

Smart Laser Sensors E3NC

CSM_E3NC_DS_E_9_3

Ideal for Applications That Cannot Be Handled with Fiber Sensors or Photoelectric Sensors



- The lineup includes E3NC-L Sensors, which are ideal for presence detection, and E3NC-S Sensors, which are ideal for discriminations.
 - E3NC-L Sensors are available in Coaxial Retro-reflective Models, Long-distance Variable-spot Diffuse-reflective Models, and Small-spot Limited-reflective Models.
 - The E3NC-S Sensors include CMOS and provide stable detection of workpieces with different colors and inclined installation.
- Smart Tuning to achieve stable detection with easy setup.
- White on black display characters for high visibility.
- Flexible robot cables are used for the Sensor Heads.



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

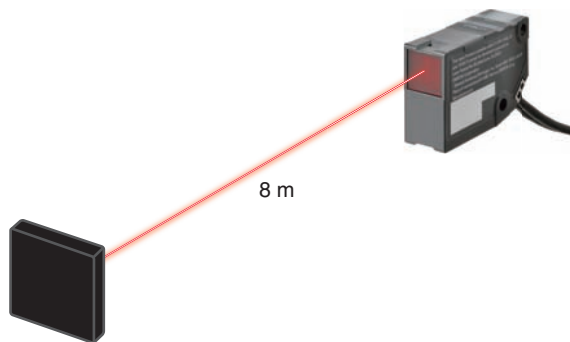


Refer to the **Safety Precautions** on page 14.

Features

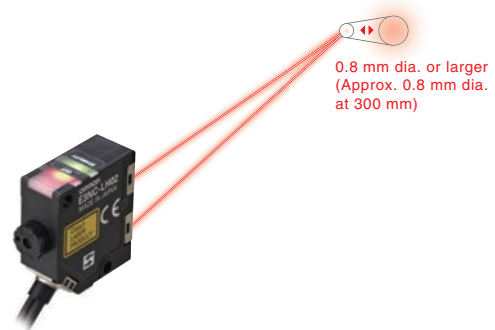
Retro-reflective Models: E3NC-LH03

- Maximum sensing distance of 8 m.
- Stable detection of many types of workpieces.
- Stable detection of highly transparent films.



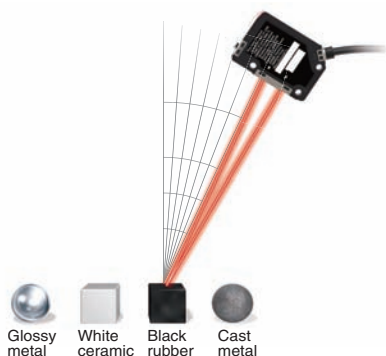
Diffuse-reflective Models: E3NC-LH02 **PAT.P**

- Long-distance detection at up to 1.2 m.
- Spot can be adjusted to the workpiece or application.



CMOS Laser, Reflective Models: E3NC-SH250H/SH250/SH100

- Stable detection even for different workpiece colors and materials.
- Stable detection for inclined Head installation and different workpiece shapes.



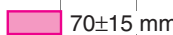
Amplifier Units

- Same shape as Fiber Amplifier Units plus easy operation.
- Smart Tuning with one button.



Ordering Information

Sensor Heads: E3NC-L Compact Laser Sensor Series (Dimensions → page 17)

Sensing method	Appearance	Beam shape	Sensing distance				Laser class	Cable length	Model
Coaxial Retro-reflective with MSR function		Spot	 8 m *				Class 1	2 m	E3NC-LH03 2M
			5 m	E3NC-LH03 5M					
Diffuse-reflective		Variable spot	 1.2 m					2 m	E3NC-LH02 2M
			5 m	E3NC-LH02 5M					
Limited-reflective		Spot	 70±15 mm					2 m	E3NC-LH01 2M
			5 m	E3NC-LH01 5M					

* These values apply when an E39-R21, E39-R22, E39-RS10, or E39-RS11 Reflector is used. A Reflector is not included. Purchase a Reflector separately to match the intended use of the Sensor.

Note: Only an E3NC-LA□□ Amplifier Unit can be connected.

Amplifier Units: E3NC-L Compact Laser Sensor Series (Dimensions → page 19)

Connecting method	Appearance	Inputs/outputs	Model	
			NPN output	PNP output
Pre-wired (2 m)		2 outputs + 1 input	E3NC-LA21 2M	E3NC-LA51 2M
Wire-saving Connector		1 output + 1 input	E3NC-LA7	E3NC-LA9
M8 Connector		1 output + 1 input	E3NC-LA24	E3NC-LA54
Connector for Sensor Communications Unit *		---	E3NC-LA0	

* A Sensor Communications Unit is required if you want to use the Amplifier Unit on a network.

Note: Only an E3NC-LH□□ Sensor Head can be connected.

Sensor Heads: E3NC-S Ultra-compact CMOS Laser Sensor Series (Dimensions → page 18)

Sensing method	Appearance	Beam shape	Measurement range	Laser class	Cable length	Model
Distance-settable		Spot	 35 to 250 mm	Class 2	2 m	E3NC-SH250H 2M
					2 m	E3NC-SH250 2M
			 35 to 100 mm	Class 1	2 m	E3NC-SH100 2M

Note: Only an E3NC-SA□□ Amplifier Unit can be connected.