

High precision type

Confocal Displacement Sensors

GL-3000 Series



Ask Senpum

+86-755-83330055

Same-Day Delivery

Conventional model (SF)    

Most of the products are in stock and can be arranged to be shipped on the same day the order is received. Fast delivery reduces your overhead costs and losses caused by work stoppages.

※ Unconventional goods 3-5 days delivery



WeChat



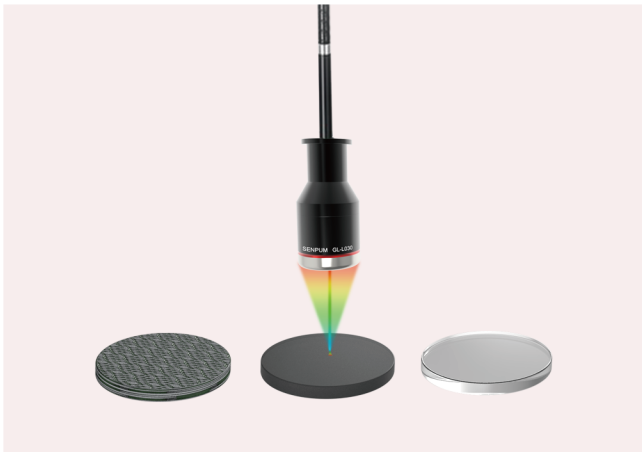
WhatsApp



LINE

Highly accurate detection of transparent, mirror, metal roughness, ceramic

Transparent, mirror, metal roughness, ceramics and other targets can all be measured accurately, high-precision detection, regardless of the shape and material of the influence



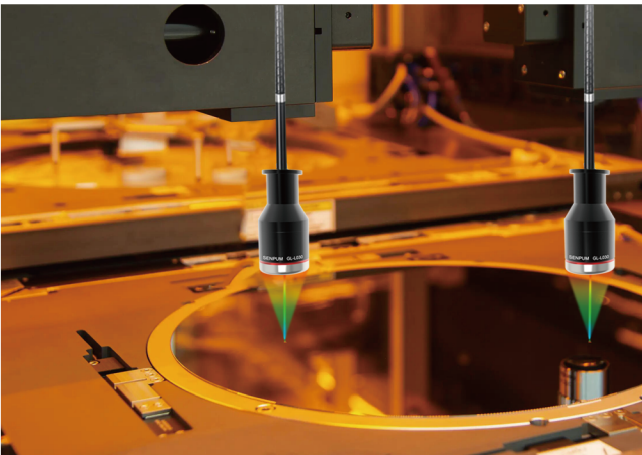
Superior ability to detect curved surfaces, pits, and height differences.

Adopting the straight-up-and-down measurement method, it is possible to measure various shapes such as curved surfaces, pits, and objects with height differences with high accuracy.



No need to choose installation method, location, or application

The GL-3000 series of ultra-compact color laser coaxial displacement sensors, which do not require a choice of mounting method, location, or application, are designed to improve quality and yield, and to increase the reliability of quality inspection.



More merits

- Zero-heat probe structure design for high-precision measurements
- Built-in image output from probe
- Thickness and waveform can be displayed simultaneously
- Glass Cooling Thickness/Multi-Layer Glass Gap
- Tiny areas can be directly locked, so what you see is what you get.
- Ease of use for quick mastery of spectral confocal sensor applications

Product List

Inductive probe

Model	GL-L008	GL-L011	GL-L016	GL-L030	GL-L040	GL-L055
100 80 60 40 20 0 mm	Detection distance 8mm±0.2 7.8mm 8mm 8.2mm	Detection distance 11mm±1.2 9.8mm 11mm 12.2mm	Detection distance 16mm±1 15mm 16mm 17mm	Detection dist 30mm±2 28mm 30mm 32mm	Detection distance 40mm±4 36mm 40mm 44mm	Detection distance 55mm±3 52mm 55mm 58mm
Resolution	0.02μm	0.05μm	0.05μm	0.07μm	0.12μm	0.1μm
linearity	±0.15μm	±0.45μm	±0.35μm	±0.45μm	±0.5μm	±0.65μm
Spot diameter	2μm	16μm	8μm	9μm	40μm	45μm

Controllers

Model	GL-3000S	GL-3002	GL-3002S
Appearances			
Sensor head can be connected	1	2	
Sampling frequency	4KHz Max	2KHz Max	4KHz Max

Communication line

Appearances	Length	Specification	Model
	2m	One Male and One Female DP9 Serial Cable	OW-GLT02DP
	1.5m	USB to DP9 Male	OW-GLT02U
	2m	36PIN/I/O line	OW-GLT36P
	2m	50PIN/I/O line	OW-GLT50P

Mounting Bracket

Appearances	Straight path	Model
	24mm	OW-GLD24
	33mm	OW-GLD33

Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Inductive Proximity
Sensors

Precision Contact
Sensors

Area/Safety Light

Curtain Laser
Scanners

Digital Contact
Sensors

Laser Displacement
Sensors

Laser micrometer

Confocal Displacement
Sensors

Barcode Scanners

AI Vision Sensor

RFID

Infrared Temperature
Sensors

Digital Pressure
Sensors

Flow Test Sensors

Gate Magnetic
Sensors

Ultrasonic
Displacement Sensors

Gate Magnetic
Sensors

Static Eliminators



GL-3000 High precision type Confocal Displacement Sensors

Specs

Inductive probe

Model	GL-L008	GL-L011	GL-L016	GL-L030	GL-L040	GL-L055
Working Distance	8mm	11mm	16mm	30mm	40mm	55mm
Range	±0.2mm	±1.2mm	±1mm	±2mm	±4mm	±3mm
Resolution*1	0.02μm	0.05μm		0.07μm	0.12μm	0.1μm
Linearity*2	±0.15μm	±0.45μm	±0.35μm	±0.45μm	±0.5μm	±0.65μm
Spot Diameter*3	2μm	16μm	8μm	9μm	40μm	45μm
Maximum Inclination*4	±40°	±60°	±30°	±15°	±15°	±11°
Side Head Dimensions (ΦxL)	Φ41×99mm	Φ98×266mm	Φ41×99mm	Φ38×82mm	Φ54×117mm	Φ33×75mm
Side Head Weight	220g	3250g	360g	145g	380g	122g
Protection Rating	IP40					

Controllers

Model		GL-3000S	GL-3002	GL-3002S
Light Source		White LED		
Controller Dimensions (L x W x H)		140×122×120mm	185×122×120mm	
Controller Weight		1.38kg	1.65kg	
Rated Voltage		24VDC		
External communication interface	RS-232	115200bpsMax		
	Ehtemet	100BASE-TX/10BASE-T		
Protection class		IP20		
Sampling frequency		4KHz Max	2KHz Max	4KHz Max
IO function		8 groups of inputs, 8 groups of outputs (switching function according to software)		
Number of encoder axes		3-axis, incremental (A/B/Z phase)		
Maximum encoder triggering frequency		4KHz Max	2KHz Max	4KHz Max
Analog voltage output		±10V/0~10V/0~5V/±5V (self-ranging)		
Analog current output		4~20mA/0~20mA/0~24mA (self-ranging)		
Operating temperature		5~40℃		
Ambient humidity		35~80%		
Ambient illumination		< 10000lX		
Fiber optic extension cable		Length 10m Minimum bending radius 50mm		
Power supply adapter		AC220V to DC24V		

*1. Resolution: the average of 10 times for the noise level of the zero point of the stationary workpiece at the center of the measuring range (enable the function of automatic adjustment of light intensity and 256 times of evaluation).

*2. Linearity: Maximum error value for full scale measurement between standard mirror and calibrated (turn on automatic adjustment of light intensity and 256 times average function).

*3. Spot Diameter: The theoretical spot diameter value at the center of the measuring range.

*4. Maximum inclination angle: the maximum angle of the mirror under the work of the fully reflective material can receive the light rapid number, general diffuse reflection workpiece up to 80 °.

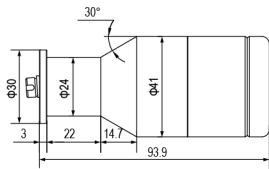


Dimensional Specifications

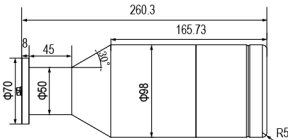
Inductive probe

Unit: mm

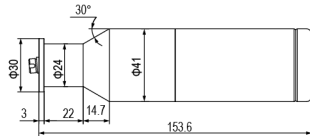
GL-L008



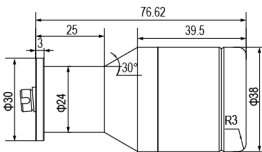
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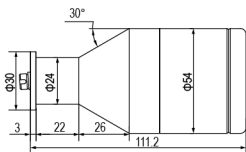
GL-L016



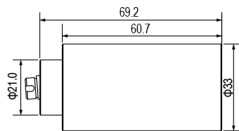
GL-L030



GL-L040

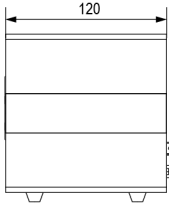
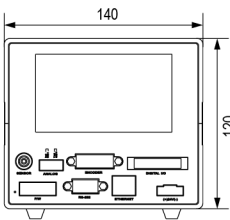
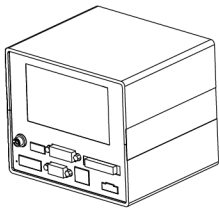


GL-L055

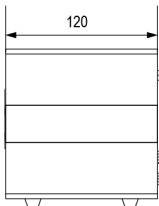
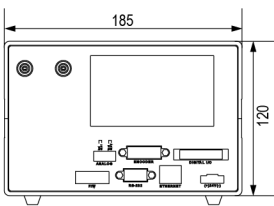
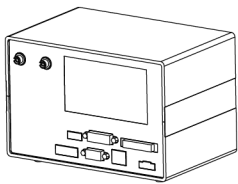


Controllers

GL-3000S



GL-3002 / GL-3002S



Confocal Displacement Sensors

GL-3000

Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Inductive Proximity Sensors

Precision Contact Sensors

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