



Sensor Product Catalog

- Laser Displacement Sensor • Spectral Confocal Displacement Sensor
- Through-beam Edge Sensor • Full-Spectrum Sensor



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SinceVision's
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Table of Contents

01
About SinceVision 03-06

02
Laser Displacement Sensor 07-34

03
Spectral Confocal Displacement Sensor 35-44

04
Through-Beam Edge Sensor 45-58

05
Full-Spectrum Sensor 59-64

About SinceVision

Founded in 2014, SinceVision is a world-class manufacturer of sensor technology and high-speed cameras.

Our comprehensive product portfolio includes 3D laser profilers, high-speed cameras, laser displacement sensors, spectral confocal sensors, color sensors, through-beam edge sensors, and sCMOS cameras. Dozens of product series are in full-scale production, with several models recognized for industry-leading performance.

SinceVision serves tens of thousands of customers across consumer electronics, automotive, lithium battery, photovoltaic, and other key sectors. Our solutions help companies improve product quality, reduce costs, and increase efficiency in applications ranging from semiconductor fabrication and automotive manufacturing to food processing and scientific research.

Backed by a decade of technological expertise, SinceVision has built a strong R&D platform across optics, mechanics, electronics, and software, supported by a mature production and quality control system. We remain committed to high-end innovation, delivering advanced technology and reliable quality to support the growth of machine vision and industrial automation worldwide.

20⁺ Years
Core Team Experience

60% of Workforce
Research R&D Strength

100⁺ Segments Globally
Industry Impact

100%
Independent Product
Development

100,000⁺
3D Sensors Deployed
Worldwide

100%
Unique code for quality
tracking

10,000⁺
Customers

150⁺ Patents & Software
Copyrights & Trademarks
Intellectual Property

Member of



Certifications



Trusted by 10,000+ Global Customers



24/7 Customer Service: We have multiple offices in both China and overseas countries to provide sales, service, and technical support.

International Offices: Japan, South Korea and India

Service Centers: Vietnam, Singapore, Malaysia, and Thailand

CORPORATE CULTURE



VISION

Empowering Industries with World-Class Sensor Technology



MISSION

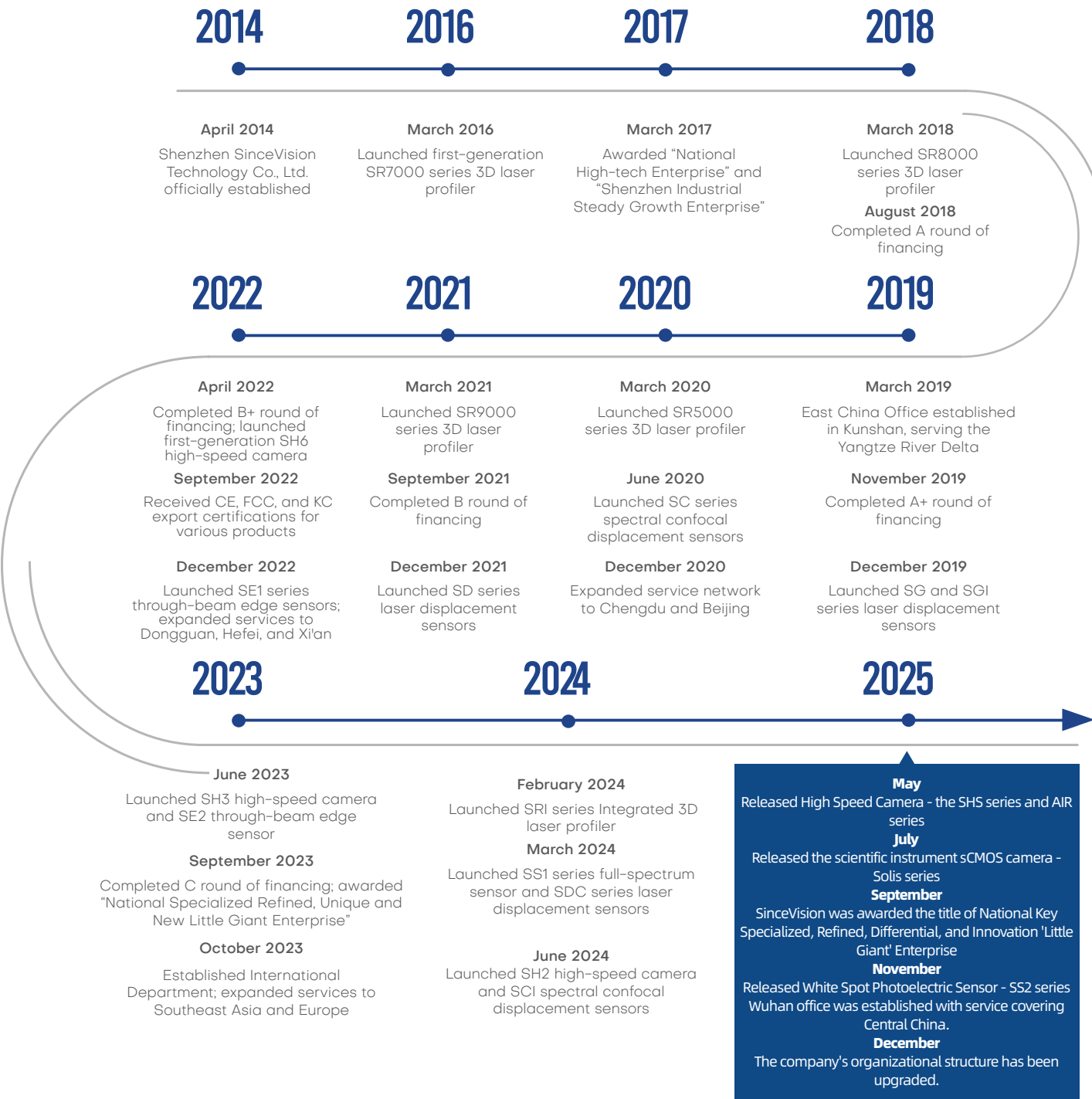
Empowering smart manufacturing
Helping reduce costs and increase efficiency



PHILOSOPHY

High-quality service, scientific management,
sustainable operation

DEVELOPMENT HISTORY



Laser Displacement Sensor

Overview of Products

Based on the principle of laser triangle reflection, the SinceVision laser displacement sensor can measure geometric quantities such as displacement, thickness and vibration with high accuracy without contact. As a universal measuring scale in industrial scenes, it helps to control the quality of products and can work stably even in complex environments.



01.

High precision and high integration

Dedicated to industrial detection and automation control, achieving micrometer-level precision ranging, deformation analysis, and positioning



High precision



High resolution



High sampling frequency



Integrated type



High stability



Multiple communication interface

01 | SG series

High precision laser displacement sensor specially designed for advanced application scenarios



The SinceVision displacement sensor built for advanced application scenarios has a repeatability accuracy of 0.02μm, a sampling frequency of 590kHz, a maximum of four sensor heads, multi-channel I/O interfaces, and small laser spots and wide laser spots can adapt to various materials.

Product Advantages

590kHz Max sampling frequency	±0.02% F.S. Linearity	Multiple communication methods Provide Ethernet, analog and other communication methods
0.02μm Repeatability	0.01% F.S./°C Excellent temperature control system	One-to-four controller Connect four sensor heads at a time and output eight measured values at the same time

02 | SGI series

High-integration laser displacement sensor specially designed for advanced application scenarios



SinceVision adopts an integrated design to build a displacement sensor with high integration, with a repetition accuracy of 0.05μm, a high flexible shielded cable, a sampling frequency of up to 88kHz and a maximum measuring range of 900mm, and supports multiple I/O input and output interfaces.

Product Advantages

88kHz Max sampling frequency	0.05μm Repeatability	Multiple communication methods Provide Ethernet, analog and other communication methods
120W Max data storage	900mm Ultra-large depth of field measurement	High flexible shielded cable Can be used on a mechanical arm, and is not limited by equipment wiring

01 Laser Displacement Sensor

02 Spectral Confocal Displacement Sensor

03 Through-Beam Edge Sensor

04 Full-Spectrum Sensor

03 | SD33 series

High-precision laser displacement sensor suitable for various scenes and materials



SinceVision SD33 series laser displacement sensor adopts integrated compact design, which is suitable for precise ranging and dynamic detection. It has IP67 protection level, temperature resistance and corrosion resistance, and is suitable for complex industrial scenes such as multi-axis dispensing guidance, automobile parts positioning, PCB detection, etc., and can meet the requirements of high precision and high stability industrial automation.

Product Advantages

2μm
Ultra-high precision

Glass lens
It's standard for all product series. Compared with acrylic, it's harder and more wear-resistant

Multiple communication methods
Provide RS485, analog and other communication methods.

±0.1% F.S.
Linearity

IP67 protection level
Can be used in humid/dusty environment

High flexible shielded cable
Easily adapt to bending, can be used in cable chain

04 | SD22 series

The laser displacement sensor with the same detection distance has a large range and can meet the needs of special scenes



SinceVision SD22 series laser displacement sensor is a multi-functional, high-precision miniaturized measuring device, which is equipped with a four-digit display screen and thin film buttons. The design and operation are simple and intuitive. This product series integrates multiple communication methods, and the detection data is stable and reliable. It has been successfully applied to the ranging requirements of various industries, with high accuracy and fast response.

Product Advantages

3kHz
Max sampling frequency

Small size
44*31*18mm, easily adapted to the installation environment

Multiple communication methods
Provide RS485, analog and other communication methods.

Ultra-large measuring range
Compatible with usage scenarios with multiple distances.

One-key teaching
Easy setting, stable output signal

Glass lens
It's standard for all product series. Compared with acrylic, it's harder and more wear-resistant

05 | SD-C series

Cost-effective, compact, and versatile laser displacement sensor



SinceVision's SD-C series laser displacement sensors are economical, high-precision measurement devices. Their compact size makes them suitable for a variety of installation scenarios. They are used in industrial automation scenarios such as height guidance and thickness/height measurement, ensuring precise positioning and depth control.

Product Advantages

Super cost-effective

Industrial-grade precision at an affordable price

Ultra-small size

44.4*25*20mm, easily adapted to installation environment

Multiple communication methods

Provide RS485, analog and other communication methods.

High stability

Adapt to harsh environments such as electromagnetic interference

Output indicator

Extra-large front indicator LED, easy to judge output status

Glass lens

It's standard for all product series. Compared with acrylic, it's harder and more wear-resistant

06 | Four-channel EtherCAT

SU4-EC-SGI/SU4-EC-SD



SinceVision's four-channel EtherCAT communication unit is a key component of its industrial sensor product line. It is primarily used to improve communication efficiency and system integration in industrial automation scenarios, helping customers achieve the upgrade and transformation from traditional busBar to real-time Ethernet networks.

Product Advantages

Easy installation

Support DIN rail installation

Four sensor heads

Support up to four sensor heads of the same type

SDO

Support sensor parameter settings

PDO

Support up to 4kHz refresh rate

Multi-channel status LED

Can quickly identify channel status

Support cascading

Multiple modules can be cascaded to obtain data

Application Cases-Consumer Electronics Industry



Mobile phone screen blind hole dispensing guide



Mobile phone lens cover flatness detection



Height difference detection

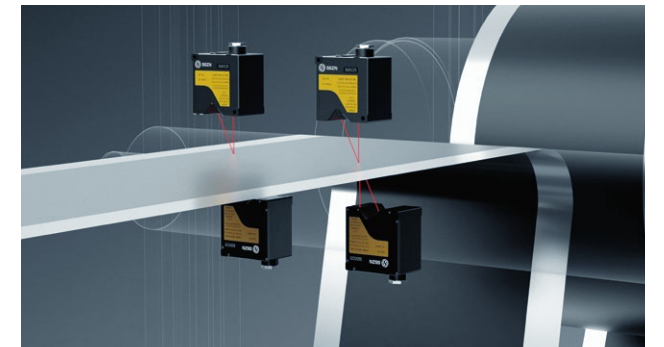


Laser marking guide

Application Cases-New Energy Lithium Battery Industry



Detection of the remaining amount of roll diaphragm



Electrode plate thickness detection



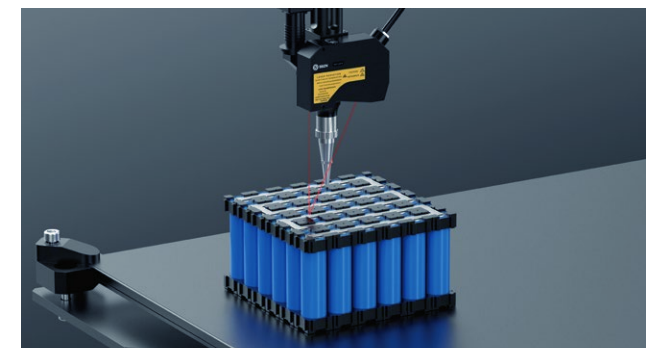
Detection of tab welding defocus



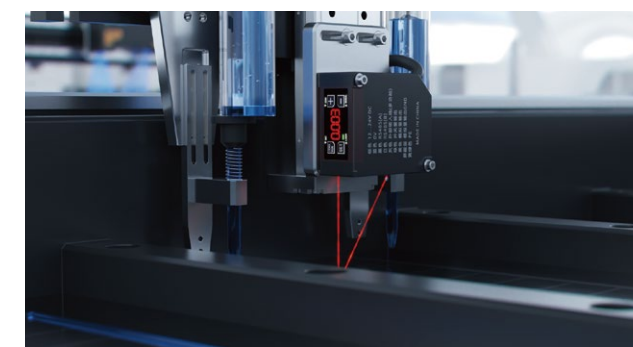
Top cover welding defocus detection



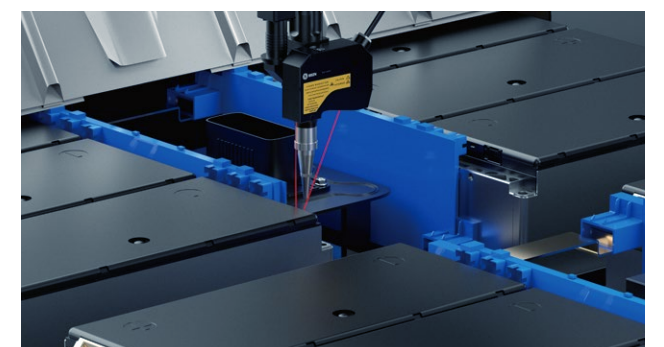
Positioning and height detecting of battery electrode



Busbar Post-Welding Quality Inspection

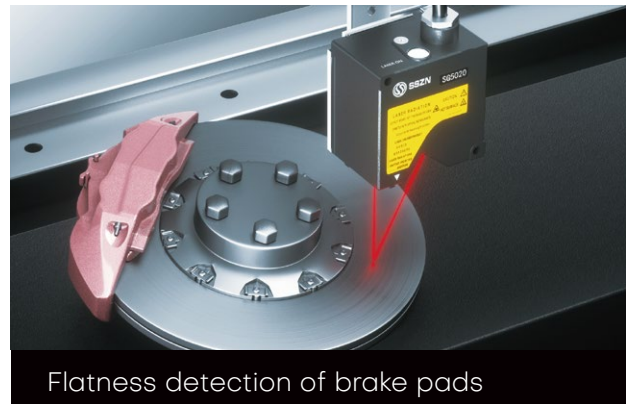


Dispenser dispensing height guidance in PACK section



Welding height detection in Pack section

Application Cases-Automobile Industry



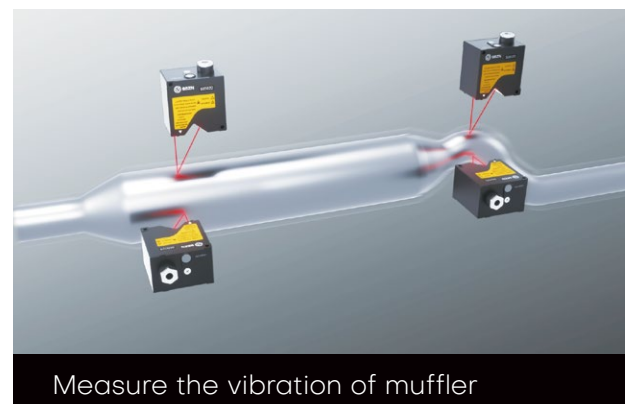
Flatness detection of brake pads



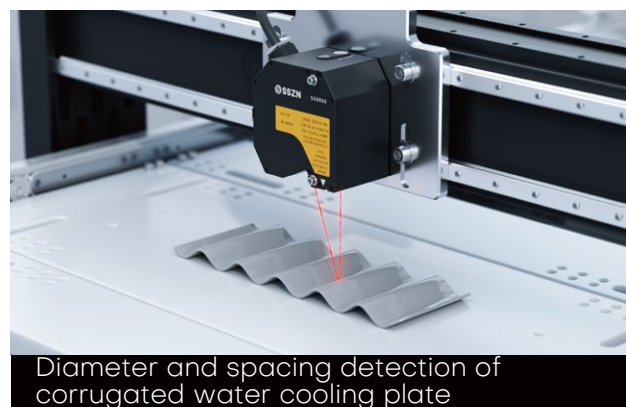
Car body contour detection



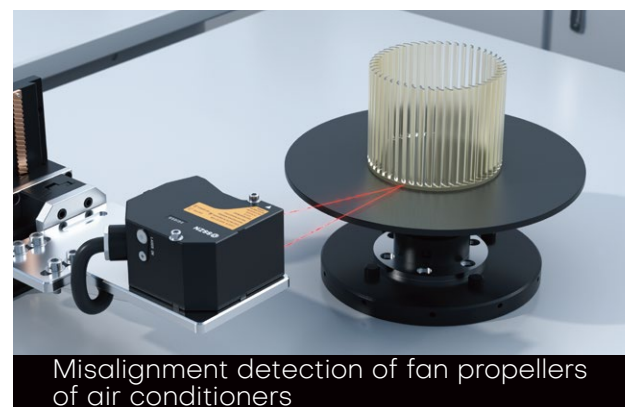
Barcodes recognition of die casting parts



Measure the vibration of muffler



Diameter and spacing detection of corrugated water cooling plate



Misalignment detection of fan propellers of air conditioners

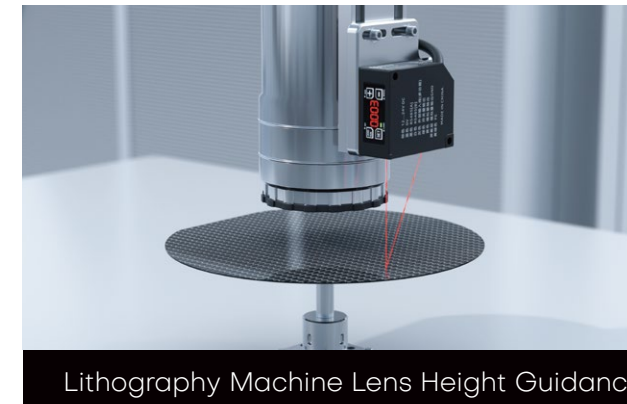


Engine valve stroke reciprocating detection



Ground clearance detection

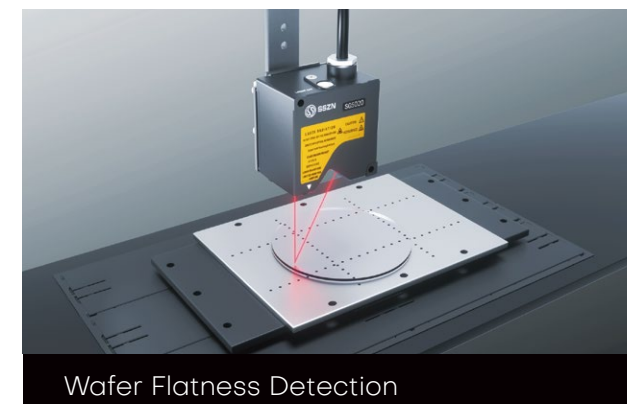
Application Cases - Semiconductor and Photovoltaic Industries



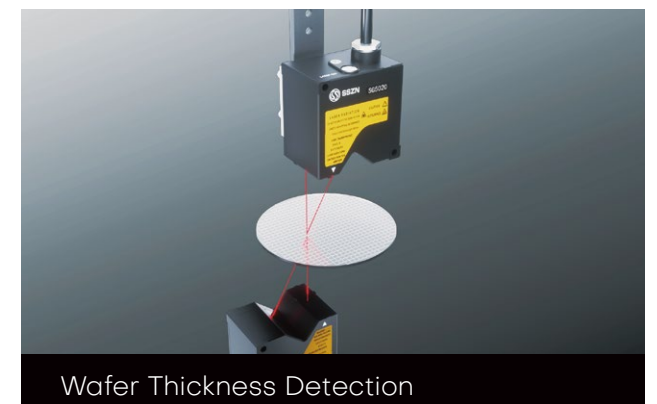
Lithography Machine Lens Height Guidance



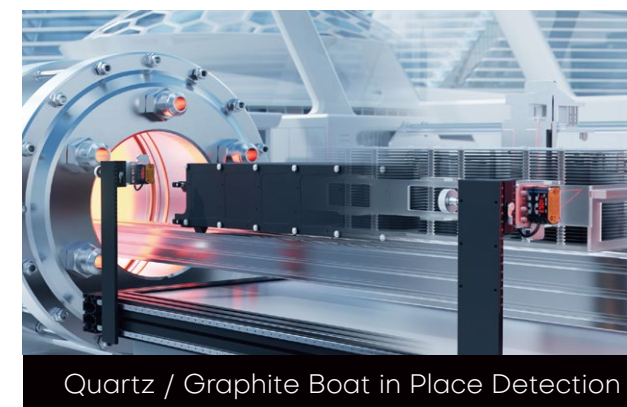
Thickness detection of irregular silicon wafers



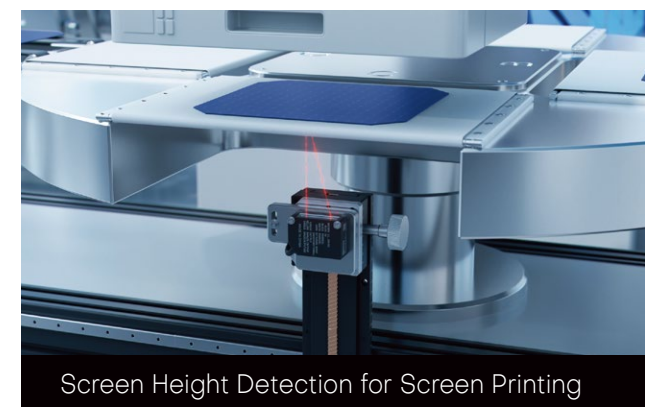
Wafer Flatness Detection



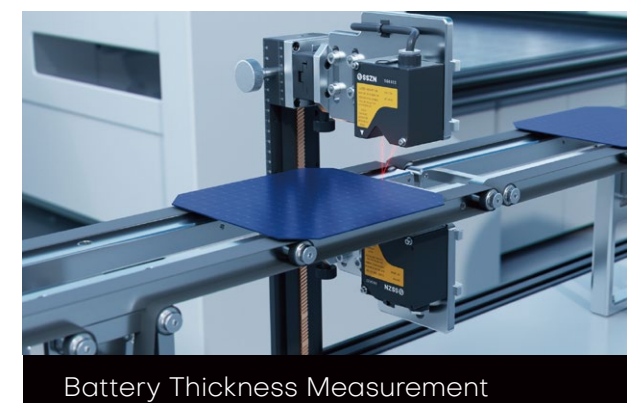
Wafer Thickness Detection



Quartz / Graphite Boat in Place Detection



Screen Height Detection for Screen Printing



Battery Thickness Measurement



Perovskite Coating Guidance

01 Laser Displacement Sensor

02 Spectral Confocal Displacement Sensor

03 Through-Beam Edge Sensor

04 Full-Spectrum Sensor

Application Cases - Integrated Circuit Industry



Circuit board height and deformation detection



PCB thickness detection



Solder detection



Connector height detection

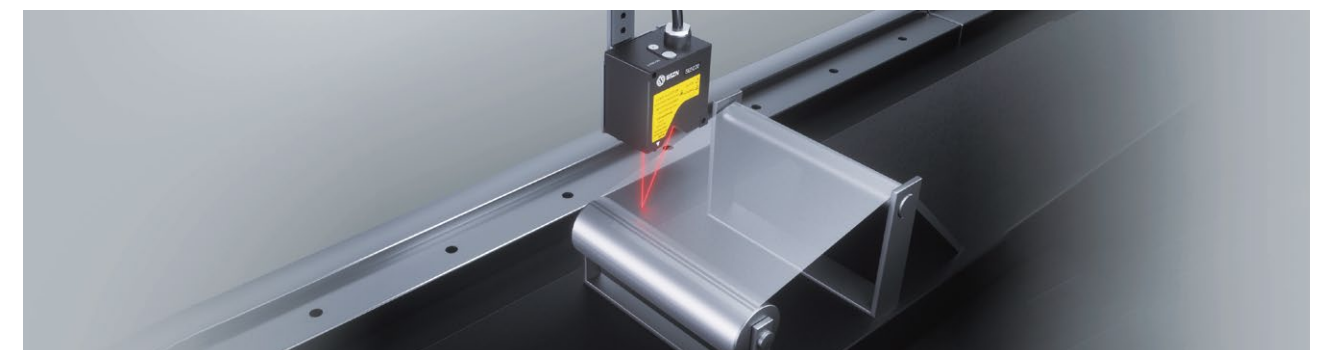
Application Cases - Film/Rubber/Plastic /Metal/Ceramics Industry



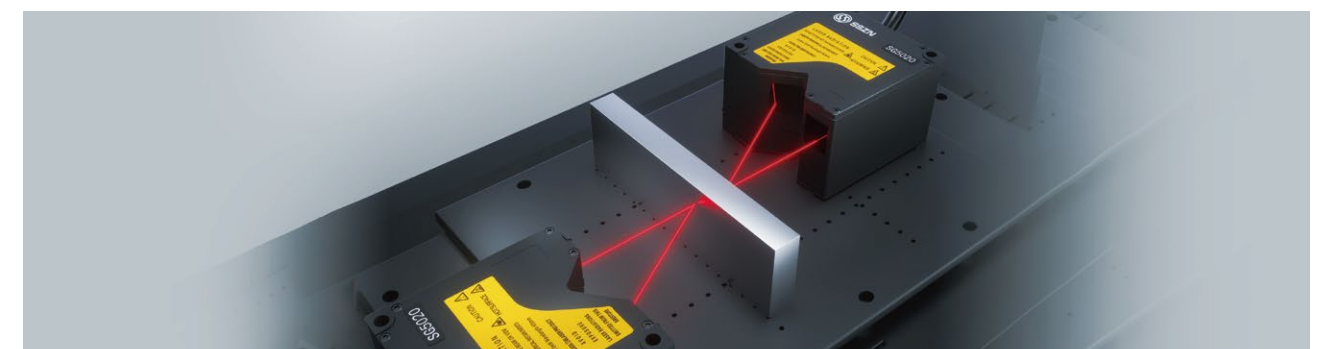
Electrode thickness detection on dielectrics



Roundness detection of catalyst cylinder



Thin film thickness detection



Metal plate thickness detection

Product Specification

Sensor Head

Series	SG3000 Series						SG5000 Series							
Model	SG3030	SG3035	SG3080	SG3085	SG3150	SG3155	SG5020	SG5025	SG5050	SG5055	SG5080	SG5085	SG5150	SG5155
Reference distance ^① (CD)	30mm		80mm		150mm		20mm		50mm		80mm		150mm	
Measuring range ^②	-5mm~5mm		-17mm~15mm		-47mm~35mm		-3mm~3mm		-9mm~8mm		-19mm~16mm		-47mm~35mm	
Light source wavelength	655nm						655nm							
Spot size	Ø60µm	60*400µm	Ø110µm	110*720µm	Ø190µm	190*1300µm	Ø45µm	45*400µm	Ø75µm	75*400µm	Ø110µm	110*720µm	Ø190µm	190*1300µm
Repeatability ^③	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						0.01% F.S./°C							
Sampling frequency (Hz)	1/2/5/10/20/50/88kHz (Optional)						1/2/5/10/20/50/88/200/400/590 kHz (Optional)							
Communication port	One 100Base-TX/1000Base-T Ethernet interface, one RS232 port						One 100Base-TX/1000Base-T Ethernet interface, one RS232 port							
Analog output	Four analog output, supporting the switching between analog voltage and analog current						Four analog output, supporting the switching between analog voltage and analog current							
Encoder input	One group of differential encoders						One group of differential encoders							
Working temperature	0~50°C						0~50°C							
Storage temperature	-20~70°C						-20~70°C							
Operating voltage	24VDC±10%						24VDC±10%							
Shell material	Aluminium alloy						Aluminium alloy							
IP level	IP67, conforming to IEC 60529 standard						IP67, conforming to IEC 60529 standard							
Dimension (mm)	90*75*38		85*77*47		85*76*47		60*61*41		69*71*47		75*70*47		85*76*47	
Weight (including cable)	324g		376g		370g		324g		323g		329g		370g	

Notes: ① Recommended optimal installation distance; this parameter corresponds to the diffuse reflection mode. ② Positive values indicate the near end, and negative values indicate the far end. ③ The reference distance was obtained from an average of 4096 static tests.

Sensor Head

Series	SGI Series											
Model	SGI030	SGI035	SGI050	SGI055	SGI080	SGI085	SGI150	SGI155	SGI400	SGI405	SGI500	SGI505
Reference distance ^① (CD)	30mm		50mm		80mm		150mm		400mm		500mm	
Measuring range ^②	-5mm~5mm		-9mm~8mm		-17mm~15mm		-47mm~35mm		-100mm~100mm		-650mm~250mm	
Light source wavelength	655nm											
Spot size	Ø60µm	60*400µm	Ø75µm	75*480µm	Ø110µm	110*720µm	Ø190µm	190*1300µm	Ø450µm	450*1300µm	Ø500µm	500*6000µm
Repeatability ^③	0.05µm		0.1µm		0.2µm		0.5µm		2µm		2µm	
Linearity	±0.05% F.S.										250mm-450mm: ±0.02% F.S. 450mm-750mm: ±0.05% F.S. 750mm-1150mm: ±0.1% F.S.	
Temperature characteristics	0.01% F.S./°C											
Sampling frequency (Hz)	1/2/5/10/20/50/88kHz (Optional)											
Communication port	One 100Base-TX/1000Base-T Ethernet interface, one RS485 port											
Analog output	Four analog output, supporting the switching between analog voltage and analog current											
Encoder input	/											
Working temperature	0~50°C											
Storage temperature	-20~70°C											
Operating voltage	DC12-24V											
Shell material	Aluminium alloy											
IP level	IP67, conforming to IEC 60529 standard											
Dimension (mm)	90*75*41		72*71*50		88*77*50		88*79*50		119*85*35		119*85*35	
Weight (including cable)	324g		323g		376g		370g		380g		380g	

Notes: ① Recommended optimal installation distance; this parameter corresponds to the diffuse reflection mode. ② Positive values indicate the near end, and negative values indicate the far end. ③ The reference distance was obtained from an average of 4096 static tests.

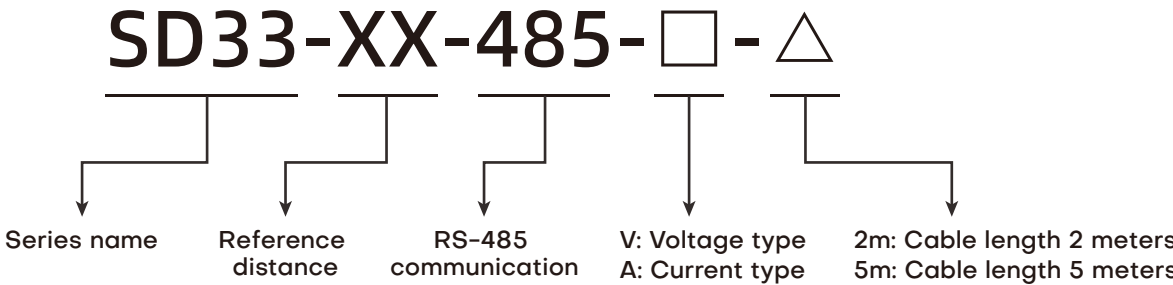
Product Specification

Sensor Head

Series		SD33 Series					
Model		SD33-30	SD33-50	SD33-85	SD33-195	SD33-300	SD33-600
Reference distance ^① (CD)		30mm	50mm	85mm	195mm	300mm	600mm
Measuring range ^②		±4mm	±10mm	±15mm	±99.98mm	±150mm	±400mm
Spot size (Reference distance)		70*260μm	110*440μm	140*990μm	430*2000μm	500μm	1600μm
Repeatability ^③		2μm	5μm	10μm	50μm	30μm	50μm
Linearity		±0.1% F.S.				±0.25% F.S.	±0.25% F.S.(200mm-600mm) ±0.5% F.S.(200mm-1000mm)
Temperature characteristics		0.05% F.S./°C				0.08% F.S./°C	
Light source	Light source wavelength	655nm					
	Laser grade	Class II					
Sampling frequency (Hz)		100/200/300/500/1000/2000/3000Hz (Optional)					
Communication port		1 RS485 (support ModbusRTU)					
Analog output		1 analog output, analog voltage (0-10V) or analog current (4-20mA) Analog voltage or analog current cannot be switched					
Working temperature		-10~50°C					
Storage temperature		-20~70°C					
Operating voltage		DC12-24V ±10%					
Shell material		Aluminium alloy					
IP level		IP67, conforming to IEC 60529 standard					
Dimension (mm)		60*50*22				64.5*50.5*27.2	
Weight (including cable)		120g				120g	

Notes: ① Recommended optimal installation distance; this parameter corresponds to the diffuse reflection mode. ② Positive values indicate the near end, and negative values indicate the far end. ③ The reference distance was obtained from an average of 4096 static tests.

Product Naming Rules

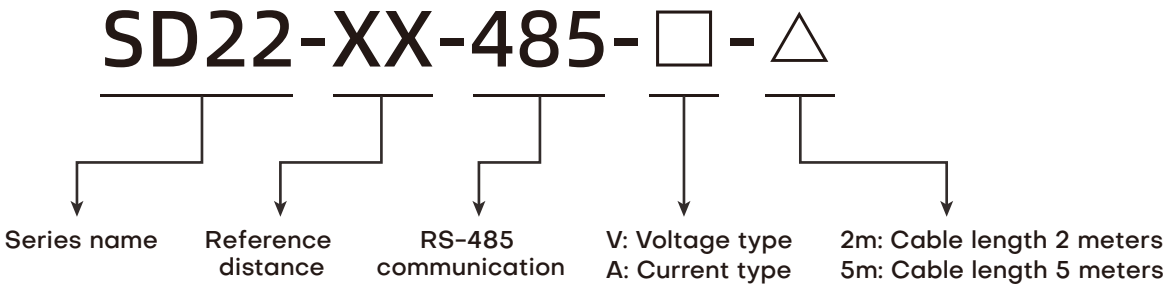


Sensor Head

Series		SD22 Series			
Model		SD22-15	SD22-35	SD22-100	SD22-150
Reference distance ^① (CD)		15mm	35mm	100mm	150mm
Measuring range ^②		±5mm	±15mm	±50mm	±100mm
Light source	Light source wavelength	655nm			
	Laser grade	Class II			
Spot size (Reference distance)		50*200μm	100*580μm	300*1500μm	400*2300μm
Repeatability ^③		1μm	6μm	20μm	60μm
Linearity		±0.1% F.S.			
Temperature characteristics		0.05% F.S./°C			
Sampling frequency (Hz)		300/500/1000/2000/3000Hz (Optional)			
Communication port		1 RS485 (support ModbusRTU)			
Analog output		1 analog output, analog voltage (0-10V) or analog current (4-20mA) Analog voltage or analog current cannot be switched			
Working temperature		-10~50°C			
Storage temperature		-20~70°C			
Operating voltage		DC12-24V ±10%			
Shell material		Aluminium alloy			
IP level		IP67, conforming to IEC 60529 standard			
Dimension (mm)		44*31*18			
Weight (including cable)		70g			

Notes: ① Recommended optimal installation distance; this parameter corresponds to the diffuse reflection mode. ② Positive values indicate the near end, and negative values indicate the far end. ③ The reference distance was obtained from an average of 4096 static tests.

Product Naming Rules



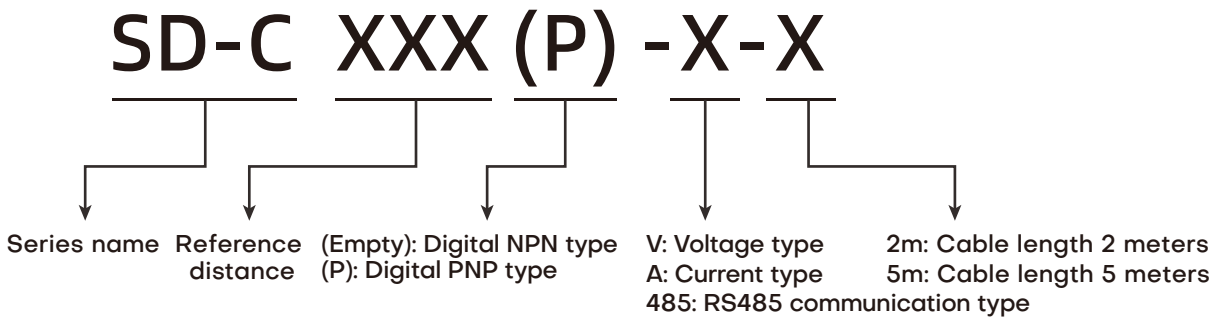
Product Specification

Sensor Head

Series	SD-C Series				
Model	SD-C030	SD-C050	SD-C100	SD-C200	SD-C400
Reference distance ^① (CD)	30mm	50mm	100mm	200mm	400mm
Measuring range ^②	±5mm	±15mm	±35mm	±80mm	±200mm
Light source	655nm				
	Class II				
Spot size (Reference distance)	50μm	70μm	120μm	300μm	500μm
Repeatability ^③	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	±0.05% F.S./°C			±0.05% F.S./°C	±0.05% F.S./°C
Sampling frequency (Hz)	100/200/1000Hz (Optional)				
Communication port	1 RS485 (support ModbusRTU)				
Analog output	1 analog output, analog voltage (0-5V) or analog current (4-20mA) Analog voltage or analog current cannot be switched				
Working temperature	-10~50°C				
Storage temperature	-20~60°C				
Operating voltage	DC12-24V ±10%				
Shell material	Aluminium alloy				
IP level	IP67, conforming to IEC 60529 standard				
Dimension (mm)	44.4*25*20				
Weight (including cable)	50g (including 2m cable)				

Notes: ① Recommended optimal installation distance; this parameter corresponds to the diffuse reflection mode. ② Positive values indicate the near end, and negative values indicate the far end. ③ The reference distance was obtained from an average of 4096 static tests.

Product Naming Rules



Accessories

Controller model		SG5001/SG5001A				
Max number of connectable sensor heads		Max 4 sensors (support SG5000 and SG3000 sensor heads). When using 2 or more sensor heads, they must be of the same model		Encoder input		
Sampling period (trigger interval)		SG3000 sensor head up to 88kHz SG5000 sensor head up to 590kHz		Encoder input Response frequency	1 set: RS-422 compatible linear driver output (with 5V output: maximum 150 mA), or open collector output (support 5V/12V/24V, requires external series current limiting resistor)	
Ethernet interface		• Numerical Output • Connects to the included SinceVision PC application software. In addition to the above functions, it can also upload and download detection settings. • 1000BASE-T/100BASE-TX			Open Collector (OC)	Single-phase/Z-phase 100kHz; 2-phase/1 increments 100kHz; 2-phase/2 increments 200kHz; 2-phase/4 increments 400kHz;
Serial Port		RS232 (full duplex)			RS-422 linear drive	Single-phase/Z-phase 1.6MHz; 2-phase/1 increments 1.6MHz; 2-phase/2 increments 3.2MHz; 2-phase/4 increments 6.4MHz;
Digital input		Timing (sync) input, zero (sync) input, reset (sync) input, timing (binary) input, zero (binary) input, reset (binary) input, laser control input, binary selection input, program number switching input		Heat dissipation		Natural cooling
				Rated	Power supply voltage	24VDC±10%
		Adapted to NPN and PNP output				Max current consumption
Digital output	Comparator output Strobe output	NPN open collector output		Environmental resistance	Ambient temperature	0~50°C (bottom-mounted)
Analog output ^①	Number of analog output	Four channels			Operating environment humidity	35%~85%RH (non-condensing)
	Voltage output	0~10V output, output impedance: 100 Ω		Dimension (mm)		182*139*64
	Current output	4~20mA output, maximum allowable load impedance: 300 Ω		Weight (g)		1600

Note: ① Only SG5001A supports analog output. SG5001 does not support analog output.

EtherCAT communication unit model		SU4-EC-SGI	SU4-EC-SD
Access device	Number of channels	4 channels (support SGI series)	4 channels (supports SD33, SD22, and SD-C series)
		When using two or more sensors, the sensor heads must be of the same model	
Sensor head	Communication method	RS-485 (maximum cable length 20m)	
	Supported protocol	SinceVision self-developed protocol	
		Modbus protocol	
	Supported performance	PDO: Maximum 4kHz refresh rate	
		SDO: Supports sensor parameter settings	
	Physical interface	Double-row 24-pin pluggable European connector	
EtherCAT Specification	Version	EtherCAT Slave	
	Standard protocol	IEEE802.3u (100Base-TX)	
	Transmission rate	100Mbps	
	Communication cycle	250μs	
	Transmission distance	Maximum distance 100m	
	Communication cable	STP CAT.5E or higher	
	Number of ports	2 input/output ports	
	Physical interface	RJ45	
IP protection level (dust)		IP50	
Working temperature		-20°C to 50°C	
Overall dimension (mm)		1.03.5 (H) x 34 (W) x 110 (D)	
Shell material		Plastic	
Installation type		DIN rail	

Product Specification

Accessories

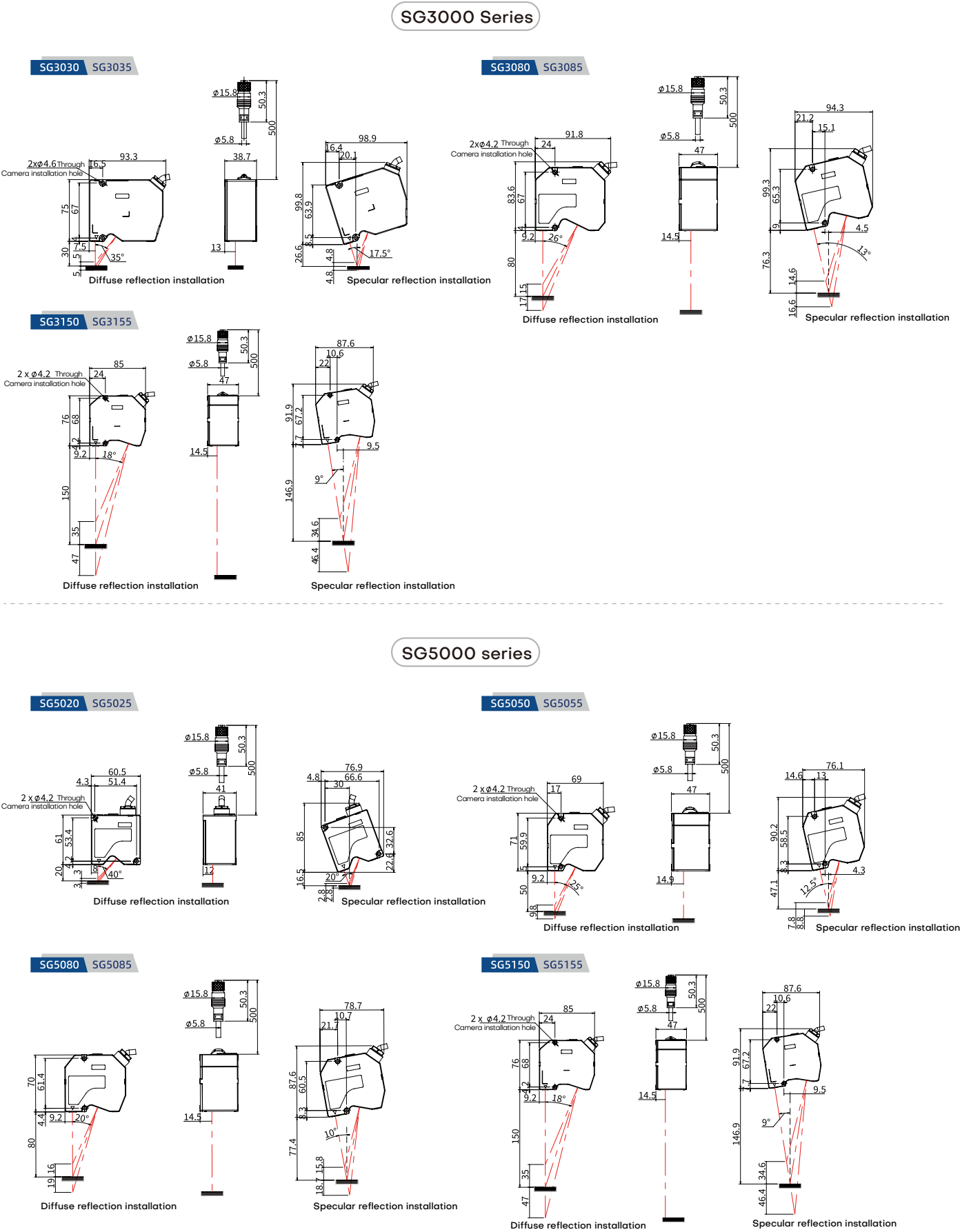
Parameters/Model	SCB-GCAM-HA3-Xm
Compatible models	SG3000/SG5000
	I-type connector (straight)
Universal type 3-meter cable	SCB-GCAM-HA3-3m
Universal type 5-meter cable	SCB-GCAM-HA3-5m
Universal type 10-meter cable	SCB-GCAM-HA3-10m
5-meter cable extension	SCB-GCAM-HA3Y-5m
IP Level	IP67, conforming to IEC 60529 standard
Minimum curvature radius of cable components (fixed)	30mm
Service life	Installation of cable chain with radius not less than 72mm (100mm is recommended), with repeated bending times > 10 million times ①.

Note: ① Test environment: temperature/humidity 23°C/40% RH; Test conditions: cable chain radius: R72mm; cable chain stroke: 1000mm, running speed: 60 round/minute; Measured results: standard value > 30 million times; Minimum value > 10 million times.

Parameters/Model	SCB-GICAM-HA1-Xm
Compatible models	SGL series
	I-type connector (straight)
Universal type 3-meter cable	SCB-GICAM-HA1-3m
Universal type 6-meter cable	SCB-GICAM-HA1-6m
Universal type 10-meter cable	SCB-GICAM-HA1-10m
IP Level	IP67, conforming to IEC 60529 standard
Minimum curvature radius of cable components (fixed)	30mm
Service life	Installation of cable chain with radius not less than 72mm (100mm is recommended), with repeated bending times > 10 million times ①.

Note: ① Test environment: temperature/humidity 23°C/40% RH; Test conditions: cable chain radius: R72mm; cable chain stroke: 1000mm, running speed: 60 round/minute; Measured results: standard value > 30 million times; Minimum value > 10 million times.

Product Dimension



01 Laser Displacement Sensor

02 Spectral Confocal Displacement Sensor

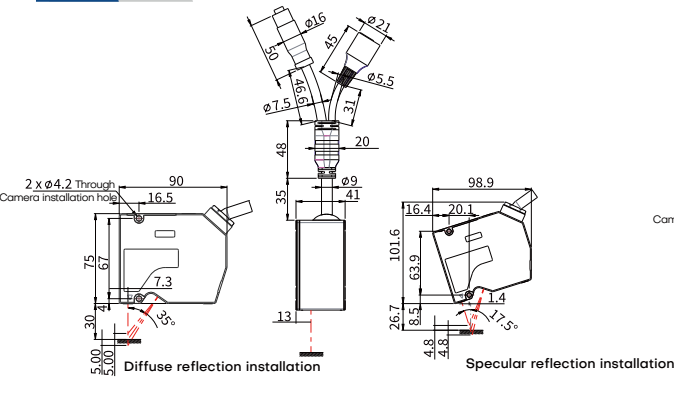
03 Through-Beam Edge Sensor

04 Full-Spectrum Sensor

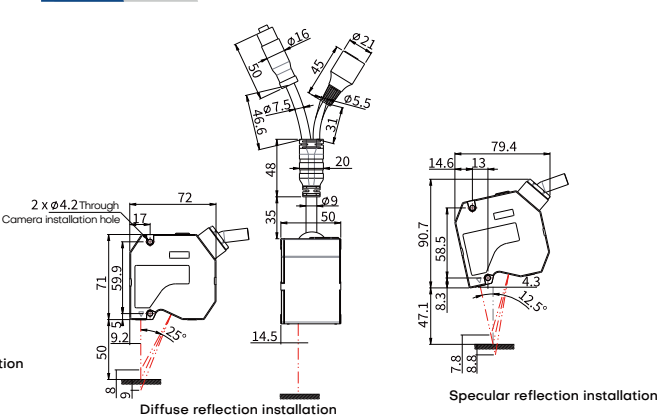
Product Dimension

SGI Series

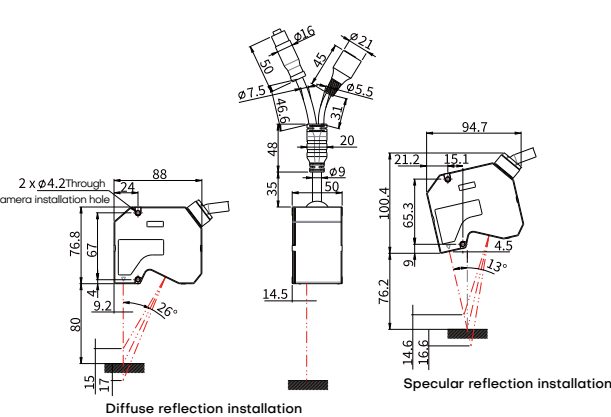
SGI030 SGI035



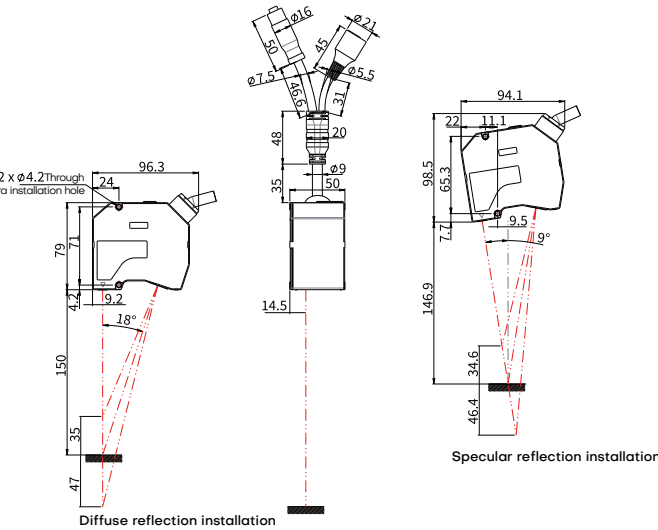
SGI050 SGI055



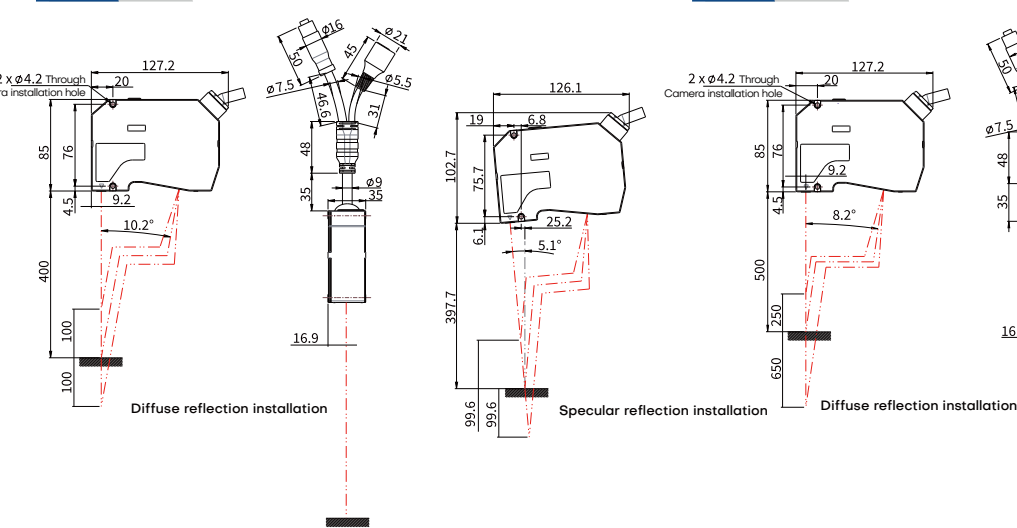
SGI080 SGI085



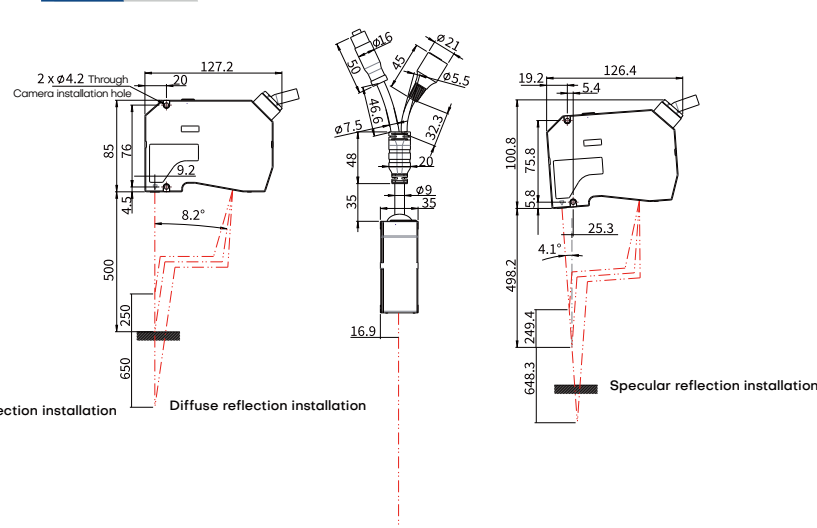
SGI150 SGI155



SGI400 SGI405

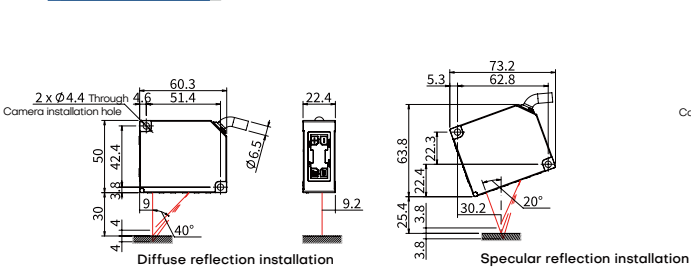


SGI500 SGI505

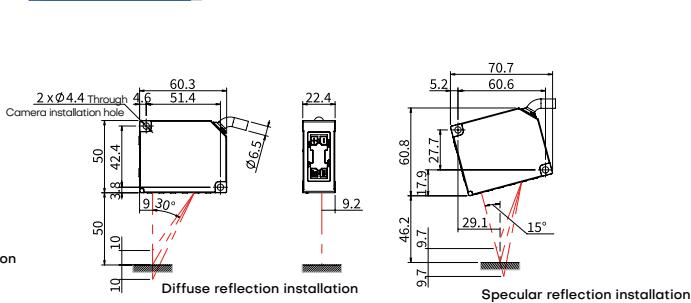


SD33 Series

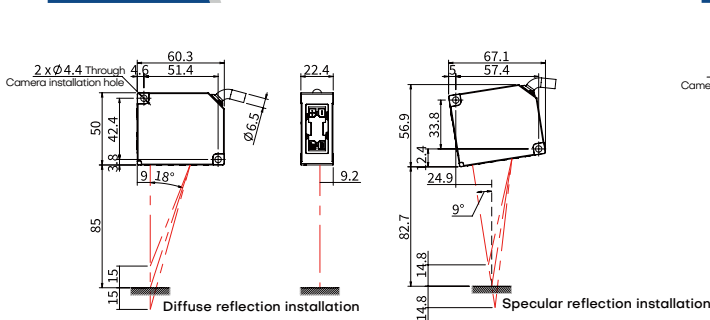
SD33-30-485-□-△



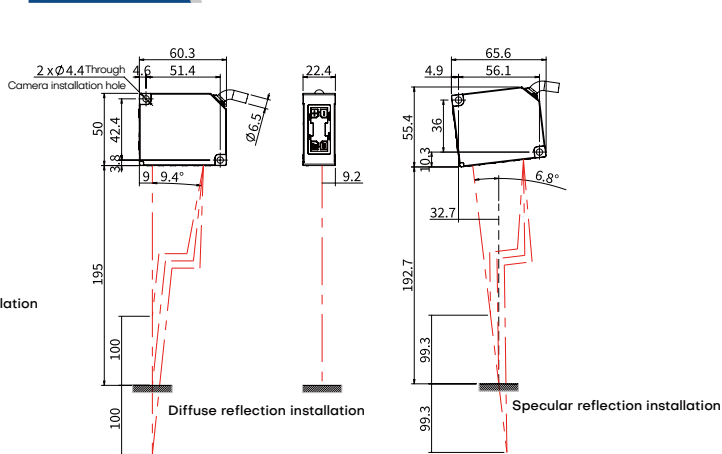
SD33-50-485-□-△



SD33-85-485-□-△



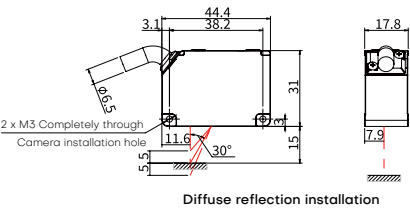
SD33-195-485-□-△



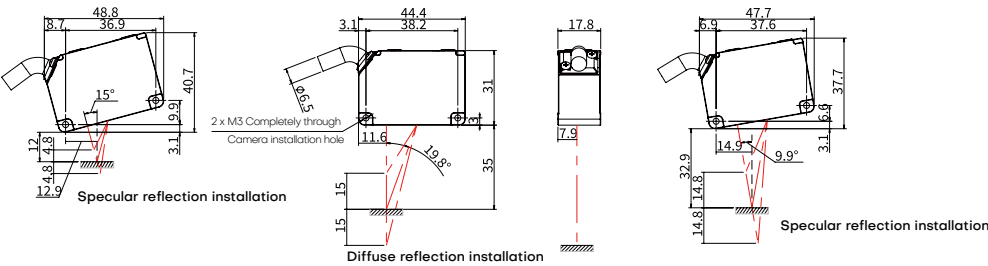
Product Dimension

SD22 Series

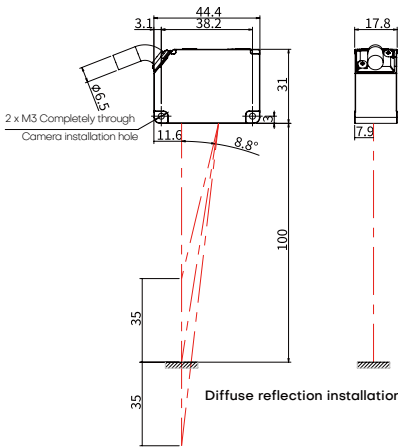
SD22-15-485-□-△



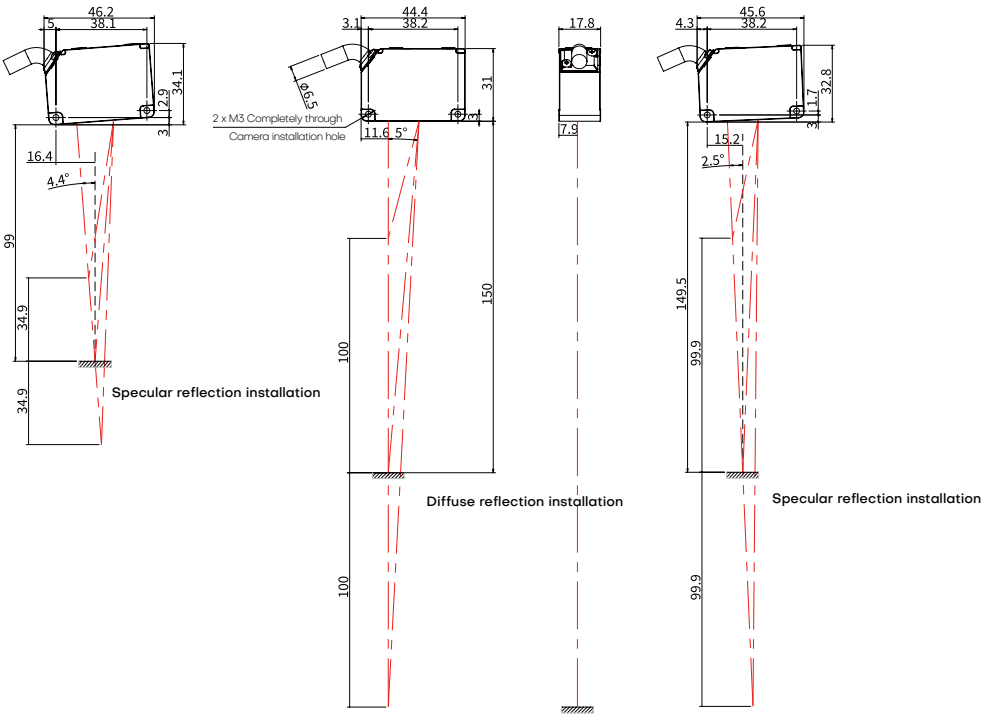
SD22-35-485-□-△



SD22-100-485-□-△

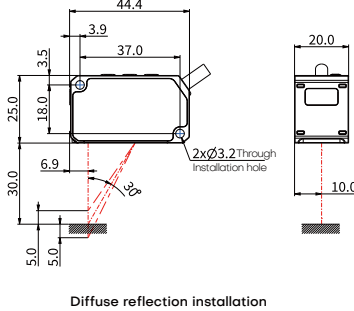


SD22-150-485-□-△

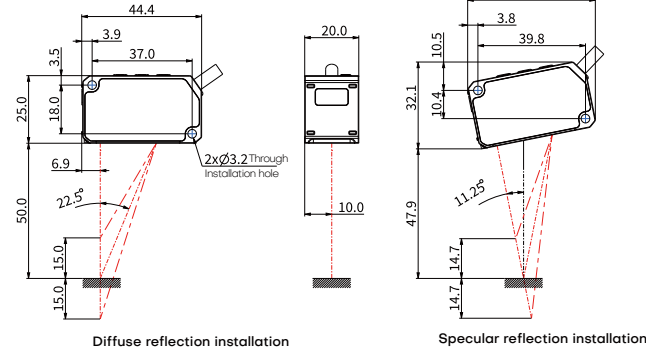


SD-C Series

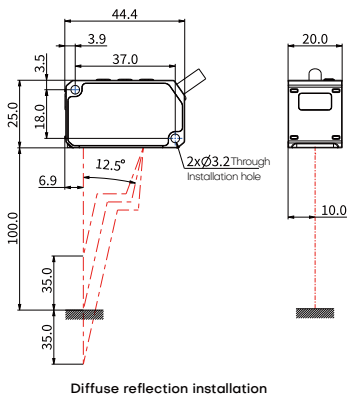
SD-C030(P)-□-△



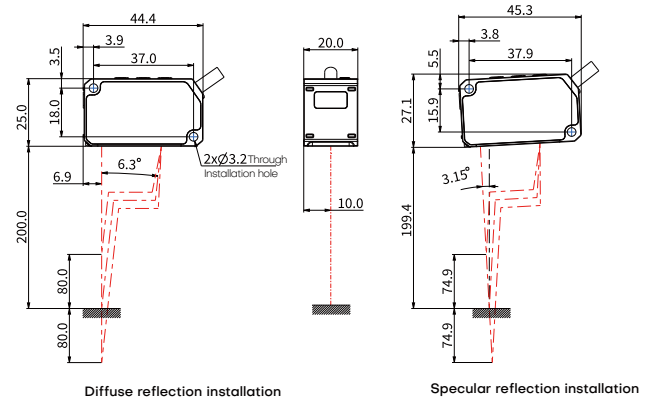
SD-C050(P)-□-△



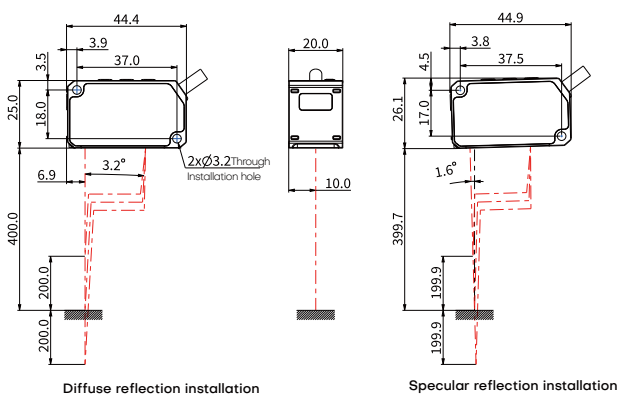
SD-C100(P)-□-△



SD-C200(P)-□-△



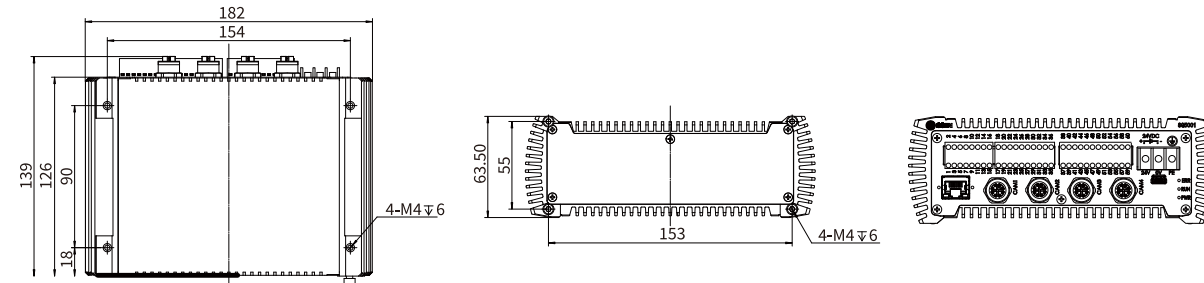
SD-C400(P)-□-△



Product Dimension

Accessories-controller

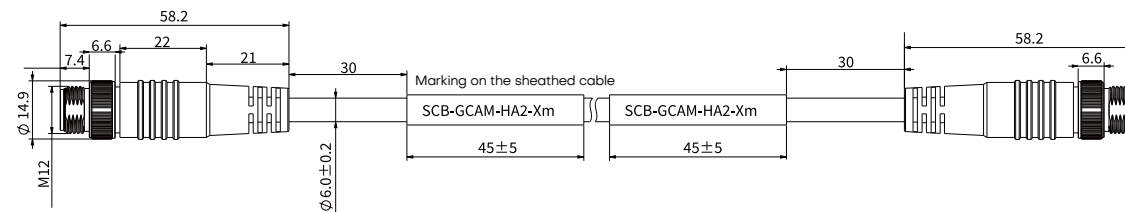
SG5001/SG5001A



Accessories-cable

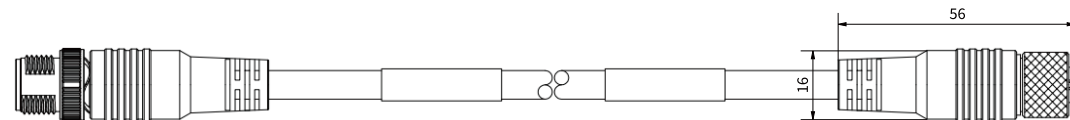
SG series cable SCB-GCAM-HA3-Xm

Applicable to SG5000/SG3000 series products



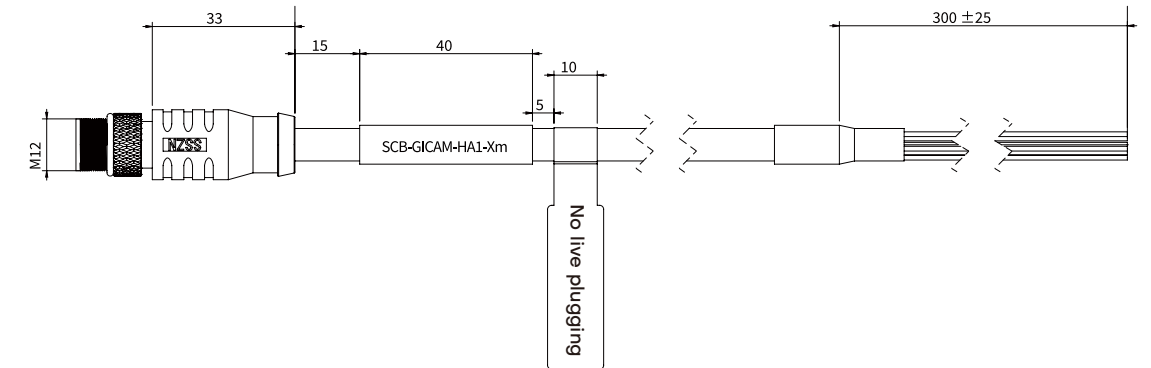
SG series cable SCB-GCAM-HA3Y-Xm

Applicable to SG5000/SG3000 series products



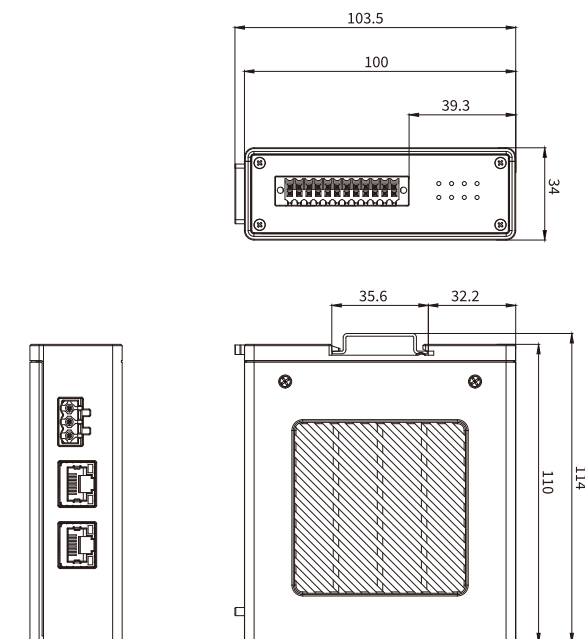
Accessories-cable

SGL series cable SCB-GICAM-HA1-Xm



Accessories-controller

EtherCAT Communication Unit SU4-EC-SGI/SU4-EC-SD



Spectral Confocal Displacement Sensor

Overview of Products

SinceVision spectral confocal displacement sensor adopts non-contact measurement, realizes sub-micron to micron accuracy through spectral confocal technology, and is suitable for complex materials such as transparency, high reflectivity and roughness. It is suitable for industrial automation, precision manufacturing and other fields, and its performance is comparable to international high-end equipment.



02.

Small size and large measuring range

Non-contact measuring equipment can be efficiently used in many fields such as industrial inspection, material science and precision manufacturing.



High precision



High resolution



High sampling frequency



High stability



Multiple communication interface



High flexible sheathed cable

01 | SCI series

Ultra-high precision spectral confocal displacement sensor specially designed for advanced application scenarios



Spectral confocal sensor is a sensor oriented to micron-scale precision field. Its sensor has high precision and stability, and has multi-channel I/O interface, which supports gigabit network port data transmission.

Product Advantages

33kHz

Maximum sampling frequency

±60°

Maximum return angle

3-channel encoder

Support simultaneous encoder locking

±0.2μm

Ultra-high linearity

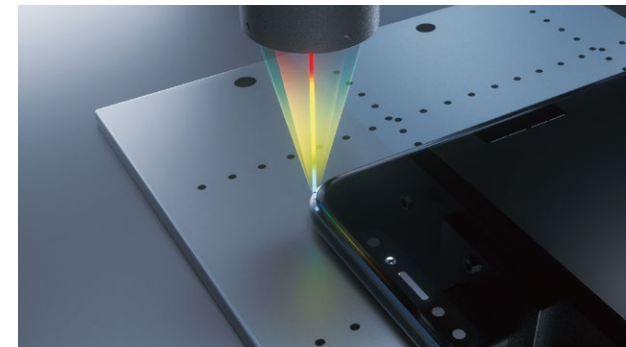
5.8μm

Minimum spot size

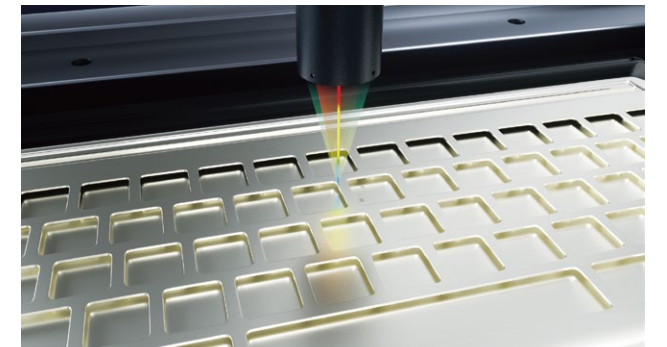
High flexible sheathed cable

Support minimum bending radius of 20 mm

Application Cases – Consumer Electronics Industry

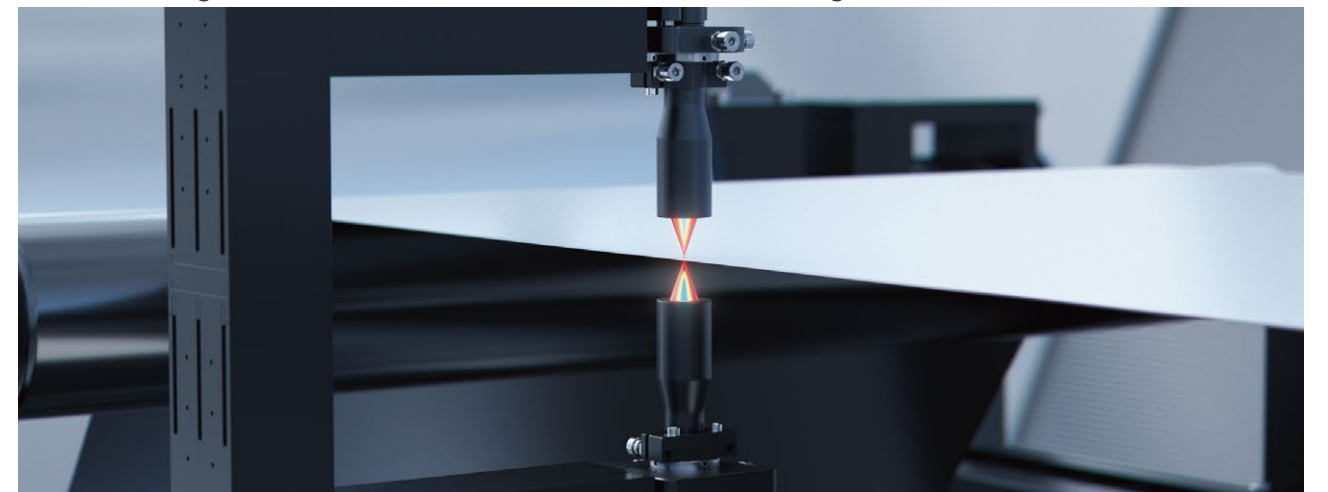


Ultra-large angle curved surface detection

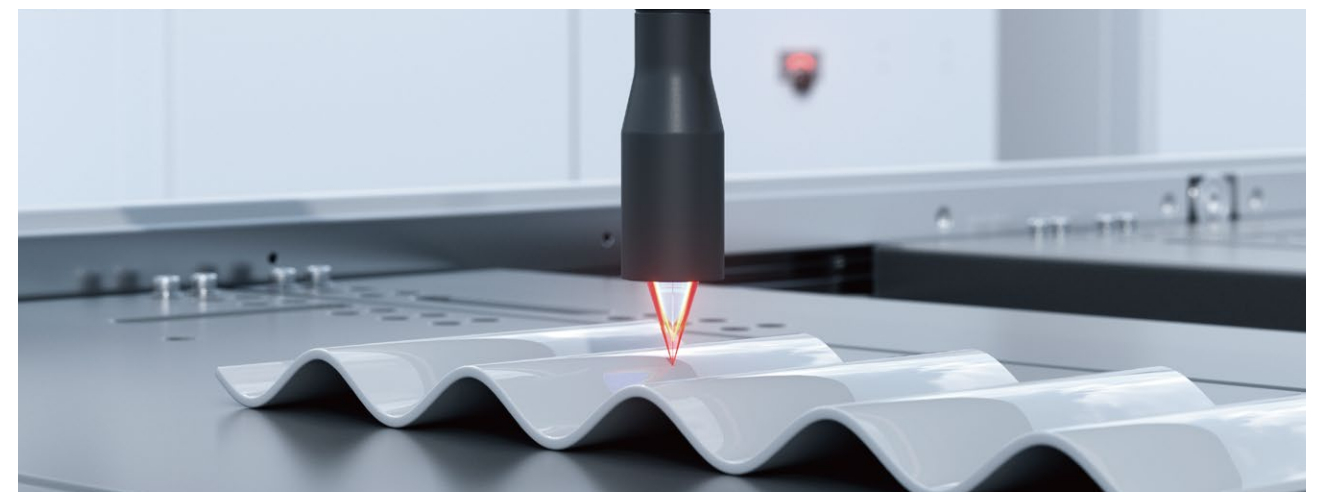


Laptop keyboard flatness detection

Application Cases–New Energy Lithium Battery & Automobile Industry



Thickness measurement of electrode tabs on coating roller

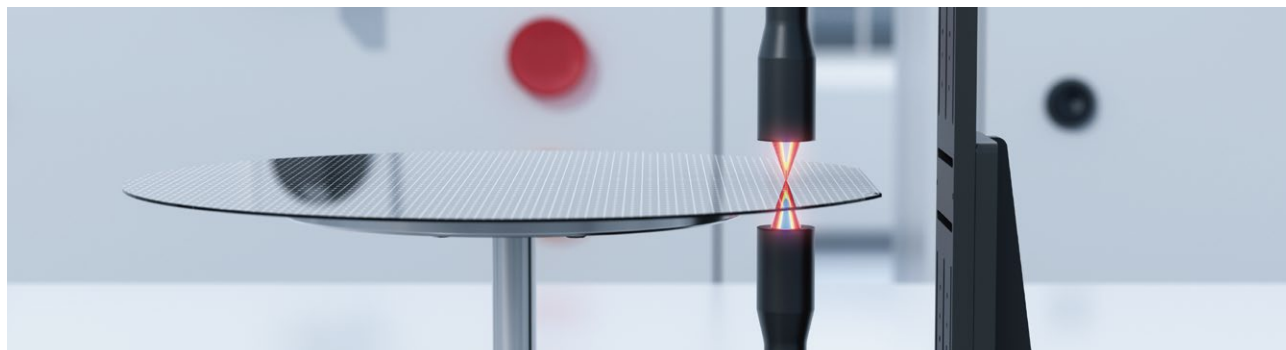


Film thickness detection of corrugated water cooling plate

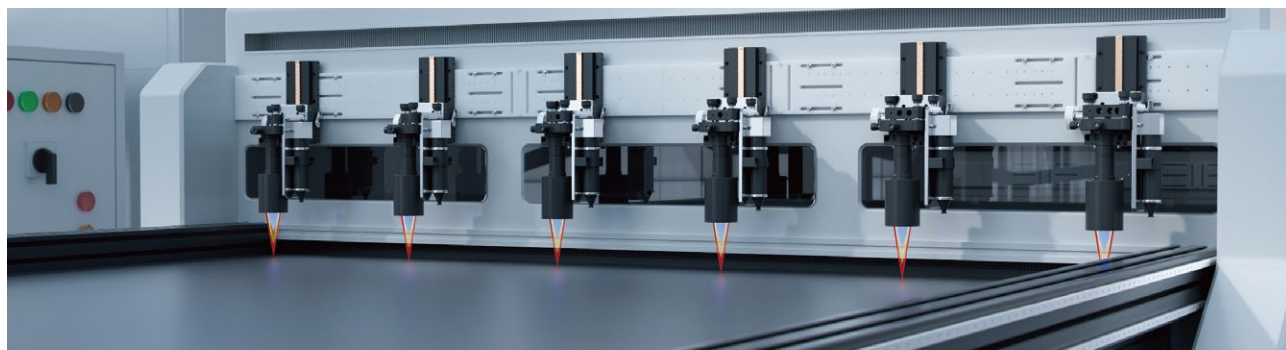
Application Cases - Semiconductor and Photovoltaic Industries



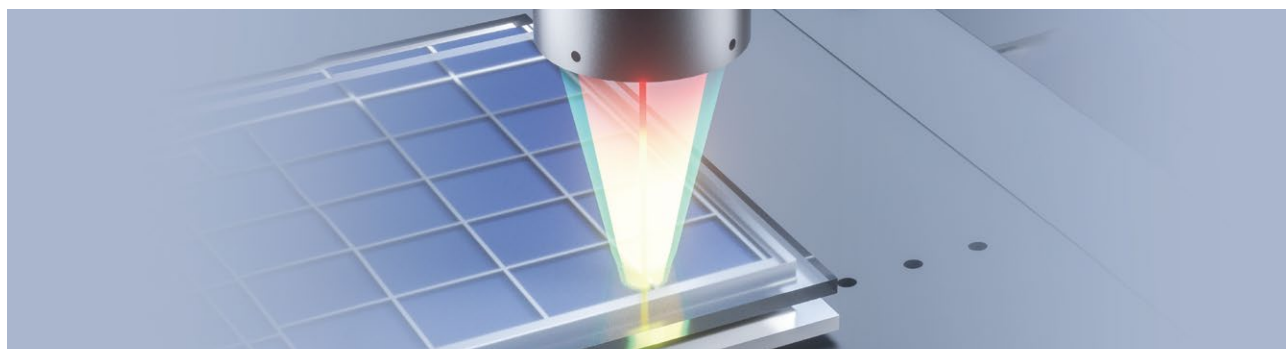
Wafer flatness detection



Wafer thickness detection

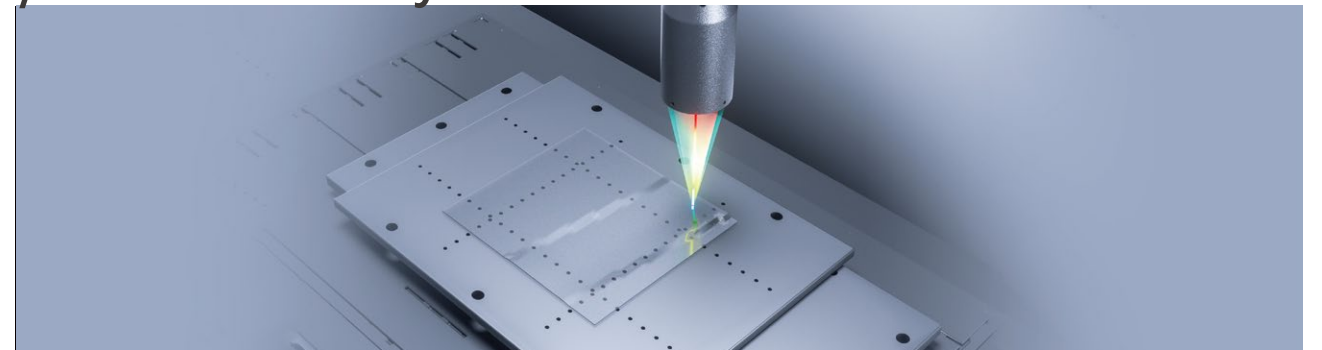


Perovskite laser scribing guidance

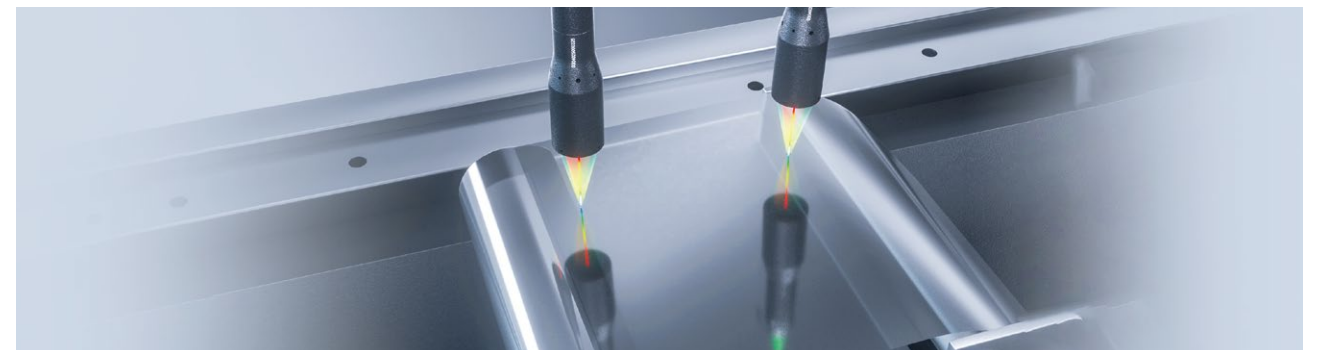


Gap detection of solar panels

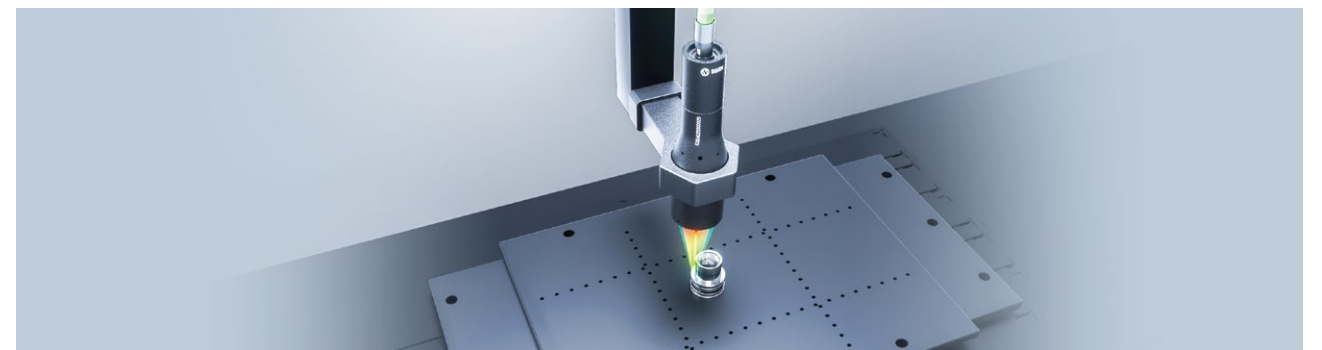
Application Cases - Film/Rubber/Plastic/Metal Industry



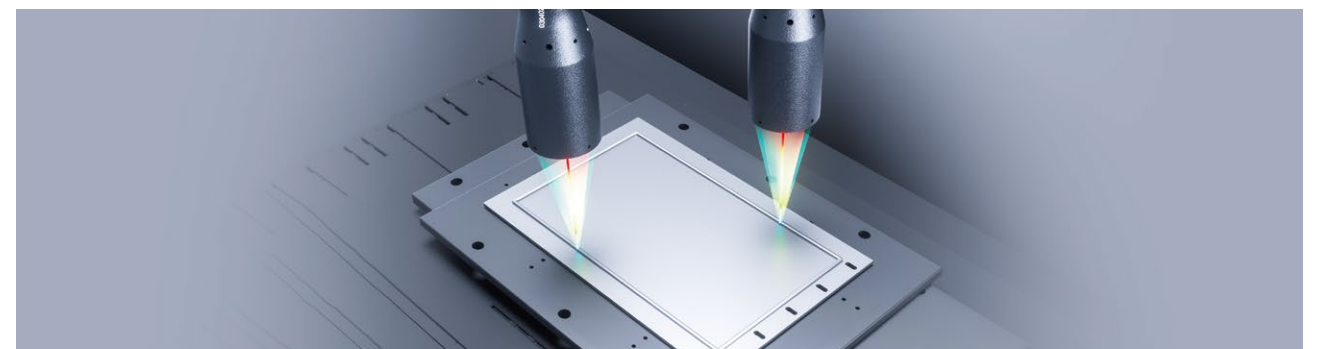
Thickness detection of flexible multilayer glass



Detection of metal sheet shaking



Detection of hardware cutting texture



Thickness detection of sealing parts

Product Specification

Sensor Head

Product Model	SCI00532		SCI01045		SCI01236		SCI03560	
Controller	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B
Fixture model	SCI-01		SCI-01		SCI-01		SCI-02	
Spot size	7μm	14μm	7.1μm	14.9μm	55μm	115μm	5.8μm	12.2μm
Working distance	25mm		10mm		25mm		12.8mm	
Measuring range	0.5mm		1mm		1.2mm		3.5mm	
Resolution	0.006μm		0.006μm		0.006μm		0.006μm	
Linearity	±0.2μm		±0.2μm		±0.24μm		±0.7μm	
Angle characteristic	±32°		±45°		±36°		±60°	
Minimum measurable transparent object thickness	20μm		30μm		35μm		150μm	
Optical fiber cable specification	3m (default)		3m (default)		3m (default)		3m (default)	
Diameter	53mm		47mm		62mm		83mm	
Length	159.7mm		148.6mm		167.5mm		229mm	
Weight	535g		350g		738g		2300g	
Power supply voltage	24VDC±10%							
Operating environment humidity	35%~85%RH (no condensation)							
Shell material	Aluminium alloy							

Product Model	SCI04025		SCI04020		SCI10015		SCI20011	
Controller	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B	SCI501A SCI502A	SCI501B SCI502B
Fixture model	SCI-01		SCI-01		SCI-01		SCI-01	
Spot size	12μm	25.2μm	16μm	32μm	19.2μm	40.3μm	55μm	115μm
Working distance	16mm		40mm		40mm		70mm	
Measuring range	4mm		4mm		10mm		20mm	
Resolution	0.006μm		0.006μm		0.012μm		0.025μm	
Linearity	±0.8μm		±0.8μm		±1.6μm		±2.2μm	
Angle characteristic	±25°		±20°		±15°		±11°	
Minimum measurable transparent object thickness	130μm		130μm		300μm		660μm	
Optical fiber cable specification	3m (default)		3m (default)		3m (default)		3m (default)	
Diameter	30mm		39mm		30mm		44mm	
Length	114mm		105.27mm		111.5mm		123.9mm	
Weight	95g		260g		127g		258g	
Power supply voltage	24VDC±10%							
Operating environment humidity	35%~85%RH (no condensation)							
Shell material	Aluminium alloy							

Notes: ① The suffix A indicates a small spot size, and the suffix B indicates a large spot size; SCI501 is a one-to-one configuration, and SCI502 is a one-to-two configuration. ② The working distance was obtained from an average of 4096 static test.

Accessories

Controller model		SCI501A / SCI501B	SCI502A / SCI502B
Max number of connectable sensor heads ①		1	2
Sampling period ②		0.5/1/2/5/10/15/20/33kHz(Optional)	
Interface	Ethernet interface	• Numerical Output • Connects to the included SinceVision PC application software. In addition to the above functions, it can also upload and download detection settings. • 1000BASE-T/100BASE-TX	
	RS-232	1 channel, baud rate: 9600 to 115200bps; Data length: 8bit; Upper position: 1bit; Parity: none/even/odd	
Digital input		Timing (sync) input, zero (sync) input, reset (sync) input, timing (binary) input, zero (binary) input, reset (binary) input, laser control input, binary selection input, program number switching input	
		NPN and PNP	
Digital output	Comparator output	Four-channel NPN open collector output	
	Strobe output		
Analog output	Number of analog output	3 channels	
	Voltage output	0~10V output, output impedance: 100Ω	
	Current output	4~20mA output, maximum allowable load impedance: 300Ω	
Encoder input	Encoder input	Support 3-channel 2-phase 5V differential encoder inputs	
	Response frequency	Single-phase 2.3MHZ 2-phase /1 increases by 2.3MHZ 2-phase /2 increases by 4.6 MHZ and 2-phase /4 increases by 9.2MHZ	
Heat dissipation		Fan cooling	
Rated	Power supply voltage	24VDC±10%	
	Max current consumption	2.0A	3.4A
Environmental resistance	Ambient temperature	-10~50℃	
	Operating environment humidity	35%~85%RH (no condensation)	
	Vibration resistance	10~57Hz, double amplitude 1.5mm, 2 hours in X, Y and Z directions respectively	
Supported software		SG-Imaging	
Material		Aluminium	
Dimension (mm)		120*155*175	
Weight (g)		2158	2425

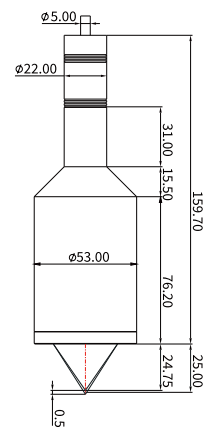
Note: ① When two sensors are used, the sensor heads must be of the same model; ② When the sampling frequency is 20kHz and 33kHz, the range of the sensor head is shortened to 80% and 40% of the original range.

Parameters/Model		Optical fiber extension cable of SCI spectral confocal displacement sensor	
Name		Fiber optic jumper	
		Small spot	Large spot
Compatible models		SCI501A/SCI502A	SCI501B/SCI502B
Universal With adapter	3 meters	SCB-F50-MPO-HA1Y-3m	SCB-F105-MPO-HA1Y-3m
	5 meters	SCB-F50-MPO-HA1Y-5m	SCB-F105-MPO-HA1Y-5m
	10 meters	SCB-F50-MPO-HA1Y-10m	SCB-F105-MPO-HA1Y-10m
Minimum curvature radius of cable components (fixed)		30mm	

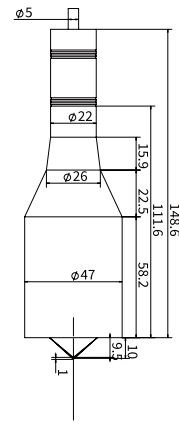
Product Dimension

SCI Series

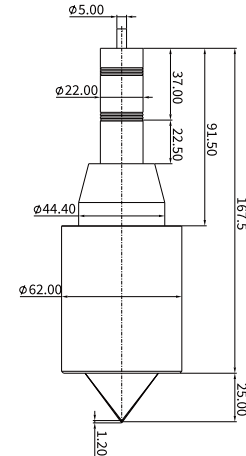
SCI00532



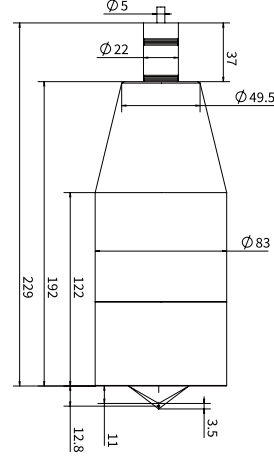
SCI01045



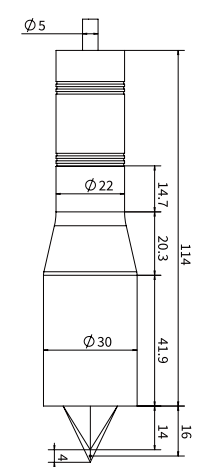
SCI01236



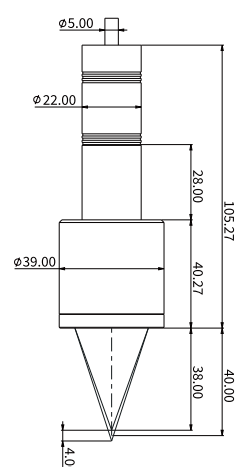
SCI03560



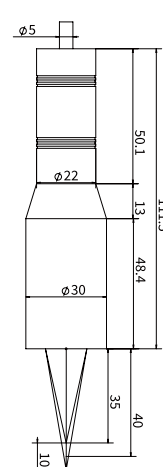
SCI04025



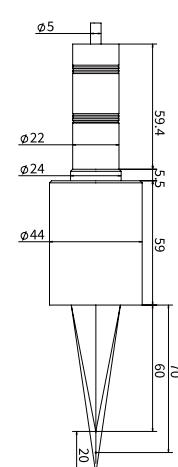
SCI04020



SCI10015

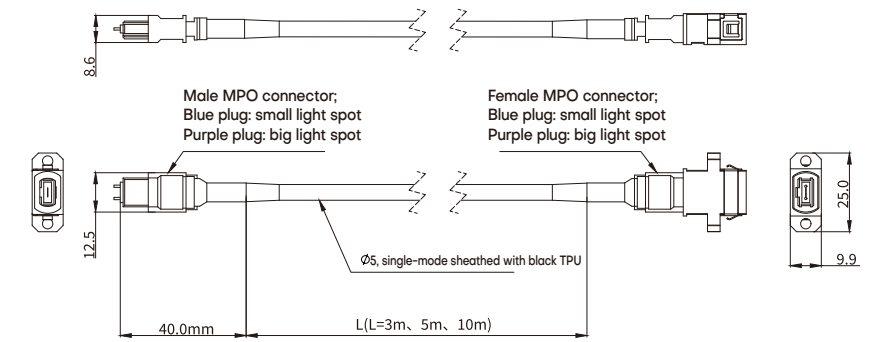


SCI20011



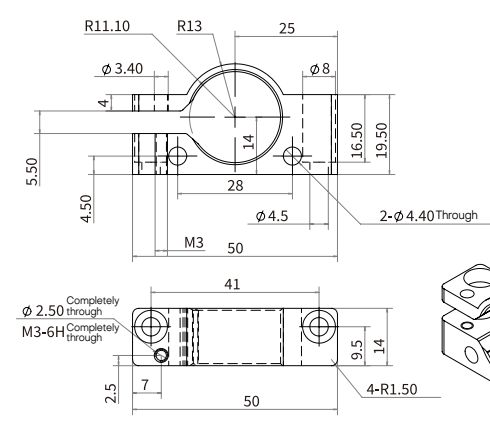
Accessories-Extension Cable

MPO extension patch cord

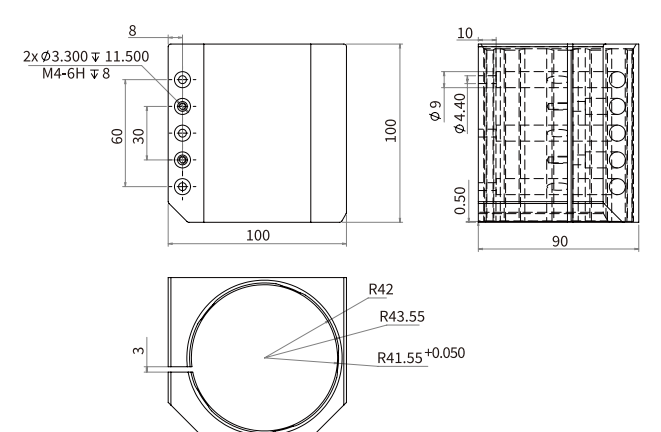


Accessories-fixture

SCI-01

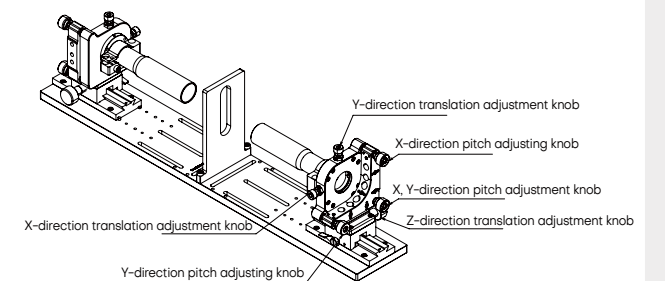
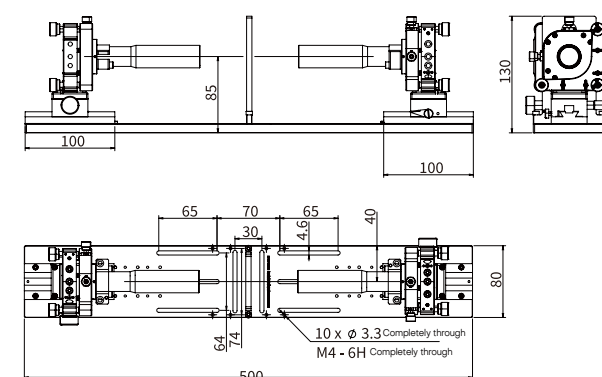


SCI-02



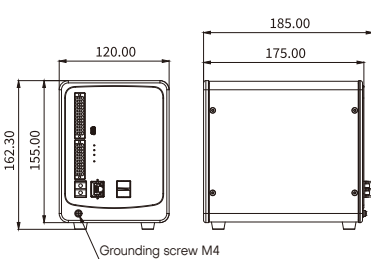
Accessories- Support bracket

FSC00-01-01

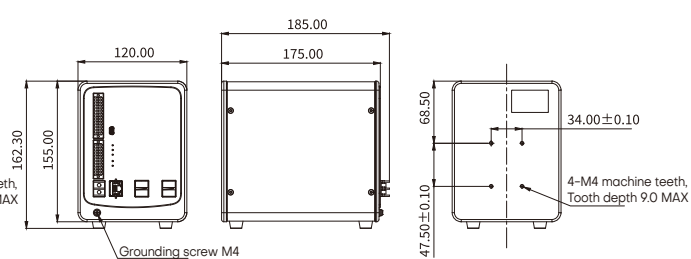


Accessories-controller

SCI501A/SCI501B one-to-one



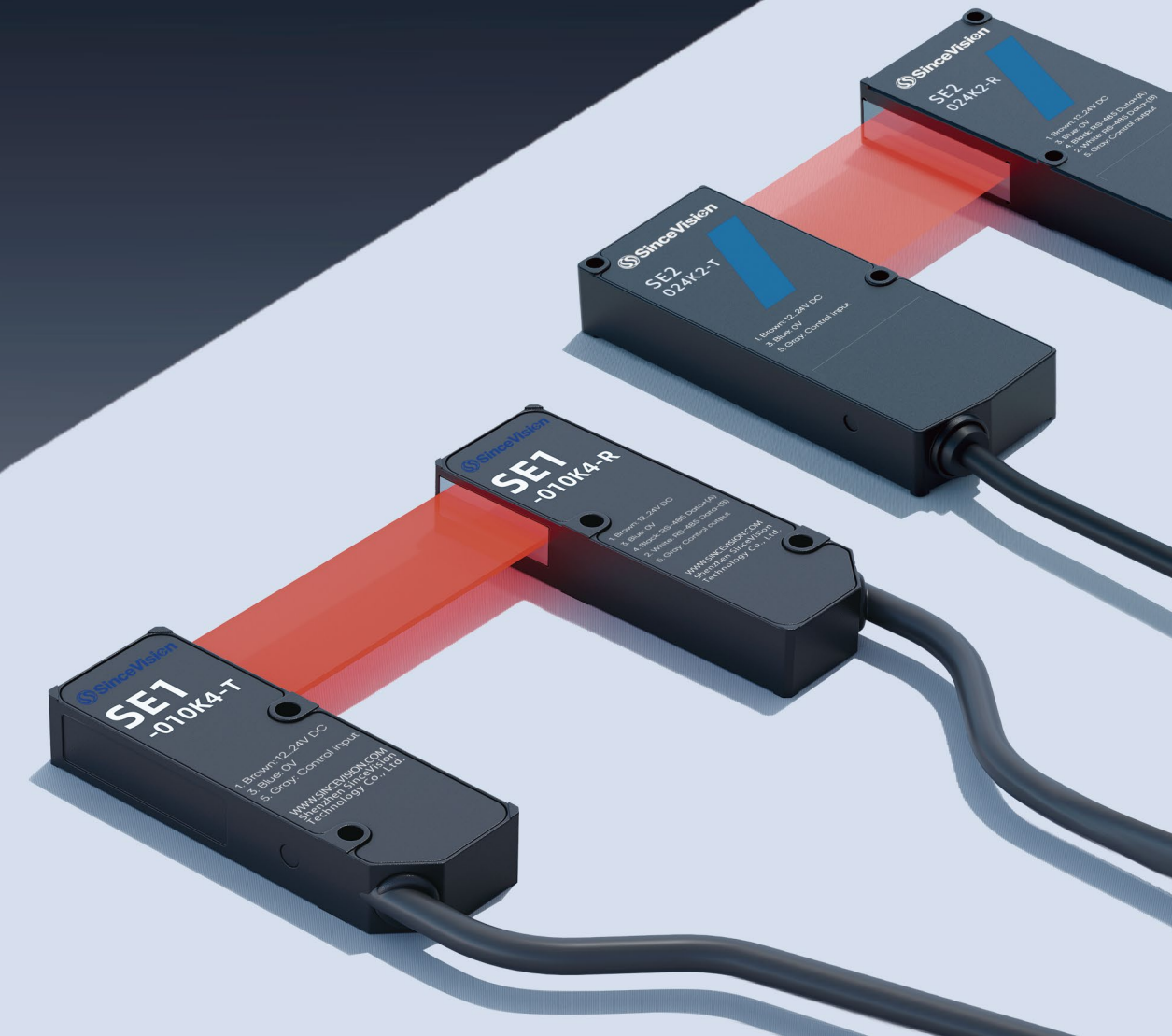
SCI502A/SCI502B one-to-two



Through-Beam Edge Sensor

Overview of Products

SinceVision is a comprehensive through-beam edge measurement sensor for industrial automation and other fields. Its contrast structure can quickly capture the slight change of the edge or width of the object, and is suitable for the stable detection of complex materials such as transparency and high reflectivity. Products have high-speed response and strong anti-interference, support a variety of industrial communication protocols, and can be seamlessly integrated into automated production lines.



03.

Real-time edge detection with high precision

Real-time detection of material edge position changes, to ensure that production accuracy and quality are efficiently empowered in lithium battery, semiconductor, precision manufacturing and other fields.

- Quick response
- High cost-effectiveness
- High anti-interference
- High precision
- Compact design
- Multiple communication interface

01 | SE1 series

High-precision edge measurement sensor



SE1 series is specially designed for scenes with high accuracy and quick response, and supports various communication modes such as EtherCAT and RS485, with strong anti-interference ability. The opposite installation is adopted, which is suitable for semiconductor wafer inspection and deviation correction of lithium battery electrode sheets, and can monitor the edge alignment and damage of the electrode sheets in time and adapt to different translucent separator materials.

Product Advantages

10mm

Measurement range

5μm

Repeatability

±0.4%(±40μm)

Linearity

4kHz

Maximum sampling frequency

300mm

Working distance

IP67 protection level

Can be used in humid/dusty environment

02 | SE2 series

Large-range edge measurement sensor



SE2 series focuses on large range measurement and cost optimization, supports EtherCAT one-to-four configuration, and a single module can be connected with four sensors, eliminating the need for AD conversion module and reducing the purchasing cost. It is mainly used for rectifying the deviation in the process of lithium battery separator, solving the problems that the traditional analog communication is easily disturbed and the wiring is complicated, and it is suitable for large-scale production line requirements in the fields of new energy vehicles and energy storage.

Product Advantages

24mm

Measurement range

50μm

Repeatability

±0.4%(±96μm)

Linearity

2kHz

Maximum sampling frequency

200mm

Working distance

Excellent stability

Class A EMC anti-interference and IP67 protection

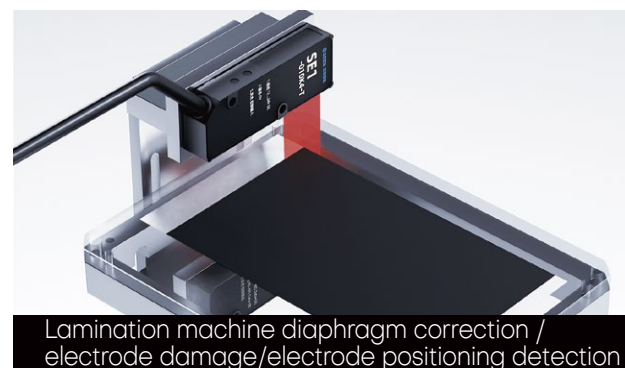
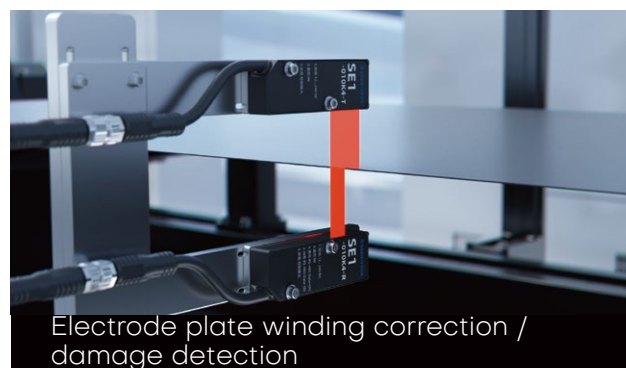
01 Laser Displacement Sensor

02 Spectral Confocal Displacement Sensor

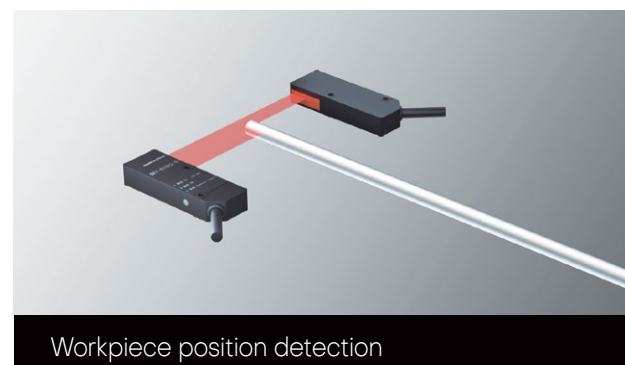
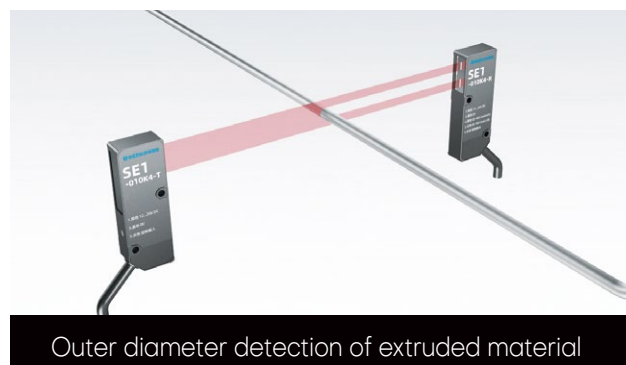
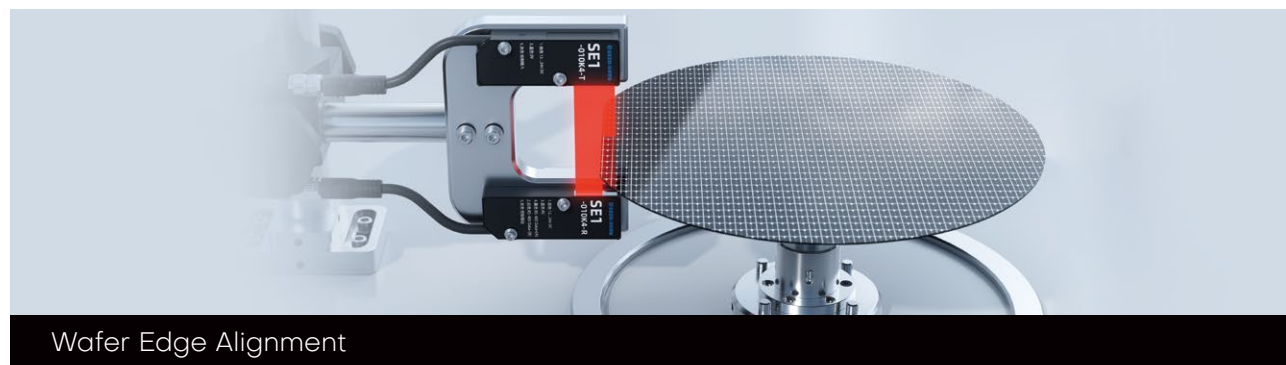
03 Through-Beam Edge Sensor

04 Full-Spectrum Sensor

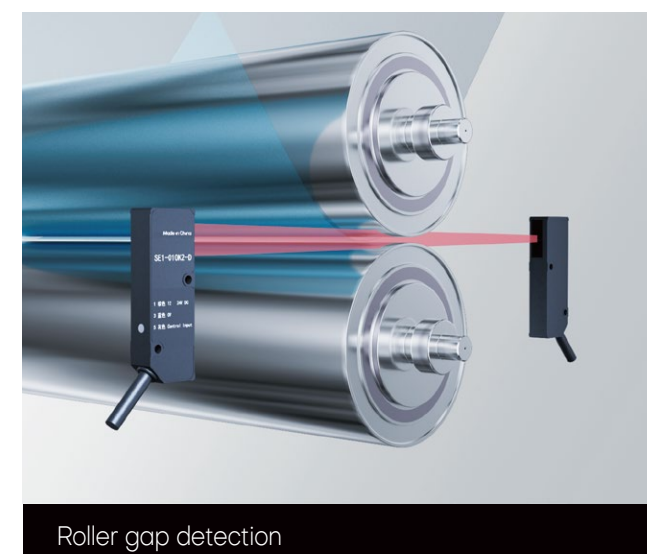
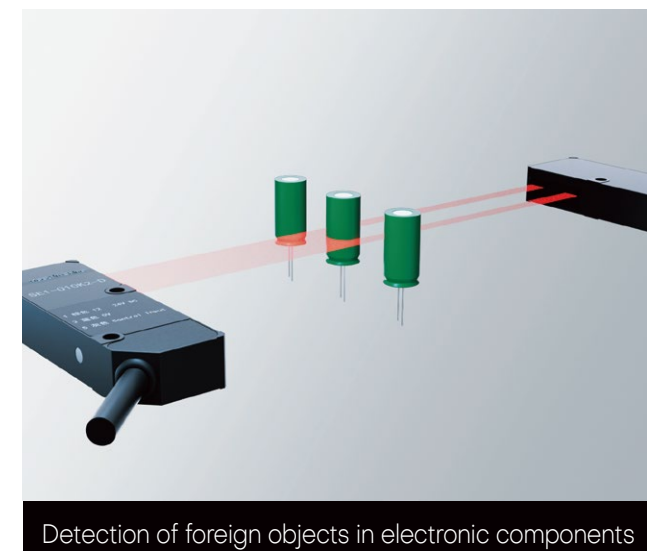
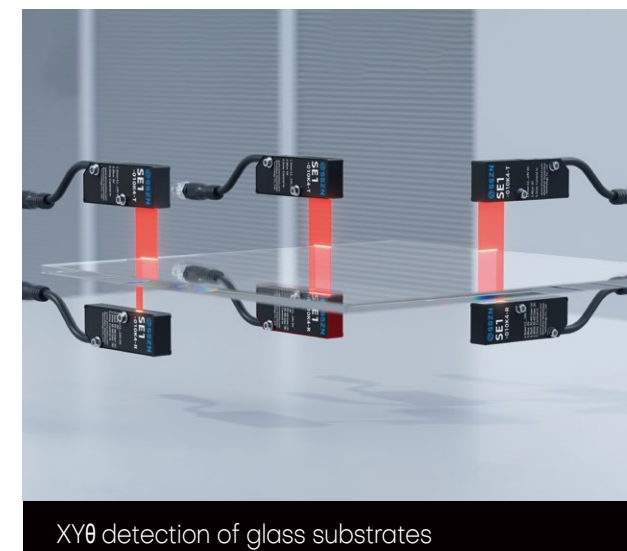
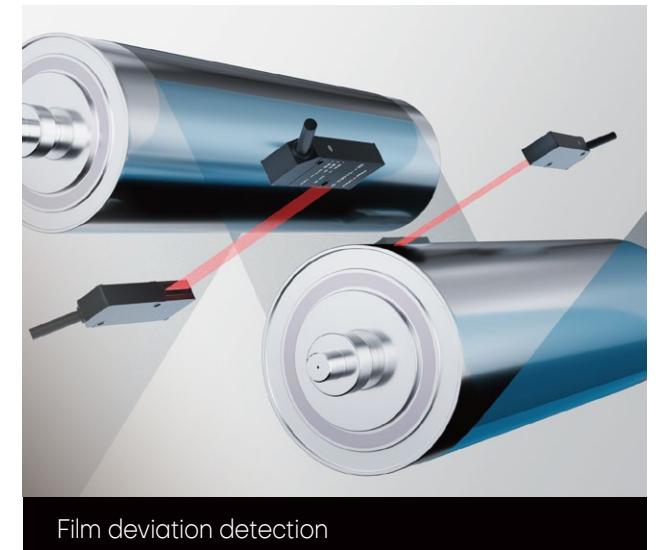
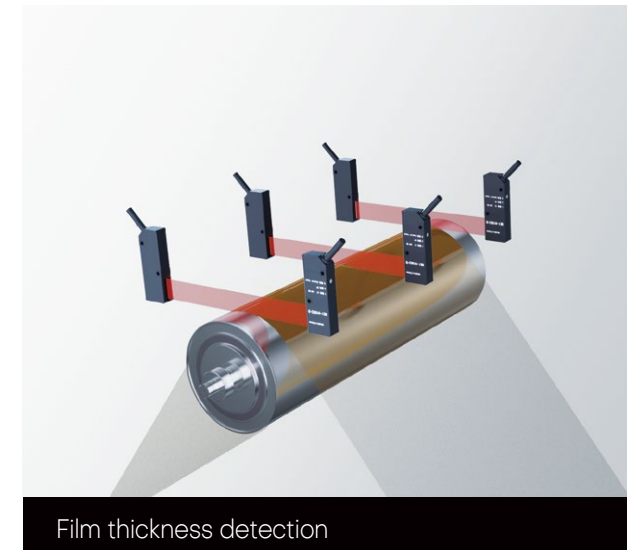
Application Cases-New Energy Lithium Battery



Application Cases-Semiconductor and Precision Manufacturing



Application Cases-Others



Product Specification

Sensor Head

Product model		SE1-010K4	SE2-024K2
Measuring range		Edge mode: ±5mm; Width mode: 9.999mm	±12mm
Installation distance of sensor heads		Max. 300mm	Max. 200mm
Light source	Medium · wavelength	Red semiconductor laser ·660nm	Red semiconductor laser ·660nm
	Maximum output power	400μw	260μw
Laser grade		Class II (IEC)	Class II (IEC)
Spot size		3mm*14mm	5mm*29mm
Linearity		±0.4%F.S.(±40 μm)	±0.4% F.S. (±96μm)
Repeatability		5μm	50μm
Sampling period		250μs	500μs
Temperature drift		±0.02%F.S./°C	±0.1% F.S./°C
Indicator LED		Emitter-power indicator: green Receiving head-power indicator: green, alarm indicator: red	Emitter-power indicator: green Receiving head-power indicator: green, alarm indicator: red
Communication method		RS-485 (the longest cable is 10m)	RS-485
Power supply voltage		DC12~24V±10%	DC12~24 V±10%
Current consumption		Emitter: less than 22mA (at DC12V) Receiving head: less than 82mA (at DC12V)	<60 mA@24VDC; <100 mA@12VDC
Connection type		Connector: M8-6 pin connector with 300mm cable	Connector: M8-6 pin connector
Protection circuit		Reverse connection protection, short circuit protection, overcurrent protection and overvoltage protection	Reverse connection protection, short circuit protection, overcurrent protection (overvoltage protection is powered by the ECT module)
Lead strength		The maximum tensile force can be 30N, lasting for 1min	The maximum tensile force can be 30N, lasting for 1min
Environmental resistance	Protection grades	IP67	
	Operating ambient temperature / humidity	-10 ~ +50°C/35 ~ 85% RH (no condensation and freezing)	
	Storage ambient temperature / humidity	-20 ~ +70°C/35 ~ 85% RH (no condensation and freezing)	-20 ~ +60°C/35 ~ 85% RH (no condensation and freezing)
	Ambient illumination	Sunlight: less than 10,000lux, incandescent lamp: less than 3,000lux	
	Vibration resistance	10~55Hz, double amplitude 1.5mm, for 2 hours in each direction of X, Y and Z	
Applicable laws	Impact resistance	About 50g (500m/S²), 3 times in each direction of X, Y and Z	
	EMC	EMC Directive (2014/30/EU)	
	Environment	RoHS directive (2011/65/EU)	
Weight		Transmitting head and receiving head: 35g each (including 300mm cable)	80mm*33mm*15mm / 64g
Shell material		Aluminium alloy	Aluminium alloy

Accessories

Controller model		SEA-DM2	SEA-DM2-A
Sensor	Connected sensor	Max.2 Groups	
	Connected mode	M8-6 pin connector	
	Communication method	RS-485 (the longest cable is 10m)	
Display	Measured value	TFT screen, 128x96 pixels	
	Indicator LED	Power indicator: green, output indicator: red	
I/O	External input	1 channel (valid for both CH1 and CH2)	/
	Digital value	2-channel output PNP/NPN optional, open collector Max.100mA/DC24V, residual voltage below 1.8V	
	Analog input	2-channel output	
		4~20mA (maximum load 300Ω)	
Rated	Power supply voltage	DC12~24V±10%	
	Consumption voltage	Below 120mA(12V) ^①	
Environmental resistance	Protective circuit	Reverse connection protection	
	Protection grades	IP50	
	Ambient temperature/humidity	-20 ~ 50°C/35 ~ 85% RH (no condensation and freezing)	
	Storage ambient temperature/humidity	-20 ~ 70°C/35 ~ 85% RH (no condensation and freezing)	
	Vibration resistance	10~55Hz, double amplitude of 1.5mm, 2 hours in each direction of X, Y and Z	
	Impact resistance	500m/s ² (about 50G), 3 times in each direction of X,Y,Z Y and Z	
Installation mode		35mm DIN guide rail (conductive)	
Shell material		PC+ glass fiber	
weight		90g (excluding cable)	

Note: ① It does not include the consumption current provided to the connected sensors and sub-machines.

Product Specification

Accessories

EtherCAT communication unit model		SU1-EC			
EtherCAT specification	Version	EtherCAT Slave	Connecting sensor	Connectable model	Sensor controller SEA series
	Applicable specifications	IEEE802.3u		Number of connecting units	Max 8 (SEA can connect 2 sensors at the same time)
	Distance between nodes	Max. 100m		Type of connection	10-pin connector
	Transmission rate	100Mbps	Environmental resistance	Protection grades	IP50
	Communication cable	CAT 5 or above		Ambient temperature/humidity	-20 ~ +50°C/35 ~ 85% RH (no condensation and freezing)
	Corresponding function	Process data communication and mailbox communication (corresponding to CoE)		Storage ambient temperature/humidity	-40 ~ +70°C/35 ~ 85% RH (no condensation and freezing)
Indicator LED		Power indicator: green	Applicable directives	Vibration resistance	10~55Hz, double amplitude of 1.5mm, 2 hours in each direction of X,Y and Z
		Error indicator: red		Impact resistance	500m/s² (about 50G), 3 times in each direction of X,Y and Z
		Running indicator: green		EMC	EMC Directive (2014/30/EU)
		Status indicator: green	Data transmission	Environment	RoHS directive (2011/65/EU)
		IN indicator: green		PDO communication (transmitting: Max.120byte, receiving: Max.36byte)	
		OUT indicator: green		SDO communication	

Note: In order to improve EMC requirements, it is suggested that the length of power cord should not be more than 3m; The cable shall be shielded above CAT6, and the length shall not be more than 30m.

EtherCAT communication unit model		SU4-EC-SEU			
Sensor	Number of channels	4 channels	Support external power supply	Output voltage	DC 24V
	Communication method	RS-485		Output current	Less than 300mA for each channel
	Protocol	EtherCAT protocol	Power supply	Input voltage	DC 24V
	Support performance	PDO: max. 2kHz refresh rate SDO: Support setting of sensor parameters		Current consumption	About 2000mA
	Communication interface	M8-6 pin connector	Environmental resistance	Ambient temperature/humidity	-20 ~ 50°C/35 ~ 85% RH (no condensation and freezing)
EtherCAT specification	Version	EtherCAT Slave		Storage ambient temperature/humidity	-20 ~ 70°C/35 ~ 85% RH (no condensation and freezing)
	Standard protocol	EEE802.3u 100Base TX		Vibration resistance	10~55Hz, double amplitude of 1.5mm, 2 hours in each direction of X,Y and Z
	Transmission rate	100Mbps	Applicable directives	Impact resistance	300m/s² (about 30G), 3 times in each direction of X,Y and Z
	Communication cycle	0.5ms		EMC	EMC Directive (2014/30/EU)
	Communication cable	STP CAT.5E or above		Environment	RoHS directive (2011/65/EU)
	Number of ports	2, IN/OUT	Installation method		DIN guide rail installation
	Physical interface	RJ45	Dimension/Weight		103.5mm*34mm*117.3mm/256g

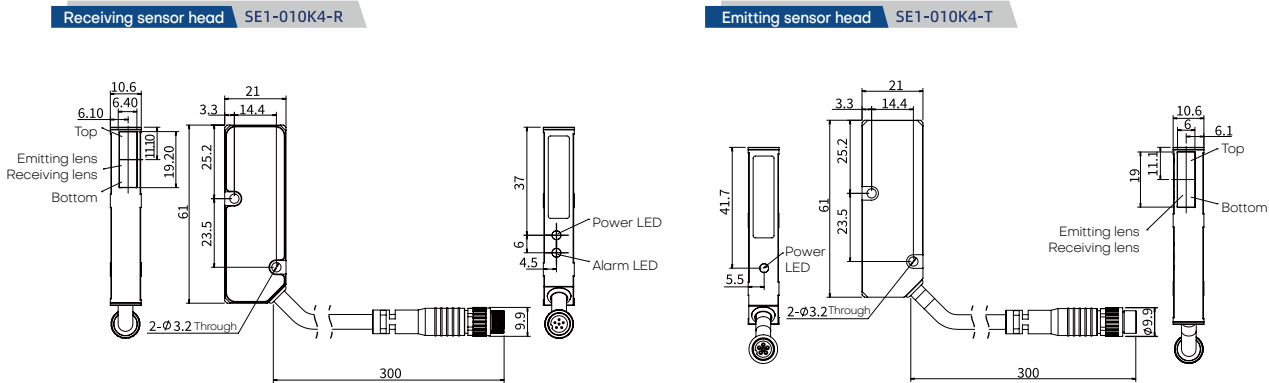
Accessories

Cable Specification of Through-beam Edge sensor			
Name/model		Minimum Curvature Radius of Cable Components (Fixed)	Service life
Y-type cable	SCB-EY-HA4-2m	30mm	The radius is not less than 36mm (40mm is recommended), and the number of repeated bends is more than 10 million times ①.
	SCB-EY-HA4-5m		
	SCB-EY-HA4-10m		
	SCB-EY-HB2-10m		
I-type extension cable	SCB-EF-HA3-5m	30mm	The radius is not less than 36mm (40mm is recommended), and the number of repeated bends is more than 10 million times ①.
	SCB-EF-HA3-10m		
	SCB-EF-HA3-15m		
Communication cable	SCB-NET-CAT7-2m	40mm	/
	SCB-NET-CAT7-5m		
	SCB-ENET-CA2-2m	30mm	The radius is not less than 52mm (60mm is recommended), and the number of repeated bends is more than 10 million times ②.
	SCB-ENET-CA2-5m		
	SCB-ENET-CA2-10m		
EtherCAT cascade cable	SCB-ECAT-CA2-0.5m	30mm	The radius is not less than 52mm (60mm is recommended), and the number of repeated bends is more than 10 million times ②.
Customized EtherCAT communication cable (high flexibility)	SCB-ENET-HA1-2m	30mm	The radius is not less than 52mm (60mm is recommended), and the number of repeated bends is more than 10 million times ②.
	SCB-ENET-HA1-5m		
	SCB-ENET-HA1-10m		
Power cable	SCB-EPWR-HB4-1m	30mm	The radius is not less than 48mm (50mm is recommended), and the number of repeated bends is more than 10 million times ③.

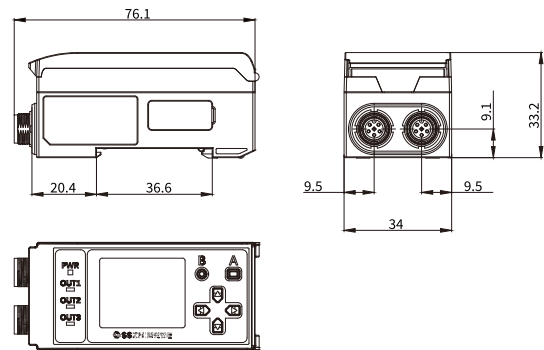
Notes:
① Test environment: temperature/humidity 23°C/40% RH; Test conditions: cable chain radius: R36mm; Cable carrier travel: 1000mm, running speed: 60 rounds/minute; Measurement result: minimum > 10 million times.
② Test environment: temperature/humidity 23°C/40% RH; Test conditions: cable chain radius: R52mm; Cable carrier travel: 1000mm, running speed: 60 rounds/minute; Measurement result: minimum > 10 million times.
③ Test environment: temperature/humidity 23°C/40% RH; Test conditions: cable chain radius: R48mm; Cable carrier travel: 1000mm, running speed: 60 rounds/minute; Measurement result: minimum > 10 million times.

Product Dimension

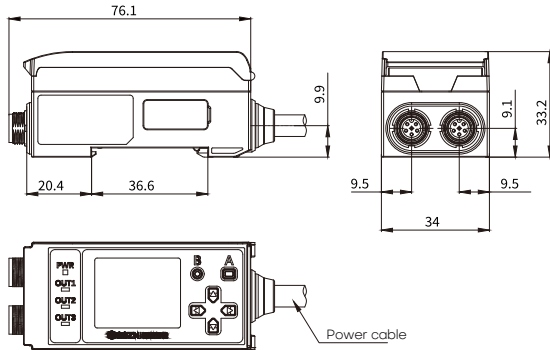
SE1 Series



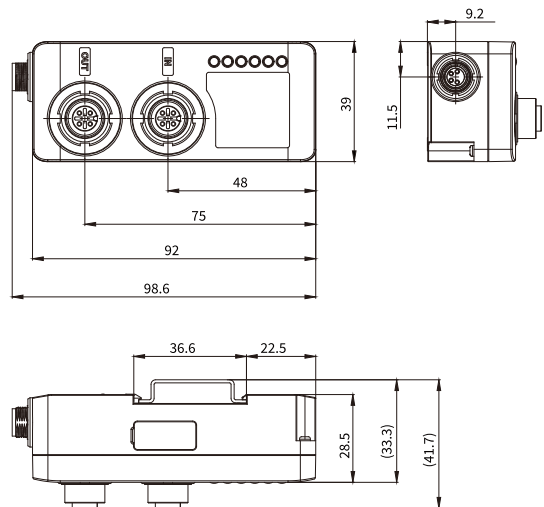
Controller SEA-DM2



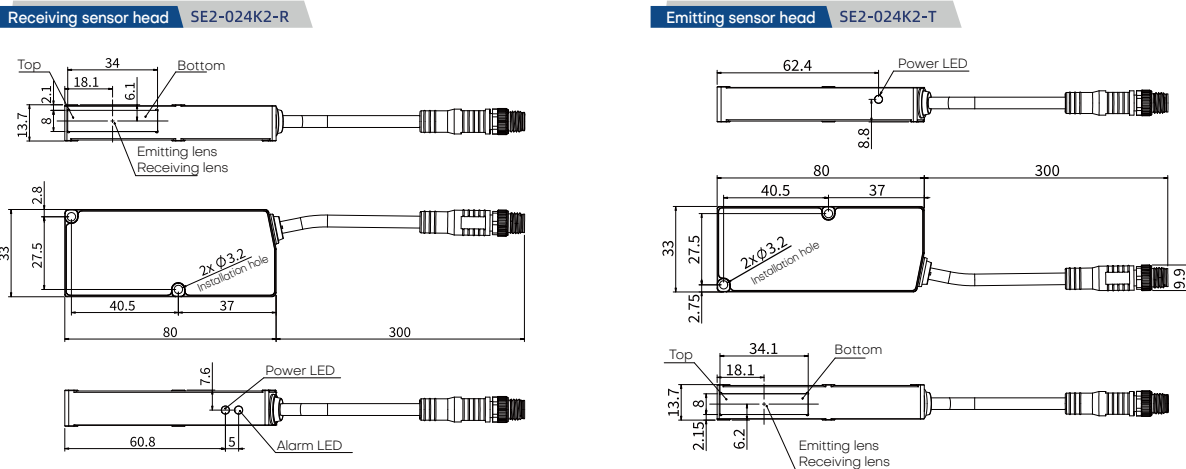
Controller SEA-DM2-A



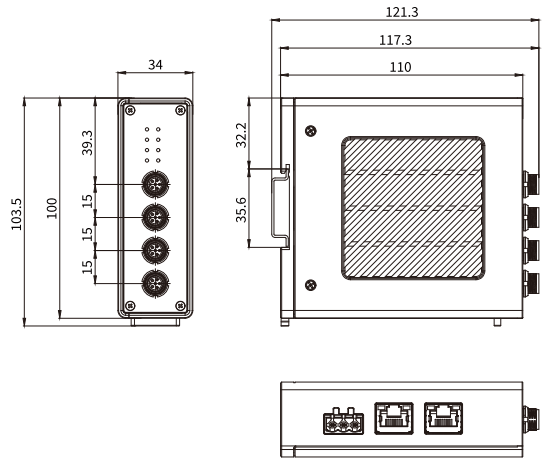
EtherCAT communication unit SU1-EC



SE2 Series



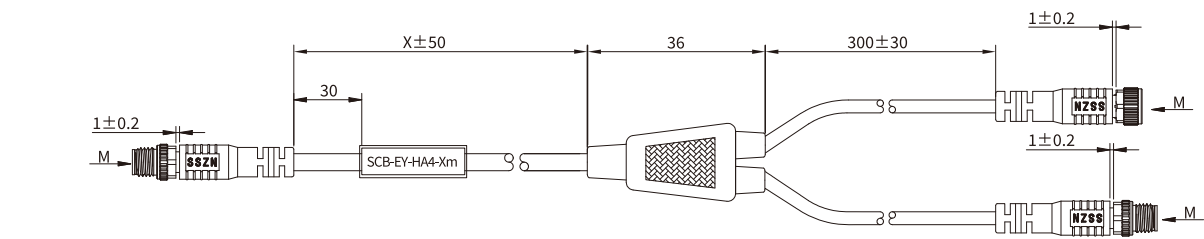
EtherCAT communication unit SU4-EC-SE2



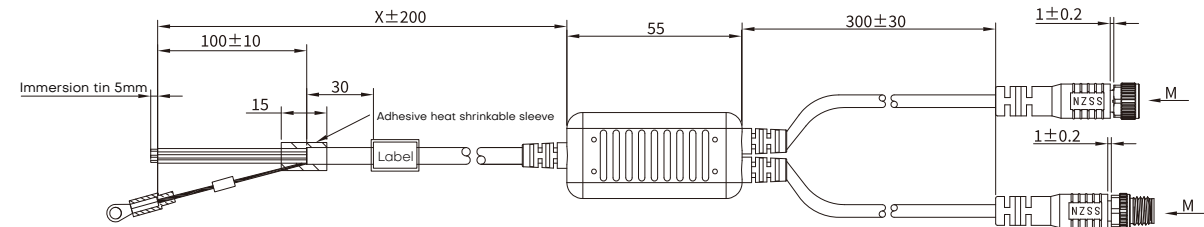
Product Dimension

Accessories-cables

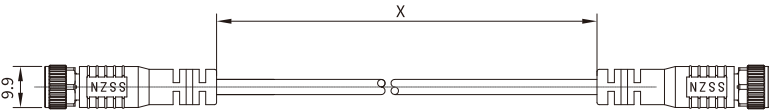
Y-type cable SCB-EY-HA4-Xm



Y-type cable SCB-EY-HB2-Xm

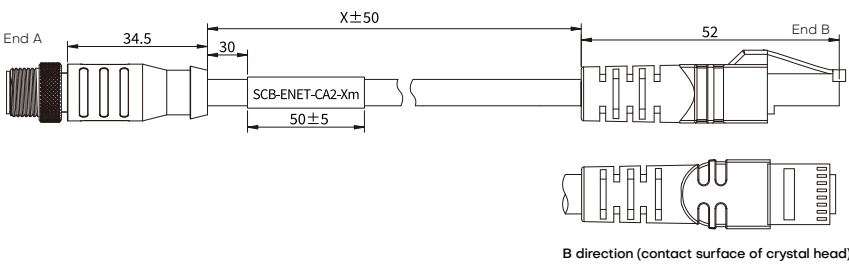


I-type extension cable SCB-EF-HA3-Xm

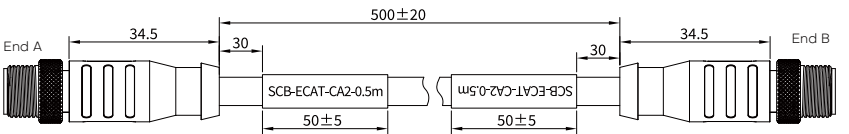


Accessories-cables

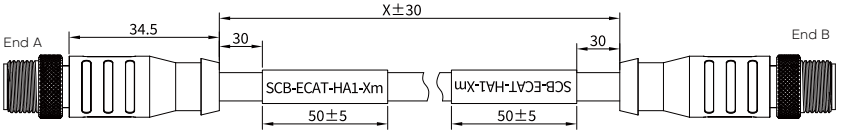
Communication cable SCB-ENET-CA2-Xm



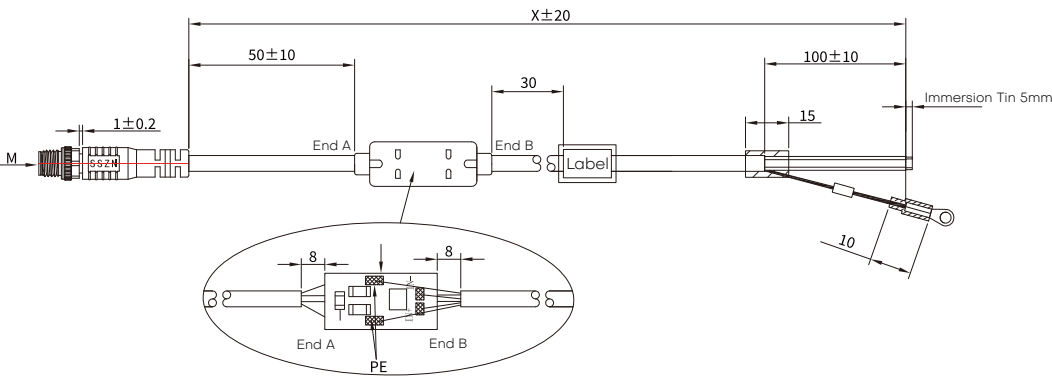
Cascaded cable SCB-ECAT-CA2-0.5m



Customized communication cable (high flexibility) SCB-ENET-HA1-Xm



Power cable SCB-EPWR-HB4-Xm



Full-Spectrum Sensor

Overview of Products

SinceVision Full-Spectrum Sensor adopts white laser spot technology, breaks through the limitation of RGB light source, and combines intelligent algorithm and high dynamic photosensitive element to accurately identify color difference and adapt to workpiece tilt or distance change. It is suitable for a variety of high-precision detection (such as electrode tab positioning and color label identification), and enables industrial automation quality inspection upgrade with compact design, strong anti-interference and multi-scene adaptability.



04.

Accurate color identification and intelligent quality control

Special for high-precision color identification and classification control in industrial automation to ensure product quality and production efficiency.

- White laser spot technology
- High-precision color identification
- Excellent environmental adaptability
- Compact and easy-to-install design
- Compatible with multiple communication protocols
- Multi-industrial scene application

01 | SS2 series

Color sensors specially built for industrial automation



SS2

SinceVision SS2 series white spot photoelectric sensor uses white LED light source to cover the full visible spectrum, breaks through the traditional RGB limitation, accurately identifies subtle color difference, and is suitable for industrial automation scenes. Built-in intelligent algorithm and high dynamic photosensitive element can stably detect high-gloss objects and avoid complex environmental interference.

Product Advantages

5K

Maximum sampling frequency

White LED

Break through the limitation of traditional monochrome

Resist environmental interference

Stably detect objects with light and dark switching or high-gloss objects

Multiple abilities

External IO, mutual interference prevention, timer

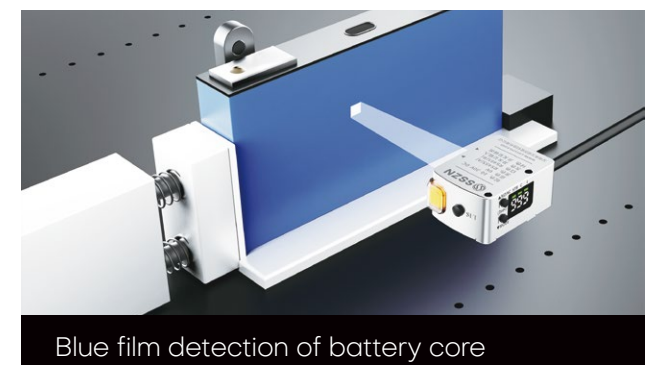
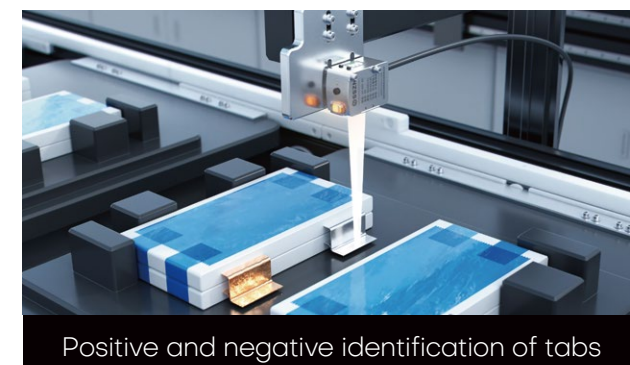
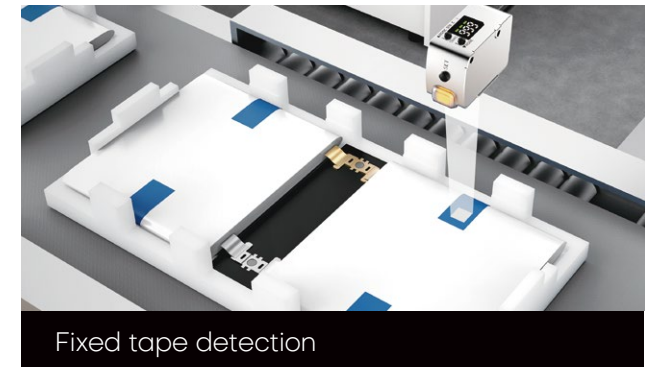
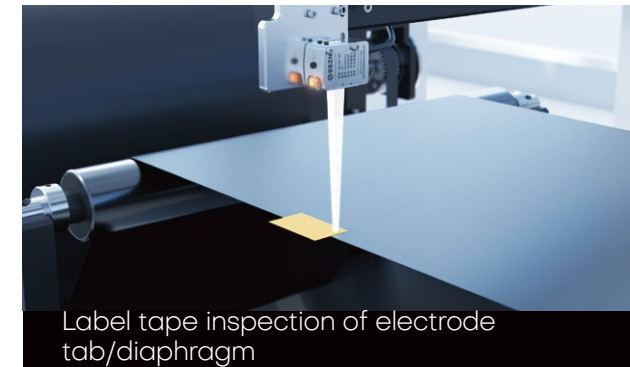
Intelligent optical algorithm

High-precision acquisition of RGB ratio and light intensity signals

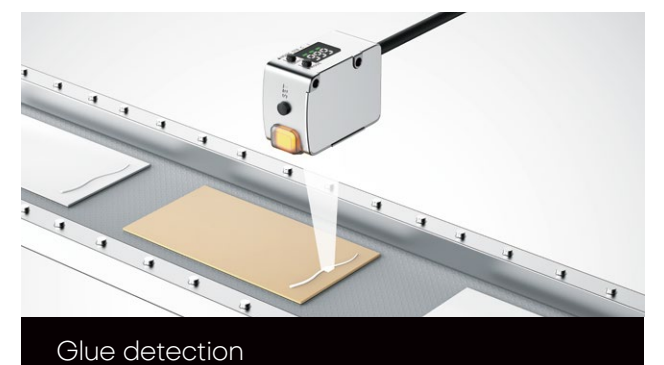
Simple and practical design

Clear screen display, large-angle indicator LED, classic interactive buttons

Application Cases-New Energy Lithium Battery



Application Cases-Packaging and Other Industries



01 Laser Displacement Sensor

02 Spectral Confocal Displacement Sensor

03 Through-Beam Edge Sensor

04 Full-Spectrum Sensor

Product Specification

Sensor Head

Product model		SS2-70K5D		
Measuring range		30~70mm	Power saving mode	It is not turned on by default. After the power-saving mode is turned on, the display numbers will be automatically turned off after all the buttons have not been operated for 15s, and any button can be pressed to return to normal.
Minimum spot size		About 1.6 x2.9mm @ 50 mm	Protective circuit	Power reverse connection protection, power surge protection, output overcurrent protection, output reverse connection protection, output overload protection and output short circuit protection.
Power Supply	Power supply voltage	12~24V DC, including ±10% ripple (P-P)	EMC	EMC Directive (2014/30/EU)
	Current consumption	≤60mA, 24VDC (without load) ≤110mA, 12VDC (without load)		
Response time		200μs/500μs/1ms/10ms/100ms/500ms, switchable	Environmental resistance	Protection grade (outer case)
Light source		White LED		IP67(IEC 60529)
Anti-interference function		Set different frequencies, up to 2 sets		Ambient illumination
Timer		Off/On Delay/Off Delay/Single shot		Incandescent lamp: ≤10000lx; Sunshine: ≤20000lx
Connection mode		4-core 2m trailing cable, 4-core 0.3m trailing cable with aviation plug	Environmental protection	Ambient temperature and humidity
I/O	Control output	NPN open collector /PNP open collector, switchable <30V, <50mA, and residual voltage <2V N.O./N.C, switchable		-20~50°C, 35~85%RH (no condensation and frost)
	External input	Calibration/stop lighting, switchable Short circuit current: NPN: ≤1mA/PNP: ≤2mA. Please refer to the wiring diagram for loading voltage and the timing diagram for input time.		Vibration resistance
Communication method		RS-485	Dimension	10~55Hz, double amplitude of 1.5mm, 2 hours in X/Y/Z direction
				Impact resistance
			1000m/s², 6 times in X/Y/Z direction	
			RoHS directive (2011/65/EU), RoHS of China (No.32)	
			47mmx34.5mmx23mm	
			Material	Shell: aluminum alloy; Indicator LED cover +PC key: PC+ABS
				Lens cover: glass; Cable and sheath: PVC
			Display cover: with anti-damage coating PMMA	
			Weight	
			100g (including 2m cable)	

Accessories

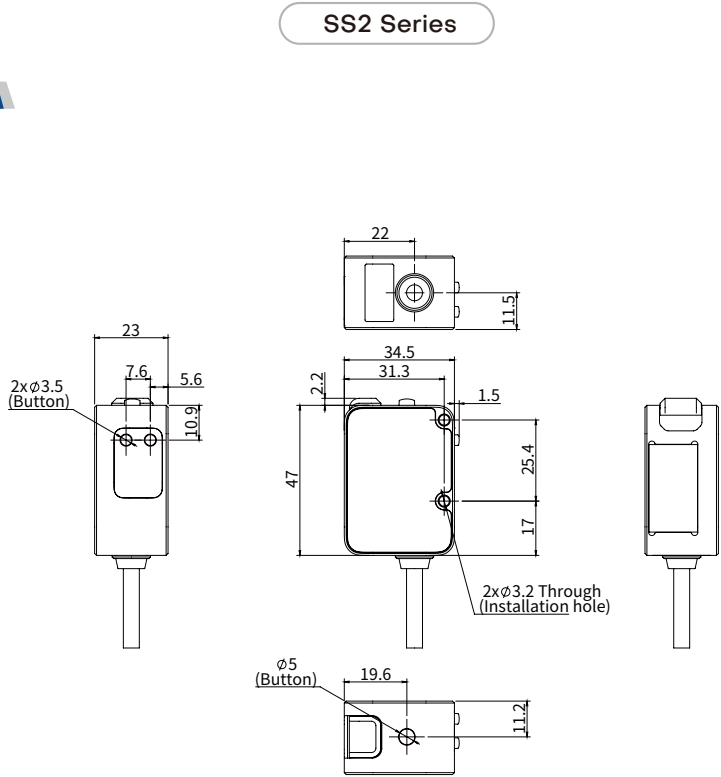
EtherCAT communication unit model		SU4-EC-SS		
Sensor	Communication method	RS-485	Max number of connectable sensor heads	Maximum 4 channels
	Baud rate	937500bps	Safety	Dielectric withstand voltage
	Protocol	SinceVision self-developed protocol, Modbus protocol		AC1000V, Leakage current less than 5mA
	Support performance	Max. refresh rate of PDO is 4kHz, and SDO supports the setting of sensor parameters	Insulation resistance	DC500V, Insulation resistance greater than 20MΩ
	Communication interface	Double-row 24pin plug-in European terminal		
EtherCAT specification	Version	EtherCAT Slave	Environmental adaptability	Protection level
	Standard protocol	EEE802.3u(100Base-TX)		IP50
	Transmission rate	100Mbps		Working temperature / humidity
	Communication cycle	250μs		-20~50°C/35~85% RH (no condensation)
	Transmission distance	Maximum 100m		Storage temperature
	Communication cable	STP CAT.5E or above		-20~70°C
	Number of ports	2, IN/OUT	Power input	Steady damp heat
	Physical Interface	RJ45		40°C±2 °C, 93%±3%
				Vibration resistance
				10~55Hz, Double amplitude of 1.5mm, 2 hours each in the X, Y, and Z directions
			EMC	Impact resistance
				50G, 3 times each in the X, Y, and Z directions
				EMC Directive (2014/30/EU)
			Input voltage	DC24V, ±10%
				Current consumption
				Maximum 600mA
			Physical interface	3-pin plug-in European style terminal

Note: In order to improve EMC requirements, it is suggested that the length of power cord should not be more than 3m; The cable shall be shielded above CAT6, and the length shall not be more than 30m.

※ EtherCAT communication unit supports separate purchase.

Product Dimension

SS2-70K5-2M



EtherCAT communication unit SU4-EC-SS

