Displacement Sensors LS series

2D Displacement Sensor

LS series

FASTUS is a product brand of Optex FA

FEATURES

- **High-precision 2D measurement :** Linearity ± 0.1% F.S. of Z-axis.
- **Easy to use :** The LS series can be configured in four easy steps: imaging, profile, area measurement and calculation, and result judgment and output. And can configurable PC software via RS-485 communication ports.
- **Class 2 Laser :** Stable measurements of black workpieces is possible while ensuring the safety of worker's eyes.
- **High-speed measurement :** Max. sampling period of 0.5 ms
- **Compact size, and low price :** LS series used projection transformation method, which converts a captured image into distance, the processing unit has also been kept small, to produce a compact, low-cost product.

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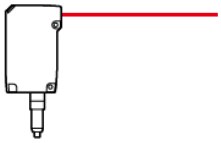
SPECIFICATIONS

Type	Appearance	Measurement range	Spot size	Width of view	Model	
					NPN type	PNP type
2D reflective type		100±25 mm	0.3 x 32 mm	17 to 27 mm	LS-100CN	LS-100CP

OPTIONS

- **Cables**

Type	Appearances	Description	Cable length	Model
Main cable		Serves as the power, I/O, and analog output cable. (ø6 12-wire × 0.2 mm2)	2 m	STL-0H12-G02M
			5 m	STL-0H12-G05M
			10 m	STL-0H12-G10M
PC connection cable (USB)		Connects to the sensor and PC when using PC software. Serves as a conversion cable for RS-485 and USB.	1.8 m	DSL-DH06-G1M8
RS-485 communication cable (discrete wire)		Discrete wire cable for RS-485 communication.	2 m	DOL-SH06-G02M
			5 m	DOL-SH06-G05M
			10 m	DOL-SH06-G10M

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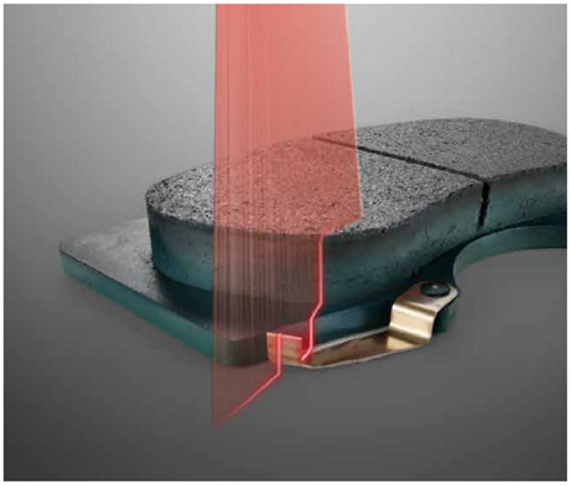
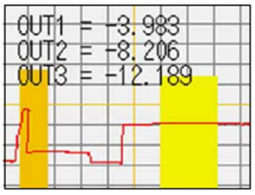
APPLICATIONS

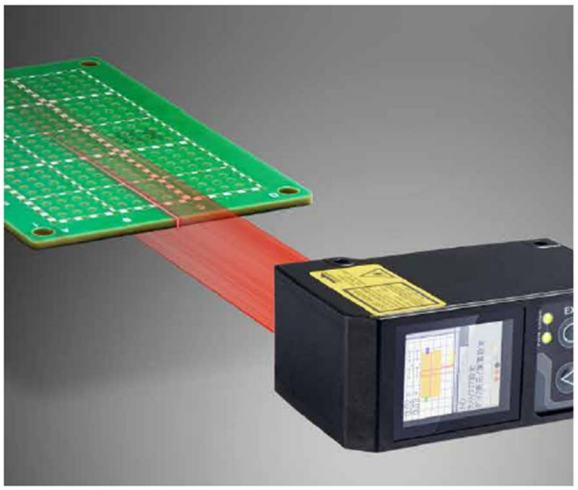
Brake pad part height measurements



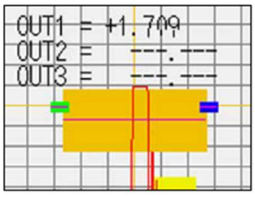
The relative position (height) of the tip of a brake pad wear indicator and the brake pad surface is measured.



Substrate overlap feed detection

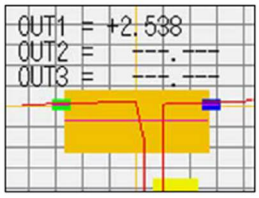


As opposed to a displacement sensor in which thickness measurements are performed using two substrates on top of one another, LS series sensors can measure one substrate from the lateral direction, enabling feasibility in terms of both mounting and designing.



Inspection of vehicle door gaps/height differences

In order to confirm accuracy when installing doors on vehicles, non-contact measurements are performed quickly using the gaps and height differences between the doors and vehicle body.



Inspection for sealant application position/amount

By measuring both width and height immediately following application, feedback can be quickly provided regarding the appropriate application amount and position.

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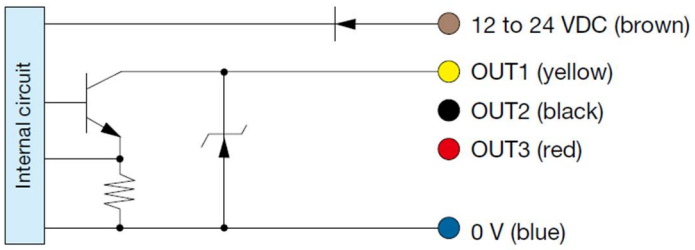
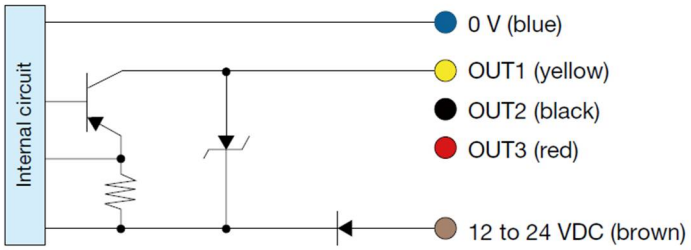
I/O circuit diagram

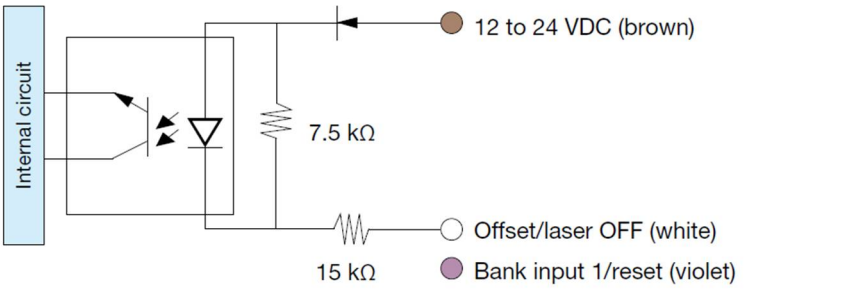
■ Control output (NPN type)



■ Control output (PNP type)

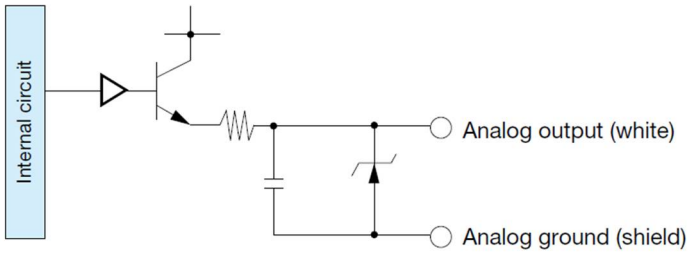


■ Inputs



*Selection is possible from one of the below.

■ Analog output



■ RS-485