors operate on the principle of mutual inductance between metallic conductors and alternating electromagnetic fields. The detection coil at the front of the sensor generates a high-frequency magnetic field. When a metallic object approaches this magnetic field, eddy currents are induced within the metallic object, causing the magnetic field energy to attenuate. As the metallic object moves closer to the sensor's sensing surface, more energy is absorbed, leading to further attenuation. When the attenuation reaches a certain threshold, the sensor's switch is triggered to output a signal, thereby achieving the purpose of non-contact detection.



High-frequency oscillation type

Standard target

The sensing distance of proximity sensor varies with the size and material of the detected target. As the shape of the target increases, the sensing distance increases. When the volume reaches a certain value, the sensing distance no longer increases and becomes a fixed value. Usually, the smallest detection body that reaches a fixed sensing distance is called a standard detection target. The standard detection target is generally made of iron (St37), a square object with 1mm thickness, and the length of the side is the larger of the diameter of the sensing surface and 3 times the sensing distance.

Sensing distance

The sensing distance means the distance between the standard detection target and the sensing surface, for normally open, it is from OFF to ON, and for normally closed, it is from ON to OFF. The standard sensing distance is the distance between the standard detection body and the sensing surface without considering the tolerance, operating temperature, power supply voltage, etc. The effective sensing distance is the sensing distance measured by a single proximity switch under a specific installation environment, temperature and voltage, generally measured with rated working voltage and room temperature (23±5°C). The actual sensing distance is the sensing distance of a single proximity sensor under the condition of a specific temperature and supply voltage, normally the allowable ambient temperature is - 25 °C...70°C, and the input voltage is measured from 85% to 110% of the rated voltage. The reliable sensing distance refers to the distance between the action point of the proximity switch and its sensing surface after the correct action of the proximity switch under the specified conditions.

Sensing distance error

The error between the sensor's sensing distance and the standard sensing distance is generally ±10%.

Attenuation coefficient

Factors affecting the sensing distance of a sensor by the detection object: The properties of the detection object's material play an important role, which can be described by the attenuation coefficient. The attenuation coefficient refers to the reduction in the operating distance of a certain material relative to iron (St37). The smaller the attenuation coefficient, the smaller the operating distance for a specific material. For capacitive sensors, the characteristic parameter is the relative permittivity.

Material	Attenuation factor
Iron	1.0
Copper	0.25~0.45
Brass	0.35~0.50
Aluminum	0.60~1.00
Stainless steel	0.65~0.75
Nickel	0.25~0.45
Cast iron	0.93~1.05

Switch point offset

The deviation between the actual operating position of the sensor and the standard operating position.

Voltage drop

Voltage drop is the voltage measured at both ends of the sensor or at the output end when the sensor is turned on.

- Standard cylindrical
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Current consumption

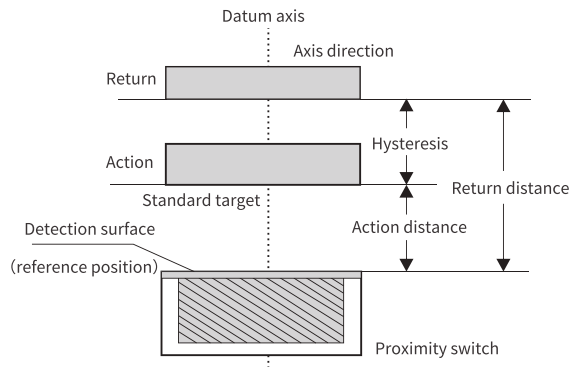
The current required for the sensor to work.

Leakage current

When the sensor is not turned on, the current remaining in its load is called leakage current.

Hysteresis

The difference between the sensing distance that triggers the sensor action when the detection body is close to the sensor sensing surface and the resetting distance when the detection body is far away.



Short circuit protection

If the limit current is exceeded, the output will be closed and released periodically until the short circuit condition is released.

Surge protection

Surge mainly refers to the instantaneous overvoltage in the circuit that exceeds the normal working voltage, which is likely to cause the circuit to burn out at the moment of the surge. Surge protection devices can effectively absorb or divert sudden bursts of energy to protect equipment from damage.

Repeated accuracy

The repeated accuracy refers to the variation of the effective working distance when the shell temperature is $(23 \pm 5)^\circ\text{C}$, the relative humidity is random, the power supply voltage is $\pm 5\%$ of the rated measurement voltage, and the measurement is performed within the range of 8 hours.

Switch frequency

The switch frequency refers to the maximum number of sensor actions per second.

Polarity protection

The protection function of the DC sensor against reverse polarity connection.

Time delay

The startup delay time is the time interval from the moment the sensor is powered on until it is ready and outputs a normal signal. Response delay is the reaction time when the sensor enters or leaves the sensing area.

Shell material

Metal	① Aluminum (die-cast aluminum alloy): Standard cut-to-form aluminum, can be anodized and used for housing and fastening parts.
	② Nickel copper alloy: copper nickel binary alloy, good mechanical properties and corrosion resistance, beautiful color.
	③ Stainless steel: good chemical resistance and strength.
Plastic	① ABS engineering plastics (Acrylonitril-Butadien-Styrol): shock-resistant, strong, with certain chemical resistance. Some models are flame retardant and can be used as housing material.
	② PA 6, PA 12 (polyamide): good mechanical strength and temperature resistance. PA12 is permitted for use in the food industry.
	③ PBT: Good mechanical strength and temperature tolerance. Some models are flame retardant with good chemical and oil resistance.
	④ PC: Transparent, hard, elastic and impact resistant, good temperature tolerance and certain chemical resistance.
	⑤ PMMA: Transparent, hard, not easy to scratch, UV ray resistant, can be used as an optical element.
	⑥ POM: Good impact resistance, mechanical strength and chemical resistance.
	⑦ PUR: Elastic, wear-resistant, impact-resistant, resistant to corrosion by oils, greases, and solvents.
	⑧ PVC: Good mechanical strength and chemical resistance.
Ceramics	High strength, chemical resistance and electrical insulation, high temperature resistance.

The metal shell is firm, and the tightening torque is large during installation. Cylindrical products have high mounting thread accuracy. The plastic material shell is economical and has good water resistance. The installation thread precision of cylindrical products is low, and the tightening torque is limited.

Standard cylindrical
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Protection degree

The IP protection degree system is drafted by IEC (INTERNATIONAL ELECTROTECHNICAL COMMISSION). Classify electrical appliances according to their dust and moisture resistance properties. The foreign objects referred to here include tools, and human fingers should not touch the live parts of the electrical appliance to avoid electric shock. The IP is composed of two numbers. The first number indicates the level of product separation from dust and foreign objects intrusion. The second number indicates the degree of airtightness of the product against moisture and water intrusion. The larger the number, the higher the protection level.

IP protection degree system

Term	Illustration																																				
Protect structure	Degree of protection from water, human body and solid foreign objects. The structure conforms to IEC (International Electrotechnical Commission) specifications. • IEC Standard IP Second digit...Protection against water intrusion The first digit...Protection against human body and solid foreign bodies • Protection level indicated by the first digit <table><tr><th>The first digit</th><th>Illustration</th></tr><tr><td>0</td><td>No protection</td></tr><tr><td>1</td><td>Prevent human hands from touching the inner charging part (Φ50mm)</td></tr><tr><td>2</td><td>Prevent human hands from touching the inner charging part (Φ12mm)</td></tr><tr><td>3</td><td>Prevent solids with thickness or diameter greater than 2.5mm from invading the internal charging part</td></tr><tr><td>4</td><td>Prevent solids with thickness or diameter greater than 1.0mm from invading the internal charging part</td></tr><tr><td>5</td><td>Prevent dust intrusion that affects operation</td></tr><tr><td>6</td><td>Completely prevent dust intrusion</td></tr></table> • Protection level indicated by the second digit <table><tr><th>Second digit</th><th>Illustration</th></tr><tr><td>0</td><td>No protection</td></tr><tr><td>1</td><td>Keep vertically falling water droplets free of harmful effects</td></tr><tr><td>2</td><td>Make water droplets falling 15° wider than vertical without harmful effects</td></tr><tr><td>3</td><td>Make water droplets falling 60° wider than vertical without harmful effects</td></tr><tr><td>4</td><td>Make water droplets splashing in any direction without harmful effects</td></tr><tr><td>5</td><td>Keep water sprayed in any direction without harmful effects</td></tr><tr><td>6</td><td>Make it impossible for water jetted in any direction to penetrate</td></tr><tr><td>7</td><td>Make it immersed in water without water intrusion under specific conditions</td></tr><tr><td>8</td><td>Can still be used when immersed in water under specified pressure</td></tr></table> Note: IEC stipulates the test methods for the above protection structures, the protection specified by the product specification Construction is determined by these tests. WARNING: Although the protective construction means that the sensor includes the cable, the end of the cable is not waterproof and is enclosed by the designated protection. Therefore, make sure that water does not penetrate from the end of the cable. No water seepage is allowed here • JEM standard IP67g Designated protection other than the IEC standard IP67 protection structure means that oil droplets or air bubbles cannot enter from any direction.	The first digit	Illustration	0	No protection	1	Prevent human hands from touching the inner charging part (Φ50mm)	2	Prevent human hands from touching the inner charging part (Φ12mm)	3	Prevent solids with thickness or diameter greater than 2.5mm from invading the internal charging part	4	Prevent solids with thickness or diameter greater than 1.0mm from invading the internal charging part	5	Prevent dust intrusion that affects operation	6	Completely prevent dust intrusion	Second digit	Illustration	0	No protection	1	Keep vertically falling water droplets free of harmful effects	2	Make water droplets falling 15° wider than vertical without harmful effects	3	Make water droplets falling 60° wider than vertical without harmful effects	4	Make water droplets splashing in any direction without harmful effects	5	Keep water sprayed in any direction without harmful effects	6	Make it impossible for water jetted in any direction to penetrate	7	Make it immersed in water without water intrusion under specific conditions	8	Can still be used when immersed in water under specified pressure
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Inductive

Standard
cylindrical

Standard square

High protection

Temperature
extended

Factor one

Welding immune

Extended
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistantInductive
distance
measuring

Naming rules

Product family

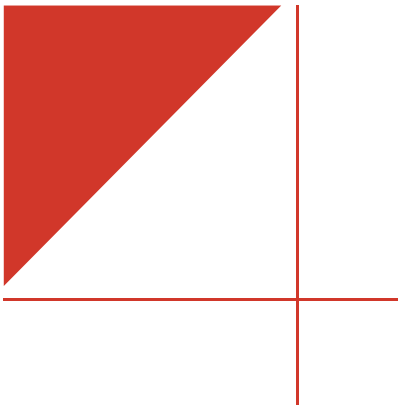
Wiring diagram

Installation guide

Technical guide



Official Website



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