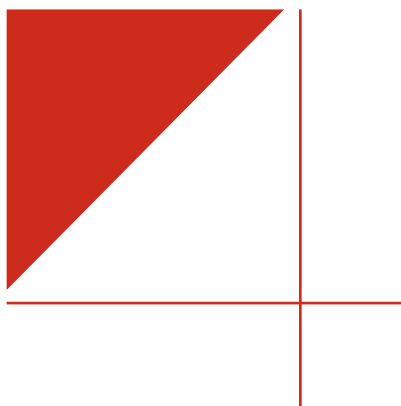




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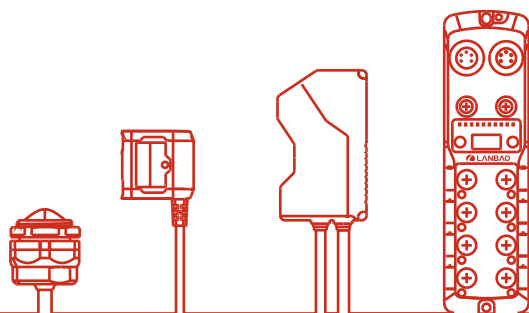
Website/URL: www.lanbaosensor.com

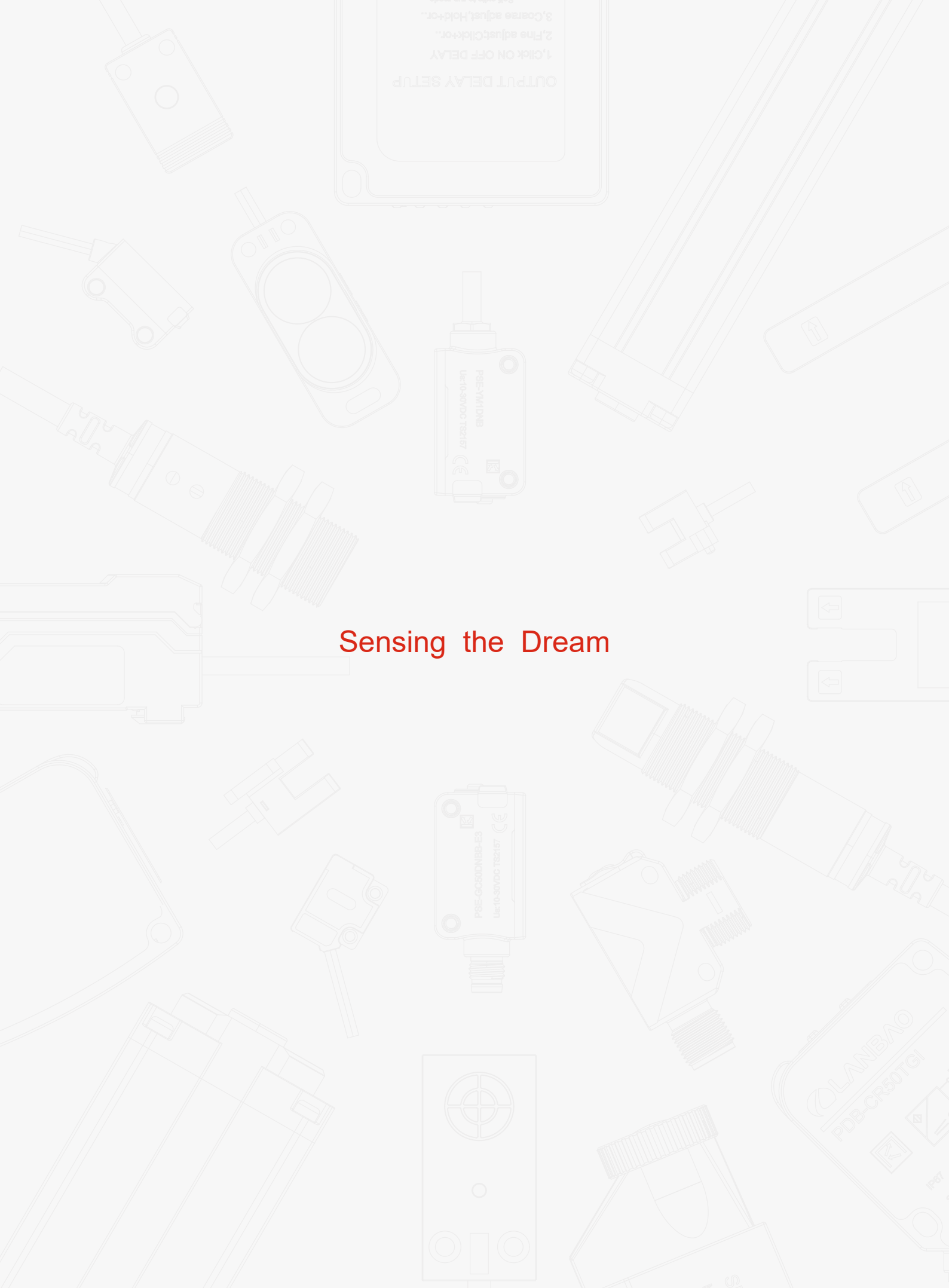
Lanbao reserves the right to make changes



PRODUCT SUMMARY

Sensing the Dream





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



CONTENTS

01

Inductive sensors

Standard function cylindrical series	A01-007	Full metal housing series	A08-001
Standard function square series	A02-001	Clamp position series	A09-001
High protection series	A03-001	Analog output series	A10-001
Temperature extended series	A04-001	Self-diagnosis series	A11-001
Factor one series	A05-001	Speed monitoring series	A12-001
Welding immune series	A06-001	NAMUR series	A13-001
Extended distance series	A07-001	High pressure resistant series	A14-001

02

Capacitive sensors

Standard function cylindrical series	B01-005	Corrosion resistant series	B05-001
Standard function square series	B02-001	Pipeline liquid level series	B06-001
Extended distance series	B03-001	High temperature material level series	B07-001
Frequency enhanced series	B04-001	Split type series	B08-001

03

Photoelectric sensors

Ultra thin series	C01-005	Fork series	C07-001
Micro square series	C02-001	Optical fiber series	C08-001
Little square series	C03-001	Color series	C09-001
Large square series	C04-001	Color mark series	C10-001
Round and square series	C05-001	Label series	C11-001
Cylindrical series	C06-001		

04

Measurement and vision sensors

Laser distance measurement series	D01-003	Ultrasonic series	D06-001
Laser displacement series	D02-001	Millimeter wave radar series	D07-001
CCD laser line diameter series	D03-002	Code reader series	D08-001
2D laser radar series	D04-001	3D laser line scanner series	D09-001
Contact displacement series	D05-001		

05

Safety and control system

Light curtain	E01-003	Encoder	E03-001
Safety door switch	E02-001	Gas Pressure Sensor	E04-001

06

Industrial network module and connection system

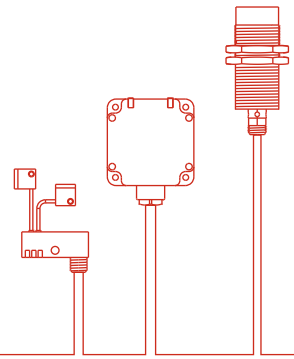
IO-LINK	F01-003	Connecting cables	F03-001
Distribution boxes	F02-001	Connectors	F04-001

07

Sensor accessories

Reflectors	Z01-001
Mounting bracket	Z02-001

01 Inductive Sensors



Product Family

Standard function cylindrical series

Industry-standard high-quality, cost-effective proximity sensors. Full range of sizes from M5 to M30.



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

Standard function square series

Industry-standard high-quality, cost-effective proximity sensors. Full range of sizes from LE05 to LE80.



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

High protection series

Suitable for construction machinery, port machinery and other industries. Protection class up to IP68. Meets high EMC standards.



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

Temperature extended series

Temperature range: -40°C ~ 180°C, for harsh environments such as outdoor and metal casting.



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

Factor one series

Applied in automotive equipment, new energy and other fields. Detection attenuation coefficient for different metals is approximately 1.



A05-01 LR12X/18X/30X

Welding immune series

Applied in strong magnetic environments such as automotive equipment. PTFE coating prevents welding slag adhesion. Detection attenuation coefficient for different metals is approximately 1.



A06-01 LR12X/18X/30X

Extended distance series

Longer sensing distance; maximum detection distance for cylindrical and square products up to 40mm and 70mm respectively.



A07-01 LR12X/18X/30X

Full metal housing series

Applied in food, chemical and other industries. Integrated stainless steel design, corrosion-resistant and impact-resistant.



A08-01 LR12X/18X/30X

Clamp position series

Dual-channel detection, widely used in automotive welding, clamp position and other stations.



A09-01 LT18/20

Analog output series

Applied in displacement measurement, thickness measurement and other fields. Linearity up to 1%. Supports various analog signal outputs.



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

Self-diagnosis series

Diagnostic output for monitoring sensor and feedback signals.



A11-01 LR12X/18X
LE25

Speed monitoring series

Widely used for monitoring over-speed or low-speed operation of equipment.



A12-01 LR18X/30X

NAMUR series

Low-voltage, low-current design, used in flammable and explosive hazardous areas such as textile, petroleum and chemical industries.



A13-01

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

High pressure resistant series

Widely used in high hydraulic and high pneumatic system fields. Integrated stainless steel design, corrosion-resistant and impact-resistant.



A14-01

LR10A/12X/14X/16/18

<u>L</u>	<u>R</u>	<u>12</u>	<u>X</u>	<u>□</u>	<u>B</u>	<u>F</u>	<u>02</u>	<u>D</u>	<u>P</u>	<u>O</u>	<u>□</u>	<u>□</u>	<u>□</u>
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
distanceFull metal
housing

Clamp position

Analog output

Self-diagnosis

Speed
monitoring

NAMUR

High pressure
resistant

Quick Selection

Shape Detection distance Series	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				

Shape Detection distance Series	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

Shape Detection distance Series	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

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

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

Shape Detection distance Series	Moun- ting	Cylindrical						Square
		LR05	LR6.5Q	LR08	LR12X	LR18X	LR30X	LE25
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	

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

Naming rules



Official Website

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

Unit:mm

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

Naming rules



Official Website

Inductive Sensors

Standard Function Cylindrical Series



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



Product features

Stable performance

Dedicated IC production, stable detection distance.

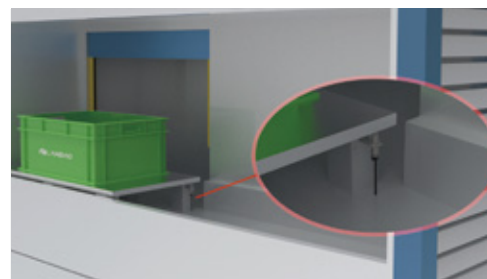
Rich product specifications

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

Multiple connection modes

With cable, M8/M12 connector.

Application



Container lifting



DC 3/4 wires

Appearance	Model	Dimension(mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR04Q	φ4*30, φ4*54	Flush	0.8mm	2000Hz	Stainless steel	NPN/PNP NO/NC	Cable / Connector
			Quasi-flush	1.5mm	1200Hz			
	LR05	M5*0.5*30 M5*0.5*40	Flush	0.8mm	2000Hz			
			Quasi-flush	1.5mm	1200Hz			
	LR6.5Q	φ6.5*40, φ6.5*43 φ6.5*49, φ6.5*52	Flush	1.5mm	2000Hz			
			Quasi-flush	2mm	1000Hz			
			Non-flush	2mm	1500Hz			
			Non-flush	4mm	800Hz			
	LR08	M8*1*40, M8*1*43 M8*1*49, M8*1*52 M8*1*65, M8*1*68	Flush	1.5mm	2000Hz	Stainless steel Nickel copper alloy		
			Quasi-flush	2mm	1000Hz			
			Non-flush	2mm	1500Hz			
			Non-flush	4mm	800Hz			
	LR12X	M12*1*51 M12*1*63	Flush	2mm	1500Hz/4000Hz	Nickel copper alloy		
			Non-flush	4mm	1000Hz/3000Hz			
	LR12F	M12*1*53 M12*1*61	Quasi-flush	4mm	800Hz			
			Non-flush	8mm	500Hz			
	LR18X	M18*1*51.5 M18*1*63	Flush	5mm	1000Hz/2000Hz			
			Non-flush	8mm	800Hz/1500Hz			
	LR18F	M18*1*53 M18*1*65	Quasi-flush	8mm	500Hz			
			Non-flush	12mm	200Hz			
	LR30X	M30*1.5*52 M30*1.5*63	Flush	10mm	500Hz			
			Non-flush	15mm	300Hz			
	LR30F	M30*1.5*54 M30*1.5*69	Quasi-flush	15mm	400Hz			
			Non-flush	22mm	150Hz			

Note: 1. The repeated accuracy of this series is $\leq 3\%$; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Model Specification

Standard Function Cylindrical Series

DC 2 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LR6.5Q	φ6.5*40, φ6.5*43 φ6.5*49, φ6.5*52	Flush	1.5mm	1000Hz	<3%	Stainless steel	NO/NC	Cable / Connector
			Non-flush	2mm	800Hz	<3%			
	LR08	M8*1*40, M8*1*43 M8*1*49, M8*1*52 M8*1*65, M8*1*68	Flush	1.5mm	1000Hz	<3%	Stainless steel Nickel copper alloy		
			Quasi-flush	2mm	1000Hz	<5%			
			Non-flush	2mm	800Hz	<3%			
			Non-flush	4mm	800Hz	<5%			
	LR12X	M12*1*51 M12*1*55 M12*1*63 M12*1*67	Flush	2mm	800Hz	<3%	Nickel copper alloy		
			Quasi-flush	4mm	800Hz	<5%			
			Non-flush	4mm	500Hz	<3%			
			Non-flush	8mm	500Hz	<5%			
	LR18X	M18*1*51.5 M18*1*59.5 M18*1*63 M18*1*71	Flush	5mm	500Hz	<3%			
			Quasi-flush	8mm	400Hz	<5%			
			Non-flush	8mm	300Hz	<3%			
			Non-flush	12mm	200Hz	<5%			
	LR30X	M30*1.5*52 M30*1.5*64 M30*1.5*63 M30*1.5*75	Flush	10mm	300Hz	<3%			
			Quasi-flush	15mm	300Hz	<5%			
			Non-flush	15mm	200Hz	<3%			
			Non-flush	22mm	150Hz	<5%			

Note: 1. The supply voltage for this series is 10...30V DC. 2. For more information, please contact Lanbao sales.

AC/DC 2 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Repeated accuracy	Housing material	Output	Connection
	LR12X	M12*1*51 M12*1*55 M12*1*63 M12*1*67	Flush	2mm	<3%	Nickel copper alloy	NO/NC	Cable / Connector
			Quasi-flush	4mm	<5%			
			Non-flush	4mm	<3%			
			Non-flush	8mm	<5%			
	LR18X	M18*1*51.5 M18*1*59.5 M18*1*63 M18*1*71	Flush	5mm	<3%			
			Quasi-flush	8mm	<5%			
			Non-flush	8mm	<3%			
			Non-flush	12mm	<5%			
	LR30X	M30*1.5*52 M30*1.5*64 M30*1.5*63 M30*1.5*75	Flush	10mm	<3%			
			Quasi-flush	15mm	<5%			
			Non-flush	15mm	<3%			
			Non-flush	22mm	<5%			

Note: 1. The switching frequency of this series is 20Hz; the supply voltage is 20...250V AC/DC. 2. For more information, please contact Lanbao sales.

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

Naming rules



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
resistant

Naming rules



Official Website

Inductive Sensors

Standard Function Square Series



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



Standard cylindrical

Standard square

Product features

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.

Application



Metal parts detection on assembly line

Model specification

DC 3/4 wires

Appearance	Model	Dimension(mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE05	25*5 *5	Flush	0.8mm	1800Hz	<3%	Aluminium alloy	NPN/PNP NO/NC	Cable / Connector
	LE81	40*8 *8	Flush	1.5mm	2000Hz	<3%			
	LE82	40*8 *8	Flush	1.5mm	2000Hz	<3%			
	LE08	7.5*8*23	Flush	2.5mm	1000Hz	<3%	PC		
	LE08X	7.5*8*23	Flush	2.5mm	1000Hz	<3%			

Note: 1. The supply voltage for this series is 10...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

DC 3/4 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE09	7.5*8*23	Non-flush	2.5mm	1000Hz	<3%	PC	NPN/PNP NO/NC	Cable / Connector
	LE11	7*12*27	Non-flush	3mm	1000Hz	<3%			
	LE12	7.1*12*27.8	Non-flush	4mm	800Hz	<3%			
	LE12X	31.8*12.5*12	Non-flush	4mm	800Hz	<3%			
				6mm					
	LE15	8*15*31.5	Flush	5mm	500Hz	<5%			
			Non-flush	8mm	300Hz				
	LE10	18*10*30	Flush	5mm	1000Hz	<3%	PBT		
			Non-flush	8mm	800Hz	<3%			
	LE16	16*28*12	Flush	2mm	1000Hz	<3%			
			Non-flush	4mm	800Hz	<3%			
	LE36	36*60*8	Flush	5mm	700Hz	<3%			
			Non-flush	8mm	500Hz	<3%			
	LE50	25*10*50	Flush	5mm	700Hz	<3%			
			Non-flush	8mm	500Hz	<3%			
	LE17	17*17*28	Flush	5mm	700Hz	<3%			
			Non-flush	8mm	500Hz	<3%			
	LE18	18*18*35	Flush	5mm	700Hz	<3%			
			Non-flush	8mm	500Hz	<3%			
	LE20	20*20*38	Flush	5mm	700Hz	<3%			
			Non-flush	8mm	500Hz	<3%			
	LE25	25*25*39	Flush	7mm	700Hz	<3%			
			Non-flush	10mm	500Hz	<3%			
	LE30	30*30*53	Flush	10mm	500Hz	<3%			
			Non-flush	15mm	300Hz	<3%			
	LE40	40*40*53	Flush	15mm	400Hz	<3%			
			Non-flush	20mm	200Hz	<3%			
	LE68	20*40*71 20*40*80	Flush	15mm	500Hz	<3%			
			Quasi-flush	22mm	200Hz	<5%			
			Non-flush	25mm	300Hz	<3%			
	LE40SZ	40*40*66	Flush	15mm	500Hz	<3%			
			Non-flush	20mm	300Hz	<3%			

Note: 1. The supply voltage for this series is 10...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Model Specification

Standard Function Square Series

DC 3/4 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE40XZ	40*40*120 40*40*129	Flush	15mm	500Hz	<3%	PBT	NPN/PNP NO/NC	Connector
			Non-flush	20mm	300Hz	<3%			
	LE80XZ	40*80*98 40*80*104	Flush	40mm	80Hz	<3%			
			Non-flush	50mm	40Hz	<3%			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

DC 2 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE05	25*5 *5	Flush	0.8mm	1500Hz	<3%	Aluminium alloy	NO/NC	Cable / Connector
	LE36	36*60*8	Flush	5mm	500Hz	<3%	PBT		
			Non-flush	8mm	500Hz	<3%			
	LE50	25*10*50	Flush	5mm	500Hz	<3%			
			Non-flush	8mm	300Hz	<3%			
	LE17	17*17*28	Flush	5mm	500Hz	<3%			
			Non-flush	8mm	300Hz	<3%			
	LE18	18*18*35	Flush	5mm	500Hz	<3%			
			Non-flush	8mm	300Hz	<3%			
	LE20	20*20*38	Flush	5mm	500Hz	<3%			
			Non-flush	8mm	300Hz	<3%			
	LE25	25*25*39	Flush	7mm	500Hz	<3%			
			Non-flush	10mm	300Hz	<3%			
	LE30	30*30*53	Flush	10mm	500Hz	<3%			
			Non-flush	15mm	300Hz	<3%			
	LE40	40*40*53	Flush	15mm	500Hz	<3%			
			Non-flush	20mm	300Hz	<3%			
	LE68	20*40*71 20*40*80	Flush	15mm	500Hz	<3%			
			Non-flush	22mm	200Hz	<3%			
			Flush	25mm	300Hz	<3%			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

Inductive

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

Naming rules



Official Website



DC 3/4 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE40SZ	40*40*66	Flush	15mm	500Hz	<3%	PBT	NO/NC	Connector
			Quasi-flush	20mm	200Hz	<3%			
			Non-flush	20mm	300Hz	<3%			
			Non-flush	40mm	100Hz	<3%			
	LE40XZ	40*40*120 40*40*129	Flush	15mm	500Hz	<3%			
			Quasi-flush	20mm	200Hz	<3%			
			Non-flush	20mm	300Hz	<3%			
			Non-flush	40mm	100Hz	<3%			
	LE80XZ	40*80*98 40*80*104	Flush	40mm	80Hz	<3%			
			Quasi-flush	50mm	50Hz	<3%			
			Non-flush	50mm	40Hz	<3%			
			Non-flush	70mm	30Hz	<3%			

Note: 1. The supply voltage for this series is 10...30V DC.
2. For more information, please contact Lanbao sales.

AC/DC 2 wires

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LE17	17*17*28	Flush	5mm	20Hz	<3%	PBT	NO/NC	Cable / Connector
			Non-flush	8mm	20Hz	<3%			
	LE18	18*18*35	Flush	5mm	20Hz	<3%			
			Non-flush	8mm	20Hz	<3%			
	LE20	20*20*38	Flush	5mm	20Hz	<3%			
			Non-flush	8mm	20Hz	<3%			
	LE25	25*25*39	Flush	7mm	20Hz	<3%			
			Non-flush	10mm	20Hz	<3%			
	LE30	30*30*53	Flush	10mm	20Hz	<3%			
			Non-flush	15mm	20Hz	<3%			
	LE40	40*40*53	Flush	15mm	20Hz	<3%			
			Non-flush	20mm	20Hz	<3%			
	LE50	25*10*50	Flush	5mm	20Hz	<3%			
			Non-flush	8mm	20Hz	<3%			
	LE68	20*40*71 20*40*80	Flush	15mm	20Hz	<3%			
			Non-flush	25mm	20Hz	<3%			
	LE40SZ	40*40*66	Flush	15mm	20Hz	<3%			
			Non-flush	20mm	20Hz	<3%			
	LE40XZ	40*40*120 40*40*129	Flush	15mm	20Hz	<3%			
			Non-flush	20mm	20Hz	<3%			
	LE80XZ	40*80*98 40*80*104	Flush	40mm	10Hz	<3%			
			Non-flush	50mm	10Hz	<3%			

Note: 1. The supply voltage for this series is 20...250V AC/DC.
2. For more information, please contact Lanbao sales.

Inductive

High Protection Series



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



Product features

- 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.

Application



Truck crane (cab return detection)

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR12E	M12*1*50 M12*1*65	Flush	4mm	800Hz	Nickel copper alloy	NPN/PNP NO/NC	Cable / Connector
			Non-flush	8mm	500Hz			
	LR18E	M18*1*50 M18*1*65	Flush	8mm	400Hz			
			Non-flush	12mm	200Hz			
	LR30E	M30*1.5*50 M30*1.5*65	Flush	15mm	300Hz			
			Non-flush	22mm	150Hz			
	LE40E	40*40*54	Flush	20mm	200Hz	PC		
			Non-flush	40mm	100Hz			

Note: 1. The temperature range for this series is -40...85°C, the repeated accuracy is ≤5%, the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.
3. IP68 test conditions: pressure 100 kPa (≈ water depth 10 m), test duration 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

Naming rules



Official Website

Inductive

Temperature Extended Series



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



Product features

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 ≤3%.

Wide application environment

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

Application



Internal position control of wind power equipment

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated Accuracy	Temperature range	Housing material	Connection
	LR12X-W	M12*1*51, M12*1*55	Flush	2mm	1500Hz	<5%	-25...120°C	Nickel copper alloy	Cable / Connector
		M12*1*63, M12*1*67	Non-flush	4mm	1000Hz				
	LR18X-W	M18*1*51.5, M18*1*59.5	Flush	5mm	1000Hz				
		M18*1*63, M18*1*71	Non-flush	8mm	800Hz				
	LR30X-W	M30*1.5*52, M30*1.5*64	Flush	10mm	500Hz				
		M30*1.5*63, M30*1.5*75	Non-flush	15mm	300Hz				

Note: 1. The supply voltage of this series is 10...30V DC; the output mode is NPN/PNP NO/NC.
2. For more information, please contact Lanbao sales.



Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Temperature range	Housing material	Connection
	LE40SZ-W2	40*40*66	Flush	15mm	300Hz	<5%	-25...100℃	PBT	Cable / Connector
			Non-flush	20mm	200Hz	<5%			
	LE40XZ-W2	40*40*120, 40*40*129	Flush	15mm	300Hz	<5%	-25...100℃		
			Non-flush	20mm	200Hz	<5%			
	LE80XZ-W2	40*80*98, 40*80*104	Flush	40mm	100Hz	<5%	-25~100℃		
			Non-flush	50mm	50Hz	<5%			
	LR30X-W4	M30*1.5*52, M30*1.5*64 M30*1.5*63, M30*1.5*75	Non-flush	15mm	100Hz	<5%	-25~180℃	Nickel copper alloy	
	LR12X-W1	M12*1*51, M12*1*55 M12*1*63, M12*1*67	Flush	2mm	1500Hz	<3%	-40~70℃		
			Non-flush	4mm	1000Hz	<3%			
	LR18X-W1	M18*1*51.5, M18*1*59.5 M18*1*63, M18*1*71	Flush	5mm	1000Hz	<3%			
			Non-flush	8mm	800Hz	<3%			
	LR30X-W1	M30*1.5*52, M30*1.5*64 M30*1.5*63, M30*1.5*75	Flush	10mm	500Hz	<3%			
			Non-flush	15mm	300Hz	<3%			
	LE40SZ-W1	40*40*66	Flush	15mm	300Hz	<3%	-40~70℃		
			Non-flush	20mm	200Hz	<3%			
	LE40XZ-W1	40*40*120, 40*40*129	Flush	15mm	300Hz	<3%	-40~70℃		
			Non-flush	20mm	200Hz	<3%			

Note: 1. The supply voltage of this series is 10...30V DC; the output mode is NPN/PNP NO/NC.

2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Inductive

Factor One Series



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



Product features

No attenuation detection

Factor 1 for all metals.

Wide range of applications

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

Strong anti-interference ability

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

Application



Car battery swap station chassis positioning detection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR12X-U	M12*1*50 M12*1*60	Flush	4mm	800Hz	Nickel copper alloy	NPN/PNP NO/NC	Cable / Connector
	LR18X-U	M18*1*50 M18*1*60	Flush	8mm	500Hz			
	LR30X-U	M30*1.5*50 M30*1.5*60	Flush	15mm	300Hz			
	LE20-U	32*20*8	Flush	8mm	250Hz	Aluminum alloy	PNP NO	

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

Inductive

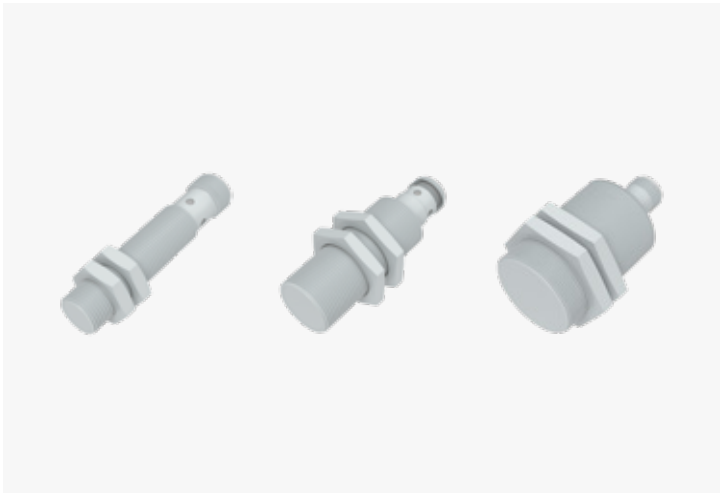
- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant

Naming rules



Official Website

Welding Immune Series



Inductive

Product features

Anti-welding slag

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

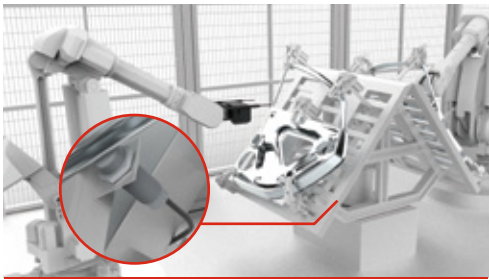
High resistance to magnetic field interference

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 $-40\sim 85^{\circ}\text{C}$, adapting to various extreme environments.

Application



Door welding inspection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR12X-A	M12*1*50 M12*1*60	Flush	4mm	800Hz	Brass+PTFE coating	NPN/PNP NO/NC	Connector
	LR18X-A	M18*1*50 M18*1*60	Quasi-flush	8mm	500Hz			
	LR30X-A	M30*1.5*50 M30*1.5*60	Quasi-flush	15mm	300Hz			

Note: 1. The repeated accuracy of this series is $\leq 3\%$; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

- 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

Naming rules



Official Website

Extended Distance Series



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



Product features

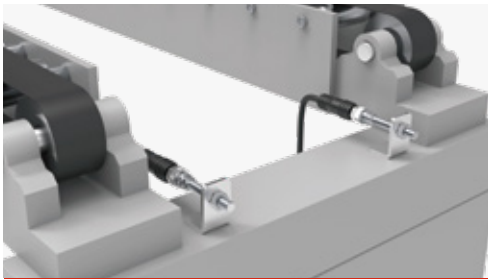
Ultra-long detection range

3 times the detection distance, up to 40mm.

Stable performance

Adopts Lanbao ASIC technology for more stable performance, with repeat accuracy up to 3%.

Application



Battery shell position detection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR12X-Y	M12*1*51,M12*1*55, M12*1*63,M12*1*67 M12*1*61,M12*1*65, M12*1*73,M12*1*77	flush	6mm	500Hz	Nickel copper alloy	NPN/PNP NO/NC	Cable / Connector
			Non-flush	10mm	300Hz			
	LR18X-Y	M18*1*51.5,M18*1*59.5, M18*1*63,M18*1*71 M18*1*61.5,M18*1*69.5, M18*1*73,M18*1*81	Quasi-flush	12mm	300Hz			
			Non-flush	20mm	150Hz			
	LR30X-Y	M30*1.5*52,M30*1.5*64, M30*1.5*63,M30*1.5*75 M30*1.5*62,M30*1.5*74, M30*1.5*73,M30*1.5*85	Quasi-flush	22mm	100Hz			
			Non-flush	40mm	50Hz			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.



- 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

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LE40SZ-Y	40*40*66	Quasi-flush	20mm	200Hz	PBT	NPN/PNP NO/NC	Cable / Connector
			Non-flush	40mm	100Hz			
	LE40XZ-Y	40*40*129 40*40*140	Quasi-flush	20mm	200Hz			
			Non-flush	40mm	100Hz			
	LE80XZ-Y	40*80*98 40*80*104	Quasi-flush	50mm	50Hz			
			Non-flush	70mm	30Hz			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Inductive

Full Metal Housing Series



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



Product features

- Sturdy and durable**
Full 316L stainless steel design, significantly increase service life.
- Stronger torque resistance**
Thick and strong housing can withstand greater torque and avoid loosening due to vibration or impact.
- Good stability**
Integrated design of stainless steel material, more reliable and corrosion-resistant.

Application



Double position detection of valve blocks

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Repeated accuracy	Housing material	Output	Connection
	LR12X-Q	M12*1*74	Flush	2mm	100Hz	≤3%	316L stainless steel	NPN/PNP NO/NC	Cable / Connector
			Non-flush	4mm	100Hz	≤3%			
	LR18X-Q	M18*1*74	Flush	5mm	50Hz	≤3%			
			Non-flush	8mm	50Hz	≤3%			
	LR30X-Q	M30*1*74	Flush	10mm	50Hz	≤5%			
			Non-flush	15mm	25Hz	≤5%			

Note: 1. The supply voltage for this series is 10...30V DC.
2. For more information, please contact Lanbao sales.

Inductive

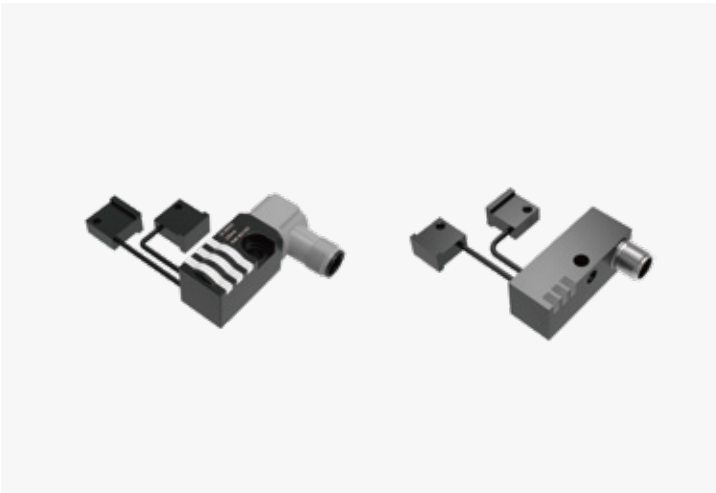
- Standard cylindrical
- Standard square
- High protection
- Temperature extended
- Factor one
- Welding immune
- Extended distance
- Full metal housing
- Clamp position
- Analog output
- Self-diagnosis
- Speed monitoring
- NAMUR
- High pressure resistant

Naming rules



Official Website

Clamp Position Series



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



Product features

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.

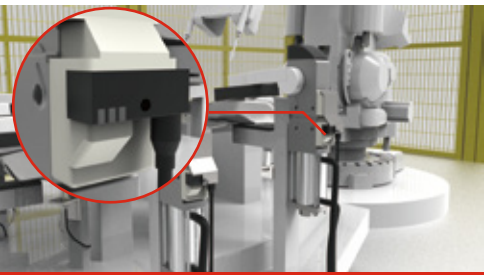
Flexible installation

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

Visible working status

Use red, green and orange indicator lights.

Application



Clamp position detection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Repeated accuracy	Switching frequency	Housing material	Output	Connection
	LT18-A	47*18*35	Non-flush	2mm	0...1.6mm	30Hz	PA66	NPN NO+NO PNP NO+NO	Connector
	LT20-A	47*18*28.5	Non-flush	2mm	0...1.6mm	1000Hz			

Note: 1. The repeated accuracy of this series is $\leq 3\%$; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

- 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

Naming rules



Official Website

Inductive

Analog Output Series



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



Product features

Various output methods

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

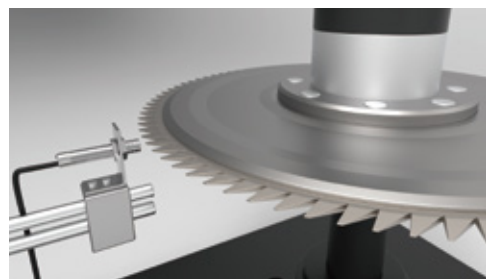
Good stability

High repeatability, stable and reliable.

High linear accuracy

High linear accuracy and repeatability up to 1%, precisely reflecting subtle changes.

Application



Saw blade position detection

Model specification

5% Analog Output Series - Cylindrical Type

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Linear accuracy	Housing material	Output	Connection
	LR12X-M	M12*1*61, M12*1*65	Flush	2mm	$\leq \pm 5\%$	Nickel copper alloy	0-10V, 0-20mA, 4-20mA, 0...10V+0...20mA optional	Cable / Connector
		M12*1*73, M12*1*77	Non-flush	4mm				
	LR18X-M	M18*1*61.5, M18*1*69.5	Flush	5mm				
	LR18X-D	M18*1*73, M18*1*81	Non-flush	8mm				

Note: 1. The power supply voltage of the above product is 15...30V DC
2. For more information, please contact Lanbao sales.



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

Naming rules

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Linear accuracy	Housing material	Output	Connection
	LR30X-M	M30*1.5*62, M30*1.5*74	Flush	10mm	≤ ±5%	Nickel copper alloy	0-10V, 0-20mA, 4-20mA, 0...10V+0...20mA optional	Cable / Connector
	LR30X-D	M30*1.5*73, M30*1.5*85	Non-flush	15mm				
	LR18B	M18*1*50, M18*1*60 M18*1*65, M18*1*75	Flush	0.5...5mm	≤ ±5%	Nickel copper alloy	0-10V, 4-20mA optional	
			Non-flush	0.5...8mm				
	LR30B	M18*1*50, M18*1*60 M18*1*65	Flush	1...10mm				
			Non-flush	1...15mm				

Note: 1. The power supply voltage of the above product is 15...30V DC
2. For more information, please contact Lanbao sales.

5% Analog Output Series - Square Type

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Response time	Housing material	Output	Connection
	LE40SZ-M	40*40*66	Flush	15mm	10ms	PBT	0...10V/0...20mA 4...20mA 0...10V+0...20mA optional	Connector
			Non-flush	20mm	20ms			
	LE40XZ-M	40*40*120 40*40*129	Flush	15mm	10ms			
			Non-flush	20mm	20ms			
	LE80XZ-M	40*80*98 40*80*104	Flush	40mm	12.5ms			
			Non-flush	50mm	25ms			

Note: 1. The linear accuracy of this series is $\leq \pm 5\%$; the supply voltage is 15...30V DC.
2. For more information, please contact Lanbao sales.

1% Analog Output Series

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Response time	Housing material	Output	Connection
	LR18X-M	M18*1*50	Flush	5mm	$\leq \pm 1\%$	Nickel copper alloy	4...20mA 0...10V optional	Cable / Connector
	LR18X-D	M18*1*65	Non-flush	8mm				
	LR30X-M	M30*1.5*50	Flush	10mm				
	LR30X-D	M30*1.5*65	Non-flush	15mm				

Note: 1. The linear accuracy of this series is $\leq \pm 5\%$; the supply voltage is 15...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Inductive

Self-Diagnosis Series



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



Product features

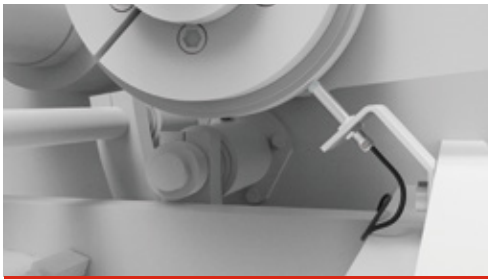
Intelligent self-diagnosis, fault warning

Fault prediction to ensure production efficiency.

Various output methods

With PNP/NPN NO/NC+HERAT etc.

Application



Tobacco machine equipment operation detection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Supply voltage	Housing material	Output	Connection
	LR12X	M12*59	Flush	3.7mm	300HZ	20...30V DC	Nickel copper alloy	NPN/PNP NO/NC +HEART signal	Cable / Connector
			Non-flush	8mm	500HZ	10...30V DC			
	LR18X	M18*59.5	Non-flush	12mm	200HZ	10...30V DC			
	LE25-Z	25*25*42	Non-flush	6.4mm	500HZ	10...30V DC	PBT	PNP NO +HEART signal	

Note: 1. The linear accuracy of this series is $\leq \pm 5\%$;
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Speed Monitoring Series



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



Product features

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.

Application



Cotton spinning machine speed detection

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Monitoring pulse (times/min)	Supply voltage	Housing material	Output	Connection
	LR18X-J	M18*1*61.5 M18*1*69.5	Flush	5mm	3...3000	10...30V DC	Nickel copper alloy	NPN/PNP NC	Cable
			Non-flush	8mm	(adjustable)				
	LR30X-J	M30*1.5*62 M30*1.5*74	Flush	10mm	3...3000				
			Non-flush	15mm	(adjustable)				
	LR18X-J	M18*1*61.5 M18*1*69.5	Flush	5mm	3...1200	20...250V AC	Nickel copper alloy	NC	
			Non-flush	8mm	(adjustable)				
	LR30X-J	M30*1.5*62 M30*1.5*74	Flush	10mm	3...1200				
			Non-flush	15mm	(adjustable)				

Note: 1. The repeated accuracy of this series is ≤3%.
2. For more information, please contact with Lanbao sales.

- 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

Naming rules



Official Website

Inductive

NAMUR Series



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



Product features

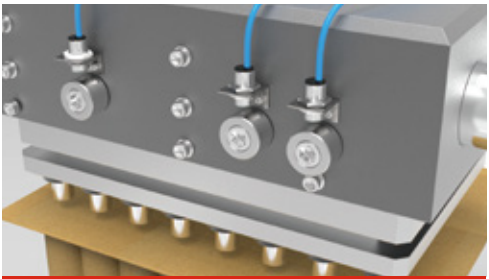
High security

Applicable to flammable and explosive environments to ensure production safety.

High reliability

Multiple circuit protections, stable and reliable output signals.

Application



Flower Pot Assembly Line - Loading and Firing Nitre Operation

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR05	M5*30	Flush	0.8mm	3000Hz	Stainless Steel	NAMUR	Cable
	LR6.5Q	φ6.5*22, φ6.5*25	Flush	1.5mm	2500Hz			
			Non-flush	2mm	2000Hz			
	LR08	M8*22, M8*25	Flush	1.5mm	2500Hz			
			Non-flush	2mm	2000Hz			
	LR12X	M12*31, M12*35	Flush	2mm	2000Hz	Nickel copper alloy		
			Non-flush	4mm	1500Hz			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 8.2V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Housing material	Output	Connection
	LR18X	M18*31.5, M18*39.5	Flush	5mm	1500Hz	Nickel copper alloy	NAMUR	Cable
			Non-flush	8mm	1000Hz			
	LR30X	M30*32, M30*44	Flush	10mm	1000Hz			
			Non-flush	15mm	800Hz			

Note: 1. The repeated accuracy of this series is ≤3%; the supply voltage is 8.2V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



Official Website

Inductive

High Pressure Resistant Series



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



Product features

- High voltage resistance design**
Designed for high pressure environments, can withstand 500 bar pressure.
- High protection**
IP68 protection degree.
- Sturdy and durable**
Adopting integrated stainless steel shell material, the overall structure is more solid.

Application



Piston position detection in the cylinder

Model specification

Appearance	Model	Dimension (mm)	Mounting	Sensing distance	Switching frequency	Withstand pressure	Housing material	Output	Connection
	LR10A-B	M10*35	Flush	0.8mm	600Hz	500bar	Stainless Steel	NPN/PNP NO/NC	Cable / Connector
	LR12X-B	M12*1*62, M12*1*77	Flush	1.5mm	600Hz	500bar			
	LR14X-B	M14*1*54, M14*1*64	Flush	1.5mm	600Hz	500bar			
			Flush	3mm	400Hz	500bar			
	LR16-B	M16*1*63, M16*1*73	Flush	2mm	600Hz	500bar			
	LR18-B	M18*1*58, M18*1*74	Flush	2mm	200Hz	500bar			

Note: 1. The repeated accuracy of this series is ≤5%; the supply voltage is 10...30V DC.
2. For more information, please contact Lanbao sales.

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

Naming rules



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

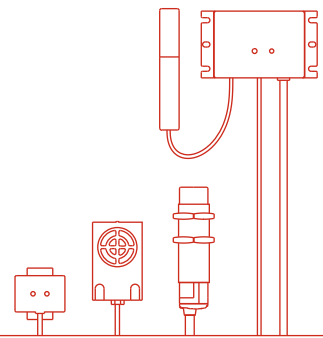
**High pressure
resistant**

Naming rules



Official Website

02 Capacitive Sensors



Product Family

Standard function cylindrical series

Universal outline design, adjustable sensitivity potentiometer. Full range of sizes from M12 to M30.



B01-005 CR12/18/30
CQ20/32/34

Standard function square series

Universal outline design, adjustable sensitivity potentiometer. Full range of sizes from CE05 to CE39.



B02-001 CE05S/05XS/07S
CE34S/35S/39S

Extended sensing distance series

Longer sensing distance, up to 25mm. Adjustable sensitivity potentiometer.



B03-001 CR12X/18X/30X

Frequency enhanced series

Fast response speed, up to 100Hz. Adjustable sensitivity potentiometer.



B04-001 CR12X/18X
CE05S/05XS/06X/16S/17S/34S

Corrosion resistant series

PTFE coating, corrosion-resistant and oil-resistant. Adjustable sensitivity potentiometer.



B05-001 CR18XT

Pipe liquid level series

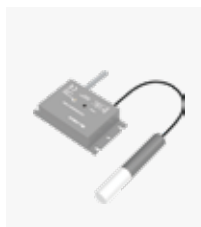
Arc-shaped outline design, easy to install on pipe wall for detection. Adjustable sensitivity potentiometer.



B06-001 CE10S/15S

High temperature resistant material level series

Applied for target detection in high-temperature environments such as dispensing equipment. Adjustable sensitivity potentiometer.



B07-001 CE53S

Split type series

Fast response speed, up to 100Hz. Separate sensing head and amplifier, convenient for adjustment and status indication.



B08-001 CE05S

C R 18 X S C F 05 D P O □ . □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

1. Classification

C: Capacitive sensor

2. Appearance code

R: Threaded cylindrical

Q: Smooth cylindrical

E: Square

3. Size code

Number: 01...99mm

4. Shape code

Blank: Cylindrical

X: Appearance improved/
function enhanced products**5. Housing material**

Blank: Metal copper

G: Stainless steel

S: Plastic

T: Teflon

6. Housing size

Blank: Square shell

A: Short

B: Standard

C: Long

D: Extra long

7. Mounting

F: Flush

N: Non-flush

8. Sensing distance

01...99: 1...99mm

e.g. 02: 2mm

9. Supply voltage

A: 20...250V AC

D: 10...30V DC

M: 18...36V DC

S: 20...250V AC/DC

10. Output logic

N: NPN

P: NP

B: AC/DC 2 wires

F: NPN+PNP

T: AC 2wires

K: Relay

11. Output status

O: NO

C: NC

R: NO+NC

B: NO/NC optional

L: IO-link

12. Switch function

Blank: Standard function

G: Frequency enhanced

T1: On-delay function

T2: Off-delay function

Y: Extended distance

13. Connection

Blank: 2m cable

xM: xM cable (x: number)

e.g. 3M: 3M cable

E1: M8 3-pins connector

E2: M12 4-pins connector

E3: M8 4-pins connector

E5: M12 5-pins connector

Fx: Connector+cable

D: Terminal

14. Special requirements

4 digits or letters

Cylindrical
 Square
 Extended distance
 Frequency enhanced
 Corrosion resistant
 Pipe liquid level
 High temperature resistant material level
 Split type



Model Sensing distance	Mounting	CR12/12S	CR18/18S	CR30/30S	CR30XS	CQ20/20S	CQ32/32S	CQ32XS	CQ34S
Standard cylindrical series	F	2mm	5mm	10mm	10mm	10mm	15mm	15mm	15mm
	NF	4mm	8mm	15mm		15mm	20mm		20mm

Model Sensing distance	Mounting	CE05S/05XS	CE07S	CE34S	CE35S	CE39S
Standard flat series	F		5mm		10mm	
	NF	5/8mm	8mm	10mm	15mm	12mm

Model Sensing distance	Mounting	CR12X/12XS	CR18X/18XS	CR30X/30XS	CE05S/05XS	CE06XS	CE16S	CE17S	CE34S
Extended sensing distance series	F	4mm	8mm	15mm					
	NF	8mm	12mm	25mm					
Frequency enhanced series	F	4mm	8mm						
	NF				6mm	6mm	6mm	8mm	8mm
Corrosion resistant series	F		5/8mm						
	NF		8/12mm						

Model Sensing distance	Mounting	CE10S	CE15S	CE53S
Pipe liquid level series	NF	13mm	26mm	
High temperature resistant material level series	NF			8mm

Model Sensing distance	Mounting	CE05X
Split type series	NF	8mm

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

Naming rules



Official website

Capacitive Sensors

Standard Cylindrical Series



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



Product features

Rich variety of products

Metal shell and plastic shell, cylindrical diameter from M12 to $\phi 34$.

High protection degree

IP67 protection degree, with excellent water and oil resistance.

Wider range of applications

Detection of metal, plastic, glass, liquid etc.

Potentiometer sensitivity adjustment function

Potentiometer to adjust settings for different applications.

Application



Vacuum chuck wafer presence detection



DC series

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Supply voltage	Housing material	Output	Connection
	CR12	M12*1*52 M12*1*65	Flush	2mm	50Hz	10...30V DC	Nickel copper alloy	NPN/PNP NO/NC	Cable / Connector
		M12*1*55 M12*1*69	Non-flusn	4mm	50Hz				
	CR12S	M12*1*52 M12*1*65	Flush	2mm	50Hz	10...30V DC	PBT		
		M12*1*55 M12*1*69	Non-flusn	4mm	50Hz				
	CR18	M18*1*70 M18*1*83.5	Flush	5mm	50Hz	10...30V DC	Nickel copper alloy		
		M18*1*83.5 M18*1*91.5	Non-flusn	8mm	50Hz				
	CR18S	M18*1*70 M18*1*83.5	Flush	5mm	50Hz	10...30V DC	PBT		
		M18*1*83.5 M18*1*91.5	Non-flusn	8mm	50Hz				
	CR30	M30*1.5*62 M30*1.5*79	Flush	10mm	50Hz	10...30V DC	Nickel copper alloy		
		M30*1.5*79 M30*1.5*91	Non-flusn	15mm	50Hz				
	CR30S	M30*1.5*62 M30*1.5*79	Flush	10mm	50Hz	10...30V DC	PBT		
		M30*1.5*79 M30*1.5*91	Non-flusn	15mm	50Hz				
	CQ20	Φ20*80	Flush	10mm	50Hz	10...30V DC	Nickel copper alloy		
	CQ20S	Φ20*80	Flush	10mm	50Hz	10...30V DC	PBT		
			Non-flusn	15mm	50Hz				
	CQ32	Φ32*80	Flush	15mm	50Hz	10...30V DC	Nickel copper alloy		
	CQ32S	Φ32*80	Flush	15mm	50Hz	10...30V DC	PBT		
			Non-flusn	20mm	50Hz				
	CQ34S	Φ34*80	Flush	15mm	50Hz	10...30V DC	PBT		
			Non-flusn	20mm	50Hz				

Note: The repeatability of the above products is ≤3%.

Capacitive

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

Naming rules



Official website

Model Specification

Standard Cylindrical Series

Capacitive

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

AC series

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Supply voltage	Housing material	Output	Connection
	CR18	M18*1*70 M18*1*83.5	Flush	5mm	15Hz	20...250V AC	Nickel copper alloy	NO/NC	Cable / Connector
		M18*1*83.5 M18*1*91.5	Non-flush	8mm	15Hz				
	CR18S	M18*1*70 M18*1*83.5	Flush	5mm	15Hz	20...250V AC	PBT		
		M18*1*83.5 M18*1*91.5	Non-flush	8mm	15Hz				
	CR30	M30*1.5*32 M30*1.5*79	Flush	10mm	15Hz	20...250V AC	Nickel copper alloy		
		M30*1.5*79 M30*1.5*91	Non-flush	15mm	15Hz				
	CR30S	M30*1.5*62 M30*1.5*79	Flush	10mm	15Hz AC:15Hz DC:40Hz	20...250V AC 20...250V AC/DC	PBT		
		M30*1.5*79 M30*1.5*91	Non-flush	15mm					
	CR30XS	M30*1.5*64 M30*1.5*81	Quasi-flush	10mm	Delay function	20...250V AC/DC	PBT		
	CQ20	Φ20*80	Flush	10mm	15Hz	20...250V AC	Nickel copper alloy		
	CQ20S	Φ20*80	Non-flush	10mm	15Hz	20...250V AC	PBT		
			Non-flush	15mm	15Hz				
	CQ32	Φ32*80	Flush	15mm	15Hz	20...250V AC	Nickel copper alloy		
	CQ32S	Φ32*80	Flush	15mm	15Hz	20...250V AC	PBT		
			Non-flush	20mm	15Hz AC:15Hz DC:40Hz	20...250V AC 20...250V AC/DC			
	CQ32XS	Φ34*80	Quasi-flush	15mm	Delay function	20...250V AC/DC	PBT		
	CQ34S	Φ34*80	Flush	15mm	15Hz	20...250V AC	PBT		
			Non-flush	20mm	15Hz AC:15Hz DC:40Hz	20...250V AC 20...250V AC/DC			

Note: The repeatability of the above products is ≤3%.



Capacitive

Cylindrical

- Square
- Extended distance
- Frequency enhanced
- Corrosion resistant
- Pipe liquid level
- High temperature resistant material level
- Split type

Naming rules



Official website

Standard function square series

Capacitive

- Cylindrical
- Square
- Extended distance
- Frequency enhanced
- Corrosion resistant
- Pipe liquid level
- High temperature resistant material level
- Split type

Naming rules



Official website



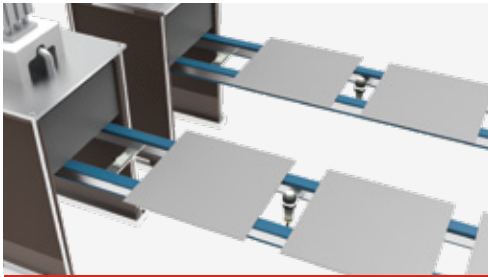
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Rich variety of products, wide options
 - Complete specifications, ranging from CE05 to CE39, suitable for various working conditions.
- Potentiometer adjustment
 - Sensitivity can be adjusted.

Application



Cache silicon wafer inspection

Model specification

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Repeatability	Housing material	Output	Connection
	CE05XS	50*5*20	Non-flush	5mm	30Hz	≤3%	PBT	NPN/PNP NO/NC	Cable
	CE05S	50*5*22.3	Non-flush	5mm	30Hz	≤3%			
				8mm	30Hz	≤5%			
	CE07S	30*7*50	Flush	5mm	60Hz	≤3%			
			Non-flush	8mm					
	CE34S	50*10*20	Non-flush	10mm	60Hz	≤3%			
	CE35S	35*15*58	Flush	10mm	60Hz	≤3%			
			Non-flush	15mm					
	CE39S	39*15*59	Non-flush	12mm	50Hz	≤5%			

Note: The supply voltage of the above products is 10...30V DC.

Extended Sensing Distance Series



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



Product features

Extended sensing distance

Allowing installation at a greater distance for object detection.

Clearly visible working state

Power supply, signal dual indicator design.

Sensitivity adjustment, high accuracy

Multi-turn potentiometer, higher adjustment accuracy.

Application



Food packaging and logistics inspection

Model specification

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Repeatability	Housing material	Output	Connection
	CR12X-Y	M12*1*63, M12*1*75	Flush	4mm	20Hz	≤5%	Nickel copper alloy	NPN/PNP NO/NC	Cable / Connector
		M12*1*68, M12*1*80	Non-flush	8mm					
	CR12XS-Y	M12*1*62, M12*1*74	Flush	4mm	20Hz	≤5%	PBT		
		M12*1*67, M12*1*79	Non-flush	8mm					
	CR18X-Y	M18*1*70, M18*1*85	Flush	8mm	20Hz	≤5%	Nickel copper alloy		
		M18*1*85, M18*1*95	Non-flush	12mm					
	CR18XS-Y	M18*1*70, M18*1*85	Flush	8mm	18Hz	≤5%	PBT		
		M18*1*85, M18*1*95	Non-flush	12mm					
	CR30X-Y	M30*1.5*64, M30*1.5*81	Flush	15mm	25Hz	≤5%	Nickel copper alloy		
		M30*1.5*81, M30*1.5*96	Non-flush	25mm					
	CR30XS-Y	M30*1.5*64, M30*1.5*81	Flush	15mm	20Hz	≤5%	PBT		
		M30*1.5*81, M30*1.5*96	Non-flush	25mm					

Note: The supply voltage of the above products is 10...30V DC.

Capacitive

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

Naming rules



Official website

- Cylindrical
- Square
- Extended distance
- Frequency enhanced
- Corrosion resistant
- Pipe liquid level
- High temperature resistant material level
- Split type

Naming rules



Official website

Capavitive Sensors

Frequency Enhanced Series



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



Product features

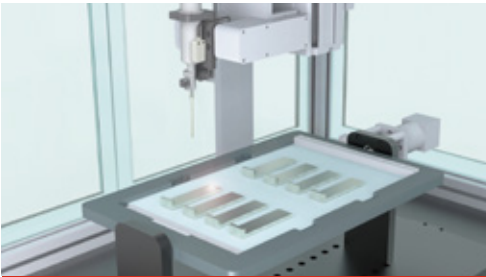
Frequency enhanced series

Fast response, frequency up to 100Hz.

Knob adjustment

Distance can be adjusted by knob.

Application



Glue level detection

Model specification

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Repeatability	Housing material	Output	Connection
	CR12X-G	M12*1*63	Flush	4mm	≤5%	Nickel copper alloy	NPN/PNP NO	Connector
	CR18X-G	M18*1*70	Flush	8mm	≤6%			
	CE05S-G	50*22.3*5.5	Non-flush	5mm	≤5%	PBT	NPN/PNP NO	Cable
	CE05XS-G	50*20*5.5	Non-flush	5mm	≤5%			
	CE06XS-G	50*20*6.5	Non-flush	6mm	≤6%			
	CE16S-G	16*37.1*12	Non-flush	6mm	≤6%	ABS	NPN/PNP NO/NC	

Note: The supply voltage of the above products is 10...30V DC, frequency is 100Hz.

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Repeatability	Housing material	Output	Connection
	CE17S-G	17*32*10.5	Non-flush	8mm	≤5%	ABS	NPN/PNP NO	Cable
	CE34S-G	50*10*20	Non-flush	8mm	≤3%	PBT	NPN NO	

Note: The supply voltage of the above products is 10...30V DC, frequency is 100Hz.

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

Naming rules



Official website

Capavitive Sensors

Corrosion Resistant Series



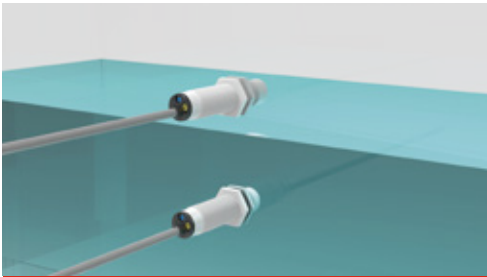
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Excellent anti-corrosion performance**
PTFE housing, chemical and oil resistant.
- Potentiometer adjustment**
Sensitivity can be adjusted.
- Excellent level detection performance**
Meet the needs of various contact liquid level detection, easily solve the problems caused by various wall hanging.

Application



Liquid level detection

Model specification

Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Repeatability	Housing material	Output	Connection
CR18XT	M18*1*80	Flush	5mm	20Hz	≤5%	PTEE	NPN/PNP NO+NC	Cable
		Non-flush	8mm					
			12mm					
		Quasi-flush	8mm					

Note: The supply voltage of the above products is 10...30V DC.



Pipe Liquid Level Series



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



Product features

- Flexible and simple installation**
Curved appearance design, can be detected through non-metal pipe wall level.
- Potentiometer adjustment**
Adjustable sensitivity via potentiometer, easy setting.
- IP67 protection degree**
Special structure to achieve good waterproof and dustproof performance.

Application



Detection of dispenser liquid level

Model specification

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Repeatability	Housing material	Output	Connection
	CE10S	43*24*20	Non-flush	13mm	≤3%	PBT	NPN/PNP NO/NC	Cable
	CE15S	34*33*20	Non-flush	26mm				

Note: The supply voltage of the above products is 10...30V DC, frequency is 60Hz.

Capacitive

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

Split type

Naming rules



Official website

Capavitive Sensors

High Temperature Resistant
Material Level Series



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



Product features

Strong sensing head

Stainless steel housing ensures reliable operation and durability.

Extremely high environmental tolerance

Separate structure design, with excellent chemical corrosion and oil resistance.

Fast installation

Simple structure design, easy to install.

Operate through a separate amplifier

The separate amplifier has the function of clear working state indication and sensitivity adjustment.

Model specification

Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Repeatability	Ambient temp	Housing material	NPN/PNP NO/NC	Connection
CE53S	Amplifier: 95.5*55*22 Induction head: Φ16*150 Φ16*100	Non-flush	8mm	0.3Hz	≤5%	Amplifier: 0...60°C Induction head: 250°C	Amplifier: PA6 Induction head: Teflon+SS	Output	Cable

Note: The supply voltage of the above products is 10...36V DC



Split Type Series



Product features

Amplifier Separate Design

Separate amplifier with clear operating status indication and sensitivity adjustment function.

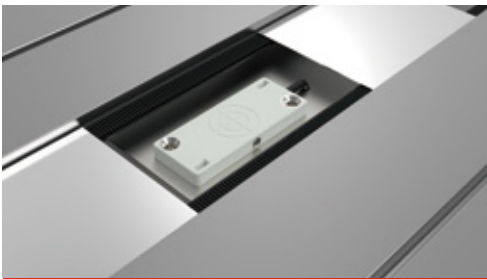
Easy installation of sensing head

Flat sensing head with a thickness of only 5.5 mm, suitable for installation in narrow workstations.

High-frequency capacitor

Fast response speed up to 100 Hz.

Application



Silicon Wafer Inspection in Photovoltaic Industry

Model specification

Appearance	Model	Dimensions (mm)	Mounting	Detection distance	Frequency	Repeatability	Housing material	Output	Connection
	CA05X	60.5*20*5.5	/	/	/	/	PC	NPN/PNP NO/NC	Cable
	CE05S	50*20*5.5	Non-flush	8mm	100Hz	≤5%	PBT		

Note: 1. The supply voltage for this series is 24V DC.

Capacitive

Cylindrical

Square

Extended distance

Frequency enhanced

Corrosion resistant

Pipe liquid level

High temperature resistant material level

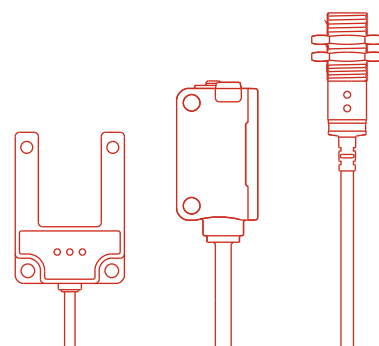
Split type

Naming rules



Official website

03 Photoelectric Sensors



Product Family

Ultra-thin series

Suitable for small installation conditions.

C01-005 PSV/PSW



Micro square series

Compact to install with a bright 360° LED indicator to easily identify special working conditions.

C02-001 PST/PSJ/PVA



Little square series

Universal small square, comprehensive product line coverage.

C03-001 PSE/PSEA



Large square series

Various output methods to meet various needs.

C04-001 PTL/PTE/PTB/PTG



Round and square series

Threaded combination design makes installation and use more convenient.

C05-001 PSR



Cylindrical series

M12, M18, M30, various sizes available.

C06-001 PSS/PSM
PR12/18/30



Fork series

Comprehensive specifications, various shapes and connection methods are available, and the detection accuracy is high.

C07-002 PU05/PU07/PU13/PU15
PU30/PU50S/PVA/PVB



Optical fiber series

Amplifier is separated to adapt to different harsh environments; Variety of appearances are available to measure most objects.

C08-003 FD3/FD4
PFR/PFT/PGR/PGT



Color sensor

Covers a wide range and can distinguish more than 3000 colors; Multi-channel output, simple calibration, easy operation.

C09-001 CPES



Color mark sensor

Comprehensive coverage of light source types, optional RGB/WB types.

C10-001 SPM/SPN



Label sensor

Ultrasonic / photoelectric principle, can stably detect all kinds of labels.

C11-001 LAP/LAU



Photoelectric Sensors

Universal Photoelectric Sensor

P R 12 □ □ B C15 D N O □ - □ □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

1. Classification code

P: Photoelectric sensor

2. Appearance

R: Threaded cylindrical
 Q: Smooth cylindrical shell
 Two letters: Square shell
 For example: TE/TF/TL/TB
 TG/SE/SS/SM/SR/SV/ST

3. Size code

Number: Shell size
 For example: 18: Outer
 diameter 18mm

4. Shell material

Blank: metal copper shell
 S: Plastic

5. Dimensions

Blank: Standard
 S: Short
 L: Long

6. Detection principle

B: Diffuse reflection
 C: TOF
 D: Retro-reflection
 P: Polarized reflection
 S: Limited reflection
 T: Through-beam
 Y: Background suppression
 G: Transparent object detection

7. Detection distance

R25: 25mm
 C10: 10cm
 C40: 40cm
 M5: 5m
 M10: 10m
 ...

8. Working voltage

A: 20...250V AC
 A1: 110V AC
 A2: 220V AC
 B: 90...250V AC
 D: 10...30V DC
 J: 5V DC
 Q: 12...24V AC/DC
 S: 12...240V DC/24...240V AC
 T: 12...24V DC
 V: 18...30V DC

9. Output logic

T: AC 2 wires
 P: PNP
 N: NPN
 E: NPN/PNP
 F: NPN+PNP
 K: Relay
 G: Push-Pull

10. Output status

O: Normally open
 C: Normally closed
 R: Normally open + Normally
 closed
 A: Normally open/normally
 closed reversible
 B: Normally open/normally
 closed optional
 Divided into optional cables
 and optional potentiometers
 Note: relay output can be
 unselected
 L: IO-Link

11. Light source type

Blank: Infrared light
 R/S: Red point light source
 B: Blue point light source
 L: Red laser
 V: Red Vcsel light source
 X: Red line light source
 W: White point light source

12. Cable length

Blank: 2m
 3M: 3m
 ...

13. Connection

Blank: 2M cable type
 E1: M8 3-pins connector
 E2: M12 4-pins connector
 E3: M8 4-pins connector
 E4: M12 4-pins connector
 E5: M12 5-pins connector
 D: Internal connector
 F3: M8 3-pins connector +
 0.2m cable
 F4: M8 4-pins connector +
 0.2m cable

14. Special requirements

4 Digits or letters

Ultra-thin
 Micro square
 Little square
 Large square
 Round and
 square
 Cylindrical
 Fork
 Optical fiber
 Color sensor
 Color mark
 sensor
 Label sensor

Naming rule

Detection distance Light source Name	Through-beam			Diffuse		Retro-reflection	Background suppression				Polarized reflection			Limited reflection	Transparent object detection	TOF
PSE Series	5m/10m Red light	20m/30m Infrared	30m Red laser	10cm/100cm Infrared	30cm Red light		15cm Red Vcsel	5cm/25cm 35cm Red light	15cm/35cm Red laser	25cm Blue	1m Red Vcsel	3m Red light	5m/10m Red laser	10cm Red light	50cm/2m Blue	20cm/60cm/ 100cm/3m Infrared
PSEA Series	5m/10m Red light										3m Red light					50cm/100cm/ 400cm Red light
PST Series	50cm/2m Red Vcsel	2m Red light				25cm Red light	16mm/30mm/10cm Red light	10cm Vcsel						25mm Red light		
PVA Series	400mm Infrared													7mm/ 15mm Infrared		
PSJ Series	3m Infrared															
PSV Series	1m Red light (front light/side light)			10cm Red light			15mm Red light									
PSW Series	50cm Red light (front light/side light)													10mm/ 25mm Red light		
PSR Series	20m Infrared			30cm Red light			10cm Red light				3m Red light					
PSM Series	20m Infrared	10cm/40cm/ 100cm Infrared	40cm Red light				10cm Red light				3m Red light				2m Red light	
PSS Series	20m Infrared	10cm/40cm/ 60cm/100cm Infrared	40cm Red light				10cm Red light				3m Red light				2m Red light	
PR12 Series	5m/10m Infrared			15cm Infrared												
PR18 Series	10m/20m Infrared			10cm/40cm Infrared		3m Infrared										
PR30 Series	20m/40m/ 100m/150m Infrared			50cm/100cm Infrared		5m Infrared	10cm Red light									
PTE Series	60m Infrared			30cm/200cm Infrared							5m Red light					
PTL Series				80cm/200cm Infrared							12m Red light					
PTG Series																15m Red laser
PTB Series							2m Infrared									

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Ultra-Thin Series

Photoelectric



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



Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Product features

Ultra-thin design and compact structure

With a thickness of only 4.2mm, it can be easily installed in small spaces, such as under conveyor belts or other compact environment.

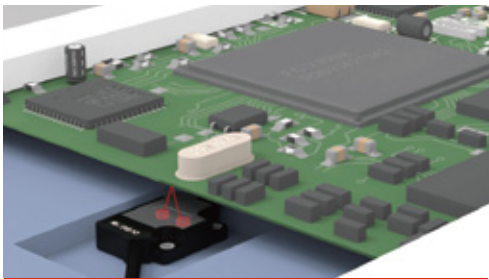
High precision and stable detection

Reliable detection of opaque objects larger than $\phi 2\text{mm}$, with a response time of less than 1ms.

Easy to install and maintain

High-brightness indicator lights and multiple protection circuits make the installation and maintenance of the sensor more convenient and efficient.

Application



Small electronic components in place detection

Model specification

Model	Detection principle	Detection distance	Spot size (red point lightsource)	Blind zone	Power supply	Output method
PSV-TM (front light)	Throughbeam	1m	7*7cm@50cm	/	10-30V DC (Ripple P-P: $\leq 10\%$)	NPN NO、NPN NC PNP NO、PNP NC
PSV-T-S (Side light)	Throughbeam	1m	7*7cm@50cm	/		
PSV-BC	Diffuse	1...10cm	15mm@10cm	<5mm		
PSV-YR	Background suppression	2...16mm	2mm@30cm	<2mm	10-30V DC (Ripple P-P: $\leq 10\%$)	NPN NO、NPN NC

Naming rule



Model	Detection principle	Detection distance	Spot size (red point lightsource)	Power supply	Output method
PSW-T (front light)	Throughbeam	15cm	5*5cm@15cm	10-30V DC (Ripple P-P: ≤10%)	NPN NO、NPN NC PNP NO、PNP NC
		50cm	16*16cm@50cm		
PSWS-T (Side light)	Throughbeam	50cm	10cm@50cm		
PSW-SR	convergent reflection	0-10mm	/		
		0-25mm	/		

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Photoelectric Sensors

Micro Square Series



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



Product features

Miniaturization and integration

Suitable for installation and integration in limited space, the installation process is simpler and faster, reducing installation time and cost.

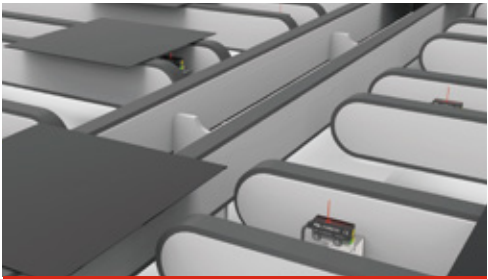
Wide range of applications

Micro square photoelectric sensors are widely used in many fields such as medical treatment, environmental protection, agriculture, industrial automation, communication, etc.

Strong environmental resistance

PST micro sensor is specially designed and tested, IP65 protection level, integrated chip design, withstand harsh industrial automation applications.

Application



Detection through slits or holes

Model specification

Model	Detection principle	Detection distance	Light source type	Spot size	Blind area	Adjustment method	Output method
PST-T	Through beam	2m	Point light	80mm@2m	/	Not adjustable	NPN NO, NPN NC PNP NO, PNP NC
		2m	Vcsel	15mm@2m	/		
		50cm	Vcsel	4mm@50cm	/		
PST-D	Retro-reflection	5...25cm	Point light	10mm@25cm	/		
PST-S	Limited reflection	2...25mm	Point light	8mm@30cm	<2mm		

Note: PST series voltage is: 10-30VDC (Ripple P-P: ≤ 10%)

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule



Official Website

Model	Detection principle	Detection distance	Light source type	Spot size	Blind area	Adjustment method	Output method
PST-Y	Background suppression	16mm	Point light	<3mm@16mm	<1mm	Not adjustable	NPN NO、NPN NC PNP NO、PNP NC
		4...18mm	Point light	5mm@15mm	<4mm	Knob adjustment	
		4...36mm	Point light	5mm@30mm			
		1.5...10cm	Point light	8mm@100mm	<1.5cm		
		2...10cm	Vcse	3mm@100mm			
PSJ-T	Through beam	3m	Point light	/	0	Not adjustable	
PVA-T	Through beam	400mm	Infrared	/	0	Not adjustable	NPN NO
PVA-S	convergent reflection	1...7mm	Infrared	/	1mm	Not adjustable	NPN NO
		1...15mm	Infrared	/	1mm	Not adjustable	

Note:PST series: 10-30 VDC (Ripple P-P: ≤ 10%)
PVA series: 5 VDC

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Photoelectric Sensors

Little Square Series



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



Product features

Comprehensive product line coverage

Small shape, with reflection, diffuse reflection, background suppression, polarization reflection, wide Angle of view and other specifications, the detection distance covers 10cm-20 meters, and the connection method has cable, connector optional, easy to select a variety of application scenarios.

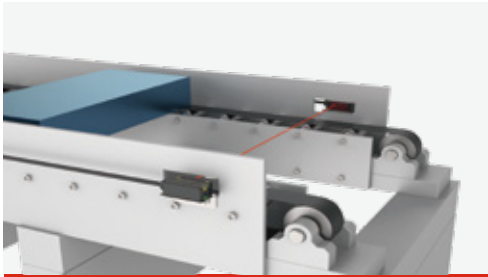
Quick response

Lanbao PSE small square photoelectric sensor can adjust the sensitivity and detection distance through knobs or buttons, and the setting is accurate, convenient and fast.

Accurate positioning without proliferation

Laser series products, with small spot size, can reliably detect small objects and accurately position them.

Application



Detection through slits or holes

Model specification

Model	Detection principle	Detection distance	Light source type	Spot size	Blind area	Adjustment method	Output method
PSE-Y	Background suppression	0.2...5cm	Red point light source	2mm@5cm	≤2mm	Knob adjustment	NPN NO/NC PNP NO/NC
		0.2...15cm	Red Vcsel	2mm@15cm	≤2mm	Knob adjustment	NPN NO+NC PNP NO+NC
		0.5...15cm/35cm	Red laser	3mm@15cm	≤5mm		
		0.2...25cm/35cm	Red point light source	7mm@35cm	≤2mm	Knob adjustment	NPN NO/NC PNP NO/NC
		0.2...25cm	Blue point light source	15mm@25m	≤2mm		

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule



Official Website

Model	Detection principle	Detection distance	Light source type	Spot size	Blind area	Adjustment method	Output method
PSE-T	Through-beam	5m	Red point light source	1.5cm@1m	/	Button adjustment	NPN NO/NC PNP NO/NC
		10m	Red point light source	/	/		
		20m	Infrared light	/	/		
		30m	Infrared light	/	/		
		30m	Red laser	36mm@30m	/	Knob adjustment	NPN NO+NC PNP NO+NC
		2m	Red laser	2mm@2m	/		
PSE-P ^②	Polarized reflection	1m	Red vcsel	3mm@50cm	/	Not adjustment	NPN NO/NC PNP NO/NC
		3m	Red point light source	8mm@30cm	/	Button adjustment	
		2m/5m/8m/ 10m/12m ^①	Red laser	10mm@5m	/	Knob adjustment	NPN NO+NC PNP NO+NC
PSE-B	Diffuse	10cm	Infrared light	7cm@10cm	/	Button adjustment	NPN NO/NC PNP NO/NC
		30cm	Red point light source	8mm@30cm	/		
		100cm	Infrared light	/	/		
PSE-SC	Limited reflection	0.3...10cm	Red line light source	7*70mm@100mm	≤5mm	Knob adjustment	
PSE-G	Transparent object detection	50cm	Blue point light source	≤14mm@50cm	/	Button adjustment	
		2m	Blue point light source	≤60mm@2m	/	Button adjustment	
PSE-C	TOF	0.5...20cm	Infrared vcsel	50mm@60cm	≤5mm	Button adjustment	
		0.5...60cm	Infrared vcsel	130mm@60cm	≤5mm		
		0.5...100cm	Infrared vcsel	120mm@100cm	≤5mm		
		0.5...100cm	Infrared vcsel	9120mm@100cm	≤5mm	Button adjustment ^③	
		0.5...300cm	Infrared vcsel	90×120mm@300cm	≤5mm	Button adjustment	
PSEA	Through-beam	5m	Red light	/	/	Adjustable optional	NPN NO NPN NO PNP NO PNP NC
		10m	Red light	7cm@5m	/		
	Polarized reflection	3m	Red light	<3cm@1m	/		
	TOF	0.5-50cm	Red vcsel	5mm@50cm	5mm	Button adjustment	NPN NO+NC PNP NO+NC
		0.5-100cm	Red light	10mm@100cm	5mm		
		0.5-400cm	Red light	10mm@100cm	5mm		

①5m and 10m specifications do not come with a reflector as standard, 2m specifications come with a TD-24 reflector as standard, 8m specifications come with a TD-09 reflector as standard, and 12m specifications come with a TD-09A reflector as standard.

②For PSE-P series, the installation distance between the reflector and the sensor should be greater than 15cm.

③setting available for range detection.

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Photoelectric Sensors

Large Square Series



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



Product features

Wide range of scene applications

Diffuse reflection, polarized reflection and other specifications are available, the detection distance covers a full range, and cable, connector and terminal types are available, which is convenient for quick selection in various application scenarios.

Strong applicability

Contains digital output and relay output, AC and DC power supply optional, more applicable.

Application



Aircraft or vehicle outbound inspection

Model specification

Model	Detection principle	Detection distance	Light source type	Adjustment method	Output method	Supply voltage
PTE-T	Through-beam	60m	Infrared light	Potentiometer adjustment	NPN+PNP NO/NC	10...30 V DC
					Relay output	24...240 V AC/DC
PTL-B	Diffuse	80cm	Infrared light	Potentiometer adjustment	Relay output	24...240 V DC/AC
		200cm	Infrared light	Potentiometer adjustment	NPN NO+NC PNP NO+NC	10...30 VDC
PTL-P	Polarized reflection	12m	Red point light source	Not adjustable	Relay output	24...240 V DC/AC
					NPN NO+NC PNP NO+NC	10...30 V DC
PTB-Y	Background suppression	2m	Infrared light	Potentiometer adjustment	NPN+PNP NO/NC	10...30 V DC
PTG-C	TOF	0.05...15m	Red laser	Button adjustment	Relay output NO/NC	21.6...265V AC/DC

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule



Photoelectric

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

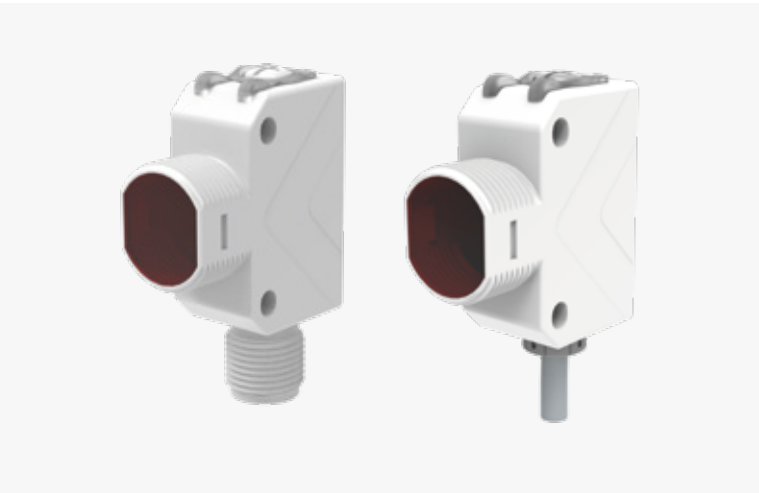
Naming rule



Official Website

Photoelectric Sensors

Round and Square Series



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



Product features

Wide range of scene applications

Lanbao PSR series photoelectric sensors include multiple detection principles such as through-beam, diffuse reflection, background suppression, polarized reflection, etc. The detection distance ranges from 10cm to 20m. Cable and connector types are optional, which is convenient for quick selection in various application scenarios.

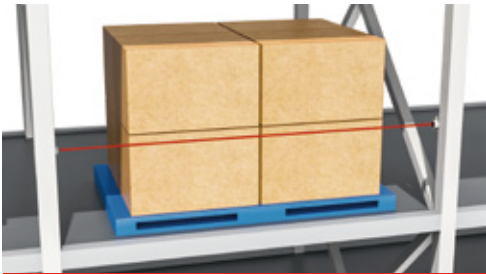
Clear visibility

Lanbao PSR series photoelectric sensors have a bright 360° LED indicator light, making it easy to identify working conditions.

Easy installation

Lanbao PSR Series offers two mounting options: can be locked by mounting screw holes or M18 threads.

Application



Cargo deviation detection

Model specification

Model	Detection principle	Detection distance	Light source type	Spot size	Blind area	Adjustment mode	Output mode	Supply voltage
PSR-T	Through-beam	0...20m	Infrared light	/	/	Potentiometer adjustment	NPN NO/NC PNP NO/NC	10-30V DC (RippleP-P: ≤10%)
PSR-B	Diffuse	0.5...30cm	Red point light source	18*18mm@30cm	5mm	Potentiometer adjustment	NPN NO/NC PNP NO/NC	10-30V DC Ripple: ≤100mA
PSR-Y	Background suppression	10cm	Red point light source	8*8mm@100mm	10mm	Not adjustable	NPN NO/NC PNP NO/NC	10-30V DC Ripple: ≤25mA
PSR-P	Polarized reflection	0...3m	Red point light source	180*180mm@3m	/	Potentiometer adjustment	NPN NO/NC PNP NO/NC	10-30V DC Ripple: ≤100mA



- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Photoelectric

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Cylindrical Series



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



Product features

Wide range of applications

A variety of sizes are available, including M12, M18, and M30, with through-beam, diffuse reflection, and background suppression. Various specifications of polarization and reflection, rich product lines, can meet the needs of different scenarios.

Sturdy and durable

High-quality materials, strong and durable, far superior to conventional products, and can cope with various harsh working conditions.

Easy to install

The threaded design, catering to a wide range of applications and scenarios.

Application



Security gate passes the test

Model specification

Model	Detection principle	Detection distance	Blind area	Light source type	Spot size	Adjustment mode	Output mode	Supply voltage
PSM-T PSS-T	Through-beam	20m	/	Infrared light	/	Potentiometer adjustment	NPN NO/NC PNP NO/NC	10-30V DC (RippleP-P: ≤10%)
PSM-B PSS-B	Diffuse	10cm	7mm	Infrared light	10mm	Potentiometer adjustment	NPN NO/NC PNP NO/NC	
		40cm	/	Red light	15*15@40cm	Potentiometer adjustment	NPN NO/NC PNP NO/NC	
				Infrared light	/	Potentiometer adjustment	NPN NO/NC PNP NO/NC	
		100cm	3mm	Infrared light	/	Potentiometer adjustment	NPN NO/NC PNP NO/NC	
PSM-Y PSS-Y	Background suppression	10cm	4mm	Red light	8*8mm@10cm	Not adjustable	NPN NO/NC PNP NO/NC	10-30V DC Current consumption: ≤20mA
PSM-P PSS-P	Polarized reflection	3m	/	Red light	45*45mm@100cm	Potentiometer adjustment	NPN NO/NC PNP NO/NC	
PSM-G PSS-G	Transparent object detection	2m	/	Red light	45*45mm@100cm	Potentiometer adjustment	NPN NO/NC PNP NO/NC	

Note: All PSS series have plastic housings, and all PSM series have metal housings.

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule



Model	Detection principle	Detection distance	Blind area	Light source type	Adjustment method	Output mode	Supply voltage
PR12-T	Through-beam	5m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
		10m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR12-B	Diffuse	15cm	2mm	Infrared light	Potentiometer adjustment	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR18-T PR18S-T	Through-beam	10m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
		20m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR18-B PR18S-B	Diffuse	10cm	2mm	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
						NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
		40cm	2mm	Infrared light	Potentiometer adjustment	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
						NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
PR18-D PR18S-D	Retro-reflection	3m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
						NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
PR18-Y	Background suppression	10cm	2mm	Infrared light	Potentiometer adjustment	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR18G-T PR18GS-T	Through-beam	10m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
		20m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR18G-B PR18GS-B	Diffuse	10m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
						NPN NO+NC PNP NO+NC AC two-wire NO AC two-wire NO	10-30V DC (Ripple P-P: ≤10%) 20...250V AC
		20m	/	Infrared light	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
PR18G-D PR18GS-D	Retro-reflection	3m	/	Infrared light	Not adjustable	AC two-wire NO AC two-wire NO NPN NO+NC PNP NO+NC	20...250V AC 10-30V DC (Ripple P-P: ≤10%)
						NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Model Specification

Cylindrical Series

Photoelectric

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule

Model	Detection principle	Detection distance	Blind area	Light source type	Spot size	Adjustment method	Output mode	Supply voltage
PR30-T PR30S-T	Through-beam	20m	/	Infrared light	/	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
		40m	/	Infrared light	/	Not adjustable	AC two-wire NC AC two-wire NC	20...250V AC
PR30-B PR30S-B	Diffuse	50cm	/	Infrared light	/	Potentiometer adjustment	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
		100cm	2mm	Infrared light	/	Potentiometer adjustment	AC two-wire NC AC two-wire NC	20...250V AC
PR30-D PR30S-D	Through-beam	5m	/	Infrared light	/	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
							AC two-wire NC AC two-wire NC	20...250V AC
PR30L-T PR30LS-T	Through-beam	100m	/	Infrared light	/	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)
		150m	/	Infrared light	/	Not adjustable	NPN NO+NC PNP NO+NC	10-30V DC (Ripple P-P: ≤10%)



Photoelectric

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Photoelectric Sensors

Fork Series



1. Product categories

P: Photoelectric sensor

2. Appearance

U: Fork

3. Slot width

× ×: Different slot widths,
e.g. 05: 5mm

4. Detection principle

T: Through beam

5. Working voltage

G: 5...24V DC
D: 10...30V DC

6. Output logic

N: NPN
P: PNP

7. Output status

O: NO
C: NC
R: NO+NC
B: NO/NC optional

8. Shell shape

One letter indicates the
product appearance

9. Connection cable

Blank: Conventional cable
R: Flexible cable

10. Connection method

Blank: Cable connection
F4: 0.2m cable + M8 connector

11. Special requirements

4 Digits or letters

Note: Applicable to PU05 series only. For other series, please refer to the actual specifications.

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule





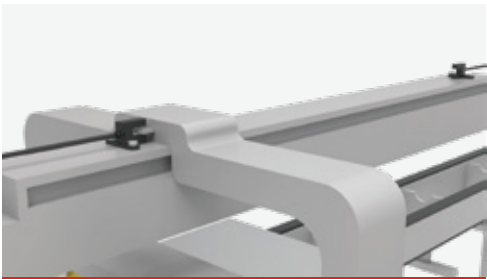
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Comprehensive specifications, various shapes and connection methods are available, and the detection accuracy is high.
- The maximum response frequency can reach 3kHz.
- Automated production, high product consistency

Application



Tray transplanting module in place detection

Model specification

PU05M Series



Model	Detection principle	Slot width	Light source type	Standard test object	Response frequency	Working environment	Protection level	Connection
PU05M-□	Fork through beam	5mm (not adjustable)	Infrared LED (855nm)	>1.2*0.8 (mm)	≥1kHz (MAX:3kHz)	-25°C...55°C	IP65 IP67	1m cable
PU05M-□-F4	Fork through beam	5mm (not adjustable)	Infrared LED (855nm)	>1.2*0.8 (mm)	≥1kHz (MAX:3kHz)	-25°C...55°C	IP65 IP67	0.2mcable+M8 4 pin plug-in
PU05M-□ 1002	Fork through beam	5mm (not adjustable)	Infrared LED (855nm)	>1.2*0.8 (mm)	≥1kHz (MAX:3kHz)	-25°C...55°C	IP65 IP67	5cm cable + connector

- Ultra-thin
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Naming rule



Official Website

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Naming rule



Official Website

Model Specification

Fork Type

PU05S series

									
F Series		U Series		R Series		L Series		K Series	
Model	Detection principle	Slot width	Light source type	Standard test object	Response frequency	Working environment	Protection level	Connection	
PU05S-□	Fork through beam	5mm (not adjustable)	Infrared LED (855nm)	>1.2*0.8 (mm)	≥1kHz (MAX:3kHz)	-25°C...55°C	IP65 IP67	1m cable	
						-40°C-55°C	IP65 IP67	1m cable	

Note: The voltage of the above series is 5...24V DC

Other slot models

									
PU07		PU13S		PU15		PU30		PU30S	
Model	Detection distance	Slot width	Light source type	Detecting objects	Response time	Work environment	Protection level	Connection	
PU07	Fork through beam	7mm (not adjustable)	Infrared LED (modulated)	Opaque objects larger thanφ1mm	<1ms	-15...55°C	IP64	2m PVC cable	
PU13S		13mm (not adjustable)	Infrared light (940nm)	/	<1ms	-10...55°C	IP50	2m PVC cable	
PU15		15mm (not adjustable)	Infrared LED (modulated)	Opaque objects larger than φ1.5mm	<1ms	-15...55°C	IP64	2m PVC cable	
PU30		30mm (adjustable)	Infrared LED (modulated)	Opaque objects larger than φ2mm	<1ms	-15...55°C	IP60	2m PVC cable	
PU30-3001		30mm (not adjustable)	Infrared LED (modulated)	Opaque objects larger than φ2mm	<1ms	-15...55°C	IP67	2m PVC cable	
PU30S		30mm (adjustable)	Infrared LED (modulated)	Opaque objects larger than φ2mm	Action and reset in less than 6ms	-15...55°C	IP66	2m PVC cable	
PU30S-3001		30mm (not adjustable)	Infrared LED (modulated)	Opaque objects larger than φ2mm	Action and reset in less than 6ms	-15...55°C	IP66	2m PVC cable	
PU50S		50mm (not adjustable)	Infrared LED (940nm)	Opaque objects larger than φ4mm	<1ms	-20...55°C	IP66	2m PVC cable	

Note: The voltage of the above series is 10...30V DC


PU05S

Model	Detection distance	Actuating position	Actuating load	Response time	Supply voltage	Work environment	Protection level	Connection
PU05S Push-button	Fork through beam	3~4mm	<3N	<1ms	12...24VDC	-20~+55°C	IP40	2m PVC cable 1m high-flex towline cable



PVA Series



PVB Series

Model	Detection distance	Slot width	Light source type	Supply voltage	Response frequency	Work environment	Protection level	Connection
PVA-UR05	Fork through beam	5mm	Infrared LED (900nm)	5V DC	≥500Hz	-25°C...55°C	IP50	Terminal
PVB-UR05								

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Photoelectric Sensors

Optical Fiber Series

Fiber amplifier naming convention



1. Classification code

FD: Fiber Amplifier

2. Appearance

One digit

3. Industry/application

Factory definition

4. Working voltage

N/A: 12...24V DC
J: 5V DC

5. Output logic

N: NPN
P: PNP
Q: NPN*2
F: PNP*2
G: Push-Pull
H: Dual-channel Push-Pull

6. Output status

B: Normally open/normally closed
O: Normally open
C: Normally closed
R: Normally open + Normally closed
I: With current output 4-20mA

7. Switch mode

10: Wireless extension unit
11: Basic unit

8. Light source

N/A: infrared
R: Red light

9. Connection method

N/A: 2M cable
E1: M8 3-pins connector
E2: M12 4-pins connector
E3: M8 4-pins connector
E4: M12 4-pins connector
E5: M12 5-pins connector
F3: M8 3-pins connector+ 0.2m cable

10. Special requirements

4 Digits or letters

- Ultra-thin
- Micro square
- Little square
- Large square
- Round and square
- Cylindrical
- Fork
- Optical fiber
- Color sensor
- Color mark sensor
- Label sensor

Naming rule



Official Website

Fiber optic head naming rules



1. Classification code

- PFR: Diffuse reflective fiber
- PFT: Through-beam fiber
- PGR: Glass diffuse reflection fiber
- PGT: Glass through-beam fiber

2. Fiber core size

- N/A: 1.0mm/φ2.2
- B: 0.25mm/φ1.3
- C: 0.25mm x16/φ2.2
- 0.25mm x9/φ1.3
- D: 0.5mm/φ1.25
- J: 0.75mm/φ1.25
- S: 0.5mm/φ1.0
- S2: 0.5mm/2.2
- X: 1.5mm/φ2.2

3. Appearance

- N/A: Metal thread
- Q: No thread

4. Fiber head size

- 1: Outer diameter 1mm
- 1.5: Outer diameter 1.5mm
- 2: Outer diameter 2mm
- 3: Outer diameter 3mm
- 4: Outer diameter 4mm

5. Cable length

- 05: Fiber length is 50cm
- 10: Fiber length is 100cm
- 20: Fiber length is 200cm
- 30: Fiber length is 300cm

6. Convex pipe

- N/A: No convex tube
- I: Convex tube 10mm
- S: Convex tube 20mm
- M: Convex tube 40mm
- L: Convex tube 90mm

7. Special features

- V: 90° Right angle
- JC: Integrated bracket
- N: Tension enhancement

8. Special requirements

- 4 Digits or letters

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- Label sensor

Fiber focusing lens naming rules



1. Classification code

- PFL: Fiber Lens

2. Model

- R: Diffuse reflection
- T: Through-beam type

3. Adaptation size

- 3: M3
- 4: M4
- 6: M6

4. Light output method

- S: Straight light
- V: Side light

5. Heat resistance

- A: Below 100°C
- B: 100...200°C
- C: 200...300°C
- D: 300...400°C

6. Product serial number

- 01 02 03 04...

Naming rule



Official Website

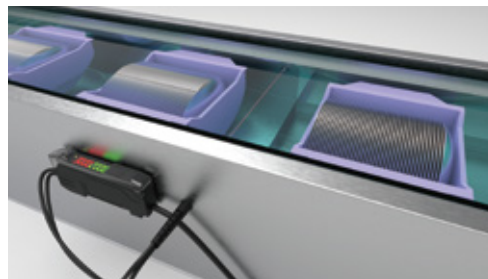
Optical Fiber Series



Application

Fiber optic sensors can capture tiny changes in physical quantities and convert them into measurable optical signals, thereby achieving high-precision measurements.

Including diffuse reflection, through-beam, area, right angle, high temperature resistant and various types, which can adapt to various harsh installation environments.



Check whether the water flow device is present

Fiber amplifier series

Fiber amplifier series

Appearance	Light source	Response time	Output	Supply voltage	Ambient temperature	Shell material	Connection	Model
	Red LED (650nm)	50μs (HIGH SPEED) 250μs (FINE) 1ms (SUPER) 16ms (MEGA)	NPN PNP	12...24V DC	-20...55°C	PC+ABS	2m PVC cable	FD3-NB11R
								FD3-PB11R
	Red LED (650nm)	50μs (HIGH SPEED) 250μs (FINE) 8ms (SUPER) 8ms (MEGA)	NO/NC optional	12...24V DC	-20...55°C	PC+ABS	2m PVC cable	FD3-NI11R
								FD3-PI11R
	Red LED (625nm)	50μs(HSP)/250μs(FINE)/ 500μs(TURB)/ 1ms(SUPR)/4ms(ULTR)/ 16ms(MEGA)	NO/NC optional	12...24V DC	-20...55°C	PC	2m PVC cable	FD4-NB11R
								FD4-PB11R
	Red LED (625nm)	50μs(HSP)/250μs(FINE)/ 500μs(TURB)/ 1ms(SUPR)/4ms(ULTR)/ 16ms(MEGA)	NO/NC optional	12...24V DC	-20...55°C	PC	2m PVC cable	FD4-QB11R
								FD4-MB11R

Fiber optic head series

Appearance	Specs	Type	Size	Cable length	Minimum bending radius	Detection distance ^①	Temperature resistance	Model
	Plastic Diffuse	Dual core	M6	1m	R25	190mm	- 40...70°C	PFR-610
				2m				PFR-620
			M4	1m	R15	90mm	- 40...70°C	PFRD-410
				2m				PFRD-420
			M3	1m	R10	70mm	- 40...70°C	PFRD-310
				2m	R10			PFRD-320
				2m	R10	70mm	- 40...70°C	PFRD-320-S
		Coaxial	M6	1m	R25	170mm	- 40...70°C	PFRC-610
				2m				PFRC-620
			M4	1m	R15	70mm	- 40...70°C	PFRC-410
				2m				PFRC-420
			M3	1m	R15	70mm	- 40...70°C	PFRC-310
				2m				PFRC-320
		Right angle	M6	1m	R2	100mm	- 40...70°C	PFR-610-V
				2m				PFR-620-V
			M4	1m	R2	30mm	- 40...70°C	PFR-410-V
				2m				PFR-420-V
		Increased pulling force	M6	2m	R25	190mm	- 40...70°C	PFR-620-N
		Window	20.5×29×3.6	2m	R5	1...25mm	- 40...70°C	PFR-S01
	Plastic Through beam	Single core	M6	2m	R25	500mm	- 40...70°C	PFT-610
				1m				PFT-620
			M4	2m	R25	500mm	- 40...70°C	PFT-410
				1m				PFT-420
			M3	2m	R25	400mm	- 40...70°C	PFT-310
				1m				PFT-320
		Right angle	M6	2m	R25	500mm	- 40...70°C	PFT-620-V
				1m				PFT-610-V
			M4	2m	R25	500mm	- 40...70°C	PFT-420-V
				1m				PFT-410-V
		Array	10.5×29.8×4	2m	R2	1200mm	- 40...70°C	PFT-R01
			19.5×69×5.1	2m	R2	2000mm	- 40...70°C	PFT-R02

① The actual detection distance is affected by the amplifier and the detected object.

Ultra-thin

Micro square

Little square

Large square

Round and square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Official Website

Model Specification

Photoelectric

- Ultra-thin
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Optical fiber

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- Color mark sensor
- Label sensor

Naming rule

Appearance	Specs	Type	Size	Cable length	Minimum bending radius	Detection distance	Temperature resistance	Model
	Glass diffuse reflection	Single core	M6	1m	R25	190mm	- 40...350°C	PGR-610
				2m				PGR-620
			M4	1m	R25	190mm	- 40...350°C	PGR-410
				2m				PGR-420
		Right angle	M6	1m	R25	190mm	- 40...350°C	PGR-610-V
				2m				PGR-620-V
			M4	1m	R25	190mm	- 40...350°C	PGR-410-V
				2m				PGR-420-V
	Glass through beam	Single core	M6	1m	R25	500mm	- 40...350°C	PGT-610
				2m				PGT-620
			M4	1m	R25	500mm	- 40...350°C	PGT-410
				2m				PGT-420
		Right angle	M6	1m	R25	500mm	- 40...350°C	PGT-610-V
				2m				PGT-620-V
			M4	1m	R25	500mm	- 40...350°C	PGT-410-V
				2m				PGT-420-V

Fiber optic head lens series

Appearance	Adaptation type	Adaptation size	Minimum spot	Ambient temperature resistance	Material	Model
	Diffuse reflective Fiber	M4	Φ1mm@20mm	-40...+70°C	Housing: aluminum; Lens:glass	PFL-R4SA01
	Optical fiber	M4	/	-60...+350°C	GlassHousing: aluminum; Lens: glass	PFL-T4SD01



Official Website

Photoelectric

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Naming rule



Photoelectric Sensors

Color Sensor



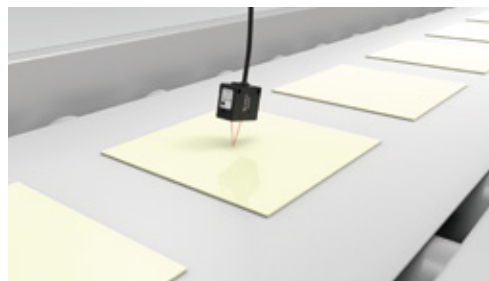
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Wide coverage, suitable for 3000+ colors
- Can memorize up to 8 colors, dual channels can be switched, stable detection
- Simple calibration and easy operation

Application



Flake presence detection

Model specification

Amplifier

Model	Response time	Control output	Output mode	Power supply	Timer	Ambient temperature	Protection circuit
CPES-TNB	200μs (HIGH SPEED) / 1ms (FINE) / 4ms (TURBO) / 8ms (SUPER)	NPN (PNP) open collector X4	NPN, PNP	24V DC	Timer OFF/OFF Delay/ON-delay/single trigger	-10...55°C	Short circuit protection, reverse polarity protection, zener protection
CPES-TPB							

Detection head

Model	Detection range	Light source type	Minimum spot diameter	Ambient light resistance	Housing material	Protection degree	Connection
CPES-C09	11 ...2 0mm	Red/Green/Blue (665nm/520 nm/465 nm)	1mm@16mm	Incandescent lamp:maximum 1,000 lux;Sunlight: maximum 20,000 lux	Case: PC; Lens cover: polyarylate	IP40	2m PVC cable

Ultra-thin

Micro square

Little square

Large square

Round and
square

Cylindrical

Fork

Optical fiber

Color sensor

Color mark
sensor

Label sensor

Naming rule



Official Website

Photoelectric

Ultra-thin

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Optical fiber

Color sensor

Color mark sensor

Label sensor

Naming rule



Color Mark Sensor

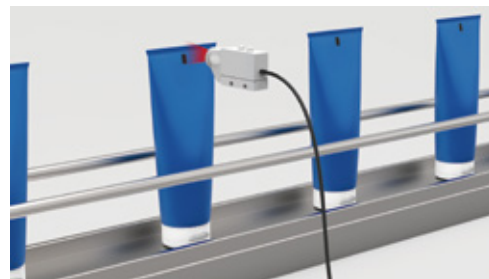


For specifications, certification, usage and model list,
please scan the product QR code.



Application

- Comprehensive coverage of light source types, optional RGB/white light source**
- Equipped with digital display function, debugging is more intuitive and convenient**
- Wide detection range, 11-500mm with corresponding specifications**



Hose color mark detection

Model specification

SPM Series

Product image	Model	Detection distance	Light source	Ambient temperature	Output method	Protection level	Connection
	SPM-TNR-RGB	18...28mm	Red (640nm) Green (525nm) Blue (470nm)	-10...55°C	NPN NO/NC PNP NO/NC	IP65	2m PVC cable
	SPM-TPR-RGB						
	SPM-TNR-WB	10±2mm	Visible white light/blue light visible red light/green light	-25°C...55°C	NPN NO+NC PNP NO+NC	IP65	2m PVC cable
	SPM-TNR-RG						
	SPM-TPR-WB						
	SPM-TPR-RG						



SPN Series

Product image	Model	Detection distance	Light source	Ambient light	Spot size	Response time	Timer	Output mode
	SPN-BC50DEB-W	50...500mm	White LED	Incandescent lamp <10000lux Sunlight: <20000lux	3.5mm@10mm 9mm@250mm 20mm@500mm	0.2ms/ 1ms/ 10ms/ 100ms/ 500ms	Off/on delay/ off delay/ single shot	NPN/PNP NO/NC
	SPN-BC07DFB-W2	30-70mm	White LED	Incandescent lamp <10000lux Sunlight: <20000lux	2*4mm@50mm (Single/dual spot switchable)	50μs / 100μs / 200μs / 1ms / 5ms / 10ms / 20ms / 100ms / 500ms	Off/on delay/ off delay/ single shot	NPN+PNP NO/NC
	SPN-BC15DFB-W	70-150mm	White LED	Incandescent lamp <10000lux Sunlight: <20000lux	Φ4.5mm@100mm			
	SPN-BC50DFB-W	150-500mm	White LED	Incandescent lamp <10000lux Sunlight: <20000lux	Φ11mm@250mm Φ20mm@500mm			

Photoelectric

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- Cylindrical
- Fork
- Optical fiber
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- Color mark sensor
- Label sensor

Naming rule



Official Website

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- Color mark sensor

Label sensor

Naming rule

Photoelectric Sensors

Label Sensor



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



Product features

- Extremely high sensitivity and precision**
Photoelectric/ultrasonic detection principle is optional, which can stably detect various tags. Support one-key setting, making debugging easier.
- High detection frequency**

Application



Model specification

Product image	Model	Detection principle	Slot depth	Slot width	Label minimums pacing	Output method
	LAU-TR05TFB-E3	Ultrasonic	68mm	5mm	>2mm	NPN+PNP NO/NC
	LAP-TR03T□B-□	Photoelectric	60mm	3mm	>2mm	NPN NO/NC PNP NO/NC



Official Website

Photoelectric

Ultra-thin

Micro square

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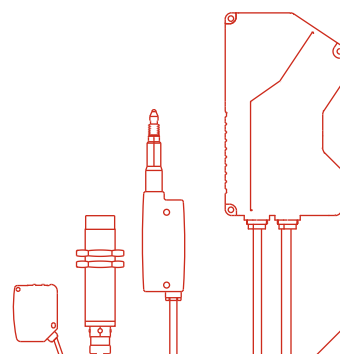
Naming rule



Official Website

04

Measurement and Vision



Product Family

Laser distance measuring sensor

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

D01-003 PDA/PDB/PDE/
PDG/PDK/PSE



Laser displacement sensor

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

D02-001 PDA/PDB/PDE/PDH



CCD Laser diameter measuring sensor

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

D03-001 PDT/PDM



2D Laser scanner sensor

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

D04-001 PDL



LVDT displacement sensor

Digital/analog/RS485 optional, measurement accuracy reaches micron level.

D05-001 LVR/LVA/LWR



Ultrasonic sensor

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

D06-001 UR12/18/30
US40



Millimeter wave radar sensor

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

D07-001 MRA



Code reader

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

D08-001 PID



3D line scan sensor

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

D09-001 PHM



Laser Distance Measuring/ Displacement Sensors

PD E □ □ - C R100 T GR M - 3M □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

1. Classification code

PD: Optical measuring sensor

2. Shape code

A, B, E: Short-range laser distance measurement & displacement series
G: Long-range laser distance measurement series
K: Ultra-long-range laser distance measurement series
H: Ultra-high precision laser displacement series

3/4. Industry/Area

Factory definition

5. Measuring type

C: Laser displacement / distance sensor (for natural objects)
P: Laser distance measurement series (used with reflective film)

6. Sensing distance

R: mm, C: cm, M: m
e.g. R50: 50mm (for laser displacement series, indicating the center point of displacement)
C50: 50cm (For laser measuring series, indicating the maximum detection distance)
M2: 2m (for laser measuring series, indicating the maximum detection distance)

7. Supply voltage

D: 10...30V DC
T: 12...24V DC

8. Output

GR: RS485 + digital output
GI: Digital output + analog current output
GU: Digital output + analog voltage output
GIU: Digital output + analog current/voltage output
HIU: 2*digital output + analog current/voltage output
HR: 2*digital output + RS485
HIUR: 2*digital output + analog output + RS485

9. Special code

Blank: Standard part
A-Z:
M: High precision

10. Connection

Blank: Cable
A-Z: Connector

11. Special requirement

4 digits or letters

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner





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



Product features

Tiny laser spot

With good black and white color difference, easily deal with various targets.

Accurate detection capabilities

Equipped with a high-precision CMOS sensor and a unique algorithm, ultra-high linearity enables non-contact and wear-free measurement.

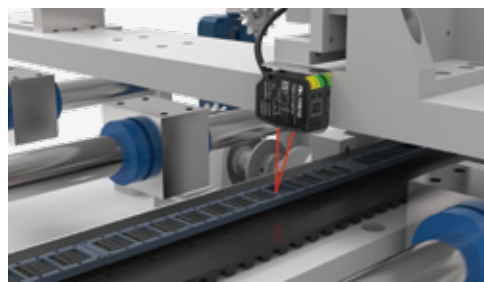
Flexible output ways

Built-in digital signal (NPN/PNP/PULL-PUSH) output + analog (4...20mA/0~10V/0~5V), or RS-485, supports MODBUS protocol. No need to connect with the controller, able to work independently, whether PLC or industrial computer, it can be easily connected.

Powerful operating functions

Offering a wide range of measurement ranges and precision options, various modes and filter settings are available, along with zero-point setup, single-point, window teaching, and analog mapping functions, ensuring stable and flexible process control and detection.

Application



Presence inspection of small packaging



Sensing/Monitoring of PCB stacker height

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

Model	Measuring range	Linearity ^{①②}	Repeatability ^{①②③}	Resolution	Light spot size	Output way	Light source
PDA-CC10	3...10cm	±0.1%F.S. (M Series)	10μm@30mm 30μm@50mm 100μm@100mmt	5μm@30mm 50μm@100mm	1mm*3mm@100mm	1* digital output、RS-485 4...20mA	Red laser laser level: Class 2
		RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.					
PDA-CC50	8...50cm	RS-485: ±0.15%F.S. 4...20mA: ±0.3%F.S.	30μm@80mm 250μm@250mm 1000μm@500mm	15μm@80mm 500μm@500mm	Φ2.5mm@500mm		
		RS-485: ±0.3%F.S 4...20mA: ±0.4%F.S.					
PDA-CC100	15...100cm	RS-485: ±0.3%F.S. 4...20mA: ±0.6%F.S.	100μm@150mm 520μm@500mm 4000μm@1000mm	50@150mm 2000μm@1000mm	Φ3mm@1000mm		
		±0.6%F.S.					
PDB-CC10	3...10cm	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	10μm@30mm 30μm@50mm 100μm@100mm	5μm@30mm 50μm@100mm	1mm*3mm@100mm		
PDB-CC50	8...50cm	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	30μm@80mm 250μm@250mm 1000μm@500mm	15μm@80mm 500μm@500mm	Φ2.5mm@500mm		
PDB-CC100	15...100cm	±0.6%F.S.	100μm@150mm 520μm@500mm 4000μm@1000mm	50μm@150mm 2000μm@1000mm	Φ3mm@1000mm		
PDE-CM1	60-100cm	±0.3%F.S.	3mm	1mm	φ2mm@1000mm	2* digital output、RS485、4...mA/ 0-10V	
PDE-CM2	60-200cm	±0.3%F.S.	6mm	1mm	φ10mm@2000mm		
PDE-CM5	60-500cm	±0.3%F.S.	15mm	1mm	φ15mm@5000mm		

Note: All above products are equipped with a digital display panel.For protection rating: PDA/PDB is IP67, PDE is IP65.

① Test conditions: standard data at 23±5°C.

② Statistical data follows the 3σ criterion.

③ Repeatability represents the statistical results of 100 data tests on 90% reflectivity white card in environment of 23±5°C.



Model	Measuring range	Linearity ^{①②}	Repeatability ^{①②③}	Resolution	Light spot size	Output way	Light source
PDG-CM12	15-1200cm	±10mm	4mm	0.5mm	Φ11mm@15m	2* digital output, RS485, 4...mA/ 0-10V	Red laser laser level: Class 1
PDG-CM20	15-1200cm	±10mm	4mm	0.5mm			
PDG-PM35	15-3500cm	±10mm	4mm	0.5mm			
PDG-PM50	15-5500cm	±10mm	5mm	0.5mm			
PDG-PM100	15-10500cm	±15mm	5mm	0.5mm			
PDK-PM80	0.3m-80m	±2mm	±1mm	0.01mm	101mm	1:TCP/IP, SSI, CanOpen® 2:TCP/IP, PN, CanOpen 3:TCP/IP, EIP, CanOpen 4:TCP/IP, MTCP, CanOpen	650nm Class 3B (IEC-60825)
PDK-PM120	0.3m-120m	±2mm	±1mm	0.01mm	149mm		
PSE	0.5...300cm	±3cm (2~30cm) ≤2% (30cm~300cm)	±1cm (2~30cm) ≤1% (30cm~300cm)	/	90×120mm @300cm	RS485	Red Vcsel
PSEA	0.5...100cm	±10mm	10mm	/	10mm @100cm	RS485	Red light
PSEA	0.5...400cm	±30mm	10mm	/	10mm @100cm	RS485	Red light

Note: All above products are equipped with a digital display panel. The protection degree is IP67 for PDA/PDB and IP65 for PDE.

① Test conditions: standard data at 23±5°C.

② Statistical data follows the 3σ criterion.

③ Repeatability represents the statistical results of 100 data tests on 90% reflectivity white card in environment of 23±5°C.

④ Profinet (abbreviated as PN), EtherNET/IP (abbreviated as EIP), Modbus TCP (abbreviated as MTCP)

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

Laser Displacement Sensors



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



Product features

Flexible output ways

Supports multiple output modes of analog voltage, current output and digital signal.

Faster, more stable, more accurate

Three optional response modes: standard, high-speed and high-precision detection modes.

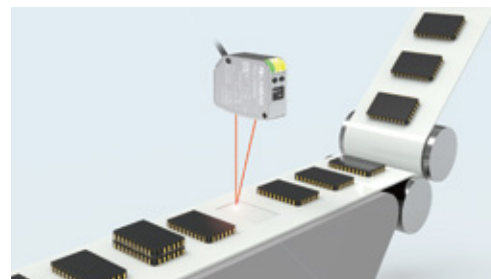
Accurate detection capabilities

Using high-precision CMOS sensors and unique algorithms, ultra-high linearity enables non-contact and wear-free measurement.

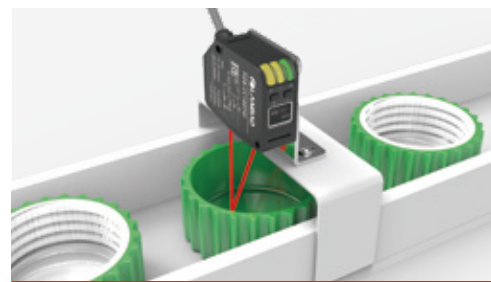
Powerful operating functions

Equipped with a variety of ranges and precision options to choose from, different modes and filters can be set. Combined with zero-point setup, single point, window teaching, and analog mapping functions, it ensures stable and flexible process control and detection.

Application



Determination of stacking or missing of chip components



Presence detection of cap gasket



Model	Measuring range	Linearity ^{①②}	Repeatability ^{①②③}	Resolution	Light spot size	Output way	Light source
PDA-CR30	30±5mm (25...35mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	5μm	2.5μm@30mm	Φ0.5mm@30mm	1* digital output RS-485 4...20mA	Red laser laser level: Class 2
		±0.1%F.S.(-M Series)					
PDA-CR50	50±15mm (35...65mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	20μm	10μm@50mm	Φ0.5mm@50mm		
		±0.1%F.S.(-M Series)					
PDA-CR85	85±25mm (60...110mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	60μm	30μm@85mm	Φ0.5mm@85mm		
		±0.1%F.S.(-M Series)					
PDB-CR30	30±5mm (25...35mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	5μm	2.5μm@30mm	Φ0.5mm@30mm		
PDB-CR50	50±15mm (35...65mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	20μm	10μm@50mm	Φ0.5mm@50mm		
PDB-CR85	85±25mm (60...110mm)	RS-485: ±0.3%F.S. 4...20mA: ±0.4%F.S.	60μm	30μm@85mm	Φ0.5mm@85mm		
PDE-CR30	30±5mm (25...35mm)	±0.1%F.S.	30μm	1μm	Φ50μm@30mm	1* digital output 4...20mA + 0-5V	
PDE-CR50	50±15mm (35...65mm)	±0.1%F.S.	70μm	1μm	Φ50μm@100mm		
PDE-CR100	100±35mm (65...135mm)	±0.1%F.S.	70μm	10μm	Φ120μm@100mm		
PDE-CR200	200±80mm (120...280mm)	±0.2%F.S.	200μm	100μm	Φ300μm@200mm		
PDE-CR400	400±200mm 200...600mm	±0.2%F.S. (Sensing distance 200mm-400mm)	300μm @200-400mm	100μm	Φ500μm@400mm		
		±0.3%F.S. (Sensing distance 400mm-600mm)	800μm @400-600mm				
PDH-CR85	85±20mm (65...105mm)	±0.02%F.S.	1μm	/	0.5*1.2mm@85mm	2* digital output Ethernet、 RS485	

Note: All above products are equipped with a digital display panel. For protection rating: PDA/PDB is IP67, PDE is IP65.

① Test conditions: standard data at 23±5°C.

② Statistical data follows the 3σ criterion.

③ Repeatability represents the statistical results of 100 data tests on 90% reflectivity white card in environment of 23±5°C.

④ PDE data is the value of the measurement center distance.

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website

CCD Laser Diameter Measuring Sensors

PD M □ □ - T C50 T GR - □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

1. Classification code

PD: Optical measuring sensor

2. Shape code

M: Square

T: Thin type

3. Measuring range

10: 10mm

28: 28mm

4. Industry/Area

Factory definition

5. Installation

T: Through beam

M: Optical head for mirror
reflection

C: Controller

U: Communication module

6. Sensing distance

R: mm

C: cm

M: m

e.g. C50: 50cm

7. Supply voltage

D: 10...30V DC

T: 12...24V DC

I: 5.5VDC

N: 6VDC

8. Output

E: EtherCAT cascade

R: RS485 cable

G: Digital output

I: Analog current

U: Analog voltage

RE: RS485 to EtherCAT

9. Special requirements

4 digits or letters

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

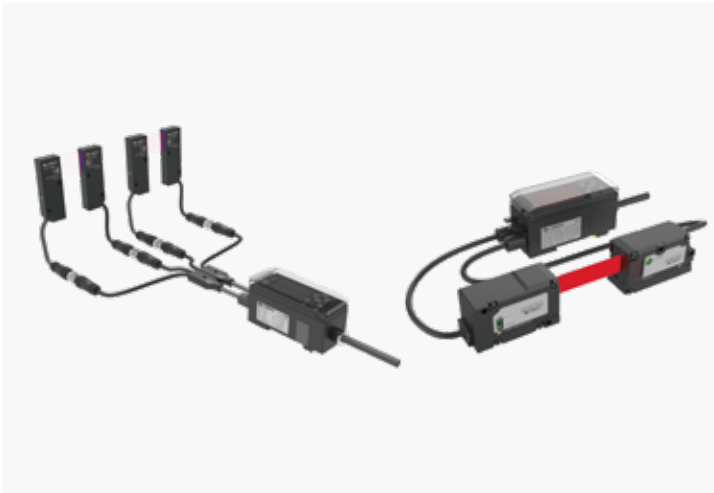
Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner





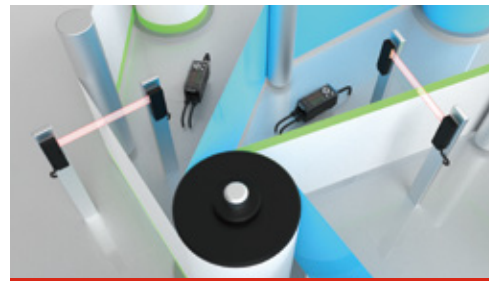
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Compatible with one-to-two, EtherCAT networking
- Wide range, high-precision measurement, multiple modes available
- Small sensors and controllers save installation space
- Exquisite appearance, sturdy and lightweight aluminum casing
- Rich functions, easy to set up, and widely used

Application



Winder edge-guiding detection

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

PDT series



Model	PDT series		
Measuring range	10mm	External input	CH1
Installation spacing	0...300mm	Digital output	CH1 output, PNP/NPN optional
Linearity	At 100mm ditstance $\pm 0.4\%F.S.(\pm 40\mu m)$	Analog output	CH1/CH2 output, analog voltage (0...10V output resistance 100 Ω)
Repeat accuracy	$\pm 10\mu m$ (Set distance: 100mm)	Resolution	1 μm
Min.sensing object	$\Phi 1mm$ (Set distance: 300mm)	Communication function	Controller, sensing head: RS485 bus
Light source	Red semiconductor laser Class 1	Number of connected units	1/2 pair
Supply voltage	12...24V DC	Operation temp	-10... 45°C (No freezing)
Sampling cycle	500 μs	Ambient humidity	35...85%RH (no condensation)
Optical axis calibration indicator	Green LED (each for transmitter and receiver)	Protection grade	IP50
Alarm indicator	Red LED (receiver)		

PDM series



Model	PDM series		
Measuring range	Width mode: 10mm; Edge mode: $\pm 5mm$	Linearity	$\pm 0.28\%F.S.$
Installation spacing	0...500mm	Repeatability	$\pm 10\mu m$ (set distance: 100 mm)
Min sensing object	$\Phi 1mm$ (set distance: 500 mm)		$\pm 15\mu m$ (set distance: 500 mm)
Light source	Red laser; level: Class 1	Material	Casing: alluminium
Light spot size	14*12mm	Ambient temp	-10... 45°C (No freezing)
Temp drift	$\pm 0.08 \%F.S./^{\circ}C (\pm 8\mu m/^{\circ}C)$	Ambient humidity	35...85%RH (no condensation)
Supply voltage	12...24V DC	Protection grade	IP50
Consumption current	$\leq 900mA$ (incl.emitter and receiver)	Response time	2ms
Resolution	1 μm	Output 1	NPN NC
Display range	-99.999...99.999	Output 2	RS485 output
Display way	Double-digit 8-segment display; upper and lower levels: red, 6 digits		



PDM28 series



Model	PDM28 series		
Measuring range	Width mode:28mm;	Dimension	Emitter:64.5*56.2*23mm;Receiver:562*29.8*23mm
Installation spacing	0...1500mm	Temp drift	±0.08 %F.S./°C(±22.4μm/°C)
Min.sensing object	Φ0.25mm (Setting distance :100mm)	Indicator (Transmit)	Optical axis alignment indicator:Green LED; Power indicator:RedLED
Light source	Red semiconductor laser;Laser level: Class 1	Indicator (Receive)	Optical axis alignment indicator:Green LED; Position indication: Dual bar LED (red, green)
Light spot size	33.8*12.68mm	Anti ambient light	Incandescent,: <3,000lux
Supply voltage	6V DC	Protection grade	IP50
Voltage drop	<2.5V	Ambient humidity	-10..45°C (No freezing)
Linearity	±0.2%F.S. ^①	Ambient temp	35...85%RH(no condensation)
Repeat accuracy	5μm (Setting distance:100 mm) ^②	Housing material	alluminium
	10μm(Setting distance:500 mm) ^②	Connection	PVC Cable

Controller	PDM28 series		
Supply voltage	12...24VDC	Output 1	NPN PNP PP NO NC
Consumption current	≤400mA(Including transmitter and receiver)	Output 2	RS485 Output
Resolution	1μm	Ambient humidity	-10...45° C (No freezing)
Display range	-99.999...99.999	Ambient temp	35...85%RH (no condensation)
Display way	Dual 8-segment display; upper and lower sections: red, 6 digits	Housing material	Plastic
response time	500μs	Installation	Guide rail installation

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website

2D Laser Scanner Sensors

PD L - C M20 D K - G1 □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1. Classification code

PD: Optical measuring sensor

2. Product type

L: 2D laser radar sensor

3. Application classification

C: Obstacle avoidance

D: Navigation type

S: Combined type

4. Sensing distance

M20: Sensing distance 20@90%

M40: Sensing distance 40@90%

M50: Sensing distance 50@90%

5. Supply voltage

D: 10...30V DC

6. Output

K: Relay

W: Ethernet-UDP

7. Connection

G1: M12 12-pins+0.45m cable

G2: M12 4-pins+0.45m cable

M12 4-pins D-coded network
port+0.45m cableG3: M12 12 pins+0.45m cable,
M12 4-pins D-coded network
port+0.45m cable**8. Special requirements**

4 digits or letters

Laser
distance
measuringLaser
displacementCCD line
diameter
measuring2D laser
scannerLVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner



Product features

High quality point cloud

Extremely high angular resolution; Ideal for precise positioning of reflectors.

Consistent and reliable

Customized testing fixtures; High-standard test methods; Multiple third-party certifications

Excellent environmental performance

Stable detection of dark color objects; High resistance to ambient light; Adaptable to a variety of unconventional application scenarios.

Convenient software configuration

Simple software configuration saves configuration time.

Application



Navigation and Obstacle Avoidance in AGV
Material Handling Processes

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Model Specification

Model	Sensing distance	Scan angle	Angle resolution	Accuracy	Switchable area*output	Data output/ configure port
PDL-SM40DW-G3	15m@10% 40m@90%	360°	0.0144°@10Hz, 0.0216°@15Hz, 0.0288°@20Hz, 0.0360°@25Hz, 0.0432°@30Hz, 0.1°@35/40/45Hz, 0.2°@50Hz Optional	±20mm	16*3	Ethernet UDP
PDL-DM50DW-G2	20m@10% 50m@90%	270°	0.1°@10Hz, 0.2°@20Hz, 0.3°@30Hz, 0.33°@15Hz Optional		/	
PDL-CM20DK-G1	10m@10% 20m@90%	270°	0.1°@10Hz, 0.15°@15Hz, 0.2°@20Hz, 0.25°@25Hz, 0.3°@30Hz Optional	±25mm	8*3	TYPE-C

Naming rules



Official website

LVDT Displacement Sensors

Combined amplifier naming rules

LV A - E S G B U D1 - □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

1. Classification code

LV: LVDT displacement sensor

2. Structure type

A: Amplifier

3. Housing shape

E: Square

R: Cylindrical

4. Housing material

Blank: Metal

S: Plastic

5. Output

N: NPN

P: PNP

E: NPN/PNP

F: NPN+PNP

G: NPN/PNP+RS485

H: NPN/PNP+RS232

J: NPN/PNP+Analog

K: Relay

R: RS485

R2: RS232

6. Digital signal output

O: NO

C: NC

B: NO+NC

7. Analog output status

I: Analog voltage (0...20mA)

I4: Analog voltage (4...20mA)

U: Analog current (0...10V)

U5: Analog current (0...5V)

8. Digital display type

D1: With digital display

D2: Without digital display

9. Module type

M: Master module

E: Extension module

10. Special requirements

4 digits or letters

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner



Sensing probe naming rules



1. Classification code

LV: LVDT displacement sensor

2. Structure type

P: Pencil-style
R: Spring-return
S: Core-separable LVDT probe

3. Housing size

Blank: Standard
S: Short

4. Housing material

Blank: Metal copper
G: Stainless steel
S: Plastic
V: Slluminium

5. Measuring range

M05: 5mm
M10: 10mm
M15: 15mm
M20: 20mm

6. Supply voltage

(only for combined series)

D: 10...30V DC
T: 12...24V DC

7. Output interface

R: RS485 output
I: Analog voltage (4...20mA)
U: Analog current (0...10V)

8. Repeatability

01: 0.1%
11: 0.01%

9. Connection

Blank: 2m cable
xM: x meters cable (x: number)
e.g. 3M: 3m cable
E1: M8 3-pins
E2: M12 4-pins
E3: M8 4-pins
E4: M12 4-pins trapezoidal
connector
E5: M12 5-pins

10. Special requirements

4 digits or letters



LVDT Displacement Sensors



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



Product features

- Micrometer-level repeatability
- Multiple ranges available from 5...20mm
- Comprehensive output options, including digital signal, analog, and RS485
- Low as 3N sensing head pressure, capable of non-abrasive detection on both metal and glass surfaces
- Rich exterior dimensions to meet various application spaces

Application



Wafer flatness inspection

Model Specification

Appearance	Type	Part name	Model	Range	Linearity	Repeatability	Output way	Protection grade
	Combined type	Amplifier	LVA-ESJBI4D1M	/	/	/	4-20mA current, three ways digital output	IP40
		Sensing probe	LVR-VM15R01	0...15mm	±0.2%F.S. (25°C)	8μm (25°C)	/	IP65
			LVR-VM10R01	0...10mm				
			LVR-VM5R01	0...5mm				
	Integrated type	Integrated sensing probe	LVR-VM20DR01	0...20mm	±0.2%F.S. (25°C)	8μm (25°C)	RS485	
			LVR-VM15DR01	0...15mm				
			LVR-VM10DR01	0...10mm				
			LVR-VM5DR01	0...5mm				
			LVR-SVM10DR01	0...10mm				



Appearance	Type	Part name	Model	Range	Linearity	Repeatability	Output way	Protection grade
	Integrated type	Integrated sensing probe	LVR-SVM10DR01	0...10mm	/	5µm (25°C) ^①	RS485 Output	IP65
	Integrated type	Integrated sensing probe	LWR-VM12GR11-E3	0..12.7mm	/	1µm (25°C)		

① Repeat accuracy: Value measured near the mid-measurement position

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

Ultrasonic Sensors

U R 18 S - C C30 D N B S - E5
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

1. Classification code

U: Ultrasonic sensor

2. Housing shape

R: Cylindrical

S: Square

3. Housing size

Number: 0-99mm

4. Housing material

Blank: Copper-Nickel Alloy

G: Stainless steel

S: Plastic

5. Function type

C: Reflection

D: Single-double sheet

6. Sensing distance

C50: 50cm

M2: 2m

7. Supply voltage

D: 10-30V DC

8. Output way

3N: 3 NPN

3P: 3 PNP

(Above for single-double sheet only)

N: NPN

P: PNP

2N: 2 NPN

2P: 2 PNP

I: 4...20mA

IU: 4...20mA+0...10V

R4: RS485

U5: 0...5V

U10: 0...10V

NR4B: NPN+RS485

PR4B: PNP+RS485

G: Push-Pull

9. Mode

O: NO

C: NC

B: NO+NC

H: Hysteresis mode

10. Synchronization function

Blank: no synchronization function

S: With synchronization function

11. Connection

Blank: 2m cable

E1: M8 3-pins

E2: M12 4-pins

E3: M8 4-pins

E5: M12 5-pins

Laser
distance
measuringLaser
displacementCCD line
diameter
measuring2D laser
scannerLVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner



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



Product features

Strong resistance to environmental interference

Used in various lighting environments, it offers reliable performance under indoor, outdoor, and complex ambient light conditions.

Long sensing distance

Ultrasonic waves can propagate in different media and have a long detection distance, up to 6m.

A variety of output ways available

Supports multiple outputs such as digital signal, analog, RS485 communication, etc.

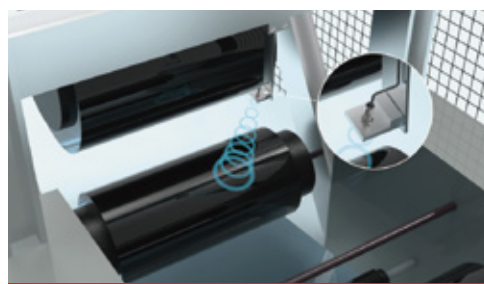
IP67 Protection degree

IP67 Protection degree, resistant to dirt, dust, and moisture, suitable for harsh outdoor environments.

Single/double sheet detection function

Reliable detection of air, single and double sheets.

Application



Conveyor Metal Component Inspection

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

Distance measuring series

Appearance	Model	Output way	Sensing distance	Frequency	Resolution	Supply voltage	Connection
	UR18-CC15	NPN/PNP NO/NC NPN/PNP hysteresis mode	20...150mm	20Hz	0.17mm	10...30V DC	M12 4 pins connector
	UR18-CC35	0...5V analog output 0...10V analog output 4...20mA analog output	30...350mm				
	UR18-CC50		40...500mm				
	UR18-CM1	NPN/PNP NO/NC NPN/PNP hysteresis mode 0...5V analog output 0...10V analog output 4...20mA analog output	60...1000mm	10Hz	0.5mm	10...30V DC	Cable M12 4 pins connector
		2 ways NPN/PNP NO/NC NPN/PNP+RS 485	60...1000mm	10Hz	0.5mm	10...30V DC	M12 5 pins connector
	UR30-CC50		50...500mm	20Hz	0.5mm	10...30V DC	M12 5 pins connector
	UR30-CM2	NPN/PNP NO/NC NPN/PNP hysteresis mode 0...5V analog output 0...10V analog output 4...20mA analog output	120...2000mm	10Hz	0.5mm	10...30V DC	M12 4 pins connector
			180...2000mm	10Hz	1mm	10...30V DC	Cable
	UR30-CM3		180...3000mm	10Hz	1mm	10...30V DC	Cable M12 4 pins connector
	UR30-CM4		200...4000mm	3Hz	1mm	10...30V DC	
	UR30-CM6	NPN/PNP NO/NC	350...6000mm	3Hz	4mm	10...30V DC	M12 4 pins connector
		0...5V analog output 0...10V analog output 4...20mA analog output					M12 5 pins connector
		NPN/PNP+RS485					
	US40-CC50	NPN/PNP NO/NC NPN/PNP hysteresis mode 0...5V analog output 0...10V analog output 4...20mA analog output	40...500mm	20Hz	0.17mm	10...30V DC	M12 4 pins connector

Laser
distance
measuringLaser
displacementCCD line
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measuring2D laser
scannerLVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website

Single-double sheet series

Appearance	Model	Output way	Sensing distance	Frequency	Resolution	Supply voltage	Connection
	UR12-DC40	3 ways NPN/PNP NO/NC	20...40mm	/	1mm	10..30V DC	Cable
	UR18-DC60		30...60mm				
	UR30-DC40		20...40mm				

Measurement
and Vision

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website

Millimeter Wave Radar Sensors

MR A 80 D 20 D GRI - ☐

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1. Classification code

MR: Millimeter wave
radar sensor

2. Product series

A: A series
B: B series

3. Waveband

80: 80GHz
120: 120GHz

4. Measuring mode

D: Distance measurement
V: Speed measurement

5. Measuring range

20: 20m
30: 30m

6. Supply voltage

D: 10...30V DC

7. Output

G: PushPull/NPN/PNP
R: RS485
I: 4...20mA
U: 0...10V
L: IO-Link

8. Working principle

B: Reflection

9. Special requirements

4 digits or letters

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner





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



Product features

Compact size, high precision

A repeatability superior to $\pm 1\text{mm}$ for distance within 100m.

Multiple communication methods

With selectable RS485, analog, and digital interfaces, supporting remote data analysis.

Strong anti-interference capability

Suitable for various harsh environments and extreme weather conditions, such as mines, oil tanks, etc.

IP68 Protection degree

Model Specification

Model	Emitting frequency (Hz)	Measured distance	Horizontal antenna direction	Vertical antenna direction	Repeatability	Refresh rate	Output way
MRB24D150DXX	24G	150m	11°	11°	$\pm 5\text{mm}$	30Hz	RS485
MRA80D20DXX	80G	20m	$\pm 3^\circ$	$\pm 3^\circ$	$\pm 1\text{mm}$	30Hz	4...20mA+RS485+ 2*NPN/PNP/PP NO/NC
MRA80D40DXX	80G	40m	$\pm 3^\circ$	$\pm 3^\circ$	$\pm 1\text{mm}$		

Application



Open tank level measurement

Laser distance measuring

Laser displacement

CCD line diameter measuring

2D laser scanner

LVDT displacement

Ultrasonic

Millimeter wave radar

Code reader

3D line scanner

Naming rules



Official website

Code Reader

Measurement
and Vision

- Laser distance measuring
- Laser displacement
- CCD line diameter measuring
- 2D laser scanner
- LVDT displacement
- Ultrasonic
- Millimeter wave radar
- Code reader
- 3D line scanner

PID - B 30 80 □ - 05 H - W □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

1. Classification code

PID: Code reader

2. Product type

B: Basic
P: Intelligent

3. Product series

2: 2000 series
3: 3000 series

4. Resolution

004: 0.4 MP
010: 1 MP
013: 1.3 MP
016: 1.6 MP
060: 6 MP
200: 20 MP

5. Shutter type

G: Global shutter
R: Rolling shutter
X: Special

6. Lens focal length

00: Mirrorless
05: 5mm
06: 6mm
08: 8mm
12: 12mm
16: 16mm
25: 25mm

7. Lens mount

Default: Fixed focus
C: C mount
F: F
H: Manual
M: Motorized Focus
S: CS

8. Light source color

B: Blue
G: Green
R: Red
I: Infrared
M: Multicolor
N: No fill light
W: White
RW: Two color

9. Performance

F: Full-polarization
H: Half-polarization
N: Normal
V: Vericode
(LCD panel QR code reading technology)





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



Product features

Comprehensive models, wide application range

100...800W wide pixel distribution, capable for multiple scenes.

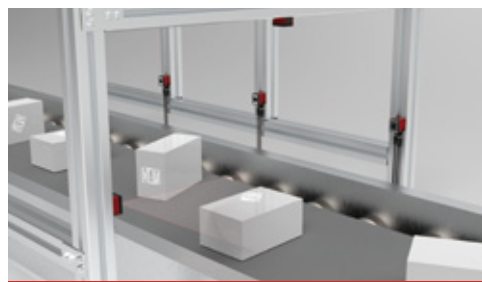
Rich interfaces

With physical communication interfaces such as Ethernet, serial ports, and USB, enabling seamless communication with devices like PCs and PLCs.

One-click adjustment, intelligent recognition

A single button for automatic focus adjustment, parameter acquisition, and autonomous recognition of multiple types of codes.

Application



Six face code scan

Model Specification

Type	Model	Pixel	Resolution	Frame rate	Focus adjustment
Basic	PID-B2010G-06	1 Millon	1280*800	50fps	Fixed focus
	PID-B2023G-06	2.3 Millon	1920*1200	40fps	
	PID-B2010G-06H	1 Millon	1280*800	50fps	Manual
	PID-B2023G-06H	2.3 Millon	1920*1200	40fps	
	PID-B3010G-□□M	1 Millon	1280*800	50fps	Fixed focus
	PID-B3023G-□□M	2.3 Millon	1920*1280	40fps	
	PID-B3050G-□□M	5 Millon	2448*2048	30fps	
	PID-B3080R-□□M	8 Millon	3840*2144	15fps	
Intelligent	PID-P2013G-05	1.3 Millon	1280*1024	60fps	Fixed focus
	PID-P2013G-05H				Manual
	PID-P3013X-□□M	1.3 Millon	1280*1024	60fps	Fixed focus
	PID-P3013G-□□M				
	PID-P3016G-□□M	1.6 Millon	1440*1080	60fps	
	PID-P3050G-□□M	5 Millon	2368*1792	45fps	
	PID-P3060G-□□M	6 Millon	3072*2048	40fps	

Note: 1. Customization is supported (customizable barcode rating, data analysis etc.)

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website

3D Line Scan Sensors

Measurement
and Vision

PHM 2 050 
① ② ③ ④

1. Classification code

PHM: 3D line scan sensor

2. Product series

- 2: 2000 series
- 6: 6000 series

3. Z-axis measurement range

- 008: 8mm
- 030: 30mm
- 050: 50mm
- 080: 80mm
- 230: 230mm
- 300: 300mm

4. Special requirements

4 digits or letters

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Naming rules



Official website



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



Product features

Ultra-high resolution

Each contour is meticulously analyzed, capturing 4096 data points, accurately addressing subtle depressions and protrusions and fully restoring the true contour of the object.

Ultra high scan rate

Full line width scan at an ultra-high scan speed up to 15kHz significantly increases the inspection speed.

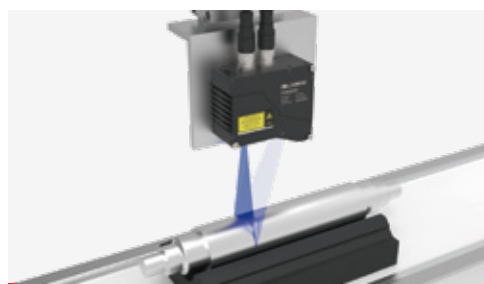
Multiple models, wide applications

Satisfying various scenarios.

With software, visual applications are easily accomplished

Graphical interface, no coding required, with an integrated debugging and deployment process.

Application



Automotive component dimension inspection

Laser
distance
measuring

Laser
displacement

CCD line
diameter
measuring

2D laser
scanner

LVDT
displacement

Ultrasonic

Millimeter
wave radar

Code reader

3D line
scanner

Model Specification

Model	Contour points	Reference distance	Z-axis measurement range	X-axis resolution	Z-axis repeatability	Scan rate	Light source
PHM2008	1280	20mm	8mm	7 μ m	$\pm 1.1\mu$ m	0.12...2kHz	Blue laser (405nm, 3R)
PHM2050		125mm	50mm	40.5 μ m	$\pm 10\mu$ m		
PHM2230		305mm	230mm	150 μ m	$\pm 20\mu$ m		
PHM2400		400mm	400mm	200 μ m	$\pm 100\mu$ m		
PHM2500		450mm	500mm	300 μ m	$\pm 200\mu$ m		
PHM5050	2048	125m	50mm	35 μ m	$\pm 10\mu$ m	1.3...15kHz	Blue laser (405nm, 3R)
PHM5160		280mm	160mm	47.5 μ m	$\pm 20\mu$ m		
PHM6030	4096	78mm	30mm	9 μ m	$\pm 0.1\mu$ m	3.3...15kHz	Blue laser (405nm, class 2M)
PHM6080		250mm	100mm	23.5 μ m	$\pm 0.25\mu$ m		
PHM6300		325mm	305mm	105 μ m	$\pm 1\mu$ m		

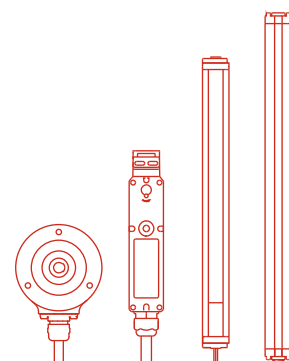
Naming rules



Official website

05

Safety and Control



Product Family

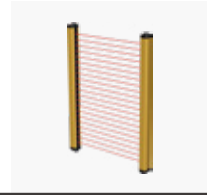
Light curtain

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.

E01 -003

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

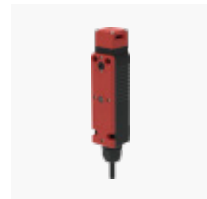


Safety door switch

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

E02-001

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



Encoder

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

E03-001

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



Gas Pressure Sensor

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

E04-001

DPG



Safety and Control

Light Curtain

Safety light curtain naming rule

SF N 40 □□□ - T M05 D N C - □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

1. Classification code

SF: Safety light curtain

2. Appearance code

B: B series

E: E series

G: G series

N: N series

S: S series

3. Beam space

Number:

e.g. 5mm/10mm/15mm/

20mm/40mm

Note: There will be differences in different product series, please refer to the corresponding product information for details

4. Beam quantity

3 digits

e.g. 008: 8 beams

012: 12 beams

016: 16 beams

144: 144 beams

5. Detection principle

T: Through beam

6. Detection range

M02: 2m

M05: 5m

M06: 6m

7. Operation voltage

D: 10...30V DC

T: 12...24V

8. Output

N: NPN

P: PNP

E: NPN/PNP

F: NPN+PNP

K: relay

9. Output logic

C: Normally closed

10. Special requirement

4 digits or letters

Measuring light curtain naming rule

M H 20 - T □□ □□ L - F2

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1. Classification code

M: Measuring light curtain

2. Appearance code

H: 47*36mm

3. Beam space

Number:

e.g. 20: 20mm

4. Detection principle

T: Through beam

5. Beam quantity

08: 8 beams

16: 16 beams

24: 24 beams

32: 32 beams

40: 40 beams

48: 48 beams

56: 56 beams

64: 64 beams

112: 112 beams

6. Detection range

Number:

02: 2m;

03: 3m

7. Operation voltage

L: 15...30V DC

8. Connection method

F2: M12 4-pins connector

F8: M12 8-pins connector

Light curtain

Safety door
switch

Encoder

Pressure
Sensor

Naming rules



Official website



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



Products features

- Fast response
- Compact size
- Easy to install and operate
- Strong anti-electromagnetic interference ability
- Adopting line synchronization technology, it can effectively avoid external infrared light interference

Application



Light curtain

Safety door switch

Encoder

Pressure Sensor

Model specification

Safety light curtain

Model	SFB series	SFE series	SFG series
Dimension	28*13mm	35*53mm	35*27mm
Detection range	0.1...2m	0.1...5m	0.1...5m
Safety level	TYPE 2	TYPE 4	TYPE 2
Beam quantity	10mm space: 8, 12, 16...128; 20mm space: 4, 6, 8...64; 40mm space: 4, 6, 8...32	20mm space: 4, 6, 8, 10...122; 40mm space: 4, 6, 8, 10...36	10mm space: 8, 12, 16...144; 20mm space: 4, 6, 8...72; 40mm space: 4, 6, 8...36
Protection level	IP54	IP65	IP65
Response time	(N*0.1ms) + 0.4ms (N=beam quantity)	<10ms	(N*0.1ms) + 0.4ms (N=beam quantity)
Connection	Cable	GA Aviation connector	GX12 Aviation connector
Beam space	10mm、20mm、40mm		
Output	NPN NC/PNP NC		
Synchronous mode	Line Synchronization		

Naming rules



Official website

Model Specification

Model	SFN series	SFS series
Dimension	35*50mm	25*25mm
Detection range	0.1...5m, 0.1...10m; 0.1...30m (10mm space: 8...160 beams, 20mm space: 4...80 beams, 40mm space:4...76 beams)	0.1...6m
Safety level	TYPE 2	TYPE 2
Beam quantity	10mm space: 8, 12, 16...320 20mm space: 4, 6, 8...160 40mm space: 4, 6, 8...120	20mm space: 8, 12, 16, 16, 20...96 40mm space: 4, 6, 8...48
Protection level	IP65	IP65
Response time	(N*0.1ms) +0.4ms (N=beam quantity)	(N*0.1ms) +0.4ms (N=beam quantity)
Connection	GX16 Aviation connector	0.35m cable+GX12 Aviation connector
Beam space	10mm, 20mm, 40mm	20mm, 40mm
Output	NPN NC/PNP NC	NPN NC/PNP NC
Synchronous mode	Line Synchronization	Optical synchronization

Measuring light curtain

Model	MH20 series				
Protect height	300mm	620mm	940mm	1260mm	2200mm
Response time	5ms	10ms	15ms	18ms	24ms
Beam quantity	16mm	32mm	48mm	64mm	112mm
Detection range	0...5m				
Beam space	20mm				
Output	Two-way NPN/PNP, NC/NO configurable + RS485				
Protection level	IP65				
Connection	Transmitter: M12 connector (4-pins); Receiver: M12 connector (8-pins)				

Model	MH40 series					
Protect height	280mm	600mm	920mm	1240mm	1560mm	2200mm
Response time	5ms	10ms	15ms	18ms	19ms	24ms
Beam quantity	8mm	16mm	24mm	32mm	40mm	56mm
Detection range	0...5m					
Beam space	40mm					
Output	Two-way NPN/PNP, NC/NO configurable + RS485					
Protection level	IP65					
Connection	Transmitter: M12 connector (4-pins); Receiver: M12 connector (8-pins)					



Safety and Control

Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

Safety Door Switch

SL A S □ □ - M T 1A 2D L - □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

1.Classification code

SL: Safety door switch

2.Appearance code

A: Small
B: Medium
C: Large
D: Flat

3.Detection head material

M: Metel
S: Plastic

4/5.Industry/ area code

Factory definition

6.Lock way

E: Electromagnetic lock
M: Mechanical lock

7.Operationnn voltage (electromagnet)

T: 24V DC

8.Interlock contact output

Blank: No contact
1A: 1-way NO output
2B: 2-way NC output
3A: 3-way NO output
3B: 3-way NC output
E: NO/NC

9.Protective contact lock output

Blank: No contact
1C: 1 NO output
2D: 2 NC outputs
3C: 3 NO outputs
3D: 3 NC outputs
F: NO/NC
R: NO+NC

10.Unlocking device

Blank: No back unlocking
L: Back unlocking
F: Front emergency unlocking
S: Side emergency unlocking

11.Special requirements

4 digits or letters



SLB Series Electromagnetic Lock Safety Door Switch



Products features

- 6 sets of gold-plated contacts
- 14 types of contact combinations
- Locking force 1300N
- Indicator light + emergency unlocking
- 11 types of operating keys
- Compact design saves installation space

Application



Model specification

Model	Door monitoring contacts + locking monitoring contacts	Lock & unlock method	Tensile strength	Security level	Rated operating voltage/current of contact element
SLB□-ET1B1D	1NC + 1NC	Power lock / Power-off unlock	1300N	Ple/Cat4 kinds Type 2 kinds	AC-15:Ue/Ie (240V/3A) DC-13:Ue/Ie (30V/2.3A)
SLB□-ET2D	N/A + 2NC				
SLB□-ET2B	2NC + N/A				
SLB□-ET1F	1NC/1NO + N/A				
SLB□-ET1A1C	1NO+ 1NC				
SLB□-ET1F	N/A + 1NC/1NO				
SLB□-MT1B1D	1NC + 1NC	Power-off lock / Power release			
SLB□-MT2D	N/A + 2NC				
SLB□-MT2B	2NC + N/A				
SLB□-MT1F	1NC/1NO + N/A				
SLB□-MT1A1C	1NO+ 1NC				
SLB□-MT1F	N/A + 1NC/1NO				

Note: The operation voltage of the electromagnet of the above products is DC24V±5%, and the protection level is IP67.

Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

SLC Series Electromagnetic Lock Safety Door Switch



Products features

- 6 sets of gold-plated contacts
- 14 types of contact combinations
- Locking force 1300N
- Indicator light + emergency unlocking
- Rear unlock function optional
- 11 types of operating keys

Application



Light curtain

Safety door
switch

Encoder

Pressure
Sensor

Naming rules



Official website

Model	Door monitoring contacts + locking monitoring contacts	Lock & unlock method	Tensile strength	Security level	Rated operating voltage/current of contact element
SLC□-ET1E1F□	1NC/1NO+1NC/1NO	Power lock / Power-off unlock	1300N	Ple/Cat4 kinds Type 2 kinds	AC-15:Ue/Ie (240V/3A) DC-13:Ue/Ie (30V/2.3A)
SLC□-ET1F2D□	1NC/1NO+2NC				
SLC□-ET2B1F□	2NC+1NC/1NO				
SLC□-ET2B2D□	2NC+2NC				
SLC□-ET1E1F□	1NC/2NO+1NC				
SLC□-ET3B1D□	3NC+1NC				
SLC□-ET2E1D□	2NC/1NO+1NC				
SLC□-ET1B3D□	1NC+3NC				
SLC□-ET1B1F□	1NC+1NC/2NO				
SLC□-ET1B2F□	1NC+2NC/1NO				
SLC□-ET1A3D□	1NO+ 3NC				
SLC□-ET1A2F□	1NO+2NC/1NO				
SLC□-ET2B2C□	2NC+2NO				
SLC□-ET2A2D□	2NO+2NC				
SLC□-MT1E1F□	1NC/1NO+1NC/1NO	Power-off lock / Power release	1300N	Ple/Cat4 kinds Type 2 kinds	AC-15:Ue/Ie (240V/3A) DC-13:Ue/Ie (30V/2.3A)
SLC□-MT1E2D□	1NC/1NO+2NC				
SLC□-MT2B1F□	2NC+1NC/1NO				
SLC□-MT2B2D□	2NC+2NC				
SLC□-MT1E1D□	1NC/2NO+1NC				
SLC□-MT3B1D□	3NC+1NC				
SLC□-MT2E1D□	2NC/1NO+1NC				
SLC□-MT1B3D□	1NC+3NC				
SLC□-MT1B1F□	1NC+1NC/2NO				
SLC□-MT1B2F□	1NC+2NC/1NO				
SLC□-MT1A3D□	1NO+ 3NC				
SLC□-MT1A2F□	1NO+2NC/1NO				
SLC□-MT2B2C□	2NC+2NO				
SLC□-MT2A2D□	2NO+2NC				

Note: The operation voltage of the electromagnet of the above products is DC24V±5%, and the protection level is IP67.

Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

Safety Door Switch

SLD Series Electromagnetic Lock Safety Door Switch



Products features

- 6 sets of gold-plated contacts
- 4 types of contact combinations
- Locking force 1300N
- Indicator light + emergency unlocking
- Front/side emergency unlocking optiona
- 11 types of operating keys

Application



Model specification

Model	Door monitoring contacts + locking monitoring contacts	Lock & unlock method	Tensile strength	Security level	Rated operating voltage/current of contact element
SLD□-ET2E2F□	2NC/1NO+2NC/1NO	Power lock / Power-off unlock	1300N	Ple/Cat4 kinds Type 2 kinds	AC-15:Ue/Ie (240V/3A) DC-13:Ue/Ie (30V/2.3A) DC-13:Ue/Ie (250V/0.27A)
SLD□-ET3B2F□	3NC+2NC/1NO				
SLD□-ET2E3D□	2NC/1NO+3NC				
SLD□-ET3B3D□	3NC+3NC				
SLD□-MT2E2F□	2NC/1NO+2NC/1NO	Power-off lock / Power release			
SLD□-MT3B2F□	3NC+2NC/1NO				
SLD□-MT2E3D□	2NC/1NO+3NC				
SLD□-MT3B3D□	3NC+3NC				

Note: The operation voltage of the electromagnet of the above products is DC24V±5%, and the protection level is IP67.



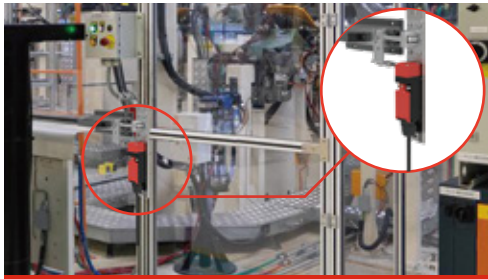
SLAS Series Safety Door Switch



Products features

- Full range of gold-plated contacts, suitable for standard loads and micro loads
- Up to 3 sets of contact structures, optional 2NC+1NO or 3NC
- NC contacts are direct disconnection contacts
- 8 ways to insert the operating key can be adjusted to meet different installation positions
- Universal use of operating keys and electromagnetic lock safety door switches
- Original factory comes with PG13.5 cable connector

Application



Light curtain

Safety door switch

Encoder

Pressure Sensor

Model specification

Model	Door monitoring contacts + locking monitoring contacts	Lock & unlock method	Tensile strength	protection degree	Rated operating voltage/current of contact element
SLAS-MT1R	1NO+1NC	/	/	IP65/IP67	AC-15: Ue/Ie (400V/2A)
SLAS-MT2B	2NC				
SLAS-MT2R	2NC+1NO				
SLAS-MT3C	3NC				

Naming rules



Official website

Operation key & Dimension

ZJP-K1

T-type operation key



ZJP-K1s

T-type operation key-with cushion



ZJP-K2

L-type operation key



ZJP-K2s

T-type operation key-with cushion



ZJP-K3

Long T-type operation key



ZJP-K3s

Long T-type operation key-with cushion



ZJP-K4

Long L-type operation key



ZJP-K4s

Long L-type operation key--with cushion



ZJP-K5

Horizontally adjustable key



ZJP-K6

Horizontally / Vertically adjustable key



ZJP-K8

Multi-function operating key



Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

Safety and Control

Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

Safety and Control

Encoder

Incremental encoder naming rule

EN I 38 KB6 - 3 N 1024 J D - T □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

1. Classification code

EN: Encoder

2. Product Type

I: Incremental

3. Outer diameter

38: 38mm
50: 50mm
58: 58mm

4. Shaft diameter type

KB6: Blind hole shaft-shaft diameter-6mm
KQ6: Through shaft-shaft diameter-6mm
KB8: Blind hole shaft-shaft diameter-8mm
KBQ18: Shaft front clamping, shaft diameter 18mm
KB18: Shaft rear clamping, shaft diameter 18mm
KBQ20: Shaft front clamping, shaft diameter 20mm
KB20: Shaft rear clamping, shaft diameter 20mm
S6: Solid shaft diameter-6mm
S8: Solid shaft diameter-8mm
S10: Solid shaft diameter-10mm

5. Output phase

3: A, B, Z
6: A, A-, B, B-, Z, Z-

6. Electrical interface

C: TTL (5V DC, 26LS31)
E: HTL (8 DC...30V)
N: Open collector (NPN), Z phase signal low
Level valid
NH: Open collector (NPN), Z phase signal high
Level valid
F: Push-pull, Z-phase signal active low
FH: Push-pull, Z-phase signal active high

7. Resolution (PPR)

1000: 1000 PPR
1024: 1024 PPR
2000: 2000 PPR
2048: 2048 PPR
2500: 2500 PPR
4096: 4096 PPR
16384: 16384 PPR
23040: 23040 PPR
32000: 32000 PPR
32768: 32768 PPR
48000: 48000 PPR
57600: 57600 PPR
64425: 64425 PPR

8. Power supply

J: 5V DC
H: 8...30V DC

9. Protection level

Blank: IP50
D: IP65

10. Connection method

T: Radial 1m cable
T2: Radial 2m cable
T5: Radial 5m cable
E: Radial socket M12-8P
C: Radial socket M16-8P
K: Radial socket M16-14P
G: Radial socket M23-12P

11. Special requirements

4 digits or letters

Light curtain

Safety door switch

Encoder

Pressure Sensor



Absolute encoder naming rules

EN A 39 S6 B - R R 1716 J D - T □
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

1.Classification code EN: Encoder	6.Electrical interface R: RS-485	10.Protection level Blank: IP50 D: IP65
2.Product Type A: Incremental	7.Communication format B: BISS-C (binary) S: SSI (binary) G: SSI (Gray code)	11.Connection method T: Radial 1m cable T2: Radial 2m cable T5: Radial 5m cable
3.Outer diameter 39: 39mm 58: 58mm	8.Resolution 17: Single-turn 17-bit 1716: Single-turn 17-bit + Multi-turn 16-bit	12.Special requirements 4 digits or letters
4.Shaft diameter type S6: Solid shaft diameter -6mm S8: Solid shaft diameter -8mm	9.Power supply J: 5V DC H: 8...30V DC	
5.Mounting flange Blank: Clamping flange, spigot φ 36mm, 3-M3 PCD φ48mm A: Clamping flange, spigot φ56mm, 4-M4 PCD φ66mm B: Synchro flange, spigot φ36mm, 3-M3 & 4-M4 PCD φ48mm C: Synchro flange, spigot φ50mm, 3-M4 PCD φ42mm		

Light curtain

Safety door switch

Encoder

Pressure Sensor





Encoder

Incremental Encoder



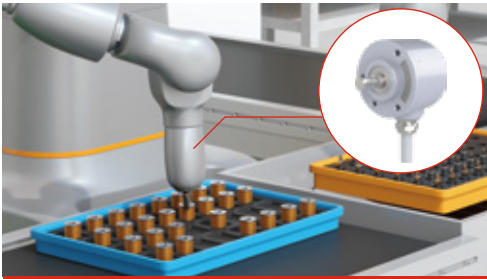
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- Optical principle, fast response
- Multiple outer diameter optional
- More engraved lines, higher resolution

Application



Model specification

Appearance					
Model	ENI38K series	ENI38S series	ENI50S series	ENI58K series	ENI58S series
Shaft diameter	φ6mm; φ8mm	φ6mm; φ8mm	φ8mm	φ6mm; φ12mm; φ8mm	φ8mm; φ10mm
Maximum allowable speed	≤6000 rpm (IP50) ≤4000 rpm (IP65)	≤6000 rpm (IP50) ≤4000 rpm (IP65)	≤6000 rpm (IP50) ≤4000 rpm (IP65)	≤3000 rpm	≤6000rpm
Allowable shaft force	Axial 30N; Radial 20N	Axial 30N; Radial 20N	Axial 40N; Radial 20N	Axial 50N; Radial 30N	Axial 60N; Radial 40N
Moment of inertia	Below 6.5×10 ⁻⁶ kg·m ² s	Below 1.5×10 ⁻⁶ kg·m ²	Below 3×10 ⁻⁶ kg·m ²	Below 6.5×10 ⁻⁶ kg·m ²	Below 35×10 ⁻⁶ kg·m ²
Starting torque	Below 9.8×10 ⁻³ N·m	Below 4.4×10 ⁻³ N·m	Below 5×10 ⁻³ N·m	Below 9.8×10 ⁻³ N·m	At +20°C IP50<0.05N·m IP65<0.1N·m
Supply voltage	5V DC±5%; 8...30V DC±5%				
Maximum response frequency	100KHz / 300KHz / 500KHz				



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



Product features

- Small and solid structure, high rigidity, high response, high positioning accuracy

Application



Model specification

Appearance		
Model	ENA39S series	ENA58S series
Accuracy	±80"	±80"
Mechanical connection	Axial flange or slot fixing	Clamping flange or synchronous flange
Moment of inertia	Below $6.5 \times 10^{-6} \text{ kg} \cdot \text{m}^2$	Below $3 \times 10^{-6} \text{ kg} \cdot \text{m}^2$
Allowable shaft force	Axial 30N; Radial 20N	Axial 60N; Radial 40N
Starting torque	Below $9.8 \times 10^{-3} \text{ N} \cdot \text{m}$	At +20°C IP50<0.05N·m IP65<0.1N·m
Communication Format	BISS-C (binary) /SSI (binary)	
Resolution	Single turn 17 Bit, multi-turn 16 Bit (single turn 17 Bit + multi-turn 16 Bit)	
Shaft diameter	φ6mm; φ8mm; φ10mm	
Maximum speed	≤6000 rpm	
Power supply	5V DC±5%; 8...30V DC±5%	

Light curtain

Safety door switch

Encoder

Pressure Sensor

Naming rules



Official website

Pressure Sensor

Gas Pressure Sensor



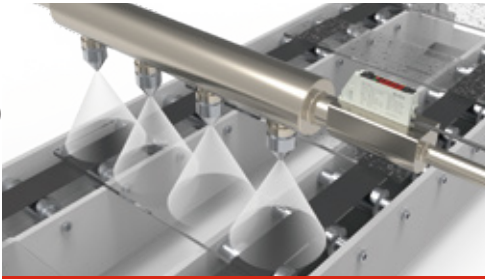
For specifications, certification, usage and model list, please scan the product QR code.



Product features

- PNP/NPN output, NO/NC switchable;
- Digital pressure display
- Convenient design and compact size 59*25*9.9mm, IP40
- ±100Kpa non corrosive gas detection
- Support the installation of L-shaped air guide bracket
- Support analog output (1...5V)

Application



Model specification

Part number	Rated pressure range	Pressure range setting	Pressure resistance	Pressure unit setting minimum scale kpa	Response time	Linearity	Repetition accuracy
DPG-10TN	-100...100kPa	-105...105kPa	500kPa	kPa:0.1	≤2.5ms	±2%F.S.	±0.2%F.S. ±1 digit
DPG-10TN-L					(Malfunction prevention function)		
DPG-10TP					optional		
DPG-10TP-L							

Note: The operating voltage of the above product is 10...30V DC, and the protection class IP40.



Safety and Control

Light curtain

Safety door switch

Encoder

Pressure Sensor

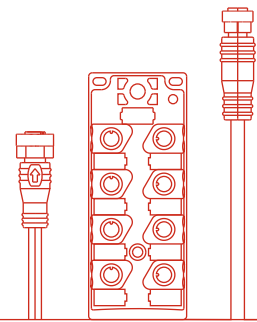
Naming rules



Official website



Industrial Network Module and Connection System



Product Family

Industrial network module

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

F01-003 Master/hub



Junction box

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

F02-001 DB08/DB12



Connection cable

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

F03-001 QE8/QE12



Standard function cylindrical series

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

F04-001 QE08/QE12



Industrial Network Module

Industrial Network Module

Master naming rules

MS ECT - S M □□ - □□□□ A

① ② ③ ④ ⑤ ⑥ ⑦

1. Product series

MS: IO-Link master

2. Protocol Type

CIB: CC-Link IE Field Basic

EIP: EtherNet/IP

ECT: EtherCAT

PNT: Profinet

3. Series code

4 digits or letters

e.g. S: Standard specifications

4. Shell material

M: Plastic

S: Metal

5. Port size

8: M8*1

12: M12*1

6. Number of I/O channels

4 digit

0004: 4 IO-Link/8 IO

0008: 8 IO-Link/16 IO

...

7. Product version

4 digits or letters

e.g. A: Standard version

Hub naming rules

HIO L - S 12 - P 1600 A

① ② ③ ④ ⑤ ⑥ ⑦

1. Product series

HIO: IO-Link hub

2. Series code

In 1-digit letter

3. Shell and connection

S: Plastic shell with thread connection

4. Port size

8: M8*1

12: M12*1

5. Output type

N: NPN

P: PNP

6. I/O Channels

0800: 8 inputs

0008: 8 outputs

1600: 16 inputs

0016: 16 outputs

0808: 8 inputs 8 outputs

08U: 8 configurable

16U: 16 configurable

7. Product version

4 digits or letters

IO-Link

Junction box

Connection
cable

Connector

Naming rules



Official Website



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



Product features

IO-Link Master

- Actuator power supply 8A, sensor power supply 8A
- Single channel can connect to 2A actuator
- Output port has overload and short circuit protection
- Support digital display and button operation

IO-Link Hub

- Temperature range -25~70°C
- Load current 2A
- Single port supports input/output configuration
- Channel and power output support short circuit protection

Application



Junction box

Connection cable

Connector

Model specification

Model	MS ECT-SM12-0008-A	HIOL-S12-P16UA	HIOL-S12-P0808A	HIOL-S12-P1600A
Power supply	18...30V DC	18...30V DC	18...30V DC	18...30V DC
Dimension	230*64.1*20mm	136.4*58.4*31*mm	136.4*58.4*31*mm	136.4*58.4*31*mm
Port	Network Interface: EtherCAT Auxiliary interface: 8*IO LINK	/	/	/
Digit input/output	Input:16*PNP,3 type Output:16*PNP	16*PNP, input or output configurable	8*PNP input+8*PNP Output	16*PNP input
Transfer rate	/	COM2 (38.4 k Baud)		
Total current	8A	2A		

Naming rules



Official Website

Sensor Accessories

Junction Box

DB 12 08 04 - □ - M□□ P
① ② ③ ④ ⑤ ⑥ ⑦

1.Product series

DB: Junction box

2.Port type

M8: Connector

M12: Connector

3.Number of I/O channels

04: 4

08: 8

06: 6

10: 10

4.Hole quantity

03: 3

04: 4

05: 5

5.Cable material

0: Without cable

1: PVC

2: PUR

6.Cable specifications

None: Direct cable

D: D-SUB terminal

M: M23 terminal

03: 3m cable

05: 5m cable

07: 7m cable

7.LED Indication

N: NPN

P: PNP

Quick selection

Junction box	Port type	I/O channels	I/O pins	Cable material	Cable specification	Output
DB08	M8	4/6/8/10	3/4	N/A/PVC/PUR	D/M/3/5	PNP/NPN
DB12	M12	4/6/8/10	3/4/5			





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



Product features

- Optional PNP, NPN output mode
- LED indication function
- IP67 protection level
- Standard M8/12 port connection, cable material and length optional

Application



Model specification

Model	Connection	Rated current	Contact impedance	Temperature range	Operation voltage	Output function
DB080403	M8 3-pin	2A/Port, 8A/Total	<8mΩ	-20...80℃	10...30V DC	NPN/PNP
DB080803		4A/Port, 10A/Total				
DB080803-D		4A/Port, 10A/Total				
DB120804	M12 4-pin	2A/Port, 8A/Total				
DB120804-M		2A/Port, 8A/Total				
DB120805	M12 5-pin	4A/Port, 10A/Total				
DB120805-M		4A/Port, 10A/Total				

IO-Link

Junction box

Connection cable

Connector

Naming rules



Official Website

Connection System

Connection Cable

QE12 - N3 G 5 - P - U - □□□□
① ② ③ ④ ⑤ ⑥ ⑦

1.Connector type

QE8: M8
QE12: M12

2.Thread form and pins

N3: 3-pins female
N4: 4-pins female
W3: 3-pins male
W4: 4-pins male

3.Cable direction

F: 180° Straight angle
G: 90° Right angle

4.Cable length

2: 2m cable
5: 5m cable
10: 10m cable

5.Output

Blank: No LED, for NPN/PNP
N: With LED, NPN
P: With LED, for PNP

6.Cable material

Blank: PVC
U: PUR
R: Flexible towline cable

7.Special requirement

4 digits or letters

Quick selection

Series	Thread form	Cable wires	Cable direction	Output (-P/N)	Cable material (-U/R)	Cable length (m)
QE8	Female/male	3/4 wires	Right angle, Straight angle	NPN/PNP	PVC/PUR	2/5/10
QE12		3/4/5 wires				





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



Product features

- Built-in sealing pattern, IP67
- High-brightness LED type, working status is clearly visible
- With vibration protection function to prevent nut loosening
- Standard M8/12 connection, cable material and length optional

Application



Model specification

Universal type

Model	Cable material	Cable specification	I/O pins	Temperature range	Rated current	Insulation resistance
QE8-N3Fx	PVC	3*0.25mm²	3	-30...90°C	4A	100MΩ
QE8-N3Fx-R	Flexible drag chain cable					
QE8-N3Fx-U	PUR					
QE8-W3Gx	PVC					
QE8-W3Gx-R	Flexible drag chain cable					
QE8-W3Gx-U	PUR					
QE12-N4Fx	PVC	4*0.34mm²	4			
QE12-N4Fx-R	Flexible drag chain cable					
QE12-N4Fx-U	PUR					
QE12-W4Gx	PVC					
QE12-W4Gx-R	Flexible drag chain cable					
QE12-W4Gx-U	PUR					

IO-Link

Junction box

Connection cable

Connector

Naming rules



Official Website

Model Specification

Connection System

With LED

Model	Output	Cable material	Cable specification	I/O pins	Temperature range	Rated current	Insulation resistance
QE8-N3Fx-P	With LED PNP	PVC	3*0.25mm ²	3	-30...90°C	4A	100MΩ
QE8-N3Fx-N	With LED NPN	PVC					
QE8-N3Fx-N-U	With LED NPN	PUR					
QE8-N3Fx-P-R	With LED PNP	Flexible drag chain cable					
QE8-W3Gx-P	With LED PNP	PVC					
QE8-W3Gx-N	With LED NPN	PVC					
QE8-W3Gx-P-R	With LED PNP	Flexible drag chain cable					
QE8-W3Gx-P-R	With LED PNP	Flexible drag chain cable					
QE12-N4Fx-P	With LED PNP	PVC	4*0.34mm ²	4			
QE12-N4Fx-P	With LED PNP	PVC					
QE12-N4Fx-N-R	With LED NPN	Flexible drag chain cable					
QE12-N4Fx-N-U	With LED NPN	PUR					
QE12-W4Gx-P	With LED PNP	PVC					
QE12-W4Gx-P	With LED PNP	PVC					
QE12-W4Gx-N-R	With LED NPN	Flexible drag chain cable					
QE12-W4Gx-N-R	With LED NPN	Flexible drag chain cable					



Connection System

IO-Link

Junction box

**Connection
cable**

Connector

Naming rules



Official Website

Connection System

Connector

QE12 - N3 G

① ② ③

1.Connector type

QE8: M8

QE12: M12

2.Thread form and pins

N3: 3-pins female

N4: 4-pins female

W3: 3-pins male

W4: 4-pins male

3.Cable direction

F: 180° Straight angle

G: 90° Right angle

IO-Link

Junction box

Connection
cable

Connector

Quick selection

Series	Pins	Connector			
		Female straight angle	Female right angle	Male straight angle	Male right angle
QE8	3 wires	QE8-N3F	/	QE8-W3F	/
	4 wires	QE8-N4F	/	QE8-W4F	/
QE12	4 wires	QE12-N4F	QE12-N4G	QE12-W4F	QE12-W4G
	5 wires	QE12-N5F	QE12-N5G	QE12-W5F	QE12-W5G

*Cable can be customized

Naming rules



Official Website



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



Product features

- Built-in terminal
- Standard M8/12 connection
- IP67 protection
- Vibration protection function to prevent nut loosening

Application



IO-Link

Junction box

Connection cable

Connector

Model specification

Model	I/O pins	Operation voltage	Matching cable diameter	Temperature range	Rated current	Insulation resistance
QE8-N3F	3	60V AC/DC	4...5mm	-40...85°C	4A	100MΩ
QE8-N4F	4					
QE8-W3F	3					
QE8-W4F	4					
QE12-N4F	4	250V AC/DC	4...6mm			
QE12-N5F	5					
QE12-N4G	4					
QE12-N5G	5					

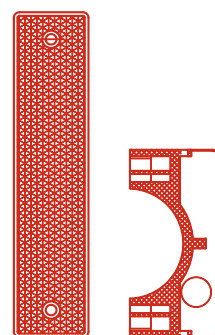
Naming rules



Official Website

07

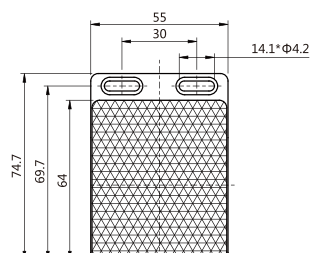
Sensor Accessories



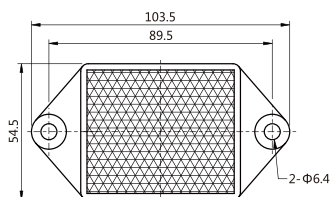
Reflectors

Reflector

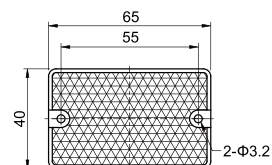
TD-01



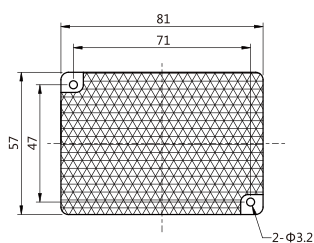
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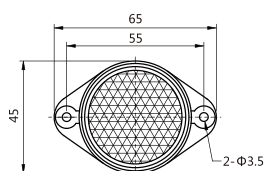
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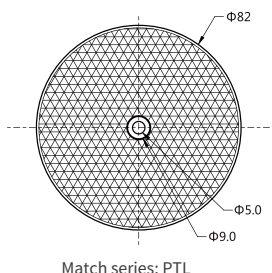
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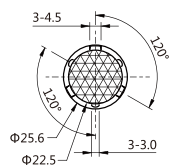
TD-04



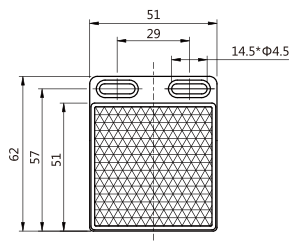
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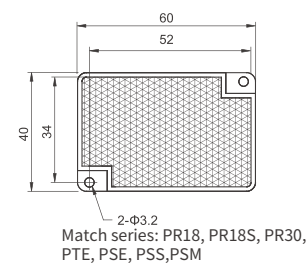
STD-06



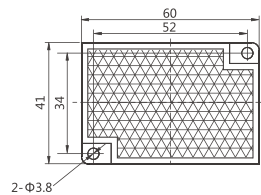
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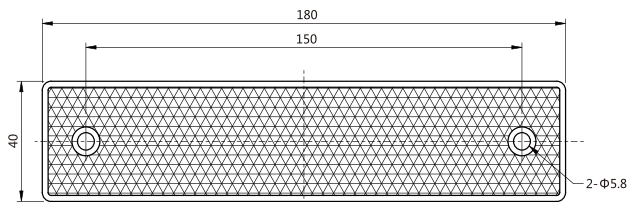
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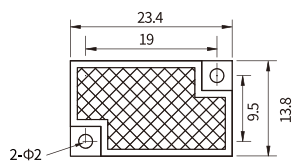
TD-09A



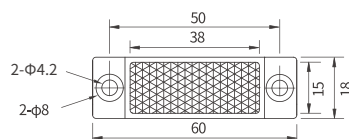
TD-10



TD-11



TD-12



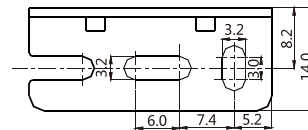
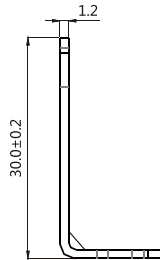
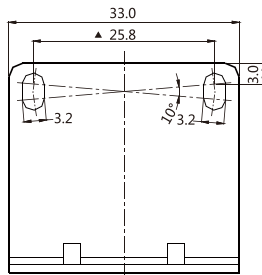
The figure shows four technical drawings of a mechanical part, labeled a) through d).

- a) Front View:** Shows a profile with a central semi-circular cutout. Dimensions include a total width of 11, a central cutout width of 3, a cutout depth of 7.5, and radii R10 and R11.8. A cross-hatched section is indicated on the left.
- b) Top View:** Shows a rectangular part with a central slot. Dimensions include a total length of 44, a slot width of 8, a slot depth of 32, and a total width of 20. A cross-section A-A is indicated at the top.
- c) Left Side View:** Shows a profile with a semi-circular cutout. Dimensions include a total height of 9, a cutout radius of R2, a cutout depth of 13.5, and a total width of 19.5 (20). A cross-section B-B is indicated on the left.
- d) Right Side View:** Shows a profile with a semi-circular cutout. Dimensions include a total height of 8.05, a cutout radius of R0.15, a cutout depth of 13.5, and a total width of 7.6. A cross-section C-C is indicated on the left.

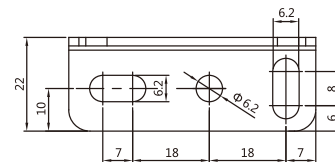
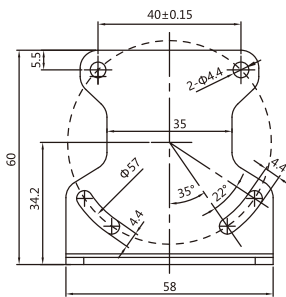


Mounting Brackets For Photoelectric sensors

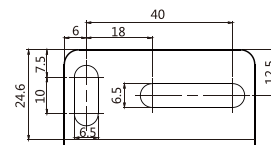
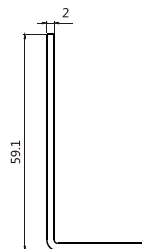
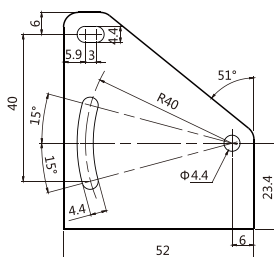
ZJP-1



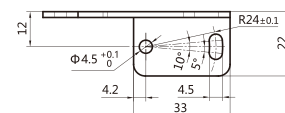
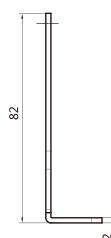
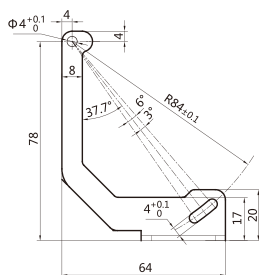
ZJP-5 (PTF/PTE Mounting brackets)



ZJP-6 (PTL Mounting brackets)

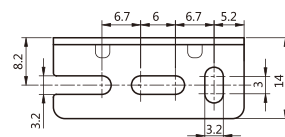
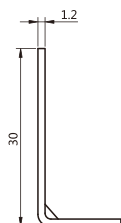
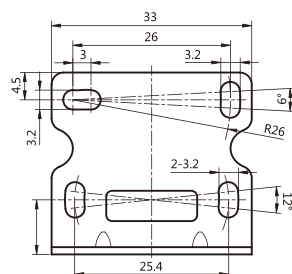


ZJP-7 (PTB Mounting brackets)

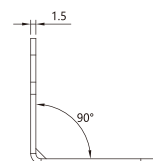
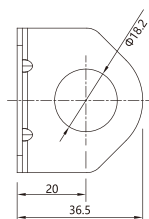
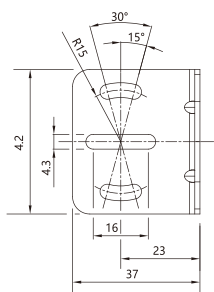


Mounting Brackets For Photoelectric Sensors

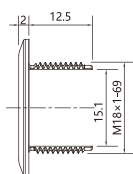
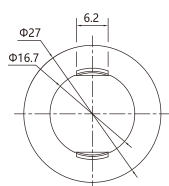
ZJP-8 (PSE/PSR Mounting brackets)



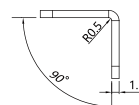
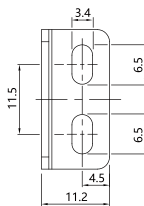
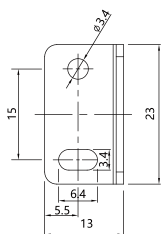
ZJP-9 (PSS/PSM Mounting brackets)



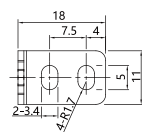
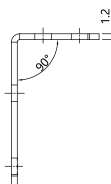
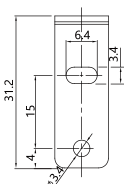
ZJP-10 (PSS Mounting brackets)



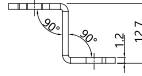
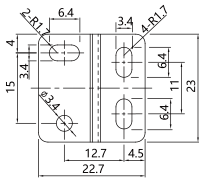
ZJP-11 (PST Mounting brackets)



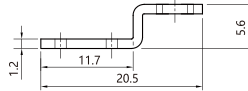
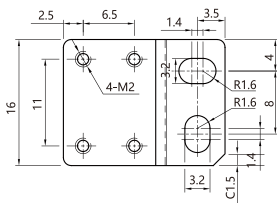
ZJP-12 (PST Mounting brackets)



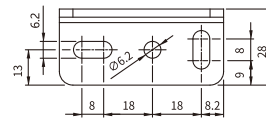
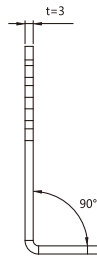
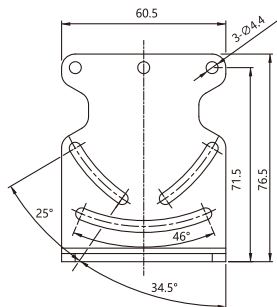
ZJP-13 (PST Mounting brackets)



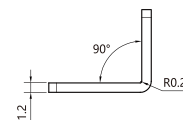
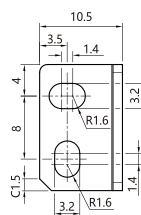
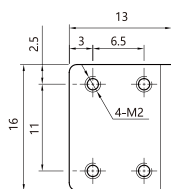
ZJP-14 (PSV Mounting brackets)



ZJP-15 (PDA/PDB Mounting brackets)



ZJP-16 (PSV Mounting brackets)



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Lanbao sensors boast outstanding quality and safe, reliable performance. They are sold to over 120 countries worldwide and serve more than 30,000 users globally. The Lanbao brand: Connecting the world, Sensing the dream.

We are committed to meeting customer needs and optimizing the quality of human life. Lanbao aims at breaking through technical bottlenecks, strive to overcome difficulties to supply customers with reliable, sustainable and guaranteed products, and creating unlimited value for customers.

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Users

120+

Countries



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- Dynamic system, excellent service, and comprehensive quality control.



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▪ Lanbao's technical team provides customers with complete services from product selection, personalized customization, sales, system integration, training, operation, customized solutions. Lanbao provides customers with efficient customized services and quality assurance. Standard orders and regular stock products can be shipped immediately, maintenance, after-sales and upgrade.

CUSTOMIZED SOLUTIONS

- Lanbao provides customers with efficient customized services and quality assurance.
- Standard orders and regular stock products can be shipped immediately.



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- Website+Catalog for selection, Lanbao professional team offers more efficient online selection services, providing professional customized solutions for different situations.

Lanbao websites:

www.lanbaosensor.com/www.cnlanbaosensor.com



QUALITY SYSTEM WITH EFFICIENCY MANAGEMENT

- The reliable and stable manufacturing management system makes Lanbao intelligent production come true. Each product of Lanbao not only strictly implements feasibility and reliability review in the design stage but also has strict control by quality statistical management in the production process. In this way, product's great performance and ability to withstand harsh environment can be ensured. With the ultimate spirit of ingenuity, Lanbao guarantees the best quality of products to satisfy customer's needs.