以激光技术为用户精准赋能
Gather Power, Gain the Point





PRODUCT SELECTION GUIDE

Shanghai Jumeng Intelligent Technology Co., Ltd.

Address: 2/F, Building 2, No.4588 Cao'an Highway, Jiading District, Shanghai
Business Inquiry: 133 7186 5086 (Marketing Dept.)
Sales Hotline: 181 0179 9606 (Manager Qiang)
https://www.gatporsensor.com/en
Email: marketing@sh-jmzn.com

WeChat Channels Tik Tok

GATPOR 聚强智能

- Other Switches
- Laser Displacement Sensor
- Photoelectric Sensor
- Laser displacement sensor
- Wireless Communication

About GATPOR

Year Of Establishment

2019

R&D Center & Automated Production Line

5000+ m²

Invention Patents, Utility Model Patents & Software Copyrights

50+

Top Start-Up With The Greatest Investment Potential In Shanghai

Over 40% R&D staff

Founded in 2019, Juqiang Intelligence specializes in independent R&D and domestic substitution of high-end laser sensors to end the long-standing monopoly of foreign brands. With a 5,000+ m² R&D & manufacturing base, we have established an integrated nationwide network: Shanghai R&D Center, Shaoxing smart manufacturing plant, Shenzhen Branch, and offices in Changsha, Guangzhou and other cities.

With six years of intensive technology research, Juqiang Intelligence independently develops high-precision laser distance sensors. Featuring high accuracy, long range, high refresh rate, strong anti-interference and low cost, our products are widely used in AI, smart elevators, logistics automation, photovoltaics, lithium batteries, ports and other fields, with bulk deliveries to many leading industry clients.

The company holds over 50 patents and software copyrights. As a Shanghai High-tech Enterprise, we have obtained ISO9001 and CE Certifieds. Having secured tens of millions of RMB in Angel, Pre-A and Pre-A+ financing rounds, we continuously empower industrial AI and smart manufacturing upgrading with core technologies.

- **Methodology of Automotive LiDAR for Industrial Scenarios**
  By leveraging mature methodologies of automotive LiDAR, we achieve industrial ranging with longer distance, higher precision, stronger anti-interference and faster response.

- **A cross-disciplinary, site-experienced team delivering implementable solutions.**
  Core team members are from renowned organizations including STEP, Hesai, CAS and Omron, boasting solid backgrounds in laser ranging, motion control and industrial automation.

- **Full-stack in-house R&D and local delivery to effectively reduce total cost of ownership.**
  We master the full chain from algorithms and optics to production lines and quality control, with controllable supply chain and delivery lead time. Over 50 patents and software copyrights provide solid protection.





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Laser Distance Sensors

LD800 SERIES LASER DISTANCE SENSORS

For Aerospace、Marine And Military Applications



Aerospace Marine & Military Use

Ultra-Long Range

High Light Resistance

Ultra-Light Weight

Ultra-Low Power

Ultra-Compact Size



Product Introduction

The LD800 series laser distance sensors adopts absolute measurement method. it is used for horizontal and vertical position measurement of various machinery. it features 500hz refresh rate, 1mm accuracy, maximum Detection Range of 200m and light weight of only 140g.

Product Series	Basic Version	Wide Temp Version	Detection Range	Repeatability	Comm Interface	Operating Temp
LD800 Series	LD812 50	LD812 50 W	0.3~50m	±1mm	RS485+CANopen	-10°C ~55°C W:-40°C ~75°C
	LD812 100	LD812 100 W	0.3~100m			
	LD812 200	LD812 200 W	0.3~200m			

Application Scenarios

Widely applied in aerospace, marine, military and high-end manufacturing industries.



Aerospace



Marine



Defense



High-end Manufacturing

Technical Specifications

Specifications		Ld800
Ranging Technical Specifications	Detection Range	50m/100m/200m
	Accuracy	±2mm
	Repeatability	±1mm
	Frame Rate	500hz
	Spot Diameter	≤ 30mm
	Response Time	Static: 25 Ms; Dynamic: 5 Ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.1mm/K
	Moving Speed	≤ 10m/S
	Start-Up Time	6s
	Operating Temp	-20°C ~70°C
Optical Specifications	Light Source	Laser, Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18v~30v Dc
	Operating Current	≤ 30ma / 24v Dc
Rs485 Interface Specifications	Baud Rate (Bit/S)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
Canopen Interface Specifications	Baud Rate (Kbit/S)	20/50/57.143/100/125/250/500/1000
Mechanical Specifications	Dimensions	26mm X 72mm X 55mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 140 G
	Ip Rating	Ip66
Environmental Specifications	Ambient Light Interference	Immune To Ambient Light @ 100 Klux
	Operating Temp	-10°C ~55°C W:-40°C ~75°C
	Storage Temperature	-40°C ~85°C



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Laser Distance Sensors

LD500 SERIES LASER DISTANCE SENSORS

Flagship Products



Flagship Products

CE Certified

Precise Control

Multi-protocol interfaces

Easy Installation

Immune To Ambient Light



Product Introduction

LD500 Series high precision laser distance sensors uses dtof laser ranging technology. 500hz measurement speed, 1mm accuracy, max range 200m.

Product Series	Model		Detection Range	Repeatability	Reflective Target	Comm Interface	Operating Temp
	Basic Version	Wide Temp Version					
LD512 Series	LD512T 100	LD512T 100W	0.3~100m	±1mm	100m, 90% Diffuse 50m, 18% Diffuse 25m, 6% Diffuse	RS485 + CANopen	-10℃ ~55℃ W:-40℃ ~75℃
LD503 Series	LD503T 100	LD503T 100W				SSI	
LD504 Series	LD504T 100	LD504T 100W				PROFINET	
LD512 Series	LD512L 50	LD512L 50W	0.3~50m 0.3~100m 0.3~200m		High Reflectivity	RS485 + CANopen	
	LD512L 100	LD512L 100W					
	LD512L 200	LD512L 200W					
LD503 Series	LD503L 50	LD503L 50W				SSI	
	LD503L 100	LD503L 100W					
	LD503L 200	LD503L 200W					
LD504 Series	LD504L 50	LD504L 50W				PROFINET	
	LD504L 100	LD504L 100W					
	LD504L 200	LD504L 200W					

Application Scenarios

Widely used in X/Y axis positioning for warehouse retrieval systems, AGV positioning, anti-collision & positioning of indoor cranes, cathead crane positioning, protection and anti-collision for AS/RS stackers, logistics laser positioning, vertical positioning of load suspension devices, car lift positioning, optical data transmission, and heavy truck battery swap station positioning.



Logistics



Crane



Heavy Truck Battery Swap



Industrial Automation

Technical Specifications

Specifications		LD500
Ranging Technical Specifications	Detection Range	50m/100m/200m
	Repeatability	±1mm
	Frame Rate	500Hz
	Spot Diameter	≤ 30mm/ ≤ 60mm/ ≤ 100mm/ ≤ 180mm
	Response Time	Static: 20ms; Dynamic: 5ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.1mm/K
	Moving Speed	≤ 15m/s
	Start-Up Time	6s
Optical Specifications	Light Source	Laser / Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18V~30V DC
	Operating Current	≤ 120mA / 24V DC
RS485Interface Specifications	Baud Rate (Bit/S)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
CANopenInterface Specifications	Baud Rate (Kbit/S)	20/50/57.143/100/125/250/500/1000
SSIInterface Specifications	Clock Frequency	80kHz~500kHz
PROFINETInterface Specifications	Transmission Rate/Mode	100Mbps/Full Duplex
	Maximum Cable Length	100m
RS422Interface Specifications	Baud Rate(Bit/S)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
Mechanical Specifications	Dimensions	106.5mm x 93mm x 102.9mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 850g
	Ip Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Up to 100kLux)
	Operating Temp	-10℃ ~55℃ ; W: -40℃ ~75℃
	Storage Temperature	-40℃ ~85℃
Product Certified	Ce Certified	IEC 61010-1:2010,IEC 61010-1:2010/AMD1:2016
		EN 61010-1:2010.EN 61010-1:2010/A1:2019
	Laser Safety Class	2 (EN60825:2014)



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Laser Distance Sensors

LD300 SERIES LASER DISTANCE SENSORS

Long Range



Long Range

Fast Refresh Rate

Precise Control

Multi-Protocol Interfaces

Easy Installation

Immune To Ambient Light



Product Introduction

LD300 Series general laser distance sensors adopts dtof laser ranging technology, with 100hz measurement speed, 3mm accuracy and 150m max range.

Product Series	Model		Detection Range	Repeatability	Reflective Target	Comm Interface	Operating Temp
	Basic Version	Wide Temp Version					
LD300 Series	LD312T 60	LD312T 60W	0.3~60m	±3mm	60m, 90% Diffuse 30m, 18% Diffuse 15m, 6% Diffuse	RS485 + CANopen	-10°C ~55°C W:-40°C ~75°C
	LD312L 50	LD312L 50W	0.3~50m	±3mm	High Reflectivity		
	LD312L 100	LD312L 100W	0.3~100m	±3mm			
	LD312L 150	LD312L 150W	0.3~150m	±3mm			

Application Scenarios

Widely applied in X/Y positioning for warehouse retrieval, AGV, indoor crane anti-collision & positioning, cathead crane, AS/RS stacker safety protection, logistics laser positioning, vertical positioning of load hangers, car lift, optical data transmission and heavy truck battery swap station.



Logistics



Crane



Heavy Truck Battery Swap



Industrial Automation

Technical Specifications

Specifications		LD300
Ranging Technical Specifications	Detection Range	50m/60m/100m/150m
	Repeatability	±3mm
	Frame Rate	100Hz
	Spot Diameter	≤ 30mm/ ≤ 60mm/ ≤ 100mm/ ≤ 150mm
	Response Time	Static: 30ms; Dynamic: 10ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.15mm/K
	Moving Speed	≤ 10m/s
	Start-Up Time	6s
Optical Specifications	Light Source	Laser / Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18V~30V DC
	Operating Current	≤ 120mA / 24V DC
RS485Interface Specifications	Baud Rate (Bit/S)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
CANopenInterface Specifications	Baud Rate (Kbit/S)	20/50/57.143/100/125/250/500/1000
Mechanical Specifications	Dimensions	104.50mm x 83mm x 70mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 600g
	Ip Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Up to 100kLux)
	Operating Temp	-10°C ~55°C ; W: -40°C ~75°C
	Storage Temperature	-40°C ~85°C



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Laser Distance Sensors

LD200 SERIES LASER DISTANCE SENSORS

High Precision



High Precision

Fast Refresh Rate

Easy Installation

Multi-Protocol Interfaces

Immune To Ambient Light



Product Introduction

LD200 Series laser distance sensors adopts dtof laser ranging technology, with 100hz measurement speed, 1mm accuracy and 25m max range.

Product Series	Model		Detection Range	Repeatability	Comm Interface	Operating Temp
	Basic Version	Wide Temp Version				
LD200 Series	LD212 20	LD212 20W	0.3~20m	±1mm	RS485 + CANopen	-10℃ ~55℃ W:-40℃ ~75℃
	LD212 25	LD212 25W	0.3~25m	±1mm		

Application Scenarios

Widely used for vertical positioning of warehouse cranes, vertical positioning of electric overhead conveyors and diameter monitoring during coil winding.



Logistics



Crane



Vertical Positioning



Industrial Automation

Technical Specifications

Specifications		LD200
Ranging Technical Specifications	Detection Range	20m/25m
	Repeatability	±1mm
	Frame Rate	100Hz
	Spot Diameter	≤ 30mm
	Response Time	Static: 25ms; Dynamic: 5ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.1mm/K
	Moving Speed	≤ 10m/s
	Start-up Time	6 秒
Optical Specifications	Light Source	Laser / Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18V~30V DC
	Operating Current	≤ 120mA / 24V DC
RS485Interface Specifications	Baud Rate (bit/s)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
CANopenInterface Specifications	Baud Rate (kbit/s)	20/50/57.143/100/125/250/500/1000
Mechanical Specifications	Dimensions	104.50mm x 83mm x 70mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 600g
	IP Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Up to 100kLux)
	Operating Temp	-10℃ ~55℃ ; W: -40℃ ~75℃
	Storage Temperature	-40℃ ~85℃



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Laser Distance Sensors

LD100 SERIES LASER DISTANCE SENSORS

Cost-Effective



Cost-Effective

CE Certified

Precise Control

Fast Refresh Rate

Easy Installation

Immune to Ambient Light



Product Introduction

LD100 Series laser distance sensors is an absolute ranging sensor for horizontal & vertical position measurement of all types of machinery. 100hz refresh rate, 1mm accuracy, max range 35m.

Product Series	Model		Detection Range	Repeatability	Reflective Target	Comm Interface	Operating Temp
	Basic Version	Wide Temp Version					
LD112 Series	LD112T 30	LD112T 30W	0.3~30m	±1mm		RS485 + CANopen	-10℃ ~55℃ W:-40℃ ~75℃
LD115 Series	LD115T 30	LD115T 30W		±1mm		RS485+Analog+PNP/NPN	
LD112 Series	LD112L 15	LD112L 15W	0.3~15m	±1mm	High Reflectivity	RS485 + CANopen	
	LD112L 35	LD112L 35W	0.3~35m	±1mm			
LD115 Series	LD115L 15	LD115L 15W	0.3~15m	±1mm		RS485+Analog+PNP/NPN	
	LD115L 35	LD115L 35W	0.3~35m	±1mm			

Application Scenarios

Widely used in automated warehousing, logistics equipment, crane trolley movement, spreader lifting, forklift lifting and elevator positioning systems. Replaces draw-wire encoders for higher equipment reliability.



Logistics



Stacker



Forklift



Elevator

Technical Specifications

Specifications		LD100
Ranging Technical Specifications	Detection Range	15m/30m/35m
	Accuracy	±2mm
	Repeatability	±1mm
	Frame Rate	100Hz
	Spot Diameter	≤ 30mm
	Response Time	Static: 25ms; Dynamic: 5ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.1mm/K
	Moving Speed	≤ 10m/s
	Start-up Time	6 秒
	Operating Temp	-10℃~55℃ ; W: -40℃~75℃
Optical Specifications	Light Source	Laser / Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18V~30V DC
	Operating Current	≤ 30mA / 24V DC
RS485Interface Specifications	Baud Rate (bit/s)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
CANopenInterface Specifications	Baud Rate (kbit/s)	20/50/57.143/100/125/250/500/1000
Mechanical Specifications	Dimensions	26mm x 72mm x 55mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 140g
	IP Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Up to 100kLux)
	Operating Temp	-10℃~55℃ ; W: -40℃~75℃
	Storage Temperature	-40℃~85℃



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Laser Distance Sensors

LD35 SERIES LASER DISTANCE SENSORS

Visible Light



Visible Light

High Precision

Blind-Zone Free

Small Spot

Easy Installation

Compact



Product Introduction

Widely applied in surveying, automated warehousing, logistics equipment, stacker travel & lifting, crane trolley translation, spreader lifting, forklift lifting and elevator positioning systems. It replaces draw-wire encoders to improve equipment operational reliability.

Product Series	Model		Detection Range	Repeatability	Reflective Target	Comm Interface	Operating Temp
	Basic Version	Wide Temp Version					
LD35 Series	LD35T-A R 12	LD35T-A R 12W	12m	±2mm (Typical)	12m, 90% Diffuse 6m, 18% Diffuse 3m, 6% Diffuse	PNP/NPN+Analog	-10~55℃ W:-40℃ ~75℃
	LD35T-B R 12	LD35T-B R 12W				RS485	
	LD35L-A R 35	LD35L-A R 35W	35m		High Reflectivity	PNP/NPN+Analog	
	LD35L-B R 35	LD35L-B R 35W				RS485	

Application Scenarios

Widely applied in surveying, automated warehousing, logistics equipment, stacker travel & lifting, crane trolley translation, spreader lifting, forklift lifting and elevator positioning systems. It replaces draw-wire encoders to improve equipment operational reliability.



Logistics



Stacker



Forklift



Elevator

Technical Specifications

Specifications		LD35			
Ranging Technical Specifications	Model	LD35L-A	LD35T-A	LD35L-B	LD35T-B
	Detection Range	35m	12m	35m	12m
	Reflective Target	High Reflectivity	Diffuse Reflectivity	High Reflectivity	Diffuse Reflectivity
	Measured Target	Natural Target			
	Detection Range	50 mm ... 15,000 mm, 90% Diffuse 50 mm ... 5,300 mm, 18% Diffuse Reflection 50 mm ... 3,100 mm, 6% Diffuse			
	Repeatability	±2mm			
	Measurement Accuracy	Typ. ± 10 mm			
	Resolution	100 µm			
	Response Time	25ms/50ms/100ms/200ms			
	Switching Frequency	33 Hz / 16 Hz /8 Hz /4 Hz			
	Output Time	10ms/20ms/40ms/80ms			
	Typical Spot Dimensions	15 mm x 15 mm (At 2m)			
	Operating Temp	-10~55℃ W:-40℃ ~75℃			
	Other Functions	Adjustable speed from ultra-fast to ultra-slow. It supports teach-in & reversible analog output. Output Q2 is switchable among current, voltage and digital signals. Available modes: DtO, Window and ObSB. Equipped with teachable & reversible digital output, multi-function input (Laser Off / External Teach / Disable), and factory reset function.			
Interface Specifications	Output Interface	Dual Digital Outputs	RS-485		
		1-CH 4~20mA Analog Output			
	Digital Output	NPN/PNP Configurable	-		
		NO/NC Configurable			
		Default: NPN, NO			
	Max Digital Load	100mA	-		
	Max Analog Load	300Ω	-		
	Comm InterfaceBaud Rate	-	4800/9600/14400/19200/ 38400/56000/57600/115200/ 128000/256000 (Default 9600)		
	Termination Resistor	-	Configurable, Unconnected by Default		
	Connection	5-Core PVC Cable, Unterminated			
Optical Specifications	Light Source	Green Laser			
	Laser Safety Class	2 (EN60825:2014)			
	Laser Attenuation	0.5% / Year			
Electrical Specifications	Supply Voltage	10-30V DC			
	Power Consumption	≤ 1.3W			
Mechanical Specifications	Dimensions	32mm x 58.67mm x 42.7mm			
	Housing	Plastic (ABS / PC)			
	Weight	65 g			
	IP Rating	IP66			
Environmental Specifications	Ambient Light Interference	50KLux			
	Operating Temp	-10~55℃ W:-40℃ ~75℃			
	Storage Temperature	-40~85℃			
	ESD	±6kV			



Laser Distance Sensors

BL100 EXPLOSION-PROOF LASER DISTANCE SENSORS

✦ Explosion-Proof





Explosion-Proof

High Precision



Compact Size

High Light Immunity

Product Introduction

BL100 Series explosion-proof high-precision laser distance sensors deliver explosion protection, ultra-high precision, compact size and strong anti-interference. tailored for hydrogen refueling stations, dust workshops, flammable & explosive sites and fire protection equipment, they support precision measurement and safety control for high-risk operations.

Product Series	Basic Version	Wide Temp Version	Detection Range	Repeatability	Comm Interface	Operating Temp
BL112 Series	BL112 15	BL112 15 W	0.3~15m	±1mm	CANopen+RS485	-10℃ ~55℃ W:-40℃ ~75℃
BL115 Series	BL115 15	BL115 15 W	0.3~15m	±1mm	RS485 + 4~20mA + Dual Digital Outputs	

Application Scenarios

Widely applied in hydrogen refueling stations, dust workshops, flammable sites, fire-fighting equipment and other scenarios.



Hydrogen Refuelling Station



Dust Workshop



Flammable Areas



Fire Protection Equipment

Technical Specifications

Specifications		BL100
Ranging Technical Specifications	Detection Range	0.3-15m
	Accuracy	±2mm
	Repeatability	±1mm
	Frame Rate	100Hz
	Spot Diameter	≤ 30mm
	Response Time	Static: 25ms; Dynamic: 5ms
	Resolution	0.1mm/1mm Adjustable
	Temperature Drift	≤ 0.1mm/K
	Moving Speed	≤ 10m/s
	Start-up Time	6 秒
	Operating Temp	-10℃ ~55℃ ; W: -40℃ ~75℃
Optical Specifications	Light Source	Laser / Infrared
	Wavelength	905nm+650nm
Electrical Specifications	Supply Voltage	18V~30V DC
	Operating Current	≤ 30mA / 24V DC
RS485Interface Specifications	Baud Rate (bit/s)	9600/19200/38400/57600/115200
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
CANopenInterface Specifications	Baud Rate (kbit/s)	20/50/57.143/100/125/250/500/1000
Mechanical Specifications	Dimensions	26mm x 72mm x 55mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 140g
	IP Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Up to 100kLux)
	Operating Temp	-10℃ ~55℃ ; W: -40℃ ~75℃
	Storage Temperature	-40℃ ~85℃



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TOF Photoelectric Sensor

LAS20 SERIES SENSORS

✦ Max. 20 m / Diffuse Reflection



Max. 20m, Diffuse Reflection

Cost-Effective

Wide Range

Rich Serial Ports

High Noise Immunity

Visual Display



Product Introduction

LAS20 Series sensors adopt absolute measurement for distance detection, measuring up to 20 m on flat surfaces of any material. detection range: 0.02 m ~ 20 m; repeat accuracy: ±8 mm / ±20 mm / ±30 mm; outputs: configurable npn/pnp, configurable no/nc, and rs485.

Model	Model	Detection Range	Repeatability	Output Type	Frame Rate
LAS20Series	LAS20-A	0.02m~20m	±8mm@0.02~2m ±20mm@2~6m ±30mm@6~20m	Dual Digital + Analog	100Hz
	LAS20-B	0.02m~20m		RS-485	

Application Scenarios

Widely used for AGV robot anti-collision & obstacle avoidance systems, crane jib limit protection, automatic forklift reverse anti-collision assistance, aerial work platform boundary detection, industrial sliding door pinch prevention, and obstacle avoidance control for intelligent warehouse conveying lines.



AGV Robot



Crane



Forklift



Smart Warehouse

Technical Specifications

Specifications		LAS20-A	LAS20-B
Detection Range	Detection Range	0.02m~20m	
	Repeatability	±8mm@0.02~2m ±20mm@2~6m ±30mm@6~20m	
	Measurement Accuracy	±20mm@0.2~2m ±30mm@2~6m <1%@6~20m	
	Frame Rate	100Hz	
	Temp Compensation	yes	
	Reflectance Correction	yes	
Optical Specifications	Light Source	Laser / Infrared	
	Wavelength	905nm, Operating Laser 650nm, Indicator Laser	
	Laser Safety Class	Class 1@905nm (EN60825:2014)	
		Class 2@650nm (EN60825:2014)	
	Spot Diameter	Φ3.5cm@1m Φ11.5cm@5m Φ23cm@10m Φ50cm@20m	
Electrical Specifications	Operating Voltage	9~35V DC	
	Operating Current	≤ 110mA@24V DC	≤ 40mA@24V DC
	Reverse Protection	yes	
Interface Specifications	Output Interface	Dual Digital Outputs	RS-485
		1-Channel Analog Output	
	Digital Output	NPN/PNP Configurable	-
		NO/NC Configurable	
		Default: NPN, NO	
	Max Load for Digital Output	100mA	-
	Max Analog Load	300Ω	-
	Comm InterfaceBaud Rate	-	4800/9600/14400/19200/ 38400/56000/57600/115200/ 128000/256000 (Default 9600)
	Termination Resistor	-	Configurable, Unconnected by Default
	Connection	5-Core PVC Cable, Unterminated	
Mechanical Specifications	Dimensions	21mm x 50mm x 40mm	
	Housing	ABS (Plastic)	
	Lens	Acrylic	
	Weight	Approx. 70g	
Environmental Specifications	Ambient Light Interference	Detection Range 20m (Ambient Illuminance 100kLux)	
	Operating Temp	-20~50°C	
	Storage Temperature	-40~85°C	
	IP Rating	IP66	



TOF Photoelectric Sensor

PS SERIES TOF VISIBLE LIGHT SENSOR

✦ Built-In Visible Light Source



Built-in visible laser

CE Certified

Long Range

Fast Response

Diffuse

One-Click Setup

New



PS01R

PS05R



Fall Detection



Pallet Warehouse



Logistics



3C Automation

✦ Product Introduction

PS Series ToF Visible Light Sensor adopts ToF laser ranging technology to detect the presence or absence of objects at any position. It features a refresh rate of 100 hz, maximum measuring distance of 5 m, and Repeatability of 5 mm.

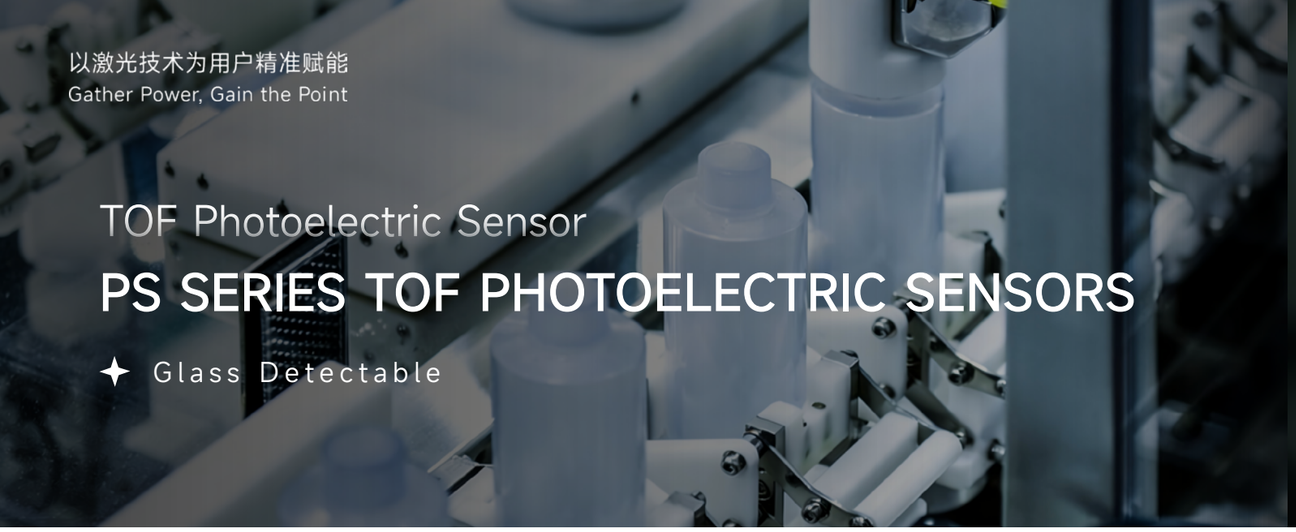
Product Series	Model	Detection Range	Refresh Rate	Repeatability	Output Type
PS01R Series	PS01 50 NV-R	50cm	100Hz	±5mm	NPN/PNP
	PS01 50 PV-R				
	PS01 200 NV-R	200cm			
	PS01 200 PV-R				
PS05R Series	PS05 200 NV-R	200cm	100Hz	±5mm	NPN/PNP
	PS05 200 PV-R				
	PS05 500 NV-R	500cm			
	PS05 500 PV-R				

✦ Application Scenarios

Widely applied in fall detection, anti-slip protection for pallet warehouses, safe lifting height measurement, shuttle vehicle collision avoidance in small-parts warehouses, idle-running monitoring of assembly machines, stacked chip & object presence detection, roll material diameter control, logistics equipment, food machinery/packaging machines, and forming machines.

✦ Technical Specifications

Specifications	PS01R (Standard)	PS05R (Advanced)
Product Features	Visible LightToF	Small Spot Long Range
Detection Range	50cm/200cm	200cm/500cm
Light Source	680nm Red Dot Laser	650nm Red Dot Laser
Spot Size	6mm@10cm, 12mm@30cm, 24mm@50cm	3mm
Glass Detectable	Yes	No
Output Type	PNP/NPN	PNP/NPN Digital Output (RS485 TBD)
Dimensions	33.7mmx22mmx13mm(L x W x H)	34.4mmx22.4mmx14mm(L x W x H)
Repeatability	±5mm	
High Immunity	High Light Immunity	
Refresh Rate	100Hz	
IP Rating	IP66	
Operating Temp	-20°C ~65°C	
Storage Temperature	-40°C ~75°C	
ESD	±6KV	
Supply Voltage	+12V~+24V	
Operating Current	8mA~20mA	
Power Consumption	<1W	
Max Output Current	<100mA	
Housing Material	PVC+ABS	
Cable Type	2.5×4P, Cable Outlet / Connector Type	
Cable L	2m	
Pin Assignment	Brown (+) , Blue (-) , Black(Output) , White (Datasheet/(NC) connection+floating: NC; connected-:NO)	



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TOF Photoelectric Sensor

PS SERIES TOF PHOTOELECTRIC SENSORS

✦ Glass Detectable



Glass detectable

CE Certified

Long Range

Fast Response

Diffuse

One-Click Setup





Fall Detection



Pallet Warehouse



Logistics



3C Automation

✦ Product Introduction

PS Series ToF photoelectric sensor adopts ToF laser ranging technology to detect the presence or absence of objects at any position. It features a refresh rate of 50 hz, maximum measuring distance of 5 m, and Repeatability of 5 mm.

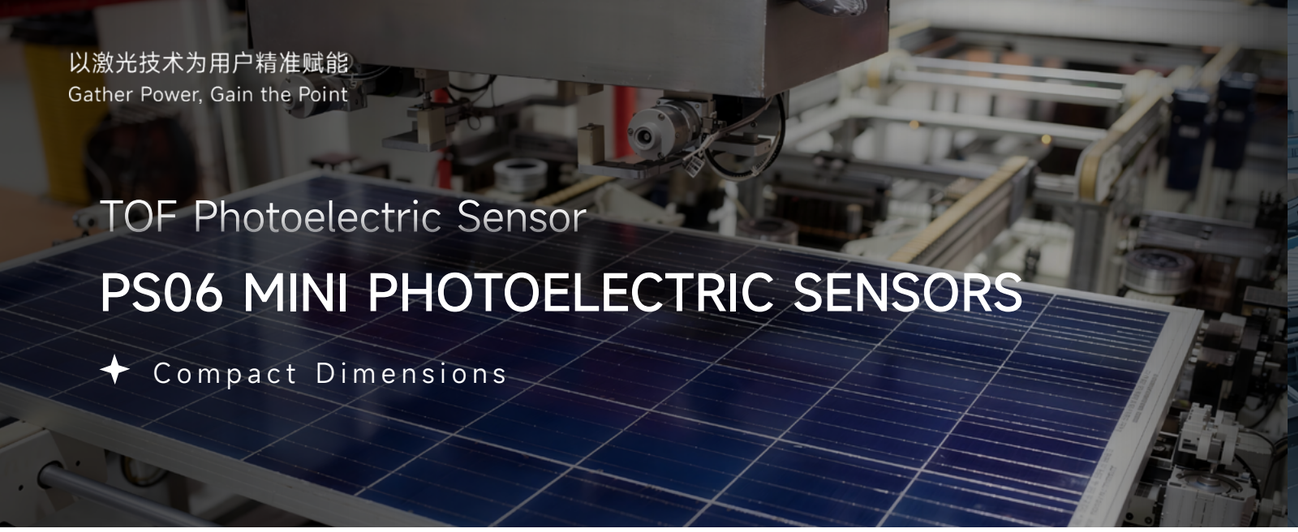
Product Series	Model		Detection Range	Refresh Rate	Repeatability	Output Type
PS01 Series	PS01 30 PV	PS01 30 NV	30cm/200cm/500cm	50Hz	±5mm	NPN/PNP
	PS01 200 PV	PS01 200 NV				
	PS01 500PV	PS01 500 NV				
PS01 M8 Series	PS01 30 M8 PV	PS01 30 M8 NV	30cm/200cm/500cm	50Hz	±5mm	NPN/PNP
	PS01 200 M8 PV	PS01 200 M8 NV				
	PS01 500 M8 PV	PS01 500 M8 NV				
PS03 Series	PS03 30 ID10		30cm/200cm/500cm	50Hz	±5mm	RS485
	PS03 200 ID10					
	PS03 500 ID10					
PS04 Series	PS04 50 PV	PS04 50 NV	50cm	50Hz	±10mm	NPN/PNP
PS05 Series	PS05 200 PV	PS05 200 NV	200cm/500cm	50Hz	±5mm	NPN/PNP
	PS05 500PV	PS05 500 NV				

✦ Application Scenarios

Widely used for fall detection, anti-slip protection in pallet warehouses, safe lifting height detection, shuttle vehicle collision avoidance in small parts warehouses, idle running monitoring of assembly machines, stacked chip and object presence detection, roll material diameter control, logistics equipment, food machinery/packaging machines and forming machines.

✦ Technical Specifications

Specifications	PS01	PS03	PS04	PS05
Product Features	Standard	RS485 Interface	Detect transparent objects、springs	Red Dot Teach
Detection Range	0.3m/2m/5m		0.5m	2m/5m
Repeatability	±5mm		±5mm	±5mm
Light Source	940nm Infrared Laser			940nm Infrared Laser 650nm Teach Laser
High Immunity	High Light Resistance			
Refresh Rate	50Hz			
Spot Size	8mm@50cm，30mm@100cm		30mm@10cm 60mm@20cm	8mm@50cm 30mm@100cm
IP Rating	IP66			
Operating Temp	-20°C ~65°C			
Storage Temperature	-40°C ~75°C			
静电 ESD	±6KV			
Supply Voltage	+12V~+24V			
Operating Current	8mA~20mA			
Power Consumption	<1W			
Max Output Current	<100mA			
Output Type	PNP/NPN	RS485	PNP/NPN	PNP/NPN
Dimensions	19mm x 14mm x 10.4mm(L x W x H)			22mmx14mmx33mm
Housing Material	PVC			
Cable Type	2.5x4 Psheath Cable outlet Type/ Connector Type	2.5x4 Psheath Cable Outlet Type	2.5x4 Psheath Cable outlet Type/ Connector Type	2.5x4 Psheath Cable outlet Type/ Connector Type
Cable L	2m			
Pin Assignment	Brown (+) , Blue (-) , Black(Output) , White (Datasheet/(NC) connection+floating: NC; connected-:NO)			



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TOF Photoelectric Sensor

PS06 MINI PHOTOELECTRIC SENSORS

✦ Compact Dimensions



Compact Dimensions

Diffuse

Fast Response

Multi-material detection

Detect mirror at ±25° deflection



✦ Product Introduction

PS06 Adopts compact photoelectric sensor with dToF laser ranging technology, and can detect the presence or absence of objects at any position. It features 100Hz refresh rate, max Detection Range of 40~500mm (customizable) and 5mm Repeatability.

Product Series	Model	Detection Range	Refresh Rate	Repeatability	Output Type
PS06 Series	PS06 NV	40~500mm(Customizable)	100Hz	±5mm	NPN
	PS06 PV				PNP

✦ Application Scenarios

Widely used in scenarios with limited installation space and large variations in the angle and material of detected objects, such as PCB and metal sheet production lines.



PCB Production Line



Metal Sheet Production Line

✦ Technical Specifications

Specifications	PS06
Detection Range	0 ~ X mm (40 ≤ X ≤ 500, X is factory-calibrated and fixed)
Repeatability	±5mm
Light Source	940nm Infrared Laser
High Immunity	High Light Resistance
Refresh Rate	100Hz
Spot Size	12mm*12mm/30mm
Divergence Angle	±25°
IP Rating	IP66
Operating Temp	-20℃ ~65℃
Storage Temperature	-40℃ ~75℃
ESD	±6KV
Supply Voltage	+12V~+24V
Operating Current	8mA~20mA
Power Consumption	<1W
Max Output Current	<100Ma
Output Type	NPN
Dimensions	24mm x 13mm x 7.7mm(L x W x H)
Housing Material	PVC
Cable Type	2.5x4P sheath, Cable Outlet Type
Cable L	2m



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TOF Photoelectric Sensor

PS01 T LASER THROUGH-BEAM SENSORS

Long Detection Range



Long Detection Range

High Visibility

High-precision Alignment

Small Light Spot

Easy Installation

Multiple Output Types



Product Introduction

PS01 T Laser through-beam photoelectric sensor delivers outstanding performance with excellent cost performance. furthermore, its extended specifications limits enable it to be applied in special scenarios previously only addressed by dedicated series, bringing advantages to customers in product selection and inventory management.

Product Series	Model	Product Type	Detection Range	Refresh Rate	Output Type
PS01 T Series	PS01 T40 L	transmission	40m	1000Hz	/
	PS01 T40N D	NPN reception			NPN
	PS01 T40P D	PNP reception			PNP

Application Scenarios

Capable of detecting all types of objects. It comes with oil-resistant and flex-resistant tinned copper cables. Boasting an aesthetic design, this general-purpose sensor can fully replace equivalent products.



Fall Detection



Pallet Warehouse



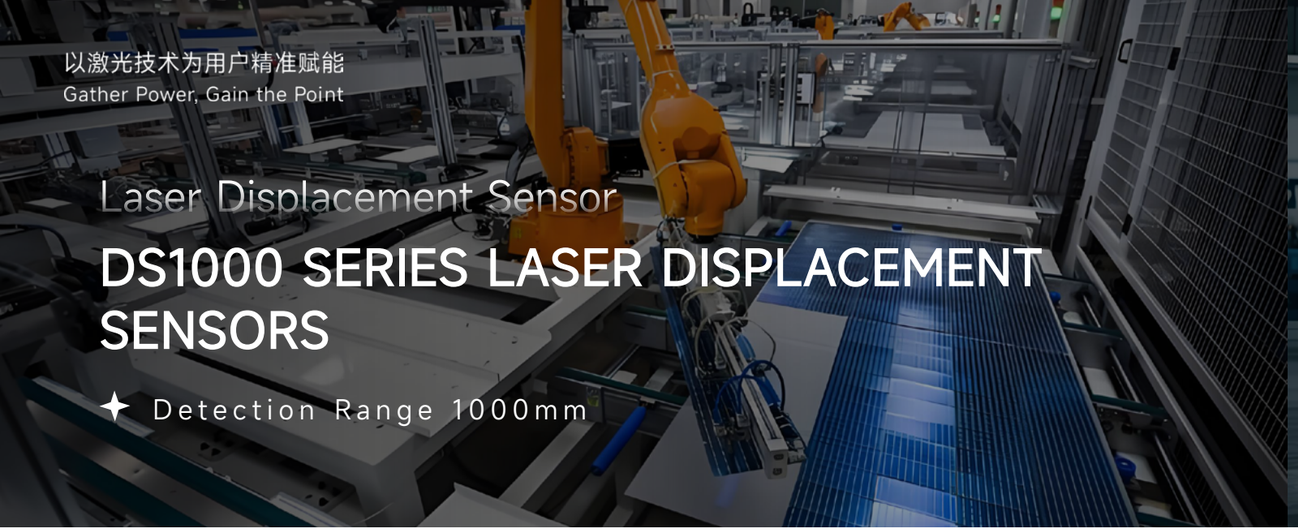
Logistics



3C Automation

Technical Specifications

Specifications	PS01 T		
Type	Transmission	Reception	
Model	PS01 T 40 L	PS01 T40 N	PS01 T40 P
Output Type	/	NPN	PNP
Output Function	/	NO/NC	
Detection Range	40m		
Refresh Rate	1000Hz		
Operating Distance	≤ 75%		
Operating Voltage	DC12~24V		
Voltage Drop	≤ 2V		
Cable Configuration	DC 3 Wire		
No-load Current	≤ 30mA		
Load Current	≤ 150mA		
Repeatability	≤ 2%		
Temperature Drift	±10%		
Output Type	NPN/PNP		
Spot Size	Red Laser Diode(650nm) Spot 1*2mm		
Connection Type	sheath Wire, PVC, 2M		
IP Rating	IP66		
Response Time	1.0ms max		
Short-circuit Protection	√		
Reverse Polarity Protection	√		
Power-on Pulse Suppression	√		
Operating Ambient Temperature	-20° C~55° C		
Housing Material	ABS+PMMA		



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Laser Displacement Sensor

DS1000 SERIES LASER DISPLACEMENT SENSORS

Detection Range 1000mm



Detection Range 1000mm

Metal Housing

Response Time <1ms



Product Introduction

The DS1000 series laser displacement sensor adopts the triangulation measurement principle. It is designed for distance measurement within the range of 200 mm to 1000 mm towards the target plane.

Product Series	Model	Detection Range	Repeatability	Comm Interface	Operating Temp
DS Series	DS 1000	200mm~1000mm	0.03~0.5mm*1	RS485	-10°C ~50°C
*1: 200-300/0.03mm; 300-400/0.05mm; 400-500/0.1mm; 600-800/0.4mm; 800-1000/0.5mm					

Application Scenarios

Widely used for positioning moving automation mechanisms, target detection and object inspection on automated production lines, as well as mobile equipment.



Positioning & Movement

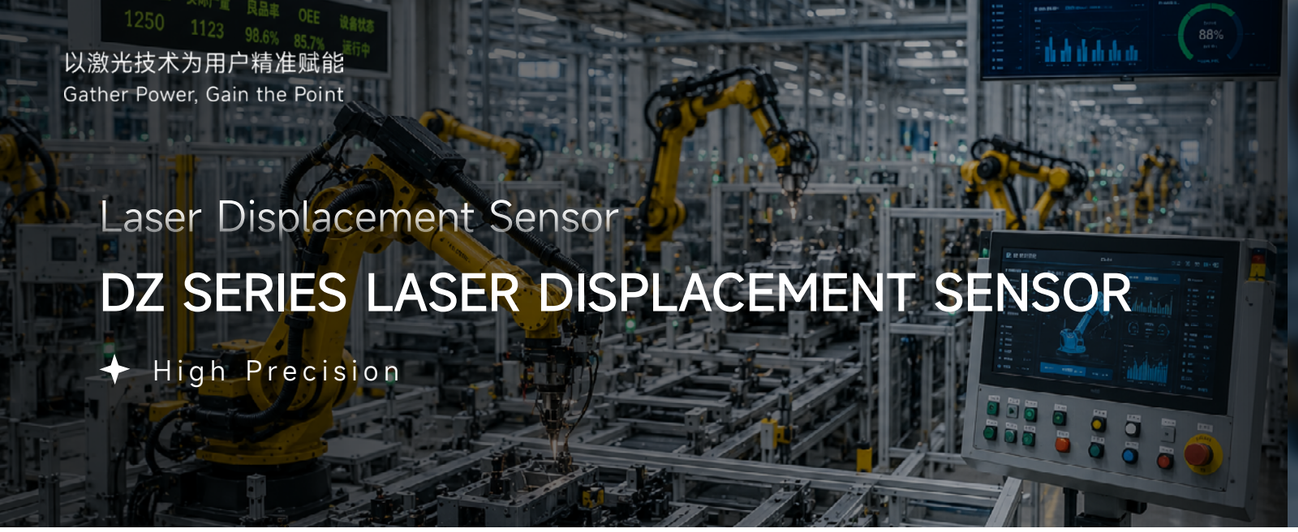


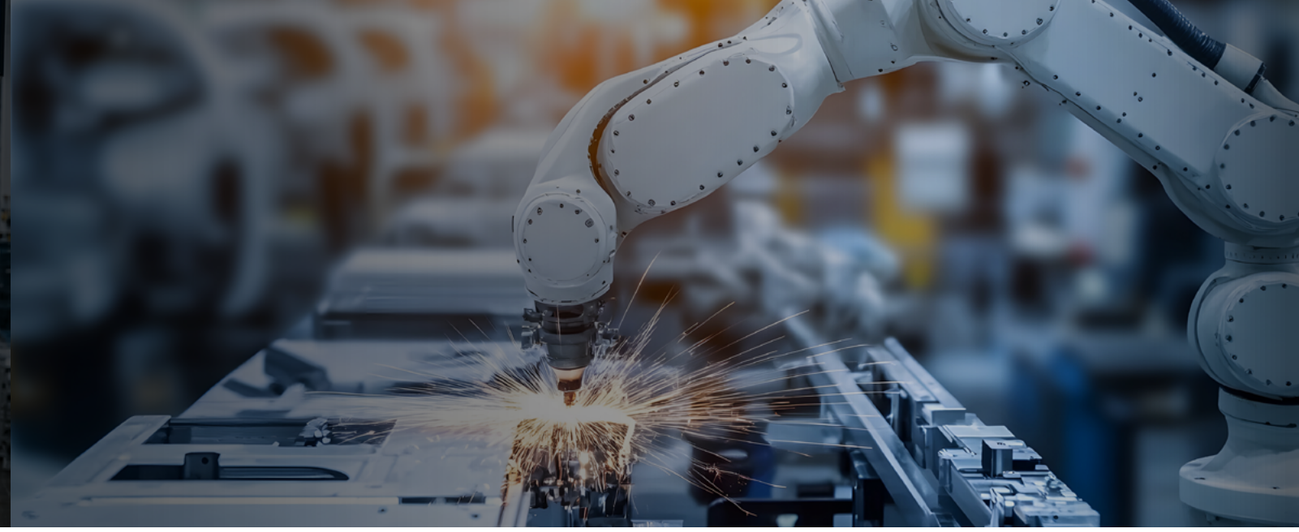
Automated Production Line

Technical Specifications

Specifications		DS1000
Ranging Technical Specifications	Detection Range	200mm~1000mm
	Accuracy	1mm
	Repeatability	0.03~0.5mm*1
	Spot Diameter	2mm@1m
	Response Time	60ms*2
	AnalogResolution	0.195mm (12-bit)
	Start-up Time	≤ 0.2s
	Operating Temp	-10~50°C
Optical Specifications	Light Source	Laser
	Wavelength	650nm
	Laser Safety Class	2 (EN60825:2014)
	Laser Attenuation	0.5% / Year
Electrical Specifications	Supply Voltage	18~30V DC
	Operating Current	≤ 70mA/24V DC
RS485 Interface Specifications	Baud Rate (bit/s)	4800, 9600, 14400, 19200, 38400, 56000, 57600, 115200, 128000, 256000
	Data Bits	8
	Parity Bit	None
	Stop Bits	1
Mechanical Specifications	Dimensions	25mm x 70mm x 50mm
	Housing	Aluminum Alloy
	Lens	Aluminum Alloy
	Weight	Approx. 200g
	IP Rating	IP66
Environmental Specifications	Ambient Light Interference	Immune to Ambient Light (Ambient Illuminance 100kLux)
	Operating Temp	-10~50°C
	Storage Temperature	-25~75°C
	ESD	±6kV

*1: 200-300/0.03mm; 300-400/0.05mm; 400-500/0.1mm; 600-800/0.4mm; 800-1000/0.5mm
*2:Response Time when switching between different target materials





Laser Displacement Sensor

DZ SERIES LASER DISPLACEMENT SENSOR

High Precision

High Precision

Small Size

Multiple Range Specifications

Multiple Output Types

Response Time:
Min.1.6ms

All-metal Housing,
High Protection



Product Introduction

DZ Series laser displacement sensors adopt triangulation for high-precision measurement in short-range scenarios. max range: 400 mm (±200 mm), fastest response time: 1.6 ms. supports pnp/npn, 4~20 ma analog and rs485 outputs.

Product Series	Model	Center Detection Range	Detection Range	Repeatability	Output Type
30mmSeries	DZ030N	30mm	±5mm	5μm	NPN + 4~20mA + RS485
	DZ030P				PNP + 4~20mA + RS485
50mmSeries	DZ050N	50mm	±15mm	10μm	NPN + 4~20mA + RS485
	DZ050P				PNP + 4~20mA + RS485
100mmSeries	DZ100N	100mm	±35mm	20μm	NPN + 4~20mA + RS485
	DZ100P				PNP + 4~20mA + RS485
200mmSeries	DZ200N	200mm	±80mm	50μm	NPN + 4~20mA + RS485
	DZ200P				PNP + 4~20mA + RS485
400mmSeries	DZ400N	400mm	±200mm	100μm(200-400mm) 300μm(400-600mm)	NPN + 4~20mA + RS485
	DZ400P				PNP + 4~20mA + RS485

Application Scenarios

Widely used for precise position measurement in industrial automation.






Industrial Automation

Technical Specifications

Specifications		30mm Type	50mm Type	100mm Type	200mm Type	400mm Type
Model	NPN+4~20mA+RS485	DZ030N	DZ050N	DZ100N	DZ200N	DZ400N
	PNP+4~20mA+RS485	DZ030P	DZ050P	DZ100P	DZ200P	DZ400P
Center Detection Range		30mm	50mm	100mm	200mm	400mm
Detection Range		±5mm	±15mm	±35mm	±80mm	±200mm
Repeatability		5μm	10μm	30μm	100μm	300μm
						(Detection Range200-400mm)
						800μm
						(Detection Range 400-600mm)
Linear Accuracy		+0.1% F.S. (F.S.=10mm)	+0.1% F.S. (F.S.=30mm)	+0.1% F.S. (F.S.=70mm)	+0.2% F.S. (F.S.=160mm)	+0.2% F.S. (F.S.=400mm)
Spot Size		Φ50μm	Φ70μm	Φ150μm	Φ300μm	Φ500μm
Light Source	Wavelength	Red Semiconductor Laser 655nm				
	Max. Output Power	1mW				
Laser Class (GB/IEC)		class2				
Sampling Period		1.6ms~64ms (Default 8ms)				
emperature Characteristics		± 0.05% F.S./° C				
RS485 Communication Specs		Half-duplex				
External Input Function		Meas. Val. Hold / Peak Hold / P-P Hold / Valley Hold / Avg. Hold / Trigger Upload / Laser On/ Off				
Digital Output		Open-collector NPN/PNP Out., Max.100mA/DC30V, Resid. Volt. 1.8V				
Analog Output	Analog Current	4~20mA, Max. Load Resistance ≤ 300Ω				
Supply Voltage		DC12~24V ±10% (Ripple P-P ≤ 10%)				
Current Consumption		≤ 80mA				
Protection Circuit		Reverse Polarity Protection, Overcurrent & Short-Circuit Protection				
Environmental Specifications	Protection Class	IP66				
	Operating Ambient Temp. / Hum.	-10~50° C/35~85%RH(Non-condensing & Non-freezing)				
	Storage Ambient Temp. / Hum.	-20~60° C/35~85%RH(Non-condensing & Non-freezing)				
	Ambient Illuminance	Incand. Lamp: ≤ 3000Lx				
	Vibration Immunity	10~55Hz, Double Amp.1.5mm, X/Y/Z Axis, 2hr Each				
	Shock Immunity	500m/s (Approx. 50G)X、Y、Z Axis, 3×Each				
Material		Housing : Die-cast Aluminum				
Cable		Φ5mm Wire Gauge, 2m, 7-core Shielded Drag Chain Cab.				
Weight		Approx. 85g(Cable Included)				



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Wireless Communication

LC100 SERIES OPTICAL DATA TRANSMITTER

✦ Resist Electromagnetic Interference



High EMI Immunity

Low Latency

Long Range

High Reliability

High Transmission Rate

Multiple Output Types



✦ Product Introduction

LC100 Series Optical Communication Sensors adopt point-to-point optical communication technology. Combined with car battery and wireless charging systems, they transmit power, signals and data accurately and safely. Compact in size and easy to install.

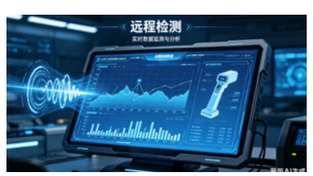
Model	Communication Distance	Communication Angle	Optical Port Transmission Rate	Supported Interfaces	Operating Temp
LC100	0.1 ~ 30m	±1°	10Mbps/100Mbps	CAN, RS-485, 5-Channel I/O	-20°C ~ 70°C

✦ Application Scenarios

Widely applied in elevators, inspection robots, remote monitoring and secure facilities.



Elevator



Remote Detection



Confidential Entity

✦ Technical Specifications

Specifications		LC100
Basic Function	Supply Voltage	18 ~ 30V, DC
	Max. Power Consumption	< 3W
	Communication Distance	0.1 ~ 30m
	Communication Angle	±1°
	Transmitter	785nm/850nm, LD
	Receiver	APD
	Alignment Laser	650nm Red Indicator Laser
	Optical Port Transmission Rate	10Mbps/100Mbps
Output Interface	Supported Interfaces	CAN, RS-485, 5-Channel I/O
	Max. Transmission Rate	CAN Interfaces: 1Mbps RS-485 Interfaces: 1Mbps
	I/O Latency	< 1ms
	CAN Termination Resistor	yes
	RS-485 Termination Resistor	yes
	Input Type	Optocoupler Isolation
	Output Type	Optocoupler Isolation
Electrical Specifications	Trans. Overvolt. Prot.	±40V (Short-dur. Withstand, Auto Recov.)
	Rev. Pol. Prot.	Supported (Reverse Polarity Protection)
	Output Prot.	Digital I/O, Short-Cir. Prot. & Overload Prot.
Environmental Specifications	Operating Temp Range	-20°C ~ +70°C
	Storage Temperature Range	-40°C ~ +85°C
	Relative Humidity Range	5 ~ 95% RH, Non-condensing
	IP Rating	IP65 (Dustproof & Water-splash Proof)
Mechanical Specifications	Housing Material	Aluminum Alloy
	External Dimensions	90mm × 42mm × 80mm
	Weight	Approx. 100g (Cable Not Included)
	Mounting Method	Fastened with M5 Screws & Nuts
Other Specifications	Interface Type	M12 Connector
	Display Interface	LED Indicator



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Wireless Communication

LC500 SERIES OPTICAL DATA TRANSMITTER

✦ High EMI Immunity



High EMI Immunity

Low Latency

Long Range

High Reliability

High Transmission Rate

Multiple Output Types



✦ Product Introduction

LC500 Series optical communication sensors adopt point-to-point optical communication technology to transmit signals and data accurately and safely.

Model	Transmitter	High Reliability	Communication Angle	Opt. Port Transmission Rate	Supported Interfaces	Operating Temp
LC506 200.1	785nm, LD	0.1 ~ 200m	±1°	100Mbps	Ethernet	-20°C ~ 70°C
LC506 200.2	850nm, LD					

✦ Application Scenarios

Widely applied in automated warehousing and secure facilities.



Automated Warehousing



Secure Facilities

✦ Technical Specifications

Specifications		LC506 200.1	LC506 200.2
Basic Function	Transmitter	785nm, LD	850nm, LD
	Supply Voltage	18 ~ 30V, DC	
	Max. Power Consumption	< 5W	
	High Reliability	0.1 ~ 200m	
	Communication Angle	±1°	
	Receiver	APD	
	Alignment Laser	650nm Red Indicator Laser	
	Opt. Port Transmission Rate	100Mbps	
Output Interface	Supported Interfaces	Ethernet	
	Max. Transmission Rate	100Mbps	
	Multi-func. Input	yes	
	Multi-func. Output	yes	
Electrical Specifications	Trans. Overvolt. Prot.	±40V (Short-dur. Withstand, Auto Recov.)	
	Rev. Pol. Prot.	Supported (Reverse Polarity Protection)	
	Output Prot.	Digital I/O: Short-Circuit Prot. & Overload Prot.	
Environmental Specifications	Operating Temp Range	-20°C ~ +70°C	
	Storage Temperature Range	-40°C ~ +85°C	
	Relative Humidity Range	5 ~ 95% RH, Non-condensing	
	IP Rating	IP65 (Dustproof & Water-splash Proof)	
Mechanical Specifications	Housing Material	Aluminum Alloy	
	External Dimensions	90mm × 65mm × 124mm	
	Weight	Approx. 550g (Cable Not Included)	
	Mounting Method	Fastened with M5 Screws & Nuts	
Other Specifications	Interface Type	M12 Connector	
	Display Interface	LED Indicator	



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Wireless Communication

SUBLINK WIRELESS DATA TRANSMISSION DEVICE

Long Transmission Range



Long Transmission Range

Anti-interf.

High EMC Perf.

Wide RF Range

High Recv. Sens.



Product Introduction

SubLink Wireless data transmission modules utilize low-band wireless signals, adopting modulation/demodulation, anti-interference and frequency-hopping technologies to achieve long-range, low-power and stable data transmission. operating frequency: 433 mhz, transmission range: 1 km, maximum data rate: 500 kbps, modulation: fsk / 2gfsk.

Model	Receiver Sensitivity	Transmission Rate	Transmission Distance	Comm Interface	Operating Temp
SubLink	-108dBm(BW=40K)	40K~500K	>1 km	RS232/RS485	-20℃~70℃

Application Scenarios

Applications: production line data acquisition, wireless device control, intelligent warehouse management, mobile maintenance & inspection, remote monitoring and data transmission.



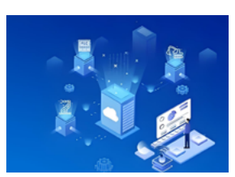
Production Line Data Acquisition



Wireless Device Control



Intelligent Warehouse Management



Remote Monitoring and Data Transmission

Technical Specifications

Specifications		SubLink
Wireless Radio Frequency	Frequency Range	425MHz~525MHz (Channel Config. via AT Cmd.)
	Transmit Power	1dB~20dB
	Receiver Sensitivity	-108dBm(BW = 40K)
	Transmission Rate	40K~500K(Configurable per Customer Requirements)
	Transmission Distance	>1 km
	Antenna Connection	SMA
	Modulation Mode	FSK、2GFSK(Customizable per Customer Requirements)
Transparent Transmission Interface	RS232 or RS485	Switch via Internal DIP Switches
	Baud Rate	Configurable 1200~115200 via AT Commands
Power Consumption	Input Voltage	+9V~+28V
	Max. Current	Input+12V: 90ma
		Input+24V: 45ma
EMC Performance	ESD Rating	Contact Discharge: ±6kV, Air Discharge: ±10kV
	Electrical Fast Transient Burst	±2KV
	Operating Temp	-20℃~+70℃
Interface Description	+V	Power Input: Powered via Round Connector
	0V	GND
	Tx	Serial Transmit
	Rx	Serial Receive
	A	RS485-A
	B	RS485-B
Key	RESET	Factory Reset
Indicator	Run	System Running Indicator
	Rf	RF Communication Indicator
	Pwr	Power Indicator



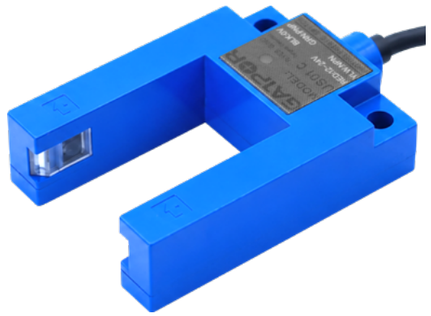
Other Switches

US SERIES SLOT-TYPE PHOTOELECTRIC SENSORS

Fast Response



Fast Response
Anti-interf.
Low Power Consump.
High Precision
Std. Install. Dim.
No Adjust. Req.



Product Introduction

US Series Slot-type Photoelectric Sensors use 940 nm IR transmit/receive sensors and software TX/RX encoding & decoding technology for strong anti-interference performance. They maintain stable detection under direct exposure to outdoor sunlight, indoor lamps or industrial infrared light. Response time < 1 ms, capable of detecting small and moving objects.

Product Series	Model	Slot Width	IP Rating	Output Type	Material
USSeries	US01 M	30mm (W) × 45mm (D)	IP66	NPN+PNP (NO / NC)	Metal

Application Scenarios

Widely applied in elevator floor leveling positioning, industrial automation positioning detection and other scenarios.



Elevator



Industrial Automation

Technical Specifications

Specifications	USSeries
Model	US01 M
Light Source	940nm Infrared
IP Rating	IP66
Operating Temp	-20°C - 65°C
Storage Temperature	-40°C - 75°C
ESD	±6kV
Supply Voltage	12-24VDC
Operating Current	< 10 mA
Load Current	< 100 mA
Power Consumption	< 0.25 W
Output Type	NPN+PNP NO Output
Dimensions	Dimension: L72 × W52 × T20mm, U-slot: W30 × D45mm
Housing Material	Metal
Color	Blue
Cable	2.0m PVC Cable Outlet Type





Other Switches

FM SERIES MINI SLOT-TYPE PHOTOELECTRIC SENSORS

Mini Slot-type Series

Cost-effective | Anti-interf. | Low Pwr. Consump. | Fast Response | No Adjust. Req. | Std. Install. Dim.

Product Introduction

FM Series Mini Slot-type Photoelectric Sensors feature outstanding performance and great cost-effectiveness. Extended Specifications limits enable use in special scenarios once only suitable for dedicated product series, benefiting customers in model selection and inventory control.

Application Scenarios

Detects various objects. Fitted with oil-resistant, bend-resistant tinned copper cables, with a neat appearance. Universal design for full replacement of comparable products.

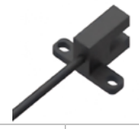


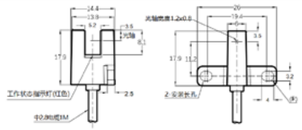
Elevator



Industrial Automation

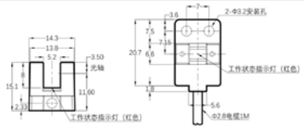
Technical Specifications





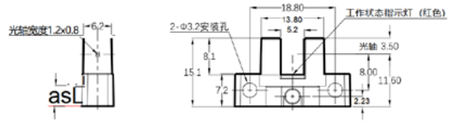
Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM-SM671	NPN	5mm	IP66
	FM-SM671P	PNP		





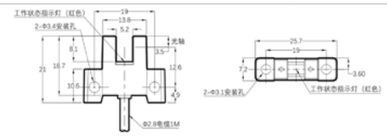
Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM-SM674	NPN	5mm	IP66
	FM-SM674P	PNP		





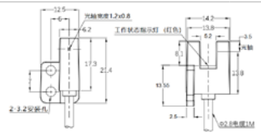
Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM2-LN45	NPN	5mm	IP66
	FM2-LP45	PNP		





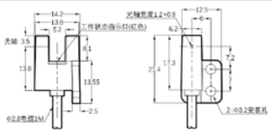
Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM2-KN54	NPN	5mm	IP66
	FM2-KP54	PNP		





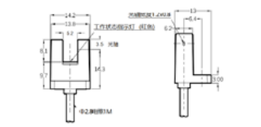
Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM2-FN45	NPN	5mm	IP66
	FM2-FP45	PNP		





Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM2-RN54	NPN	5mm	IP66
	FM2-RP54	PNP		





Series	Model	Output Type	Detection Range (Slot Width)	IP Rating
FMSeries	FM2-EN45	NPN	5mm	IP66
	FM2-EP45	PNP		





Other Switches

EST MINIATURE SERIES INDUCTIVE PROXIMITY SWITCH

✦ Customizable available

Customizable available

Ultra-compact Size

IP Rating IP67

Stable Over Full Temp. Range



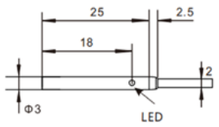
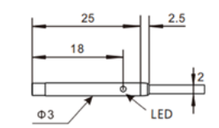
✦ Product Introduction

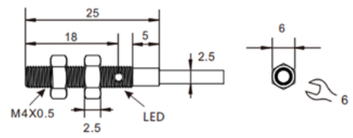
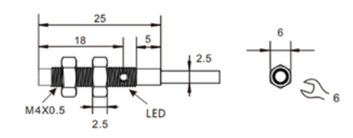
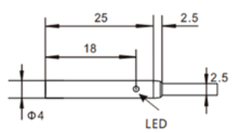
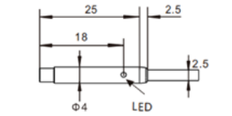
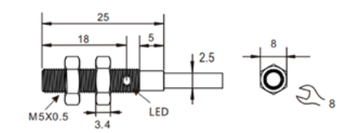
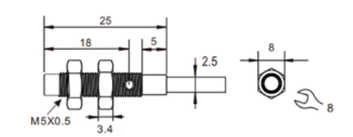
EST Miniature Series Inductive Proximity Sensor. Ultra-compact Size; 1kHz Response Frequency; High IP Rating; Stable Operation from -20℃ to 70℃ . Especially Suitable for Tool Magazines in Machine Tools & Machining Centers.

✦ Application Scenarios

Miniaturized product design; Vacuum potting ensures high IP Rating. Even the smallest model within the series retains full electrical protections.

✦ Technical Specifications

 EST-0.8O3S Series		Detection Range	0.8mm
		Dimensions / Diameter	3mm
		Output Types	NO/NC
			PO/PC
 EST-1.2O3N Series		Detection Range	1.2mm
		Dimensions / Diameter	3mm
		Output Types	NO/NC
			PO/PC

 EST-0.8M4S Series		Detection Range	0.8mm
		Dimensions / Diameter	4mm
		Output Types	NO/NC
			PO/PC
 EST-1.2M4N Series		Detection Range	1.2mm
		Dimensions / Diameter	4mm
		Output Types	NO/NC
			PO/PC
 EST-1.5O4S Series		Detection Range	1.5mm
		Dimensions / Diameter	4mm
		Output Types	NO/NC
			PO/PC
 EST-02O4N Series		Detection Range	2mm
		Dimensions / Diameter	4mm
		Output Types	NO/NC
			PO/PC
 EST-1.5M5S Series		Detection Range	1.5mm
		Dimensions / Diameter	5mm
		Output Types	NO/NC
			PO/PC
 EST-02M5N Series		Detection Range	2mm
		Dimensions / Diameter	5mm
		Output Types	NO/NC
			PO/PC

以激光技术为用户精准赋能
Gather Power, Gain the Point



Other Switches

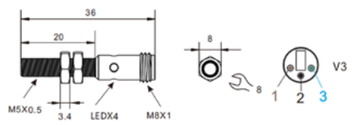
EST MINIATURE SERIES INDUCTIVE PROXIMITY SWITCH

✦ Customizable available





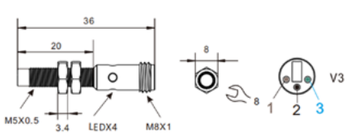
EST-1.5M5S-T Series



Detection Range	1.5mm
Dimensions / Diameter	5mm
Output Types	NO/NC
	PO/PC



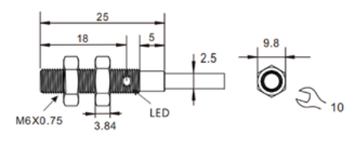
EST-02M5N-T Series



Detection Range	2mm
Dimensions / Diameter	5mm
Output Types	NO/NC
	PO/PC



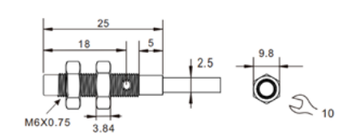
EST-1.5M6S Series



Detection Range	1.5mm
Dimensions / Diameter	6mm
Output Types	NO/NC
	PO/PC



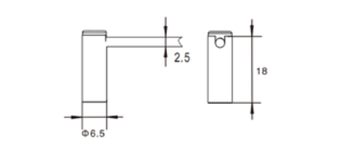
EST-02M6N Series



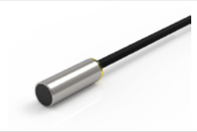
Detection Range	2mm
Dimensions / Diameter	6mm
Output Types	NO/NC
	PO/PC



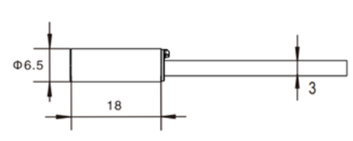
EST-1.5O6.5S-V Series



Detection Range	1.5mm
Dimensions / Diameter	6.5mm
Output Types	NO/NC
	PO/PC



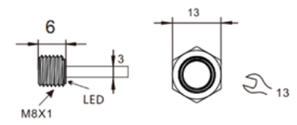
EST-1.5O6.5S Series



Detection Range	1.5mm
Dimensions / Diameter	6.5mm
Output Types	NO/NC
	PO/PC



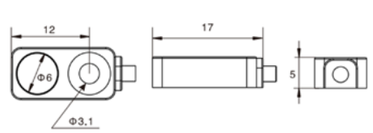
EST-02M8S Series



Detection Range	2mm
Dimensions / Diameter	8mm
Output Types	NO/NC
	PO/PC



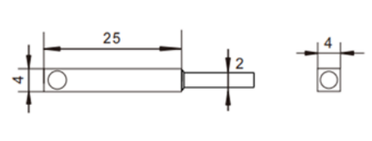
EST-02S8S-V Series



Detection Range	2mm
Dimensions / Diameter	8mm
Output Types	NO/NC
	PO/PC



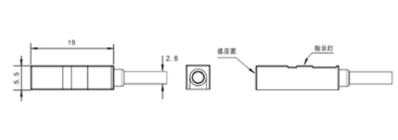
EST-0.8S4S-V Series



Detection Range	0.8mm
Dimensions / Diameter	4mm
Output Types	NO/NC
	PO/PC



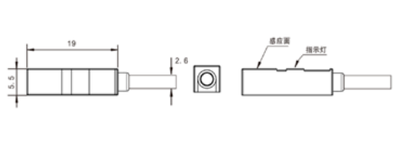
EST-1.5S5.5N Series



Detection Range	1.5mm
Dimensions / Diameter	5.5mm
Output Types	NO/NC
	PO/PC



EST-1.5S5.5N-V Series



Detection Range	1.5mm
Dimensions / Diameter	5.5mm
Output Types	NO/NC
	PO/PC

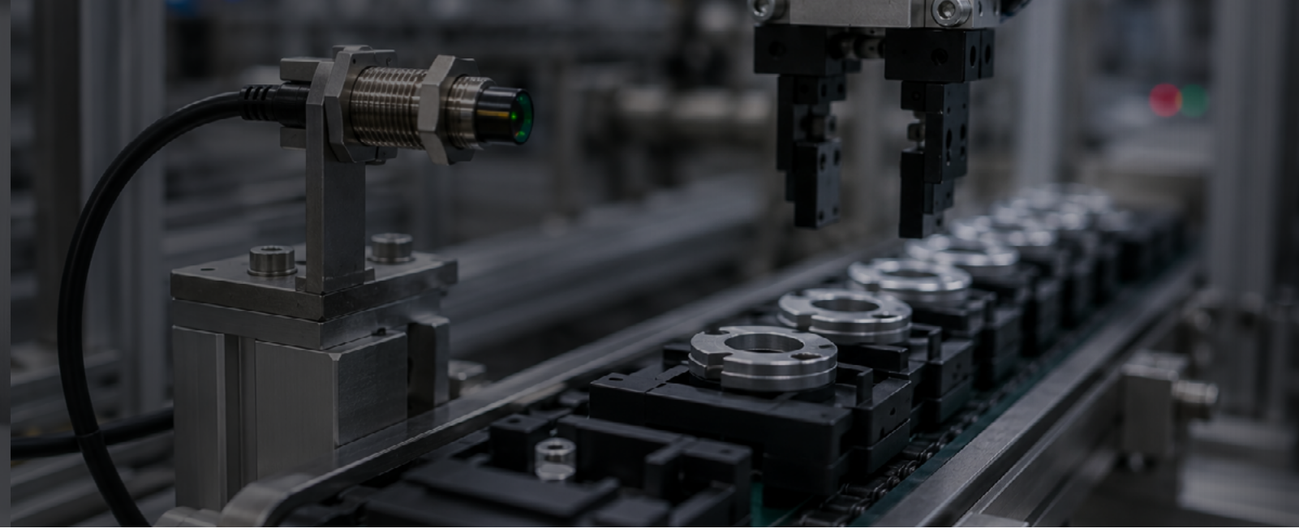


以激光技术为用户精准赋能
Gather Power, Gain the Point

Other Switches

ESA ENHANCED SERIES INDUCTIVE PROXIMITY SWITCH

✦ High Ip Rating, Up To Ip69k



High IP Rating, up to IP69K

Extended Detection Range

Full SS Housing, Corrosion Resistant

Full SS Housing, Corrosion Resistant



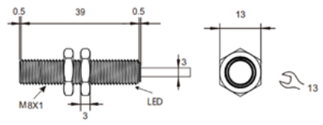
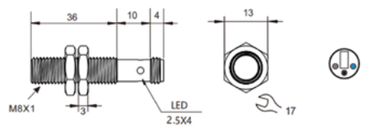
Product Introduction

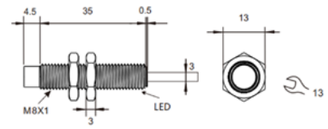
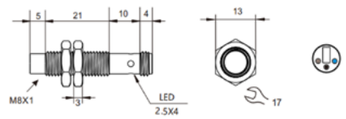
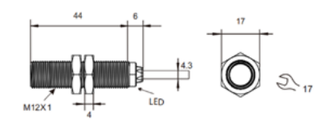
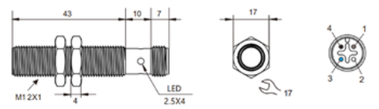
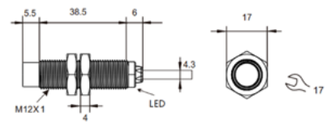
ESA Enhanced Series Inductive Proximity Sensor. Designed for applications with special requirements; 2~3 times detection range; Stable operation across full detection range and entire temperature range; The whole series features IP67, and IP69K models are available. Especially suitable for application environments demanding high reliability, such as varying detection ranges, high temperature, outdoor and high-vibration conditions.

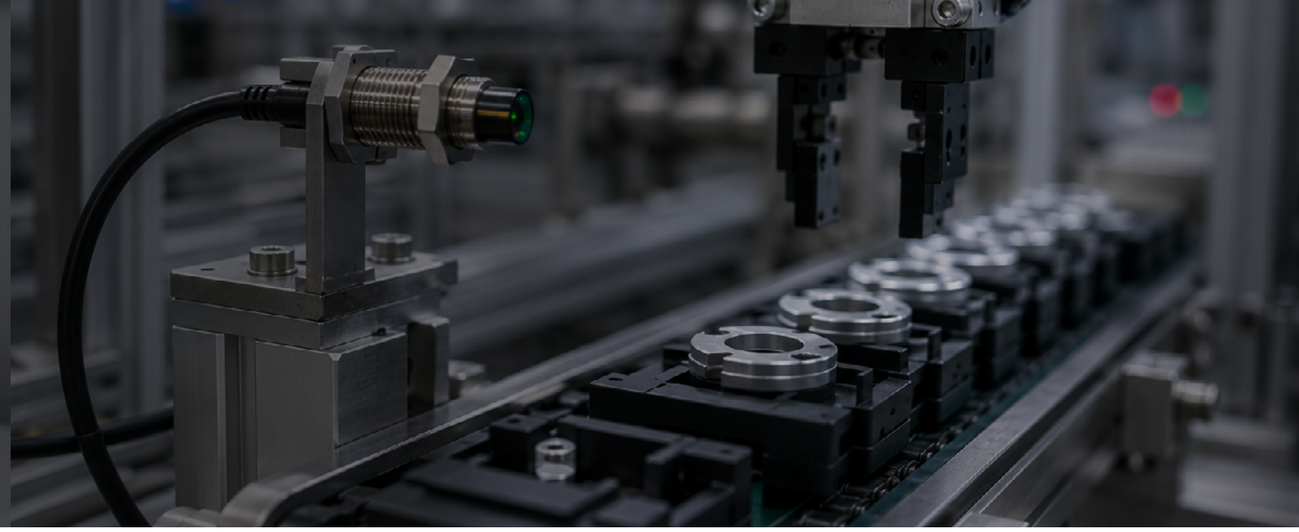
Application Scenarios

Detects metal objects with longer sensing distance than conventional models. Dedicated IC ensures stable performance with multiple dimensions. Waterproof, oil-resistant and dustproof to meet most environmental requirements. It operates reliably for pulse counting, position limiting and presence/absence detection.

Technical Specifications

 ESA-**M8S Series		Detection Range	1mm/2mm
		Dimensions / Diameter	8mm
		Output Types	NO/NC
			PO/PC
 ESA-**M8S-T Series		Detection Range	1mm/2mm
		Dimensions / Diameter	8mm
		Output Types	NO/NC
			PO/PC

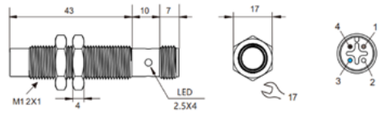
 ESA-**M8N Series		Detection Range	2mm/4mm/6mm
		Dimensions / Diameter	8mm
		Output Types	NO/NC
			PO/PC
 ESA-**M8N-T Series		Detection Range	2mm/4mm/6mm
		Dimensions / Diameter	8mm
		Output Types	NO/NC
			PO/PC
 ESA-**M12S Series		Detection Range	2mm/4mm
		Dimensions / Diameter	12mm
		Output Types	NO/NC
			PO/PC
 ESA-**M12S-T Series		Detection Range	2mm/4mm
		Dimensions / Diameter	12mm
		Output Types	NO/NC
			PO/PC
 ESA-**M12N Series		Detection Range	4mm/8mm
		Dimensions / Diameter	12mm
		Output Types	NO/NC
			PO/PC

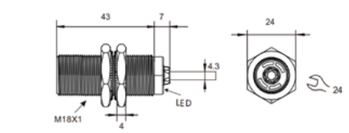


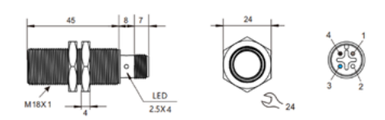
Other Switches

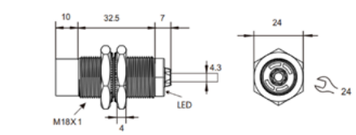
ESA ENHANCED SERIES INDUCTIVE PROXIMITY SWITCH

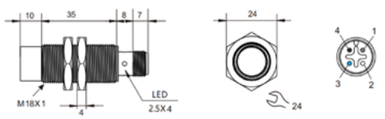
✦ High Ip Rating, Up To Ip69k

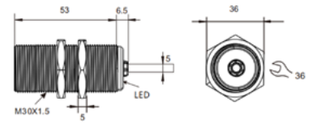
		Detection Range	4mm/8mm
		Dimensions / Diameter	12mm
ESA-**M12N-T Series		Output Types	NO/NC
			PO/PC

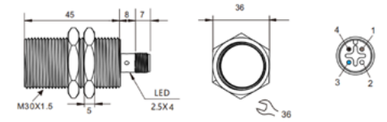
		Detection Range	5mm/8mm
		Dimensions / Diameter	18mm
ESA-**M18S Series		Output Types	NO/NC
			PO/PC

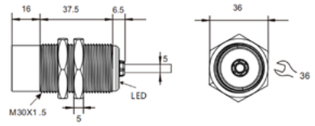
		Detection Range	5mm/8mm
		Dimensions / Diameter	18mm
ESA-**M18S-T Series		Output Types	NO/NC
			PO/PC

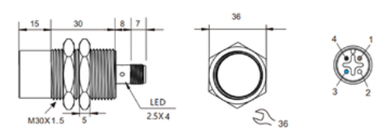
		Detection Range	8mm/12mm/16mm
		Dimensions / Diameter	18mm
ESA-**M18N Series		Output Types	NO/NC
			PO/PC

		Detection Range	8mm/12mm/16mm
		Dimensions / Diameter	18mm
ESA-**M18N-T Series		Output Types	NO/NC
			PO/PC

		Detection Range	10mm/15mm
		Dimensions / Diameter	30mm
ESA-**M30S Series		Output Types	NO/NC
			PO/PC

		Detection Range	10mm/15mm
		Dimensions / Diameter	30mm
ESA-**M30S-T Series		Output Types	NO/NC
			PO/PC

		Detection Range	15mm/25mm/30mm
		Dimensions / Diameter	30mm
ESA-**M30N Series		Output Types	NO/NC
			PO/PC

		Detection Range	15mm/25mm/30mm
		Dimensions / Diameter	30mm
ESA-**M30N-T Series		Output Types	NO/NC
			PO/PC