

# LASER DISPLACEMENT SENSOR PRODUCT CATALOG

SG / SGI / SD / SCI series



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## About SinceVision

Since its establishment, SinceVision has taken 3D industrial sensor as the entry point, and launched line laser, point laser, point spectrum correction sensor successively. In 2021, SinceVision entered the research and defense market and launched several product lines such as high-speed camera, totaling dozens of product series into the batch sales stage. At present, the products developed and produced have successfully broken the foreign monopoly, and become the leader of Chinese brand. In addition, some of the performance parameters of the mature products represented by the line laser have achieved world leadership, and gradually become a new benchmark to lead the development of the industry.

Today, the SinceVision brand is gradually becoming familiar to the automation people. We have served hundreds of customers, among which the terminal has covered domestic and foreign consumer electronics, carp electricity, photovoltaic major head brands. At present, we are sparing no effort to promote the refinement of product solutions based on niche areas, using our products and services to empower more fields. From semiconductor/panel, to automobile/railway; from plastic/film, to food/textile, to contribute to the cost reduction and efficiency of more industries. With the rise of labor cost and product quality upgrade, the future of industrial automation is unstoppable. With years of experience in R&D of 3D industrial sensors, Deep Vision has precipitated a comprehensive R&D platform involving optics, mechanics, electricity and software, as well as a mature product control system. In the future, Deep Vision will spare no effort to improve the R&D and production system, and strive to build a world-class industrial product R&D team. With the ultimate craftsmanship of Deep Vision people, we will continue to tackle high-end sensors, so that Chinese automation has a national brand available and a national brand can be trusted.

In order to provide our customers with fast and convenient services, we have set up many offices in China and overseas.

### China

Shenzhen, Suzhou (Kunshan), Shanghai, Wuxi, Beijing, Chengdu, Ningde, Taiwan, Wuhan, Xi'an, Hefei, Dongguan

### Overseas

South Korea, Vietnam, Thailand, Malaysia, Singapore

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© About SSZN

● Product Catalogs

● Laser Displacement Sensor

● Spectral Confocal Displacement Sensor

● Dimension Diagram

**2014**

**April**  
Shenzhen SinceVision  
Technology Co.,Ltd.  
was officially established

**2016**

**March**  
Released the first generation  
of 3D Laser Profiler  
the SR7000 series.

**2017**

**March**  
Obtained the titles of  
"National High-tech  
Enterprise" and "Shenzhen  
Industrial Stable Growth  
Enterprise."

**2018**

**March**  
Released 3D laser  
profile the SR8000 series  
**August**  
SinceVision completed  
Round A financing

**2021**

**March**  
Released 3D Laser  
Profiler the SR9000 series  
**September**  
SinceVision completed  
Round B financing  
**December**  
Released Laser Displacement  
Sensor - the SD series

**2020**

**March**  
Released 3D Laser Profiler  
the SR5000 series  
**June**  
Released Spectral Confocal  
Displacement Sensor - the SC series  
**December**  
Established offices in Chengdu and  
Beijing, expanding services to the  
Southwest and North China regions.

**2019**

**March**  
The East China office was officially  
established in Kunshan to serve  
the Yangtze River Delta region.  
**November**  
SinceVision completed Round A+  
financing  
**December**  
Released Laser Displacement Sensor  
the SG series and the SGI series

**2022**

**April**  
SinceVision completed Round B+ financing,  
co-led by MPC and GL Ventures. SinceVision  
entered the scientific research and defense  
markets, launching the first generation of  
High-Speed Camera - the SH6 series.  
**September**  
SinceVision obtained "CE Certification," "FCC  
Certification," "KC Certification," "Precision Certification,"  
"ISO9001 Certification," "ISO14001 Certification," and  
"Social Accountability Management System Certification."  
**December**  
Released Through-Beam Edge Sensor - the SE1 series  
Established offices in Dongguan, Hefei, Xi'an, and  
other regions, covering nationwide services.

**2023**

**June**  
Released High-Speed Camera  
the SH3 series and Through-Beam  
Edge Sensor- the SE2 series  
**September**  
SinceVision completed Round C financing,  
led by the Advanced Manufacturing Fund  
managed by SDIC Fund Management Co.,  
Ltd., with follow-on investment from GL  
Ventures. SinceVision was awarded the title of  
"National new special 'Small Giant' Enterprise."  
**October**  
Formally established the International  
Department, developing markets in  
Southeast Asia and Europe, with a service  
network covering the globe.

**2024**

**February**  
Released 3D Laser Profiler  
the SRI series  
**March**  
Released white light spot  
photoelectric sensor - the  
SS1series and Laser Displacement  
Sensor - the SDC series  
**June**  
Released High-Speed Camera-the  
SH2 series and Spectral Confocal  
Displacement Sensor- the SCI series

# Product Catalogs

Series	Detection Principle	Product pictures	Model	Detection Range	Distance	Angle	Beam Diameter	Linearity
SG series	Triangular reflection principle		SG5020	17mm-23mm	6mm	40°	φ45μm	±0.02%F.S.
			SG5025				45*400μm	
			SG5050	42mm-59mm	17mm	25°	φ75μm	
			SG5055				75*400μm	
			SG5080	64mm-99mm	35mm	20°	φ110μm	
			SG5085				110*720μm	
			SG5150	115mm-197mm	82mm	18°	φ190μm	
			SG5155				190*1300μm	
			SG3030	25mm-35mm	10mm	35°	φ60μm	
			SG3035				60*400μm	
			SG3080	65mm-97mm	32mm	26°	φ110μm	
			SG3085				110*720μm	
			SG3150	115mm-197mm	82mm	18°	φ190μm	
			SG3155				190*1300μm	
SGI series	Triangular reflection principle		SGI030	25mm-35mm	10mm	35°	φ60μm	±0.05%F.S.
			SGI035				60*400μm	
			SGI050	42mm-59mm	17mm	25°	φ75μm	
			SGI055				75*400μm	
			SGI080	65mm-97mm	32mm	26°	φ110μm	
			SGI085				110*720μm	
			SGI150	115mm-197mm	82mm	18°	φ190μm	
			SGI155				190*1300μm	
			SGI400	300mm-500mm	200mm	10.2°	φ450μm	250mm-450mm:±0.02%F.S. 250mm-750mm:±0.05%F.S. 250mm-1150mm:±0.1%F.S.
			SGI405				450*1300μm	
SD33 series	Triangular reflection principle		SGI500	250mm-1150mm	900mm	6.8°	φ500μm	
			SGI505				500*6000μm	
			SD33-30	26mm-34mm	8mm	42°	Ref. distance: 70*260μm	±0.1%F.S.
			SD33-50	40mm-60mm	20mm	30°	Ref. distance: 110*440μm	
SD22 series	Triangular reflection principle		SD33-85	70mm-100mm	30mm	13°	Ref. distance: 140*900μm	
			SD33-195	95.02mm-294.98mm	199.96mm	9°	Ref. distance: 430*2000μm	
			SD22-15	10mm-20mm	10mm	30°	Ref. distance: 50*200μm	±0.1%F.S.
			SD22-35	20mm-50mm	30mm	20°	Ref. distance: 100*580μm	
SD-C series	Triangular reflection principle		SD22-100	50mm-150mm	100mm	8.8°	Ref. distance: 300*1500μm	
			SD22-150	50mm-250mm	200mm	5.9°	Ref. distance: 400*2300μm	
			SD-C030	25mm-35mm	10mm	30°	Ref. distance: φ50μm	±0.1%F.S.
			SD-C050	35mm-65mm	30mm	22.5°	Ref. distance: φ70μm	
			SD-C100	65mm-135mm	70mm	12.5°	Ref. distance: φ120μm	
SCI series	Spectral confocal principle		SD-C200	120mm-280mm	160mm	6.3°	Ref. distance: φ300μm	±0.2% F.S. 0.2% F.S. (Measured distance: 200-400mm)
			SD-C400	200mm-600mm	400mm	3.2°	Ref. distance: φ500μm	
			SCI10015	35mm-45mm	10mm	±15°	19.2μm/40.3μm	— 0.3% F.S. (Measured distance: 400-600mm)
			SCI04025	14mm-18mm	4mm	±25°	12μm/25.2μm	
			SCI03560	11-14.5mm	3.5mm	±60°	5.8μm/12.2μm	
			SCI01045	9.5mm-10.5mm	1mm	±45°	7.1μm/14.9μm	
			SCI20011	60mm-80mm	20mm	±11°	55μm/115μm	

		Maximum number of connected sensor heads	Communication method	Transmission speed	Supported performance	Physical interface
EtherCAT module		4 (supported SGI series, SD33 series, SD22 series and SD-C series)	RS485	100Mbps	PDO 4kHz refresh Max. SDO supported sensor parameter settings	RJ45

Repeatability	Transparent object detection	Through beam Output thickness directly	Encoder triggered	Sampling Frequency	Laser Classification	Communication Method	Controller	Cable Type	Dimension (mm)	Pages				
0.02μm	Specular angle Installation	OK	Differential	1kHz-590kHz	II (GB7247.1) IIIa (FDACDRH21CFR Part1040.10)	RS232/TCP/IP (Supported Modbus/TCP) /digital/analog	SG5001	High flexible shielded cable (Suitable for cable carrier)	60.5*41*61.2	P13-P18				
0.025μm									69*47*71					
0.1μm				1kHz-88kHz					75*47*70					
0.25μm									85*47*76					
0.05μm									90*38.7*75.3					
0.2μm									85*47*77					
0.5μm									85*47*76					
0.05μm	Specular angle Installation	—	Single end	1kHz-88kHz	II (GB7247.1) IIIa (FDACDRH21CFR Part1040.10)	RS485/TCP/IP (Supported Modbus/TCP) /digital/analog /EtherCAT (Used with modules)	—	High flexible shielded cable (Suitable for cable carrier)	90*41*75	P19-P22				
0.1μm									72*50*71					
0.2μm									88*50*77					
0.5μm									88*50*79.2					
2μm									119*35*85.2					
2μm									119*35*85.2					
5μm									60.3*22.4*50					
10μm	—	—	—	0.3kHz-3kHz	CLASS II	RS485 (Supported Modbus/RTU) /digital/analog /EtherCAT (Used with modules)	—	High flexible shielded cable (Suitable for cable carrier)	60.3*22.4*50	P23-P26				
10μm									60.3*22.4*50					
50μm									60.3*22.4*50					
1μm									44.4*17.8*31					
6μm									44.4*17.8*31	P27-P30				
20μm									44.4*17.8*31					
60μm									44.4*17.8*31					
5μm	—	—	—	0.3kHz-3kHz	CLASS II	RS485 (Supported Modbus/RTU) /digital/analog /EtherCAT (Used with modules)	—	General cable	44.4*17.8*31	P31-P34				
15μm									44.4*17.8*31					
35μm									44.4*17.8*31					
100μm									44.4*17.8*31					
150μm (Measured distance: 200-400mm) 400μm (Measured distance: 400-600mm)									44.4*17.8*31					
0.012μm									44.4*17.8*31					
0.006μm	OK	OK	Differential	0.5kHz-33kHz	—	RS232/TCP/IP (Supported Modbus/TCP) /digital/analog	SCI501 SCI502	Metal coat optical fiber (Suitable for cable carrier)	φ30*111.5	P37-P47				
0.006μm									φ30*114					
0.006μm									φ83*229					
0.025μm									φ47*148.6					
0.025μm									φ44*123.9					

Dimension (mm)	Pages
103.5*34*114	P35-P36

# 01

## Laser Displacement Sensor

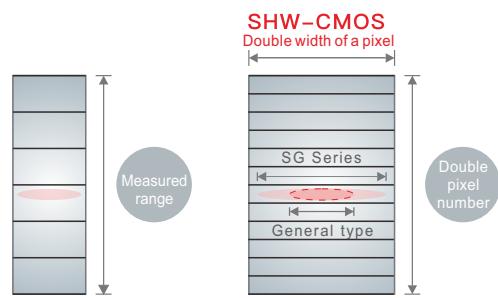


## Elements of High-speed and High-precision Detection

By doubling the pixel width and number in CMOS, extremely high measurement accuracy is achieved.

The optical system has been optimized and designed to not only increase the width of the light spot, but also maintain the compactness of the receiving component.

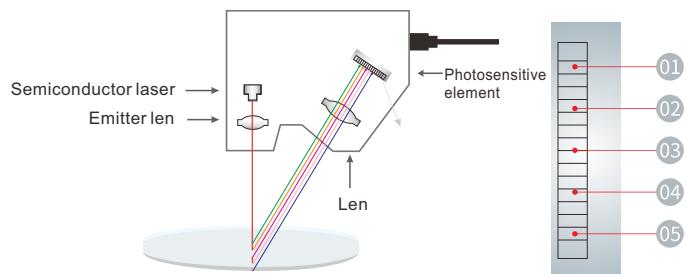
The optimal laser spot shape combined with optimized CMOS design achieves unparalleled accuracy.



The purpose of the design is to achieve the optimal shape of the laser spots on the pixels

## Measuring Principle

Using the principle of triangular reflection measurement, the position of the laser spot on the photosensitive element changes based on the distance of the target. The system estimates this change and converts it into a measurement result of the target position.

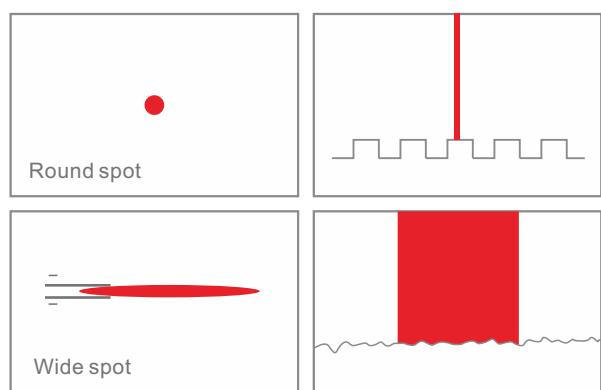


## Optical System

There are two different diameters of laser spots. round laser spot and wide laser spot, which are suitable for different measurement scenarios.

**Round spot**  
Suitable for capturing subtle height changes of objects and accurately measuring the contour of the object surface.

**Wide spot**  
Suitable for objects with rough and irregular surfaces, it can smooth out data fluctuations caused by the irregularity of rough surfaces, ensuring the stability of measurement data.

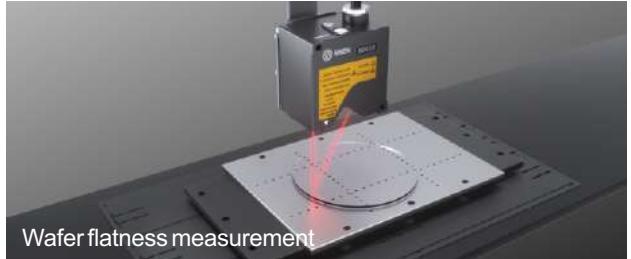


## Application Cases

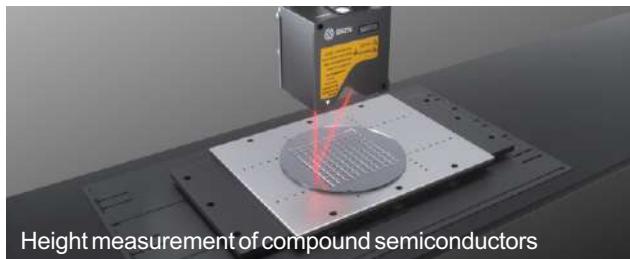
### Semiconductor



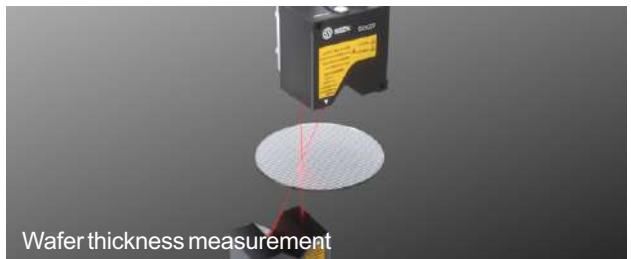
Irregular thickness of silicon wafers



Wafer flatness measurement

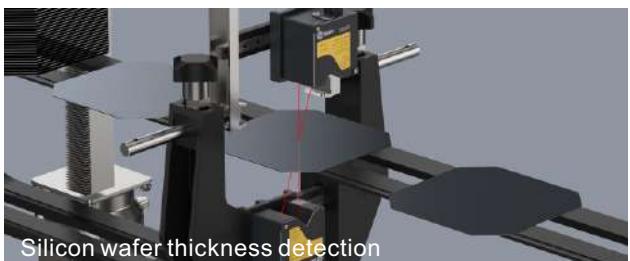


Height measurement of compound semiconductors



Wafer thickness measurement

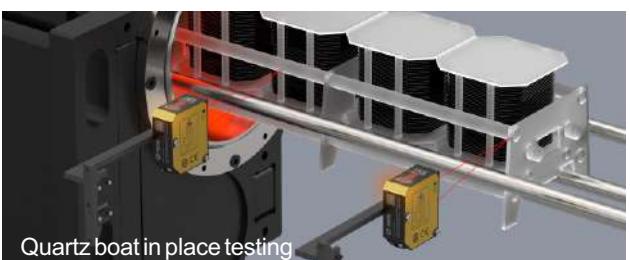
### Photovoltaics



Silicon wafer thickness detection



Graphite boat in place testing



Quartz boat in place testing

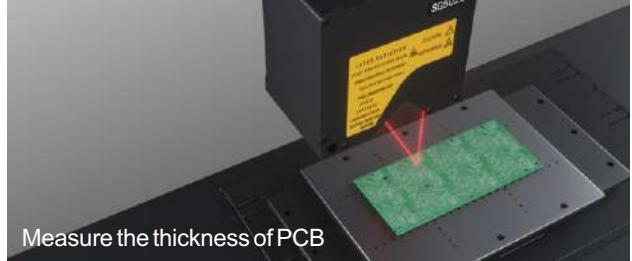


Flatness detection of the rotating platform

## Electronic Components



Circuit board height and deformation detection



Measure the thickness of PCB



Solder joint detection



Measure the height of connectors

## Vehicle/transport



Measure the deflection of rotating discs



Vehicle contour detection



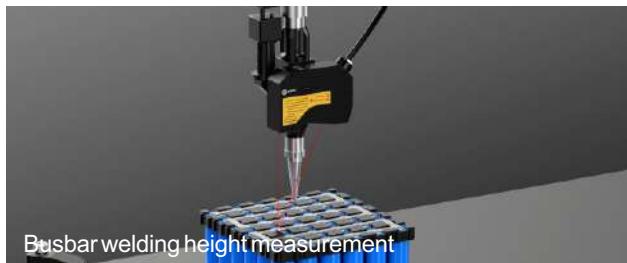
Barcode Identification for die-casting parts



Measure the vibration of the muffler

## Application Cases

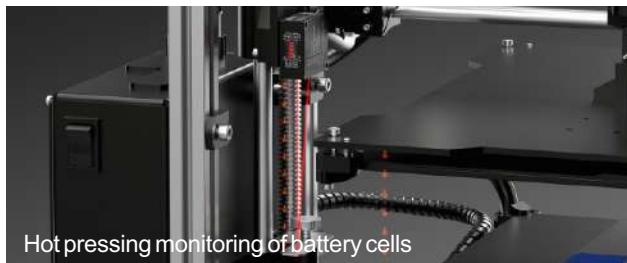
Lithium battery



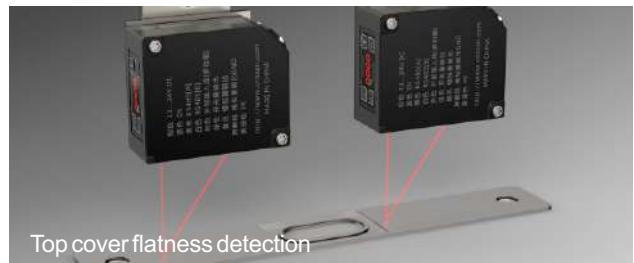
Busbar welding height measurement



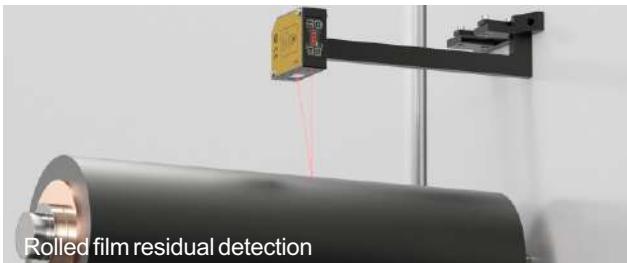
Measurement of welding height in Pack section



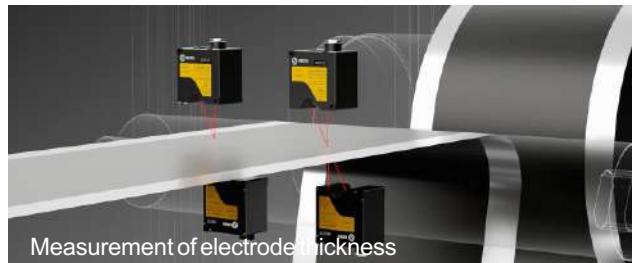
Hot pressing monitoring of battery cells



Top cover flatness detection



Rolled film residual detection



Measurement of electrode thickness

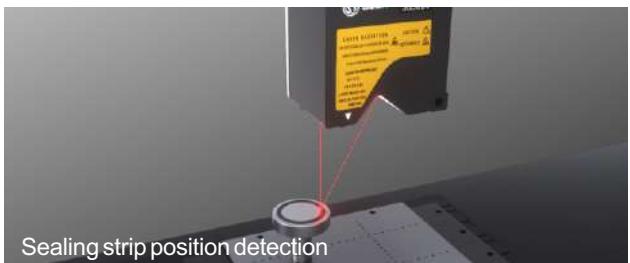
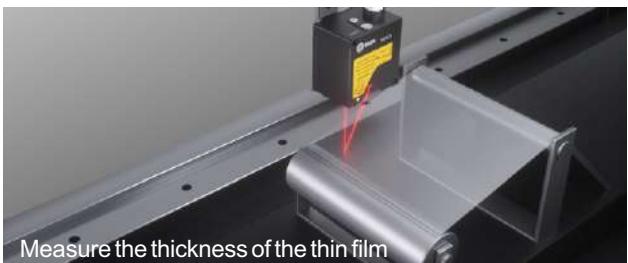


Sealing nail welding guidance

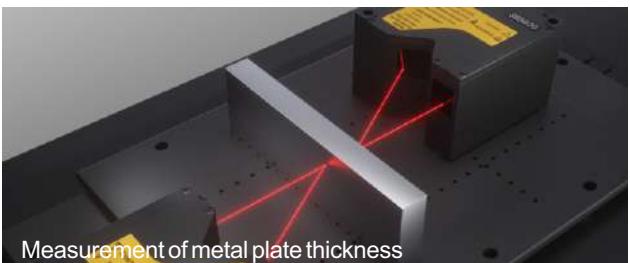


Residual thickness measurement of safety valve

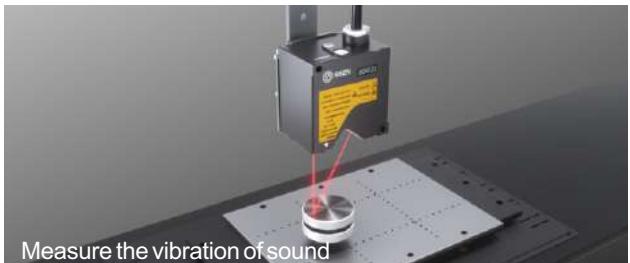
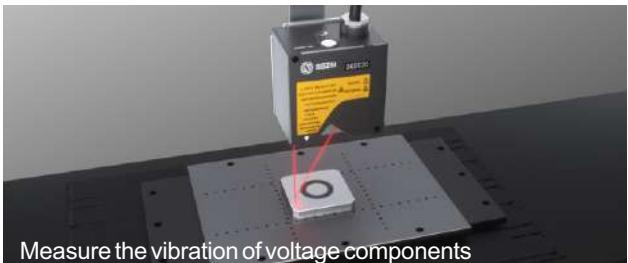
Film/resin/plate/plastic/rubber



Metal

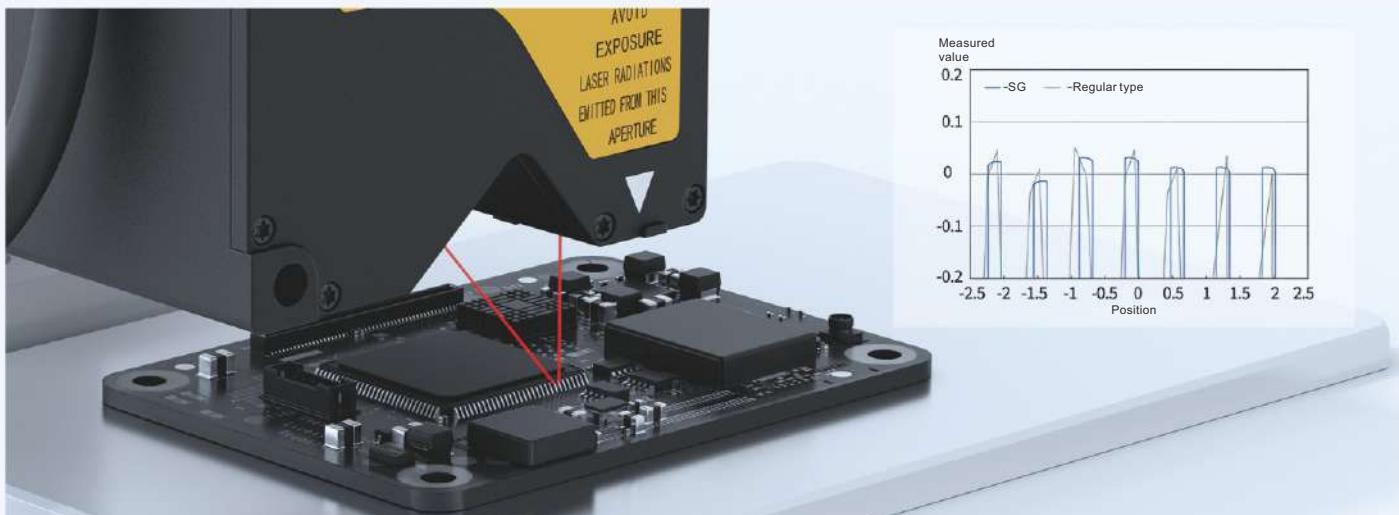


Others



## 01 Round Laser Spot

Ultra small round spot size  
is capable of detecting the contour of fine components



## 02 Multiple Communication Methods

Multiple communication methods, providing network port TCP/IP (supporting ModbusTCP), serial port RS232 communication, analog and digital output.



## 03 One-to-four Controller

Connect 4 sensor heads at once and output 8 measurement values simultaneously



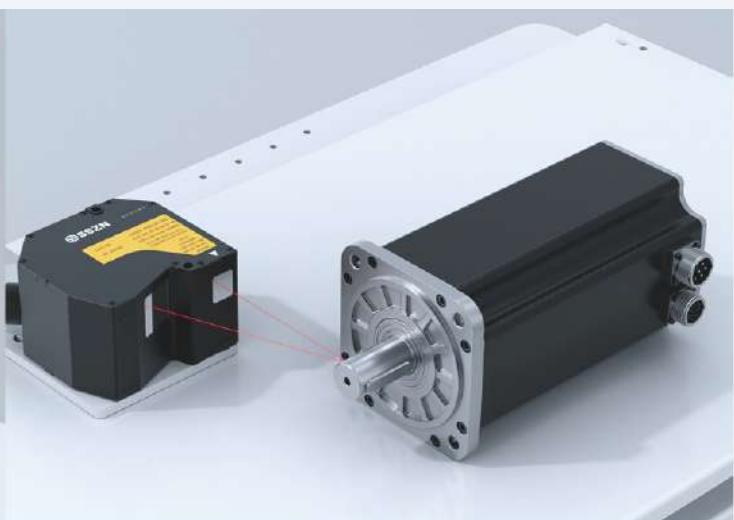
## 04 Wide Laser Spot

With large areas of laser spots, eliminating the influence of surface roughness, stable measurement can be achieved even on rough objects

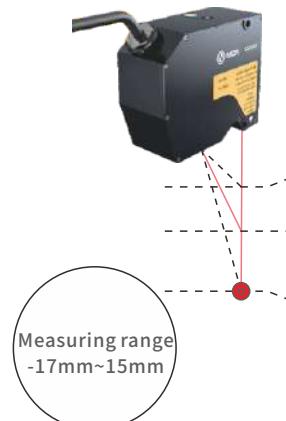
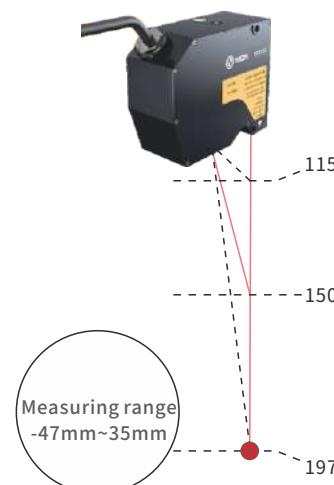


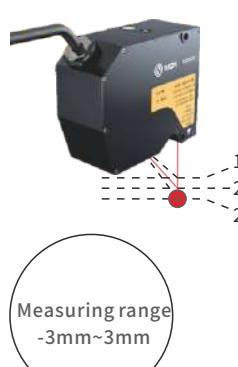
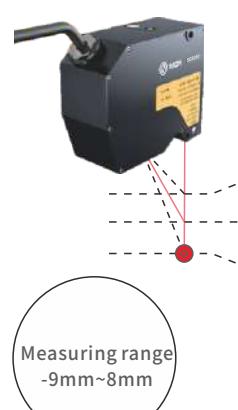
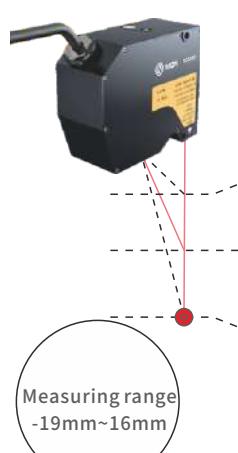
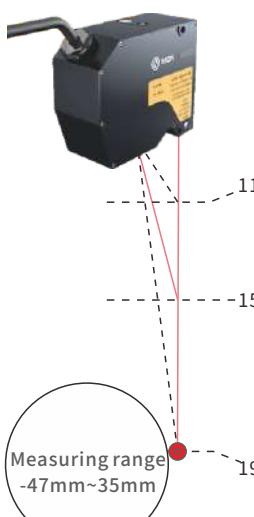
## 05 Ultra-high Sampling Frequency

Max. sampling frequency 590kHz, effectively capturing the displacement of moving objects with ultra-high stability



## SG Series Product Matrix

Laser spot	Round	Wide	Round	Wide	Round	Wide
Camera model	SG3030	SG3035	SG3080	SG3085	SG3150	SG3155
Repeatability	0.05μm		0.2μm		0.5μm	
Linearity	±0.05% F.S.		±0.05% F.S.		±0.05% F.S.	
Spot diameter	Φ60μm	60*400μm	Φ110μm	110*720μm	Φ190μm	190*1300μm
Schematic diagram of measurement range						

Laser spot	Round	Wide	Round	Wide	Round	Wide	Round	Wide
Camera model	SG5020	SG5025	SG5050	SG5055	SG5080	SG5085	SG5150	SG5155
Repeatability	0.02μm		0.025μm		0.1μm		0.25μm	
Linearity	±0.02% F.S.		±0.02% F.S.		±0.02% F.S.		±0.02% F.S.	
Spot diameter	Φ45μm	45*400μm	Φ75μm	75*400μm	Φ110μm	110*720μm	Φ190μm	190*1300μm
Schematic diagram of measurement range								

## Technical Specifications

Parameter / Model	SG3030 SG3035	SG3080 SG3085	SG3150 SG3155	SG5020 SG5025	SG5050 SG5055	SG5080 SG5085	SG5150 SG5155				
Refercence distance (CD) <sup>①</sup>	30mm	80mm	150mm	20mm	50mm	80mm	150mm				
Measurement range <sup>②</sup>	-5mm~5mm	-17mm~15mm	-47mm~35mm	-3mm~3mm	-9mm~8mm	-19mm~16mm	-47mm~35mm				
Light source	Light source wavelength	655nm									
	Laser class	Class IIIa (FDA CDRH 21CFR Part 1040.10)									
	Output	5mW									
Beam diameter (spot size)	Round spot	Φ60μm	Φ110μm	Φ190μm	Φ45μm	Φ75μm	Φ110μm				
	Wide spot	60*400μm	110*720μm	190*1300μm	45*400μm	75*400μm	110*720μm				
Repeatability <sup>③</sup>	0.05μm	0.2μm	0.5μm	0.02μm	0.025μm	0.1μm	0.25μm				
Linearity	±0.05% F.S.			±0.02% F.S.							
Temperature Characteristics	0.01% F.S./°C										
Sampling frequency (Hz)	1/2/5/10/20/50/88kHz(7 options available)				1/2/5/10/20/50/88/200/400/590kHz(10 options available)						
Input/Output	Communication Port	1 Ethernet interface 100Base-TX/1000Base-T, and 1 RS232 interface									
	Analog output	4-channel analog output, supporting switching between analog voltage and analog current									
	Encoder input	1 set of differential encoder									
	IO input	14 channels, supporting functions such as timing, reset, laser control, formula switching, etc.									
	IO output	16 channels, judging status output									
Working Temperature	0~50°C										
Storage Temperature	-20~70°C										
Working humidity	35%~85%, No condensation										
ESD Protection	Contact discharge 4kV, air discharge 8kV, comply with IEC 61000-4-2										
EFT protection	Power port 2kV/5 or 100kHz, signal port 1kV/5 or 100kHz, comply with IEC61000-4-4										
Shock resistance	Each axis 50Gs/3ms, comply with IEC 68-2-27 Ea										
Vibration resistance	10Gs (10-500Hz) , comply with IEC 68-2-6 Fc										
Protection level	IP67, comply with IEC 60529										
Dimension(mm) <sup>④</sup>	90x75x38	85x77x47	85x76x47	60x61x41	69x71x47	75x70x47	85x76x47				
Data cable (wiring) model	SCB-GICAM-HA2-3m/5m/10m										
Weight (including cables) (g)	324	376	370	324	323	329	370				

Notes:

①The recommended optimal installation distance corresponds to the diffuse reflection mode for this parameter.

② A positive value represents the near end, while a negative value represents the far end.

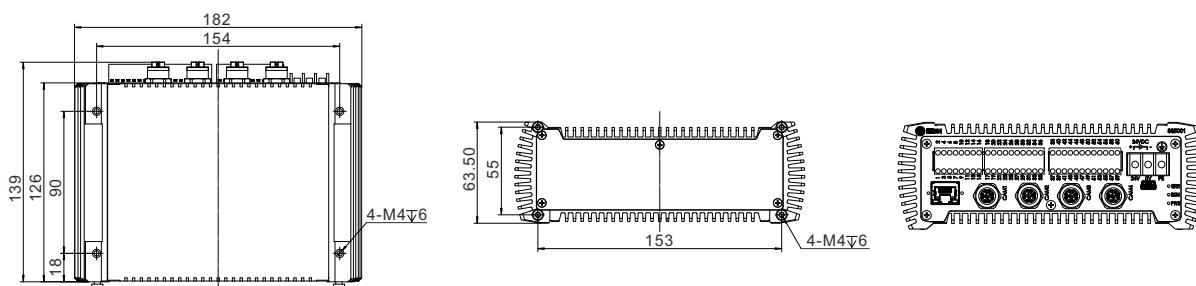
③ The reference distance was obtained through 4096 average static tests.

④ The dimensions of the SG3000/SG5000 series sensors are shown on pages 49-50, and the accessory controller model is SG5001.

## Accessories - Controller

Parameter / Model		SG5001
Number of sensor heads connected at Max.		4 Max. (supporting SG5000, SG3000 sensor heads) ♦ When using 2 or more sensors, the sensor heads must be of the same model
Sampling period (trigger interval)		The maximum frequency of SG3000 sensor head is 88kHz, and the maximum frequency of SG5000 sensor head is 590kHz
Ethernet interface		<ul style="list-style-type: none"> <li>• Numerical output</li> <li>• Connect to the included computer application software produced by SinceVision.</li> <li>In addition to the above functions, you can also upload or download detection settings.</li> <li>• 1000BASE-T/100BASE-TX</li> </ul>
Serial port		RS232 (full duplex)
Digital input		<p>Timing (sync) input, zero-reset (sync) input, reset (sync) input, timing (binary) input, zero-reset (binary) input, reset (binary) input, laser control input, binary selection input, program number switching input</p> <p>Adaptable to NPN and PNP outputs</p>
Digital output	Comparator output	
	Gated output	NPN open collector output
Analog output	Number of analog output	4 channels
	Voltage output	0-10V output, output impedance: 100 Ω
	Current output	4-20mA output, allowable maximum load impedance: 300 Ω
Encoder input		1 set: compatible with RS-422 linear drive output (with 5V output: 150 mA Max.), or open collector output (Supports 5V/12V/24V, requires external series current limiting resistor)
Encoder input Response frequency	RS-422 linear drive	Single phase/Z-phase 1.6MHz, 2-phase/1 increasing 1.6MHz, 2-phase/2 increasing 3.2MHz, 2-phase/4 increasing 6.4MHz
	Open collector (OC)	Single phase/Z-phase 100kHz, 2-phase/1 increasing 100kHz, 2-phase/2 increasing 200kHz, 2-phase/4 increasing 400kHz
Heat dissipation		Natural heat dissipation
Rated	Supply voltage	24VDC±10%
	Consumption current at Max.	2.25A
Environmental resistance	Ambient temperature	0-50 °C (installed below)
	Ambient humidity	35%~85%RH(No condensation)
Dimension (mm)		182x139x64
Weight (g)		1600

## Dimensions—applicable to SG series products



## Accessories - High toughness cables

Parameter / Model	SCB-GICAM-HA1/SCB-GCAM-HA2	
Protection	IP67, comply with IEC 60529	
Minimum bending radius of cable components (fixed)	30mm	
Service life	Cable carrier installation with a radius of no less than 72mm (recommended 100mm), with repeated bending times greater than 10 million times ①	
Adapted model	SG3000/SG5000	SGI series
	I-joint (straight end)	I-joint (straight end)
3m cable	SCB-GCAM-HA2-3m	SCB-GICAM-HA1-3m
5m cable	SCB-GCAM-HA2-5m	/
6m cable	/	SCB-GICAM-HA1-6m
10m cable	SCB-GCAM-HA2-10m	SCB-GICAM-HA1-10m
Extension cable of 5m cable	SCB-GCAM-HAY-5m	/

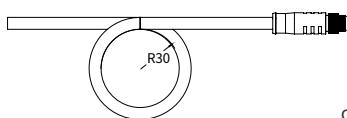
Notes:

①Testing environment: temperature/humidity 23°C/40%RH; test conditions: cable carrier radius: R72mm; cable carrier distance: 1000mm, running speed: 60 round trips/min. Measurement results: Standard value > 30 million times; minimum value > 10 million times.

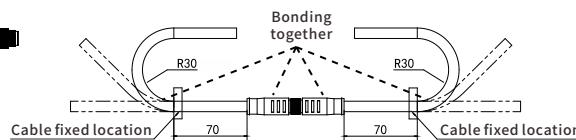
Please ensure that the minimum bending radius of the sensor head cable is above 30mm.

When a splice is required, the splice head and the cable within 70mm of each end must be kept relatively fixed.

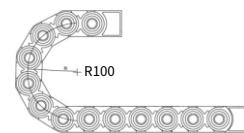
When using cable carriers, if not specifically specified, please choose products with R100 or higher.



Minimum cable bending radius



Cable splice connection



Minimum cable bending radius

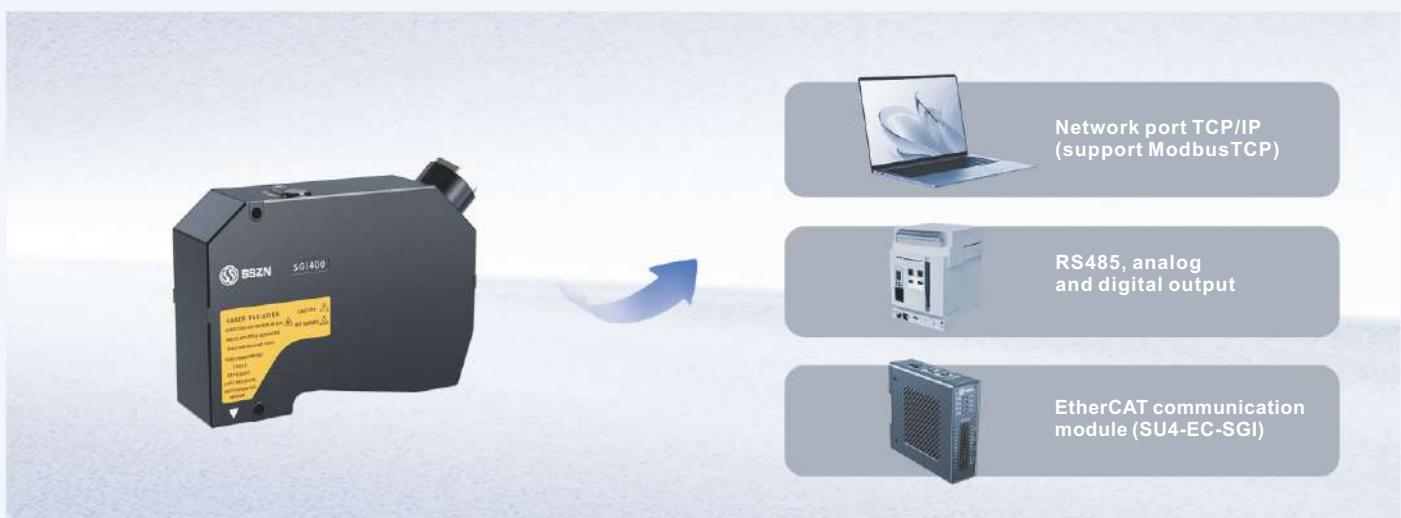
# 01 Built-in Controller and Communication Unit

The integrated device design makes maintenance and troubleshooting easier, while also having advantages in space utilization and cost-effectiveness



# 02 Multiple Communication Modes

Provide network port TCP/IP (support ModbusTCP), RS485 communication, EtherCAT module, analog and digital output



## 03 High Flexible Shielded Cable

It's also used without worry equipped to robot

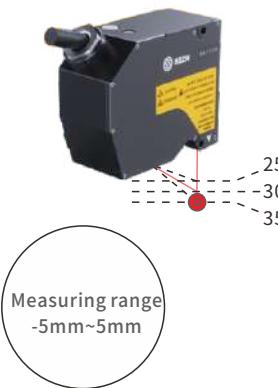
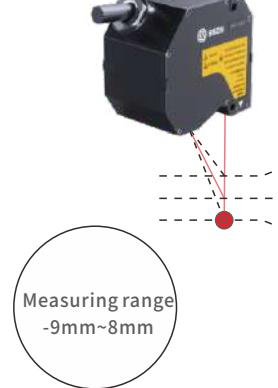
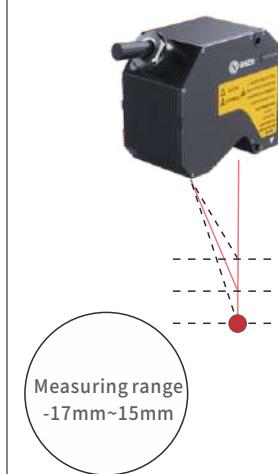


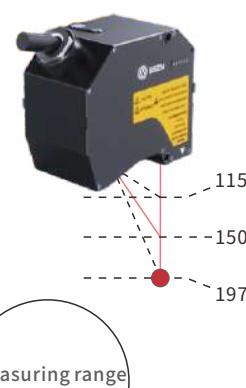
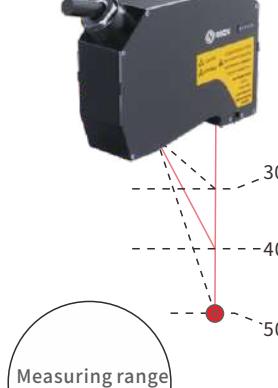
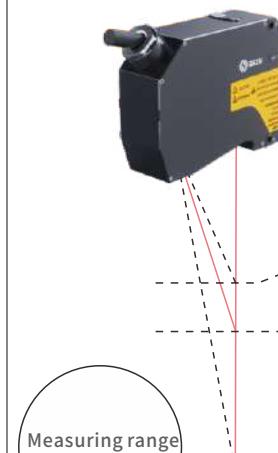
## 04 Set Parameters Through PC

Real-time confirmation of measurement data and setting of parameters for multiple SGI sensors on SG Imaging



## SGI Series Product Matrix

Laser spot	Round	Wide	Round	Wide	Round	Wide
Camera model	SGI030	SGI035	SGI050	SGI055	SGI080	SGI085
Repeatability	0.05μm		0.1μm		0.2μm	
Linearity	±0.05% F.S.		±0.05% F.S.		±0.05% F.S.	
Spot diameter	Φ60μm	60*400μm	Φ75μm	75*480μm	Φ110μm	110*720μm
Schematic diagram of measurement range						

Laser spot	Round	Wide	Round	Wide	Round	Wide
Camera model	SGI150	SGI155	SGI400	SGI405	SGI500	SGI505
Repeatability	0.5μm		2μm		2μm	
Linearity	±0.05% F.S.		±0.05% F.S.		±0.05% F.S.	
Spot diameter	Φ190μm	190*1300μm	Φ450μm	450*1300μm	Φ500μm	500*6000μm
Schematic diagram of measurement range						

## Technical Specifications

Parameter / Model	SGI030 SGI035	SGI050 SGI055	SGI080 SGI085	SGI150 SGI155	SGI400 SGI405	SGI500 SGI505					
Reference distance (CD) <sup>①</sup>	30mm	50mm	80mm	150mm	400mm	500mm					
Measurement range <sup>②</sup>	-5mm~5mm	-9mm~8mm	-17mm~15mm	-47mm~35mm	-100mm~100mm	-650mm~250mm					
Light source	Light source wavelength	655nm									
	Laser class	Class IIIa (FDA CDRH 21CFR Part 1040.10)									
	Output	5mW									
Beam diameter (spot size)	Round spot	Φ60μm	Φ75μm	Φ110μm	Φ190μm	Φ450μm					
	Wide spot	60*400μm	75*480μm	110*720μm	190*1300μm	450*1300μm					
Repeatability <sup>③</sup>	0.05μm	0.1μm	0.2μm	0.5μm	2μm	2μm					
Linearity	±0.05% F.S.					250mm-450mm:±0.02% F.S. 250mm-750mm:±0.05% F.S. 250mm-1150mm:±0.1% F.S.					
Temperature Characteristics	0.01% F.S./°C										
Sampling frequency (Hz)	1/2/5/10/20/50/88kHz(7 options available)										
Input/Output	Communication Port	1 Ethernet interface 100Base-TX/1000Base-T, and 1 RS485 interface									
	Analog output	1 channel analog output, supporting switching between analog voltage and analog current									
	IO input	2 channels, supporting functions such as timing, zero reset, and single-ended encoder function multiplexed.									
	IO output	4 channels, judging status output									
Working Temperature	0~50°C										
Storage Temperature	-20~70°C										
Working humidity	35%~85% No condensation										
ESD Protection	Contact discharge 4kV, air discharge 8kV, comply with IEC 61000-4-2										
EFT protection	Power port 2kV/5 or 100kHz, signal port 1kV/5 or 100kHz, comply with IEC61000-4-4										
Shock resistance	Each axis 50Gs/3ms, comply with IEC 68-2-27 Ea										
Vibration resistance	10Gs (10-500Hz), comply with IEC 68-2-6 Fc										
Protection level	IP67, comply with IEC 60529										
Dimension(mm) <sup>④</sup>	90x75x41	72x71x50	88x77x50	88x79x50	119x85x35	119x85x35					
Data cable (wiring) model	SCB-GICAM-HA1-3m/6m/10m										
Weight (including cables) (g)	324	323	376	370	380	380					

Notes:

① The recommended optimal installation distance corresponds to the diffuse reflection mode for this parameter.

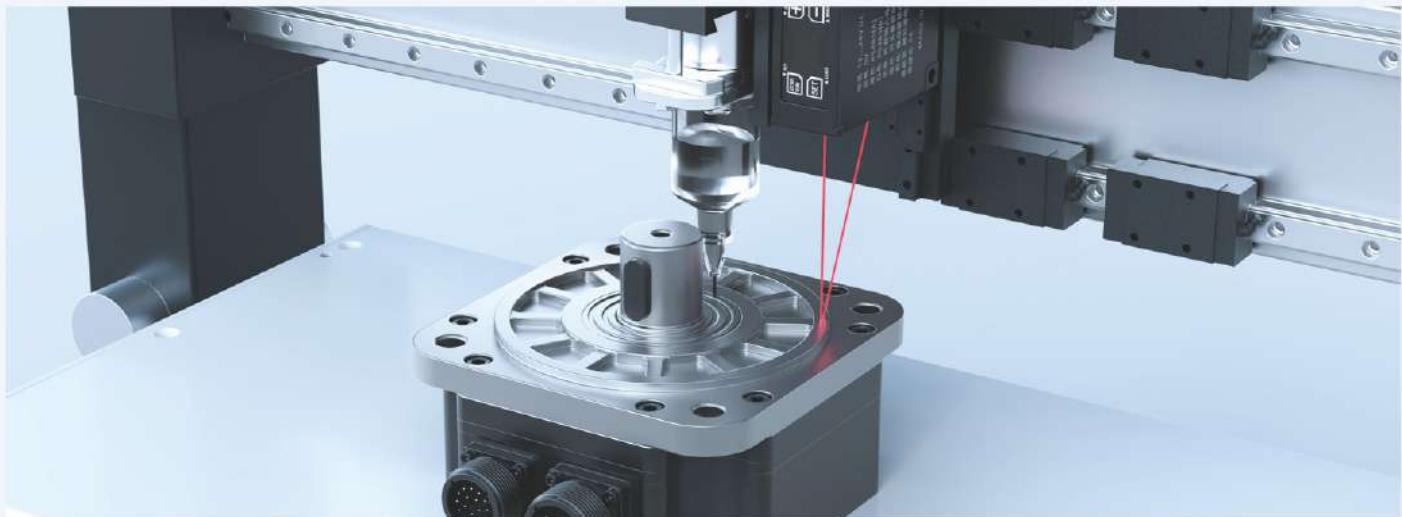
② A positive value represents the near end, while a negative value represents the far end.

③ The reference distance was obtained through 4096 average static tests.

④ The dimensions of the SGI series sensors are shown on pages50-51.

# 01 Ultra-high Precision

The highest accuracy reaches 2μm, with a linear accuracy of 0.1% F.S



# 02 Glass Lenses

Compared to acrylic sheets, glass sheets have better temperature resistance, transparency, corrosion resistance, scratch resistance, and other advantages



## 03 Easy to Operate

A four-digit display panel and four buttons allow for easy setting of multi-functions.

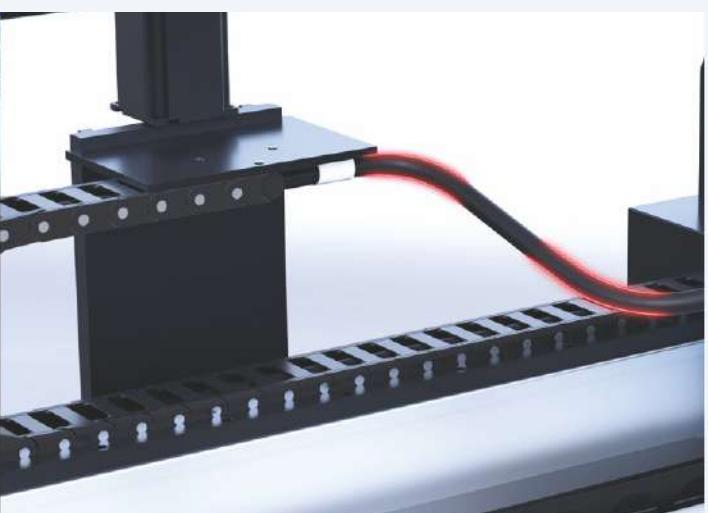
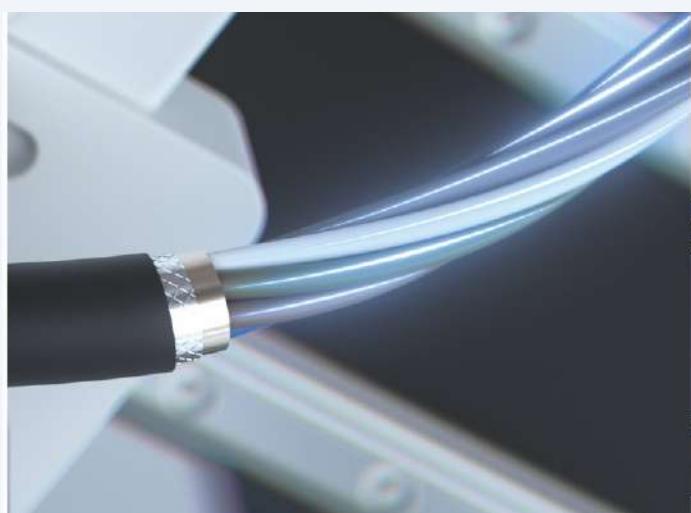


## 04 Multiple Communication Modes

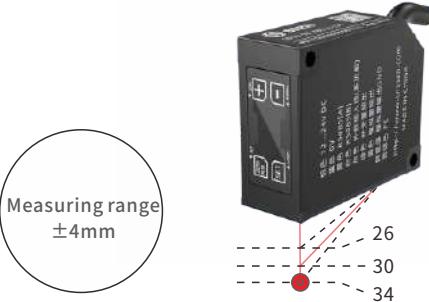
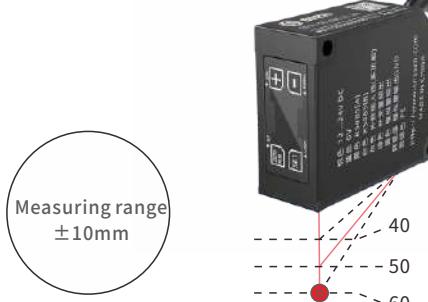
Provide RS485 communication (support ModbusRTU), analog voltage/current output, digital output; support connecting EtherCAT modules for use

## 05 High-flexible Shielded Cable

Easy to adapt to bending and can be used in cable carriers



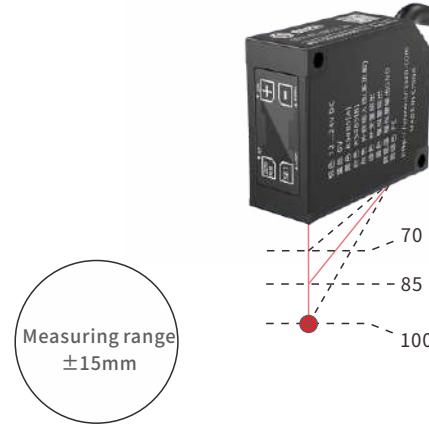
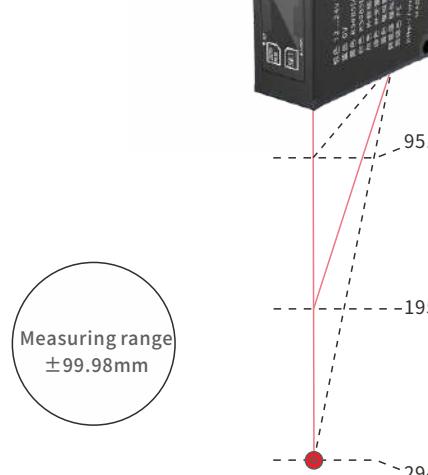
## SD33 Series Product Matrix

Camera model	SD33-30-485-□ <sup>①</sup> -△ <sup>②</sup>			SD33-50-485-□ <sup>①</sup> -△ <sup>②</sup>		
Repeatability	2μm			5μm		
Linearity	±0.1% F.S.			±0.1% F.S.		
Spot diameter	Near side	Reference distance	Remote side	Near side	Reference distance	Remote side
	80*180μm	70*260μm	100*400μm	120*230μm	110*440μm	150*670μm
Schematic diagram of measurement range	 Measuring range ±4mm			 Measuring range ±10mm		

Notes:

①□: Optional V (voltage type) or A (current type)

②△: Optional cable length (2m or 5m)

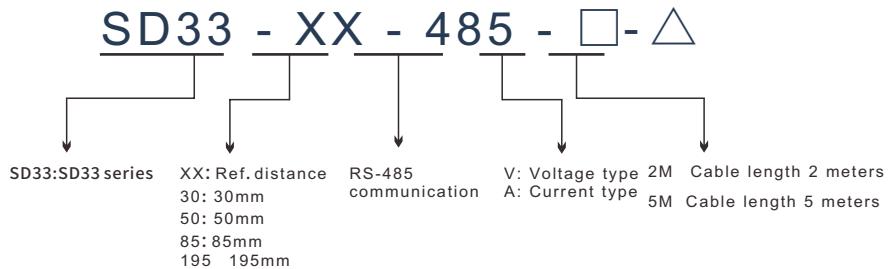
Camera model	SD33-85-485-□ <sup>①</sup> -△ <sup>②</sup>			SD33-195-485-□ <sup>①</sup> -△ <sup>②</sup>		
Repeatability	10μm			50μm		
Linearity	±0.1% F.S.			±0.1% F.S.		
Spot diameter	Near side	Reference distance	Remote side	Near side	Reference distance	Remote side
	150*600μm	140*900μm	190*1200μm	230*600μm	430*2000μm	700*3300μm
Schematic diagram of measurement range	 Measuring range ±15mm			 Measuring range ±99.98mm		

Notes:

①□: Optional V (voltage type) or A (current type)

②△: Optional cable length (2m or 5m)

## Model Namingology



## Technical Specifications

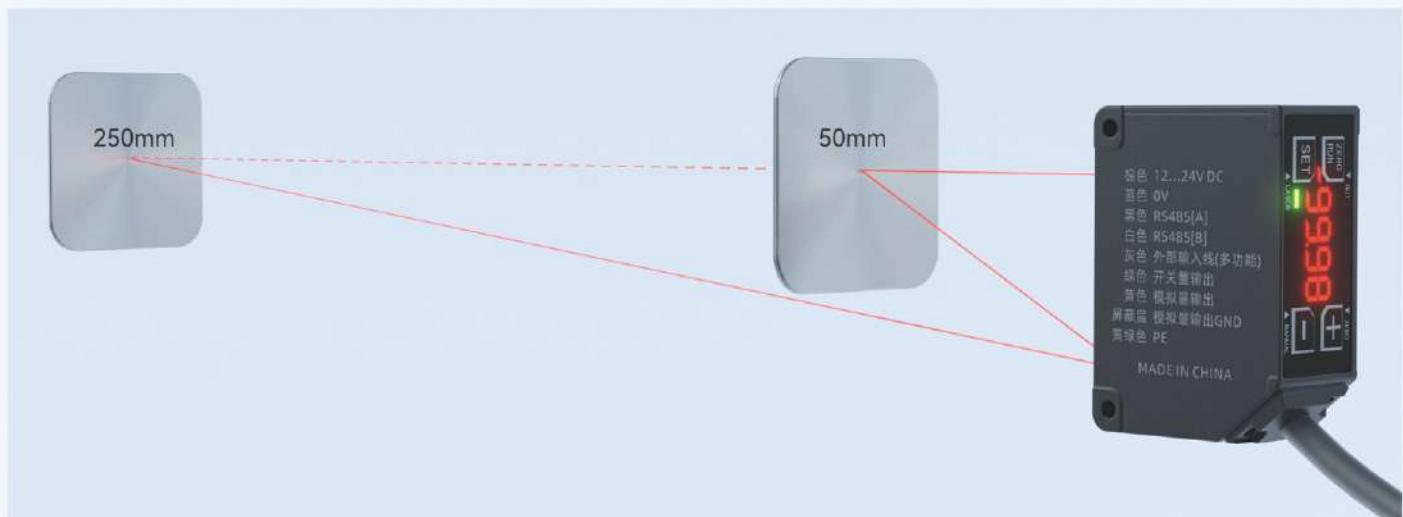
Parameter / Model	SD33-30-485-□-△ <sup>①②</sup>	SD33-50-485-□-△ <sup>①②</sup>	SD33-85-485-□-△ <sup>①②</sup>	SD33-195-485-□-△ <sup>①②</sup>			
Reference distance (CD) <sup>③</sup>	30mm	50mm	85mm	195mm			
Measurement range <sup>④</sup>	±4mm	±10mm	±15mm	±99.98mm			
Light source	Light source wavelength	655nm					
	Laser class	Class II					
	Laser output power	1mW					
Beam diameter (spot size)	Near side	80*180μm	120*230μm	150*600μm			
	Reference distance	70*260μm	110*440μm	140*990μm			
	Remote side	100*400μm	150*670μm	190*1200μm			
Repeatability	2μm	5μm	10μm	50μm			
Linearity <sup>⑤</sup>	±0.1% F.S.						
Temperature Characteristics	0.05% F.S./°C						
Sampling frequency (Hz)	500/1000/2000/3000Hz (4 options available)						
Input/Output	Communication Port	One RS485 (Support ModbusRTU)					
	Analog output	1 channel analog output, analog voltage (0~10V) or analog current (4~20mA). Analog voltage or analog current is not switchable.					
	IO input	1 channel input, laser off for external input/remote teaching/sampling hold/single pulse trigger/zero reset, etc.					
	IO output	1 channel, judging status output					
Power supply voltage	DC12~24V±10%						
Current consumption	Less than 60mA (at DC 12V), less than 120mA (at DC 24V)						
Working Temperature	-10~50°C						
Storage Temperature	-20~70°C						
Working humidity	35%~85% No condensation, no frost						
ESD Protection	Contact discharge 4kV, air discharge 8kV, comply with IEC 61000-4-2						
EFT protection	Power port 2kV/5 or 100kHz, signal port 1kV/5 or 100kHz, comply with IEC61000-4-4						
Shock resistance	500m/s <sup>2</sup> (approx. 50G) 3 times each in X, Y, and Z directions						
Vibration resistance	10 ~ 55Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions						
Protection level	IP67, comply with IEC 60529						
Dimension(mm) <sup>⑥</sup>	60*50*22						
Weight (including cables) (g)	120						

Notes:

①□: Optional V (voltage type) or A (current type) ②△: Optional cable length (2m or 5m) ③ The recommended optimal installation distance corresponds to the diffuse reflection mode for this parameter. ④ A positive value represents the near end, while a negative value represents the far end. ⑤ The reference distance was obtained through 4096 average static tests. ⑥The dimensions of the SD33 series sensors are shown on pages 51.

# 01 Larger Compatible Range

Having a larger detection range at the same working distance



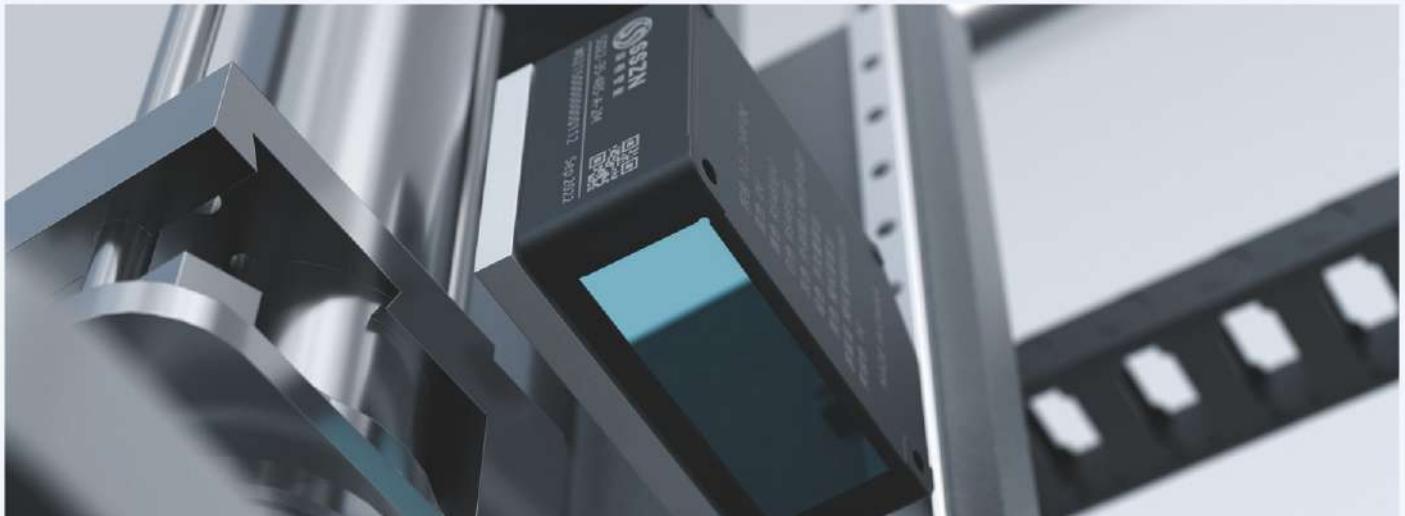
# 02 Easy to Operate

A four-digit display panel and four buttons allow for easy setting of multi-functions.



## 03 Glass Lenses

Compared to acrylic sheets, glass sheets have better temperature resistance, transparency, corrosion resistance, scratch resistance, and other advantages



## 04 Multiple Communication Modes

Provide RS485 communication (support ModbusRTU), analog voltage/current output, digital output; support connecting EtherCAT modules for use



## SD22 Series Product Matrix

Camera model	SD22-15-485-□ <sup>①</sup> -△ <sup>②</sup>			SD22-35-485-□ <sup>①</sup> -△ <sup>②</sup>		
Repeatability	1μm			6μm		
Linearity	±0.1% F.S.			±0.1% F.S.		
Spot diameter	Near side	Reference distance	Remote side	Near side	Reference distance	Remote side
	30*110μm	50*200μm	100*400μm	120*180μm	100*580μm	220*900μm
Schematic diagram of measurement range						

Notes:

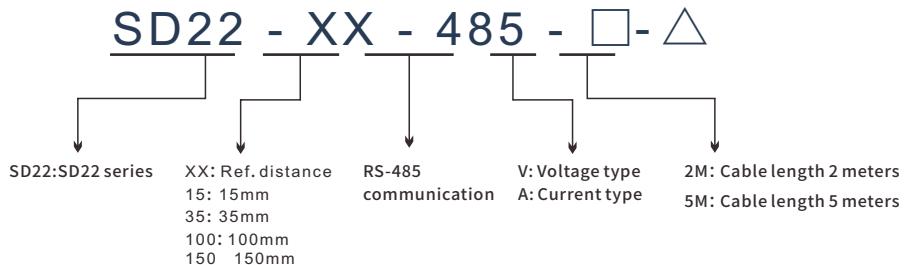
①□: Optional V (voltage type) or A (current type) ②△: Optional cable length (2m or 5m)

Camera model	SD22-100-485-□ <sup>①</sup> -△ <sup>②</sup>			SD22-150-485-□ <sup>①</sup> -△ <sup>②</sup>		
Repeatability	20μm			60μm		
Linearity	±0.1% F.S.			±0.1% F.S.		
Spot diameter	Near side	Reference distance	Remote side	Near side	Reference distance	Remote side
	160*550μm	300*1500μm	500*2500μm	200*500μm	400*2300μm	800*3500μm
Schematic diagram of measurement range						

Notes:

①□: Optional V (voltage type) or A (current type) ②△: Optional cable length (2m or 5m)

## SD22 Series Product Matrix



## Technical Specifications

Parameter / Model	SD22-15-485-□ <sup>①</sup> -△ <sup>②</sup>	SD22-35-485-□ <sup>①</sup> -△ <sup>②</sup>	SD22-100-485-□ <sup>①</sup> -△ <sup>②</sup>	SD22-150-485-□ <sup>①</sup> -△ <sup>②</sup>			
Reference distance (CD) <sup>③</sup>	15mm	35mm	100mm	150mm			
Measurement range <sup>④</sup>	±5mm	±15mm	±50mm	±100mm			
Light source	Light source wavelength	655nm					
	Laser class	Class II					
	Laser output power	1mW					
Beam diameter (spot size)	Near side	30*110μm	120*180μm	160*550μm			
	Reference distance	50*200μm	100*580μm	300*1500μm			
	Remote side	100*400μm	220*900μm	500*2500μm			
Repeatability	1μm	6μm	20μm	60μm			
Linearity <sup>⑤</sup>	±0.1% F.S.						
Temperature Characteristics	0.05% F.S./°C						
Sampling frequency (Hz)	500/1000/2000/3000Hz (4 options available)						
Input/Output	Communication Port	One RS485 (Support ModbusRTU)					
	Analog output	1 channel analog output, analog voltage (0~10V) or analog current (4~20mA). Analog voltage or analog current is not switchable.					
	IO input	1 channel input, laser off for external input/remote teaching/sampling hold/single pulse trigger/zero reset, etc.					
	IO output	1 channel, judging status output					
Powersupply voltage	DC12~24V±10%						
Current consumption	Less than 60mA (at DC 12V), less than 120mA (at DC 24V)						
Working Temperature	-10~50°C						
Storage Temperature	-20~70°C						
Working humidity	35%~85% No condensation, no frost						
ESD Protection	Contact discharge 4kV, air discharge 8kV, comply with IEC 61000-4-2						
EFT protection	Power port 2kV/5 or 100kHz, signal port 1kV/5 or 100kHz, comply with IEC61000-4-4						
Shock resistance	500m/s <sup>2</sup> (approx. 50G) 3 times each in X, Y, and Z directions						
Vibration resistance	10 ~ 55Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions						
Protection level	IP67, comply with IEC 60529						
Dimension(mm) <sup>⑥</sup>	44*31*18						
Weight (including cables) (g)	70						

Notes:

①□: Optional V (voltage type) or A (current type) ②△: Optional cable length (2m or 5m) ③ The recommended optimal installation distance corresponds to the diffuse reflection mode for this parameter. ④ A positive value represents the near end, while a negative value represents the far end. ⑤ The reference distance was obtained through 4096 average static tests. ⑥The dimensions of the SD22 series sensors are shown on pages 52.

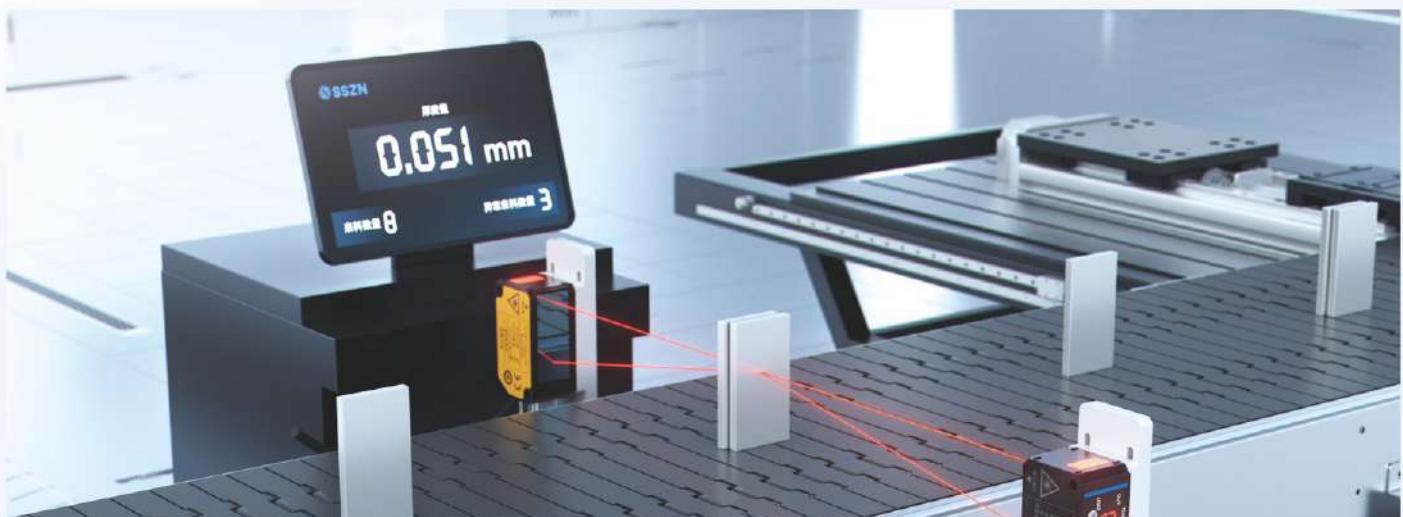
# 01 Ultra-small Size

44.4 \* 25 \* 20mm, easy to adapt to installation environment



# 02 High Stability

Strict quality requirements, suitable for use in various harsh environments such as electromagnetic interference



## 03 Multiple Communication Modes

Provide RS485 communication (support ModbusRTU), analog voltage/current output, digital output; support connecting EtherCAT modules for use



## 04 Output Indicator Light

Large front output indicator light helping to easily determine output status

## 05 Glass Lenses

Compared to acrylic sheets, glass sheets have better temperature resistance, transparency, corrosion resistance, scratch resistance, and other advantages



## SD-C Series Product Matrix

Camera model	SD-C030(P) <sup>①</sup> -□ <sup>②</sup> -△ <sup>③</sup>	SD-C050(P) <sup>①</sup> -□ <sup>②</sup> -△ <sup>③</sup>	SD-C100(P) <sup>①</sup> -□ <sup>②</sup> -△ <sup>③</sup>
Repeatability	5μm	15μm	35μm
Linearity	±0.1%F.S.	±0.1%F.S.	±0.1%F.S.
Spot diameter	Φ50μm	Φ70μm	Φ120μm
Schematic diagram of measurement range			

Notes:

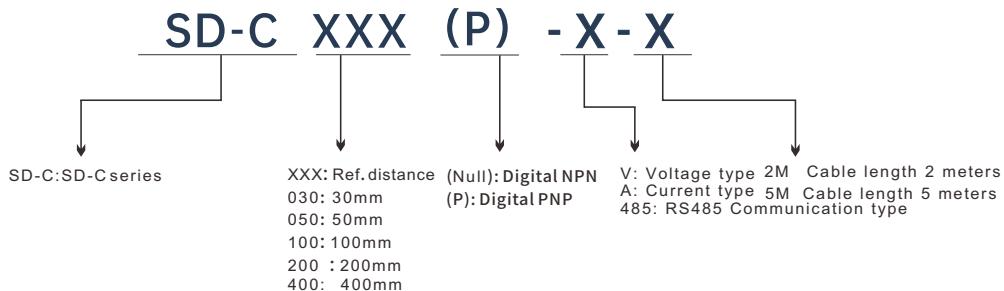
①(P): Default type NPN, Optional type PNP. ②□: Optional 485 (RS485 communication type), V (voltage 0-5V) or A (current 4-20mA) ③△: Optional cable length (2m or 5m)

Camera model	SD-C200(P) <sup>①</sup> -□ <sup>②</sup> -△ <sup>③</sup>	SD-C400(P) <sup>①</sup> -□ <sup>②</sup> -△ <sup>③</sup>
Repeatability	100μm	500μm
Linearity	±0.2%F.S.	200-400mm
		400-600mm
Spot diameter	Φ300μm	Φ500μm
Schematic diagram of measurement range		

Notes:

①(P): Default type NPN, Optional type PNP. ②□: Optional 485 (RS485 communication type), V (voltage 0-5V) or A (current 4-20mA) ③△: Optional cable length (2m or 5m)

## Model Namingology



## Technical Specifications

Parameter / Model	SD-C030(P)-□-△	SD-C050(P)-□-△	SD-C100(P)-□-△	SD-C200(P)-□-△	SD-C400(P)-□-△				
Reference distance (CD) <sup>④</sup>	30mm	50mm	100mm	205mm	400mm				
Measurement range <sup>⑤</sup>	±5mm	±15mm	±35mm	±80mm	±200mm				
Light source	Light source wavelength	655nm							
	Laser class	Class II							
	Laser output power	1mW							
Beam diameter (spot size)	Reference distance	Φ50μm	Φ70μm	Φ120μm	Φ300 μm				
Repeatability	5μm	15μm	35μm	100μm	150μm(Measured distance 200mm-400mm) 400μm(Measured distance 400mm-600mm)				
Linearity	±0.1%F.S.			±0.2%F.S.	±0.2% F.S.(Measured distance 200mm-400mm) ±0.3% F.S.(Measured distance 400mm-600mm)				
Temperature Characteristics <sup>⑥</sup>	±0.05%F.S./°C								
Sampling frequency (Hz)	100/200/1000Hz(3 options available)								
Input/Output	Communication port	One RS485 port(support ModbusRTU)							
	Analog output	1 channel analog output, analog voltage (0~5V) or analog current (4~20mA). Analog voltage or analog current is not switchable.							
	IO input	1 channel input, laser off for external input/remote teaching/trigger/zero reset, etc.							
	IO output	1 channel, judging status output							
Power supply voltage	DC12~24V±10%								
Current consumption	Less than 40mA (at DC 24V), less than 60mA (at DC 12V)								
Working Temperature	-10~50°C								
Storage Temperature	-20~60°C								
Working humidity	35%~85% No condensation, no frost								
ESD Protection	Contact discharge 4kV, air discharge 8kV, comply with IEC 61000-4-2								
EFT protection	Power port 2kV/5 or 100kHz, signal port 1kV/5 or 100kHz, comply with IEC61000-4-4								
Shock resistance	500m/s <sup>2</sup> (approx. 50G) 3 times each in X, Y, and Z directions								
Vibration resistance	10~55Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions								
Protection level	IP67, comply with IEC 60529								
Dimension(mm) <sup>⑦</sup>	37*25*20								
Weight (including cables) (g)	86								

Notes:

① (P): Default type NPN, Optional type PNP. ②□: Optional 485 (RS485 communication type), V (voltage 0-5V) or A (current 4-20mA) ③△: Optional cable length (2m or 5m)

④ The recommended optimal installation distance corresponds to the diffuse reflection mode for this parameter. ⑤ A positive value represents the near end, while a negative value represents the far end. ⑥ The reference distance was obtained through 4096 average static tests. ⑦ The dimensions of the SD-C series sensors are shown on pages 53.

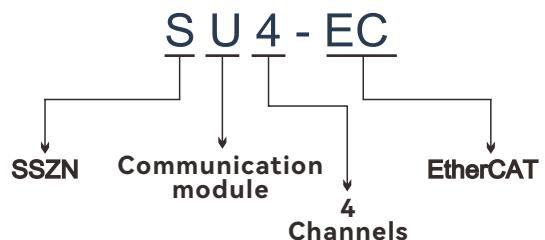
# 4-Channel EtherCAT



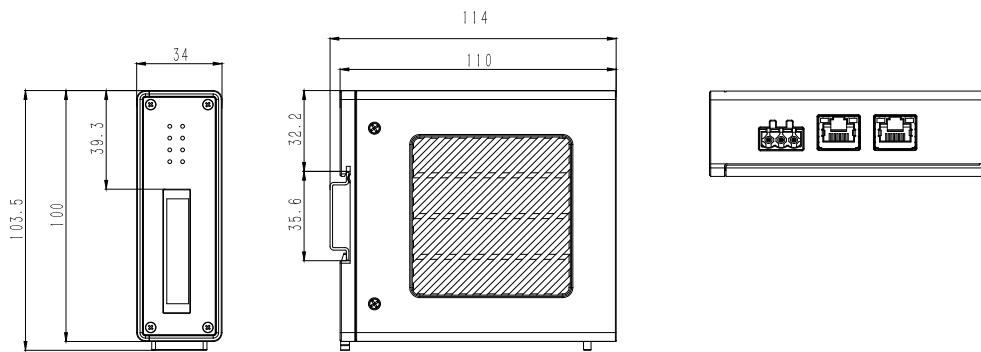
## Main Technical Features

1. Supports up to four sensor heads of the same type
2. Small size, supports DIN rail installation, and can be easily installed into the cabinet
3. SDO: Supports setting sensor parameters
4. PDO: Supports up to 4kHz refresh
5. Support channel status display

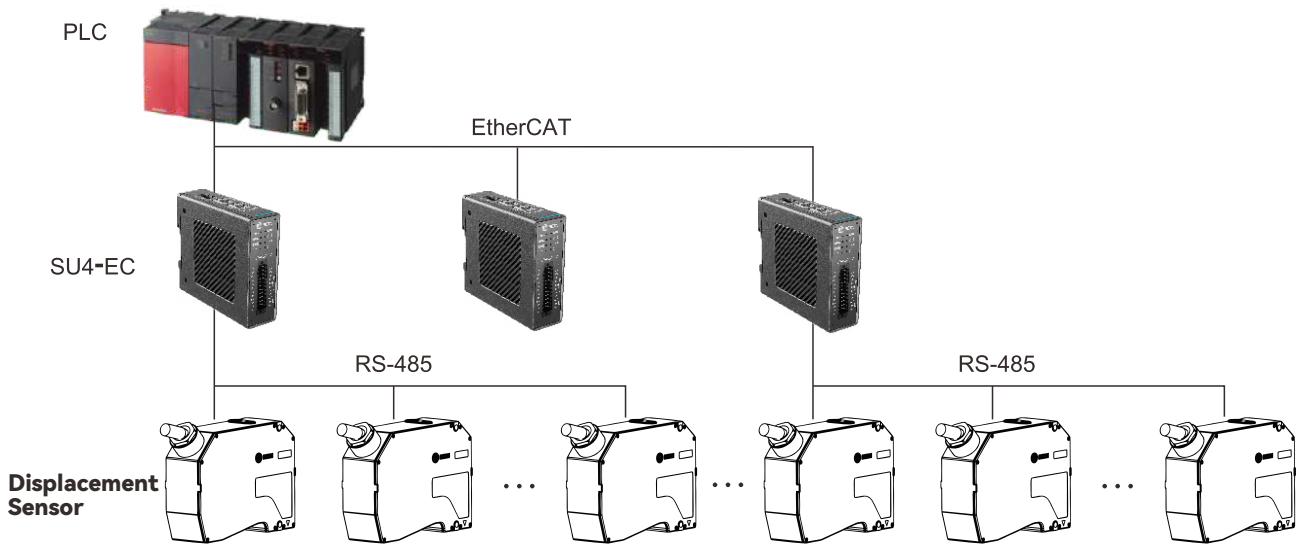
## Model Namingology



## Dimensional Drawings



## System Composition Diagram



## Specifications

Items	EtherCAT Communication Unit
Number of sensor heads connected at Max.	4 heads (Support SGI series, SD33 series, SD22 series, SD-C series,) When using 2 or more sensors, the sensor heads must be of the same model
Sensor head interface	Communication mode: RS-485 (Cable length 20m at Max.) Supported protocols: SSZN custom protocols + Modulebus protocols Support performance: PDO refresh 4kHz Max. + SDO supports for sensor parameter setting Physical interface: each interface independently using a double row of 6pin plug-in European-style terminals
EtherCAT	Version: EtherCAT Slave Standard protocol: IEEE802.3u (100Base-TX) Transmission speed: 100Mbps Communication Cycle: 250µs Transmission distance: 100m Max. Communication cable: STP CAT.5E or above Number of ports: 2, IN/OUT Physical interface: RJ45
Rated	Input voltage: DC24V Consumption current: approximately 2000mA
Environmental resistance	Working temperature: -20~50°C Working humidity: 35~85%RH (No condensation)
Dimension (mm)	103.5x34x114
Weight(g)	330

# 02

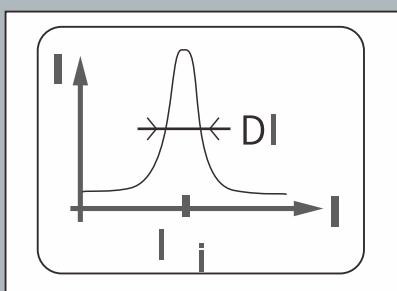
## SPECTRAL CONFOCAL DISPLACEMENT SENSOR



## Measurement Principle

01

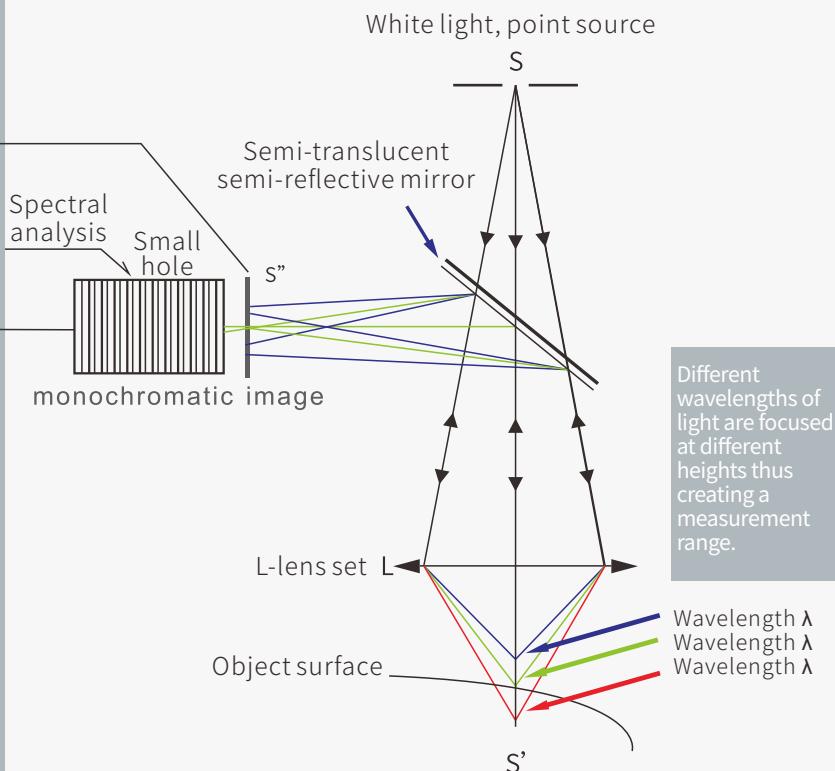
The small holes allow light of specific wavelengths reflected back from the surface of the object to pass through, while other wavelengths of light are blocked.



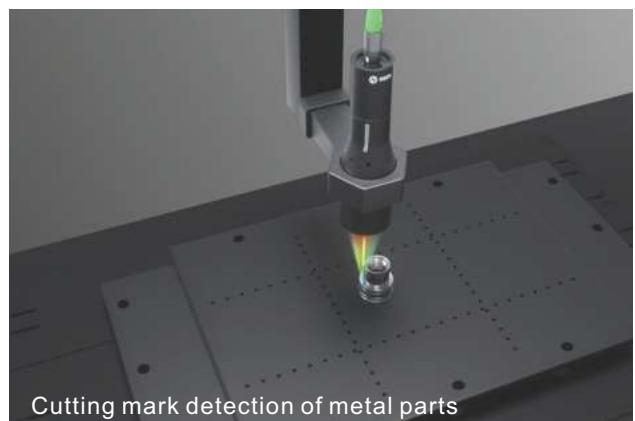
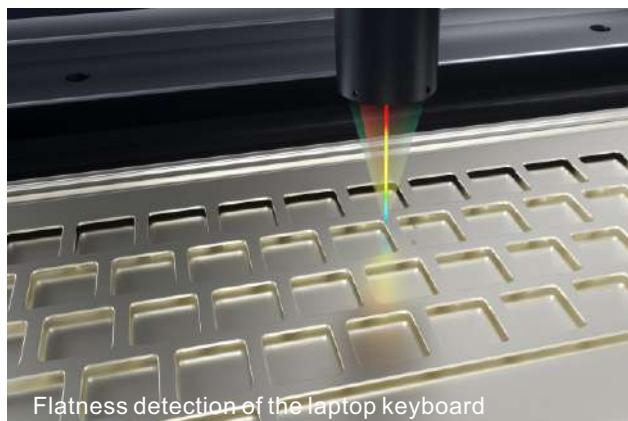
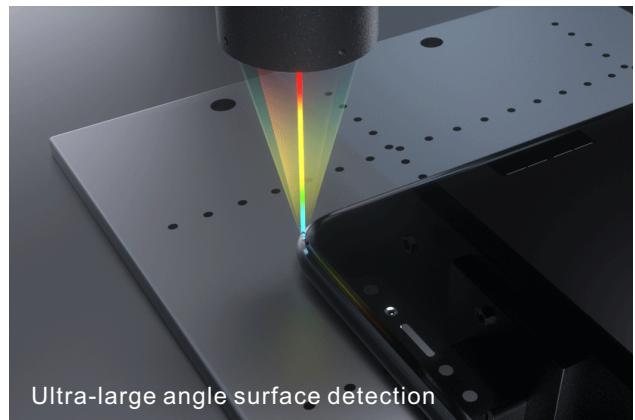
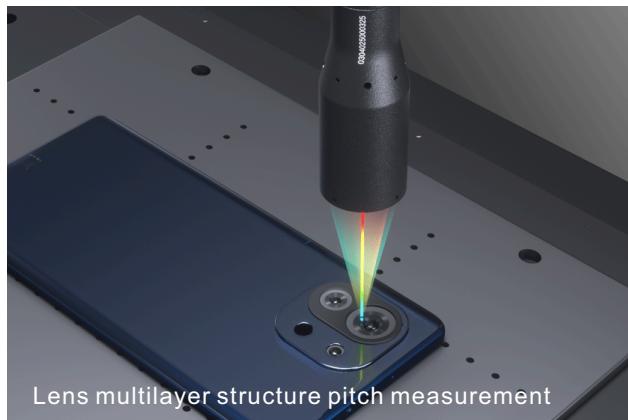
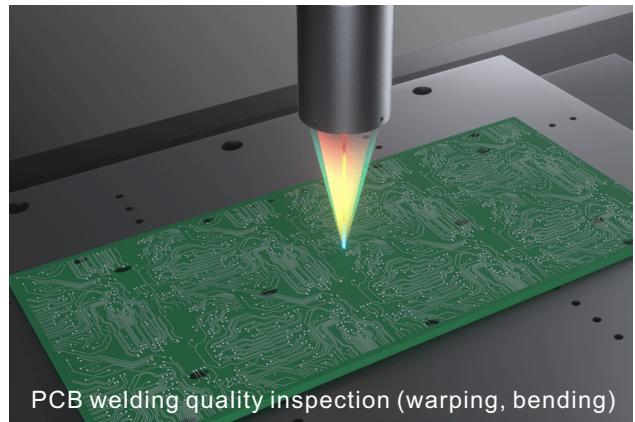
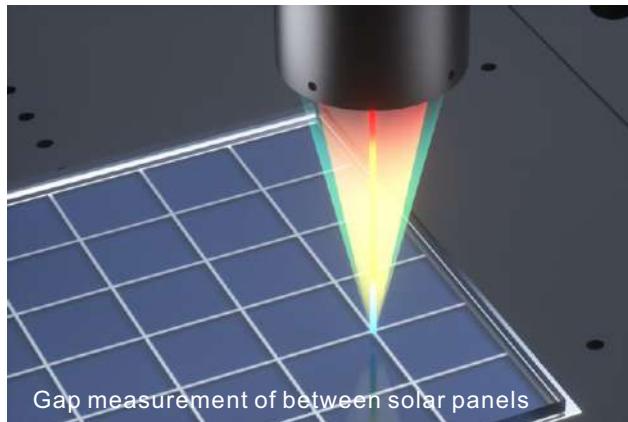
02

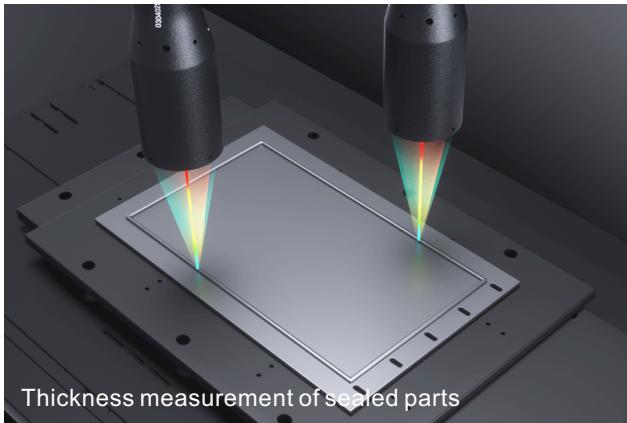
By analyzing the energy value through the spectrum, we can know the wavelength of light passing through the small hole and thus the height of the object surface.

## Spectral Confocal Principle

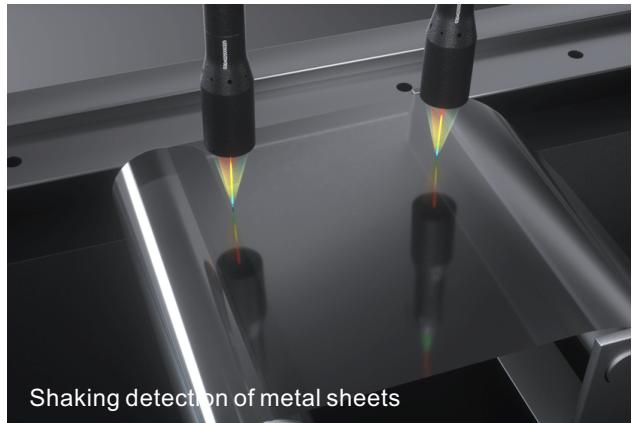


## Application Cases

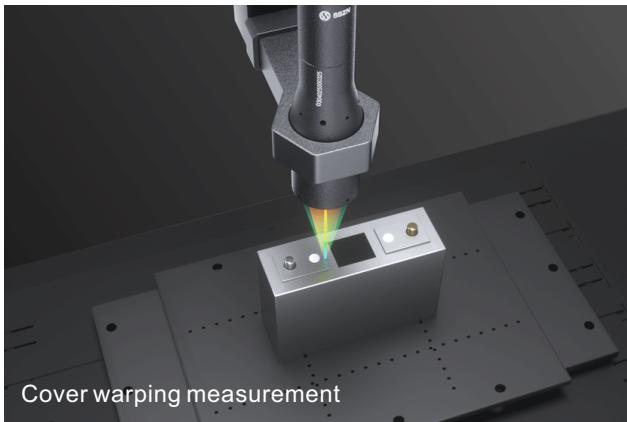




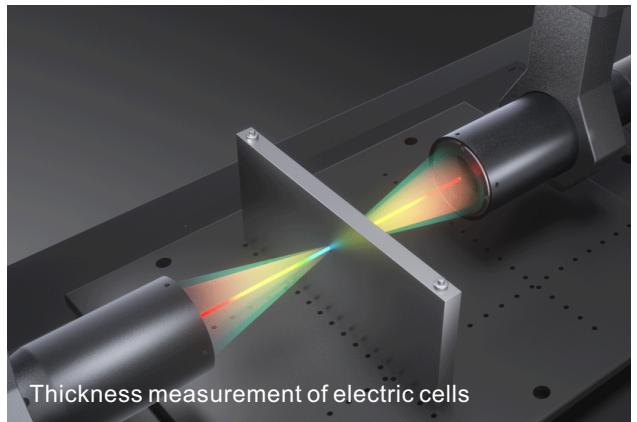
Thickness measurement of sealed parts



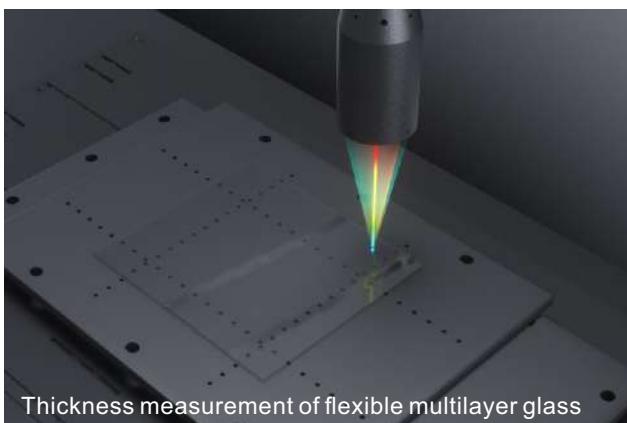
Shaking detection of metal sheets



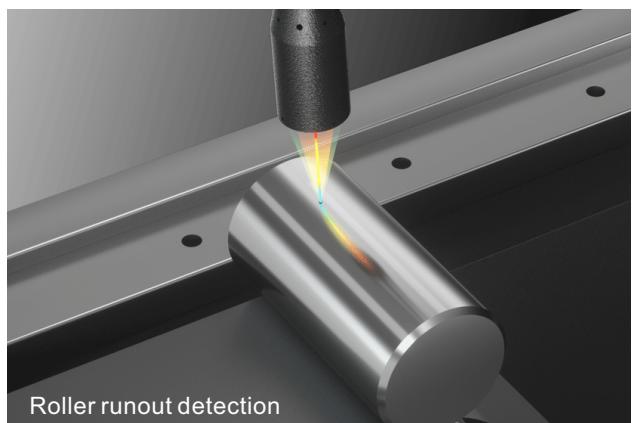
Cover warping measurement



Thickness measurement of electric cells



Thickness measurement of flexible multilayer glass

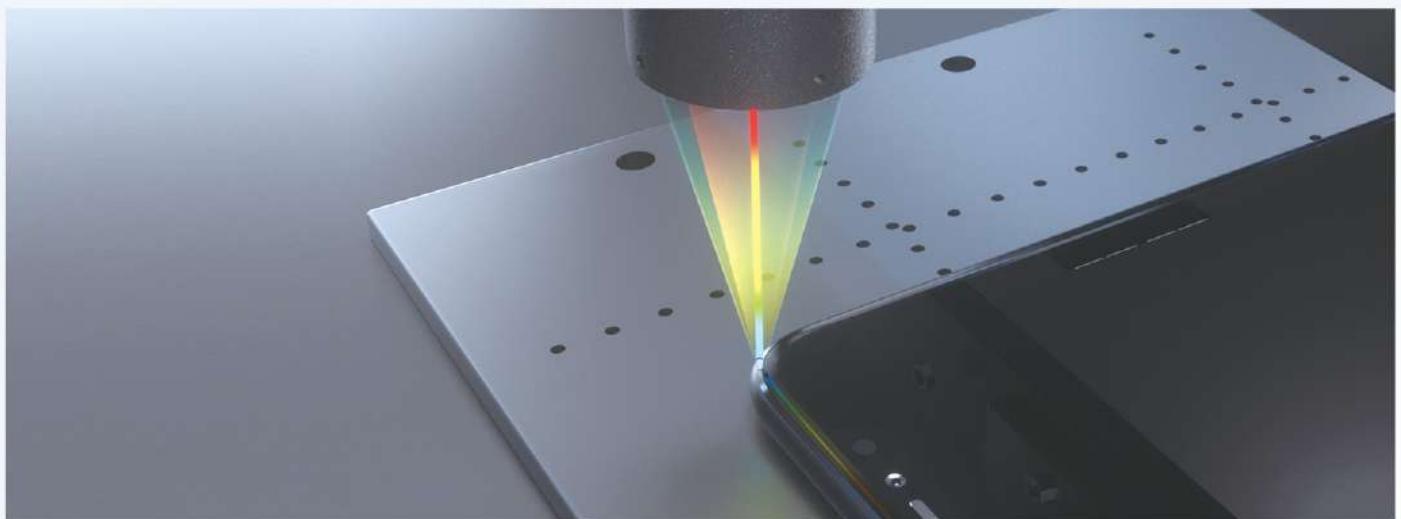


Roller runout detection

01

## Ultra-large Angle Measurement

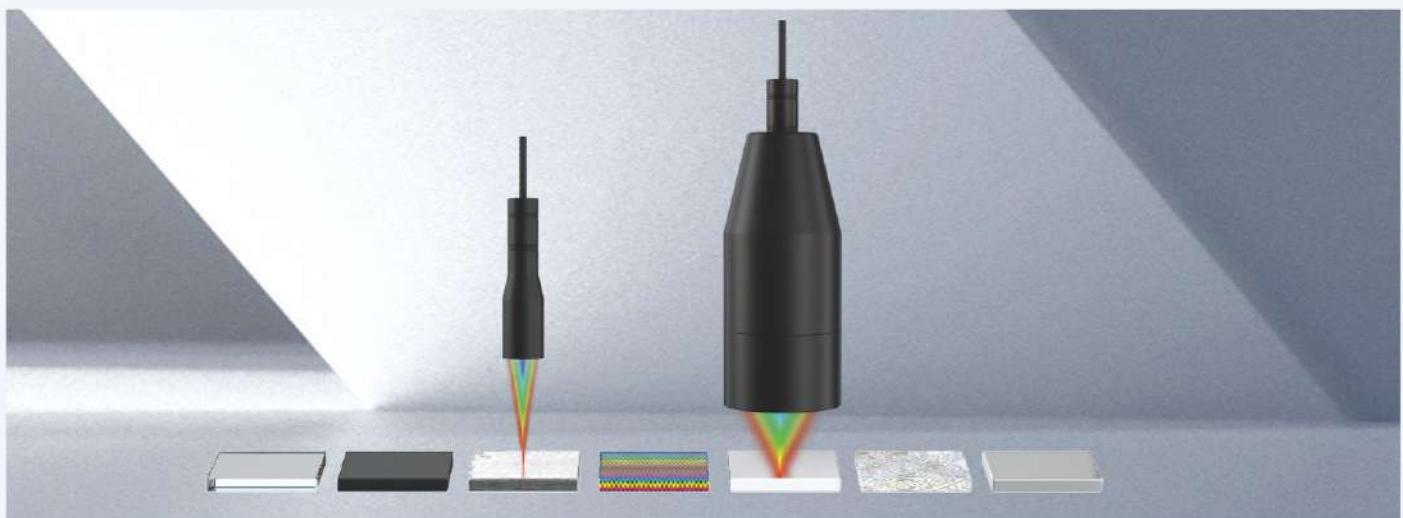
Maximum mirror angle  $\pm 60^\circ$  | Accurately scan the true contour of objects with curvature, achieving detection of large curvature, large angle, etc.



02

## Super Adaptability

Stably measured various materials | Such as transparent, reflective, low reflectivity, rough, and materials of different shapes.



# 03

## Ultra-high Sampling Frequency

Up to 33kHz | Stably detected fast-moving objects and the amplitude of high-frequency vibrations



# 04

## 3-axis Encoder

Support simultaneous access to 3-axis encoders

Support high-speed simultaneous locking of 3-axis encoded values to achieve multi axis simultaneous motion measurement

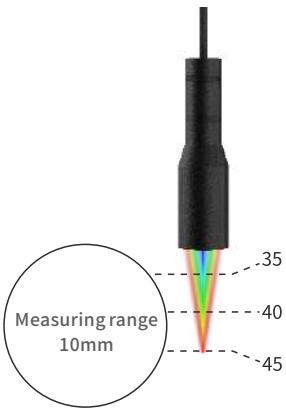
# 05

## Armored Cable

Cables can be easily inserted in devices with complex wiring. Stable measurement can also be performed with moving sensor head.



## SCI Series Product Matrix

Camera model	SCI10015	SCI04025	SCI20011
Working distance	40mm	16mm	70mm
Linearity	$\pm 1\mu\text{m}$	$\pm 0.4\mu\text{m}$	$\pm 2\mu\text{m}$
Angle range	$\pm 15^\circ$	$\pm 25^\circ$	$\pm 11^\circ$
Schematic diagram of measurement range	 <p>Measuring range 10mm</p>		

Camera model	SCI01045	SCI03560	
Working distance	10mm	12.8mm	
Linearity	$\pm 0.1\mu\text{m}$	$\pm 0.35\mu\text{m}$	
Angle range	$\pm 45^\circ$	$\pm 60^\circ$	
Schematic diagram of measurement range	 <p>Measuring range 1mm</p>		

## Technical Specifications

Parameter / Model	SCI01045		SCI03560		SCI04025	
Controller ①	SCI501A/SCI502A/SCI501B/SCI502B					
Fixture model	SCI-01		SCI-02		SCI-01	
Beam diameter	7.1μm	14.9μm	5.8μm	12.2μm	12μm	25.2μm
Working distance	10mm		12.8mm		16μm	
Measurement range	1mm		3.5mm		4μm	
Resolution ②	0.006μm		0.006μm		0.006μm	
Linearity	±0.1μm		±0.35μm		±0.4μm	
Angle range	±45°		±60°		±25°	
Minimum thickness of measurable transparent objects	30μm		150μm		130μm	
Diameter	47mm		83mm		30mm	
Length	148.6mm		229mm		114mm	
Weight	350g		2300g		950g	

Note:

① "A" indicates small laser spot; "B" indicates large laser spot, SCI501 is one-for-one ; SCI502 is for one-for-two .

②Reference distance 4096 times is obtained by testing in average.

**SC series sensor dimension diagram is on page 54.**

Parameter / Model	SCI10015		SCI20011		
Controller ①	SCI501A/SCI502A/SCI501B/SCI502B				
Fixture model	SCI-01			SCI-01	
Beam diameter	19.2μm	40.3μm	55μm	115μm	
Working distance	40mm			70mm	
Measurement range	10mm			20mm	
Resolution ②	0.012μm			0.025μm	
Linearity	±1μm			±2μm	
Angle range	±15°			±11°	
Minimum thickness of measurable transparent objects	300μm			660μm	
Diameter	30mm			62mm	
Length	111.5mm			123.9mm	
Weight	127g			258g	

Note:

① "A" indicates small laser spot; "B" indicates large laser spot, SCI501 is one-for-one ; SCI502 is for one-for-two .

②Reference distance 4096 times is obtained by testing in average.

**SC series sensor dimension diagram is on page 54.**

## Accessories - Controllers

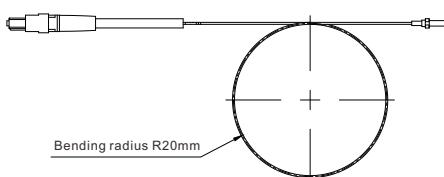
Parameter / Model	SCI501A	SCI501B	SCI502A	SCI502B
Number of sensor heads connected at Max.	1		2 ①	
Sampling period		0.5KHz/1KHz/2KHz/5KHz/10KHz/15KHz/20KHz/33KHz ②(8 options)		
Fiber optic cable specifications			3m (default)	
Interface	Ethernet interface		Value output	
			Connect to the included computer application software produced by SinceVision.	
	RS-232		1000BASE-T/100BASE-TX	
Digital input		1 channel, Baud rate: 9600-11520bps, Data length: 8bits, Stop: 1 bit, Parity: null/even/odd		
		Timing (sync input, zero-reset (sync) input, reset(sync) input, timing (binary) input, zero-reset (binary) input, reset (binary) input, laser control input, binary selection input, program number switching input)		
		NPN / PNP		
Digital output	Comparator output			
	Gated output		4 channels open collector output	
Weight	Number of analog outputs		4 channels	
	Voltage output		0-10V output, output impedance: 100Ω	
	Current output		4-20mA output, allowable maximum load impedance: 300Ω	
Encoder input			Support 3-channel 2-phase 5V differential encoder input	
Encoder input	RS-422 linear drive			
Response frequency		Single phase 2.3MHz, 2-phase/1 increasing 2.3MHz, 2-phase/2 increasing 4.6MHz, 2-phase/4 increasing 9.2MHz		
Heat dissipation			Heat dissipation by fans	
Rated	Supply voltage		24VDC±10%	
	Consumption current at Max.	2.0A		3.4A
Environmental resistance	Ambient temperature		-10~50°C	
	Ambient humidity		35% ~ 85%RH (No condensation)	
	Shock resistance		10 ~ 57Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions	
Supported software			SG-Imaging	
Materials			Aluminium	
Dimension (mm)			120*155*175	
Weight (g)		2158		2425

Note:

① When using 2 sensors, the sensor heads must be of the same model.

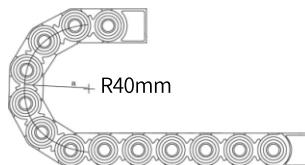
② When the sampling frequency is 20Khz and 33Khz, the working range of the sensor head is shortened to 80% and 40% of the original range.

Please ensure that the minimum bending radius of the sensor head cable is above 20mm.



Minimum cable bending radius

When using cable carriers, if not specifically specified, please choose products with R40 or higher.

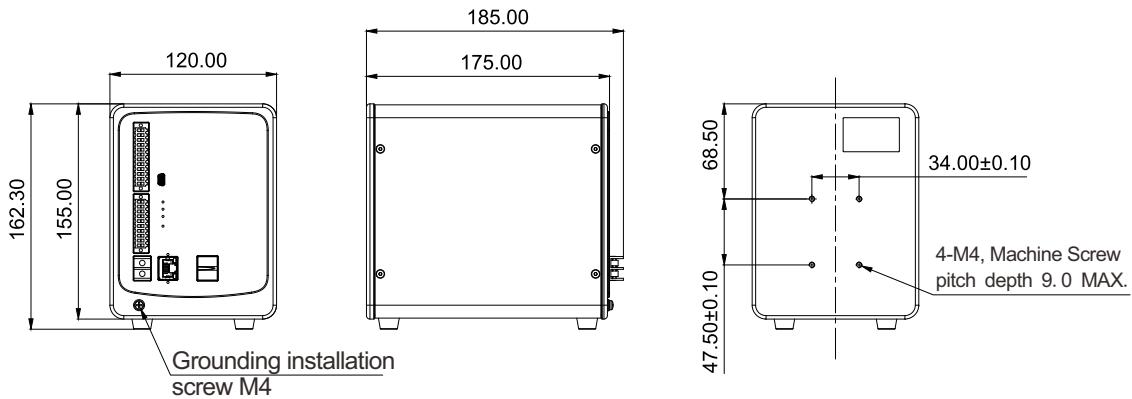


Minimum cable bending radius

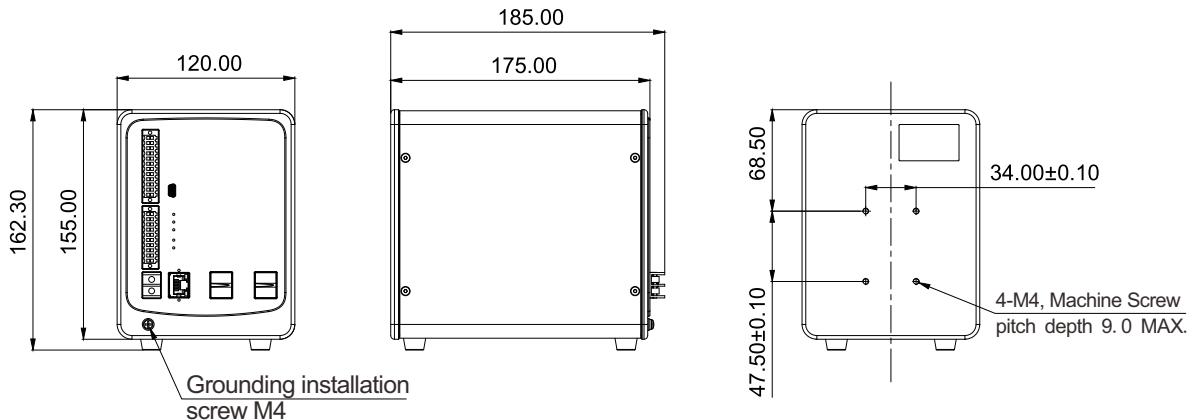
## Dimensional Drawing of Accessories

### Accessories - Controllers

SCI501A/SCI501B  
One-for-one

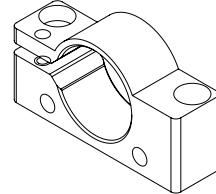
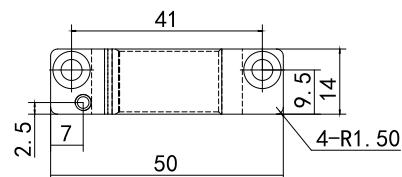
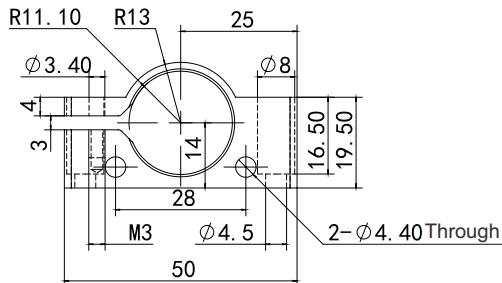


SCI502A/SCI502B  
One-for-two

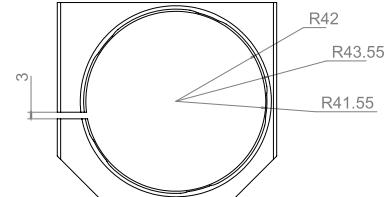
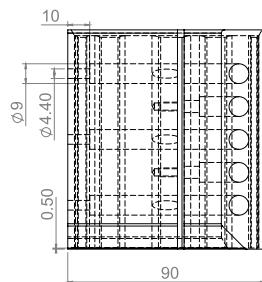
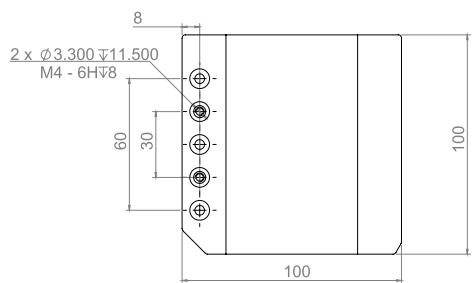


## Accessories - Fixture

SCI-01

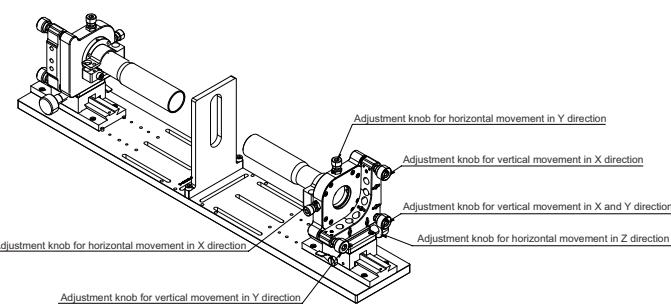
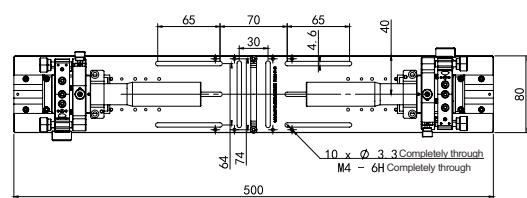
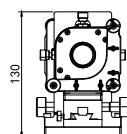
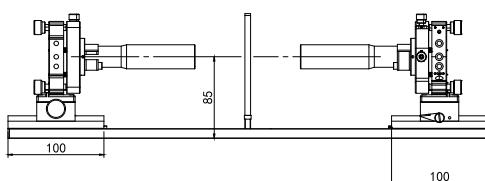


SCI-02



## Accessories - Beam through Foundation

FSC00-01-01



# DIMENSIONS

Product Dimensions >

01

**Laser Displacement  
Sensor**

Product Dimensions

02

**Spectral Confocal  
Displacement Sensor**

Product Dimensions

© About SSZN

© Product Catalogs

© Laser Displacement Sensor

© Spectral Confocal  
Displacement Sensor

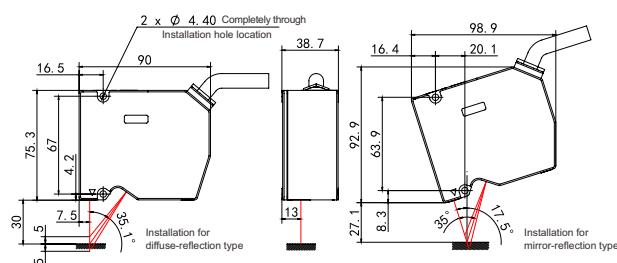
© Dimension Diagram

## Product Dimensions - Laser Displacement Sensor

### SG3000 Series

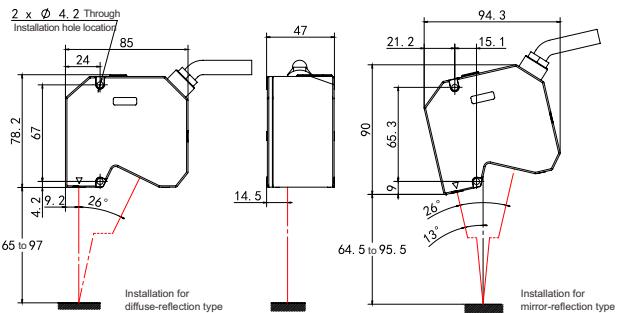
SG3030

SG3035



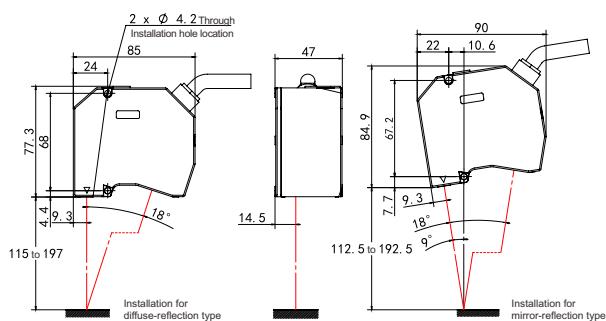
SG3080

SG3085



SG3150

SG3155



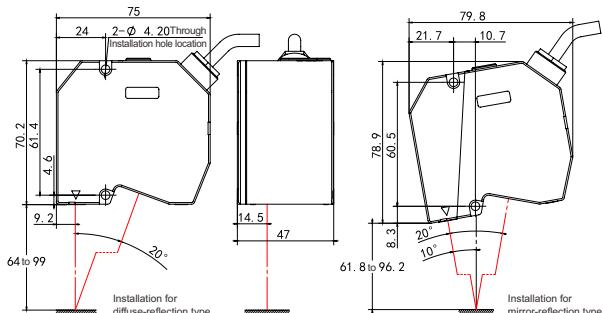
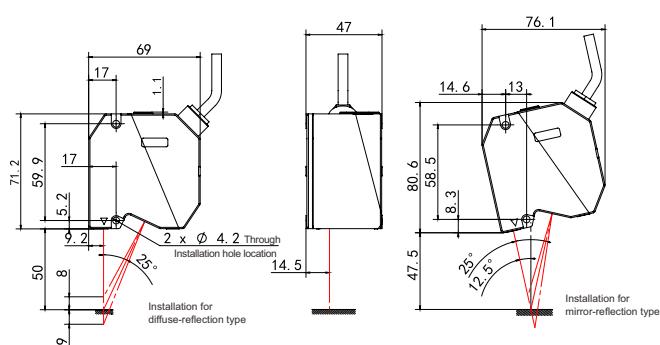
### SG5000 Series

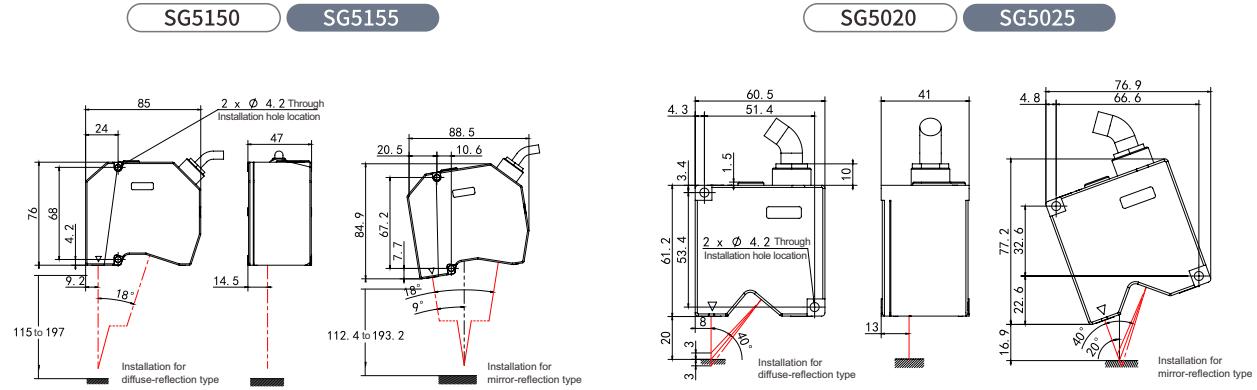
SG5050

SG5055

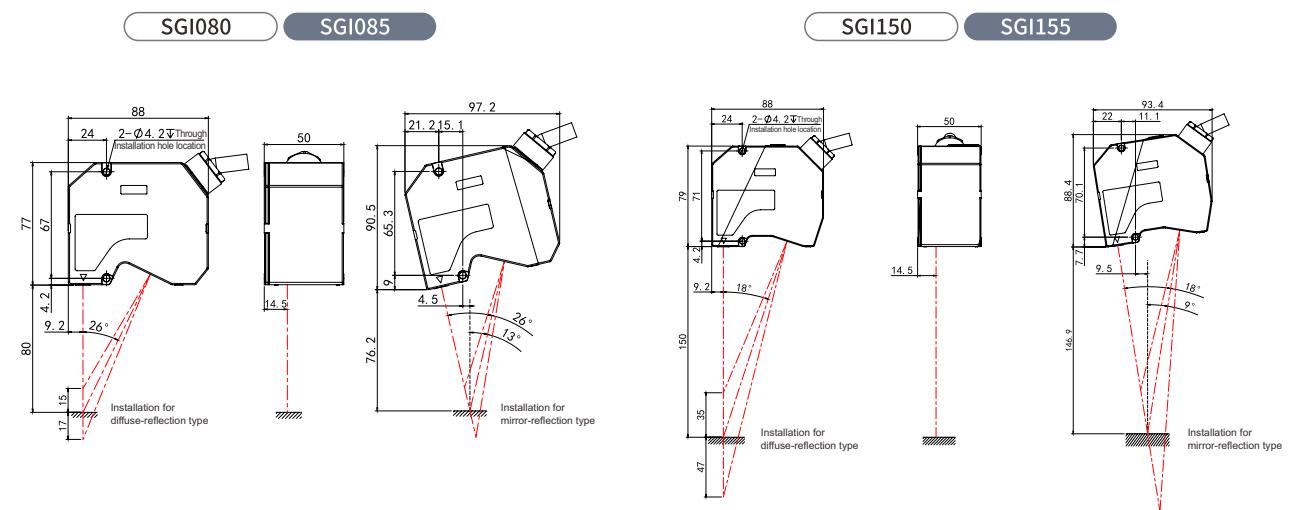
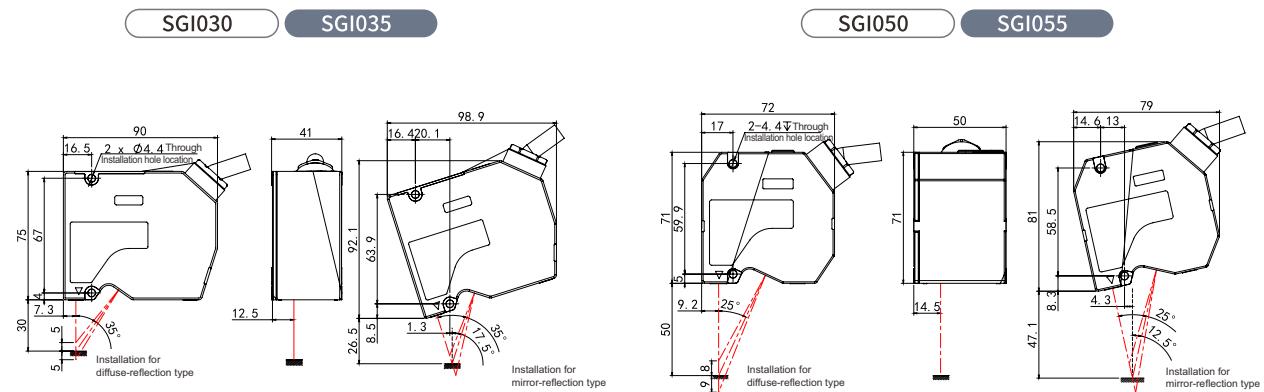
SG5080

SG5085

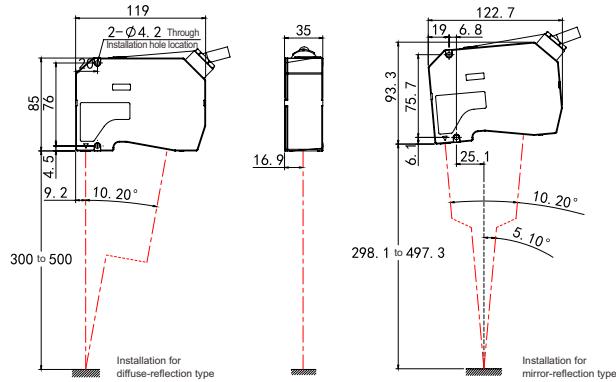




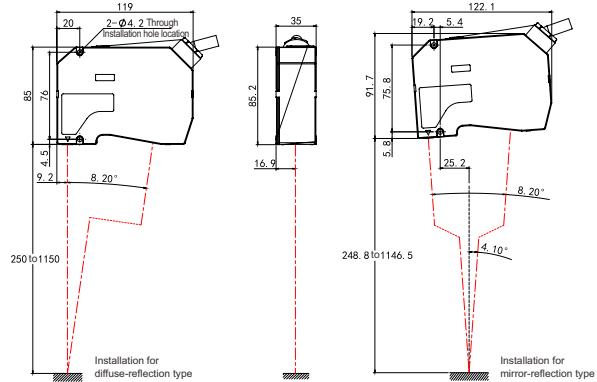
## SGI Series



SGI400 SGI405

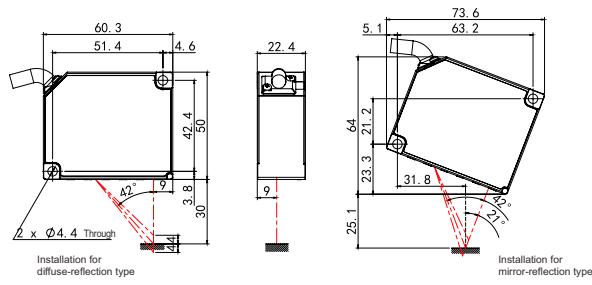


SGI500 SGI505

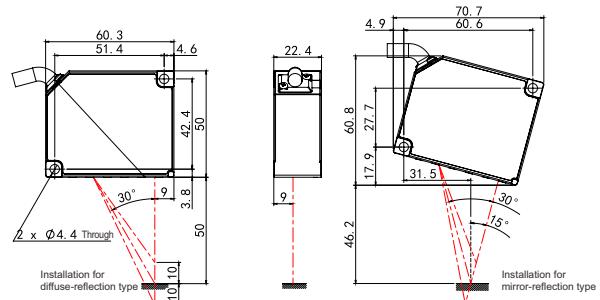


## SD33 Series

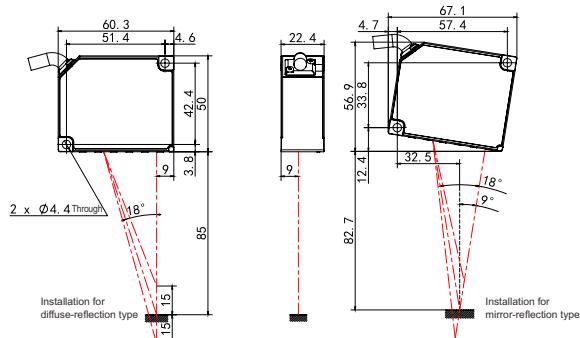
SD33-30-485-□-△



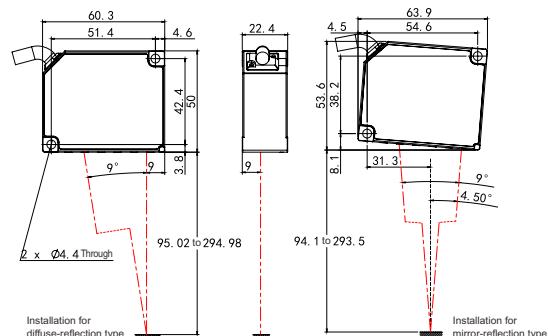
SD33-50-485-□-△



SD33-85-485-□-△

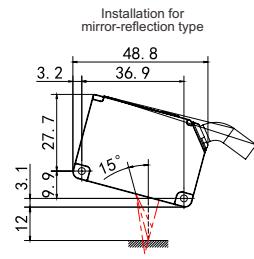
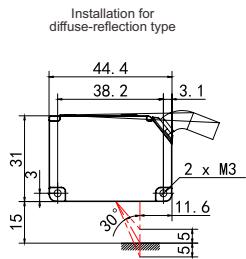


SD33-195-485-□-△

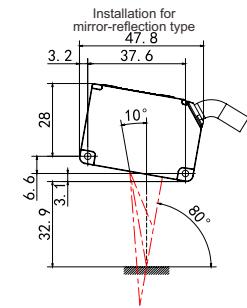
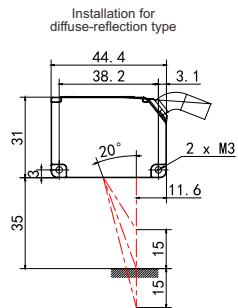


## SD22 Series

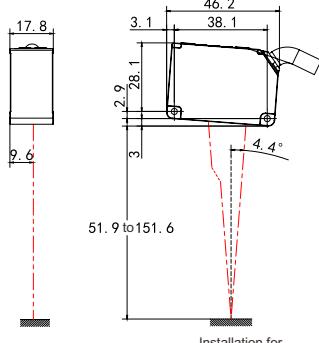
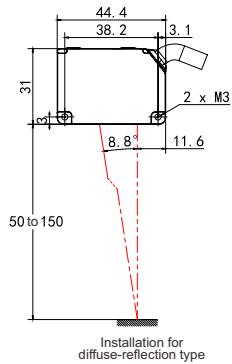
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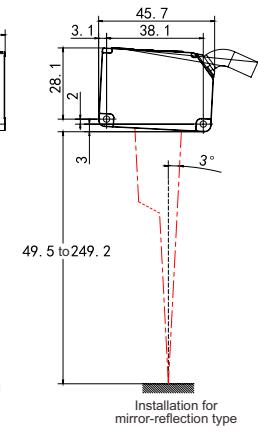
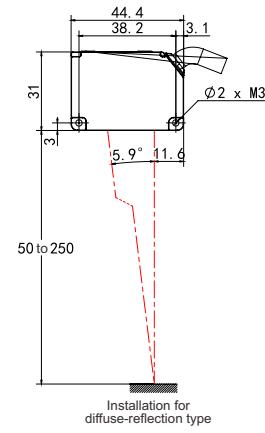
SD22-35-485-□-△



SD22-100-485-□-△

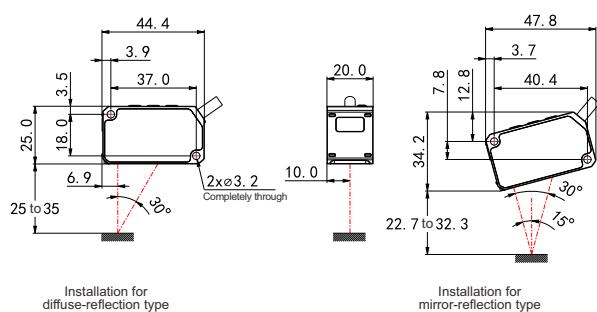


SD22-150-485-□-△

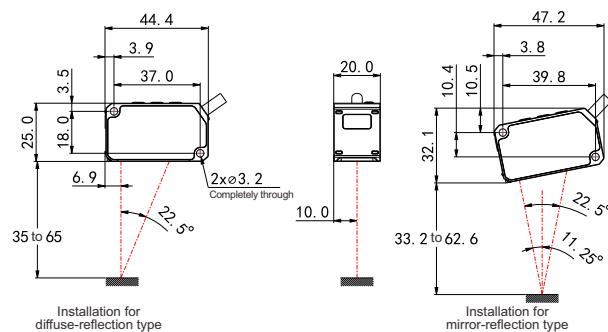


## SD-C Series

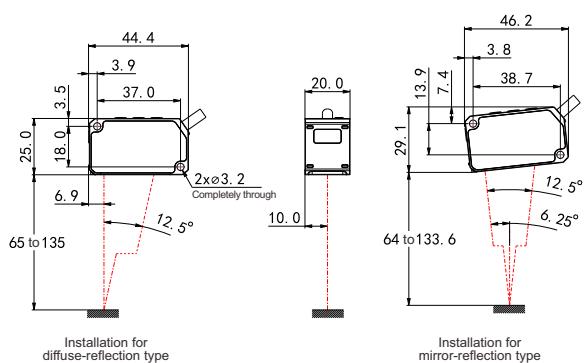
SD-C30(P)-□-△



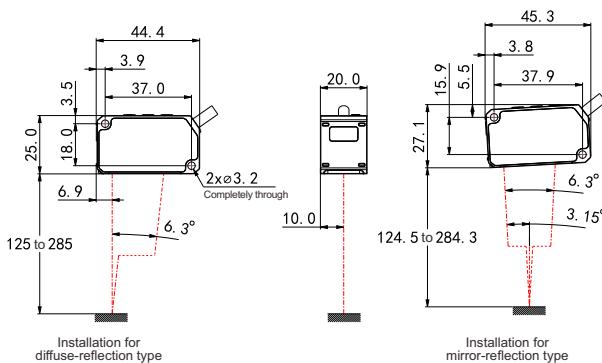
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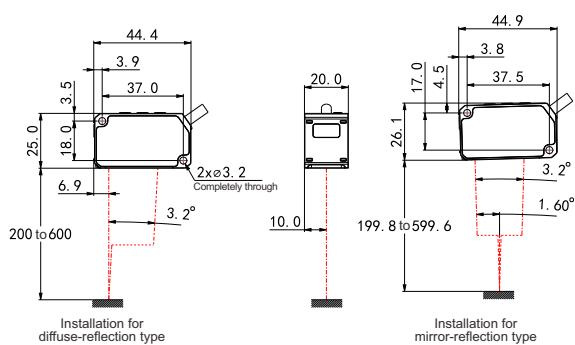
SD-C100(P)-□-△



SD-C200(P)-□-△



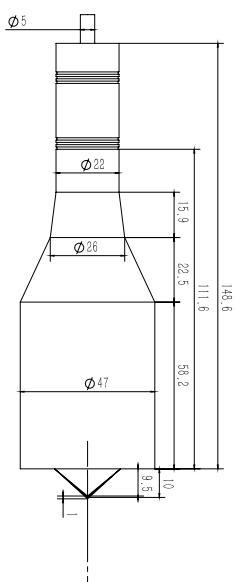
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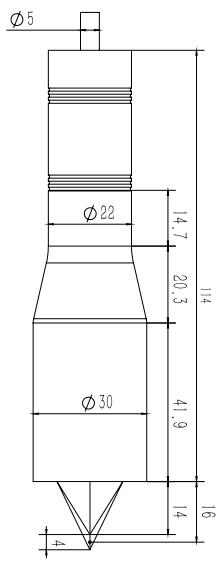
## Product Dimensions - Spectral Confocal Displacement Sensor

### SCI Series

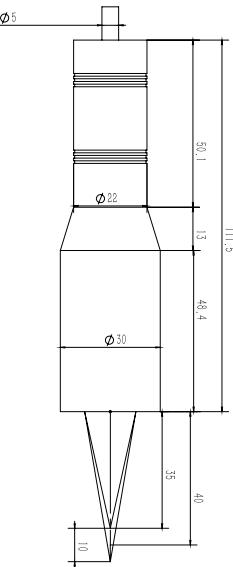
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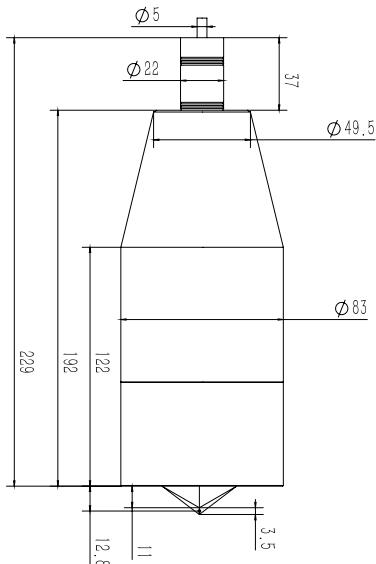
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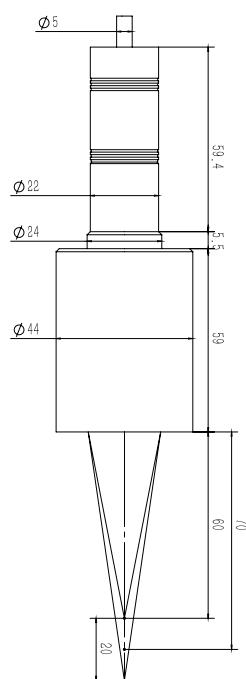
SCI10015



SCI03560



SCI20011



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