

IO-Link  
SensorsPhotoelectric  
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Sensors

Standard Fibers

Fiber Sensors  
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Mark Sensors

Laser Sensors

Safety Sensors

Pressure &  
Flow SensorsInductive  
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Electrostatic  
Sensors

Accessories

LS-500



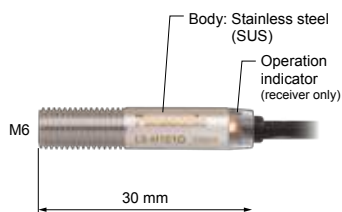
# LS-500

Miniature laser head with  
user-friendly amplifier

## Features

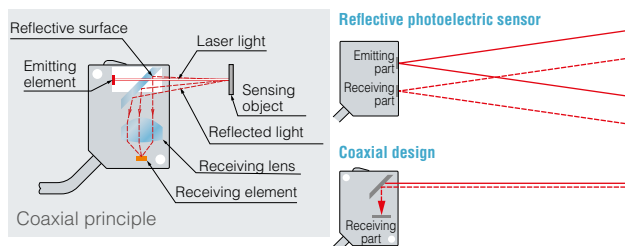
### ■ Different sensor heads available

The **LS-500** series of laser sensors offers four different laser heads. Select the appropriate shape of the heads depending on the requirements of your application.



### ■ Robust sensor head

The robust sensor head is made of stainless steel and can be used under rough mounting conditions. The type with M6 screws is mountable even in the smallest spaces. You can check immediately with the LED indicator at the receiver whether the light is received correctly.



### ■ Highest precision

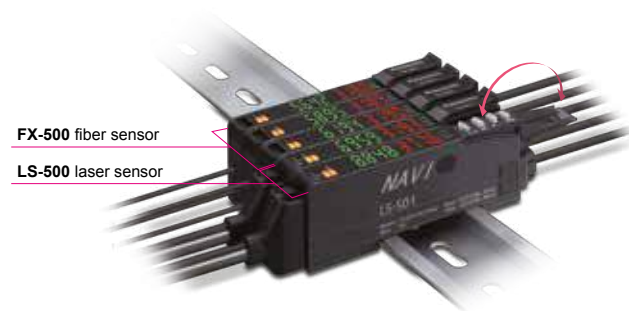
With the help of the coaxial precise light direction, the object sensing can be executed even through smallest openings. With a beam diameter of max. 6mm the retroreflective type has a sensing range of up to 2.5m.

### ■ Multifunctional amplifier

The LS-500 series amplifier with its clearly laid-out display offers a user-friendly design. The definition of settings, such as the adjustment of threshold values, database and logic functions, is quite simple. The model with the analog current output provides a comfortable reading out of measurement values.

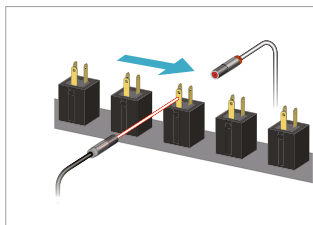
### ■ Easy to combine

Due to its design and the possibility to mount the sensor on a DIN rail, the LS-500 can be connected quickly and easily to other sensors such as fiber amplifiers or pressure sensors.

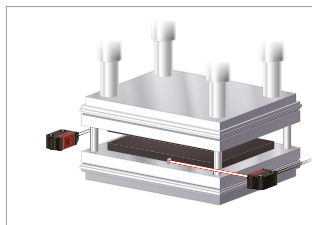


## Typical applications

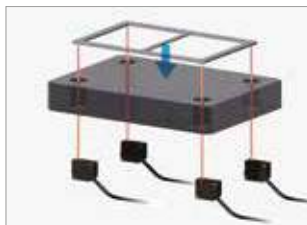
Position control of a workpiece



Detecting marks in a mold



Detecting workpieces through a worktop



Detection of a transparent foil



## Technical specifications

### Sensor heads

Type	Thru-beam		Coaxial reflective type	Coaxial retroreflective type
	Cylindrical	Rectangular	—	—
Model no.	LS-H101	LS-H102	LS-H201	LS-H901
Sensing range	1m	1m	600mm (U-LG), 300mm (STD), 150mm (H-SP)	0.01 to 2m (U-LG), 0.01-1m (STD), 0.01-1m (H-SP)
Ambient temperature	-10 to +55°C			
Emitting element	Red semiconductor laser (laser class 1)			
Dimensions ( ØxD)/ (HxWxD)	M6x30mm	8.2x26x12mm	6.4x24x18mm	
Accessories	M6 screws, 4 pcs., washer, 2 pcs.	MS-EXL2-2 (mounting plate) 2 pcs.	MS-LS-1 (mounting bracket) 1 pc.	MS-LS-1 (mounting bracket) 1 pc. RF-330 (reflector) 1 pc.

### Amplifiers

Type		Connector type (note)	Cable type
Model no.	NPN output	LS-501	LS-501-C2
	PNP output	LS-501P	LS-501P-C2
Supply voltage		12 to 24V DC+10/-15%	
Output		PNP/NPN open-collector transistor, max. 50mA	
Analog output		-	4 to 20mA
Output operation		Selectable either Light-ON or Dark-ON	
Response time		Max. 60µs (H-SP), 150µs (FAST), 250µs (STD), 500µs (LONG), 5ms (U-LG), 24ms (HYPR)	
Digital display		4 digit, dual LED display (green and red)	
Automatic interference prevention function		Built-in (up to 4 sensors: STD, LONG, U-LG, H-SP; up to 2 sensors: FAST; 0 sensors: HYPR)	
Ambient temperature		-10 to +55°C (if 4 to 7 units are mounted close together: -10 to +50°C, if 8 to 16 units are mounted close together: -10 to 45°C)	
Connection method		Connector (note)	2m cable
Dimensions (HxWxD)		10x32x77mm	

Note: Cable is not included in delivery. Please select under accessories (page 121)

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