

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.



Refer to the *Safety Precautions* on page 14.

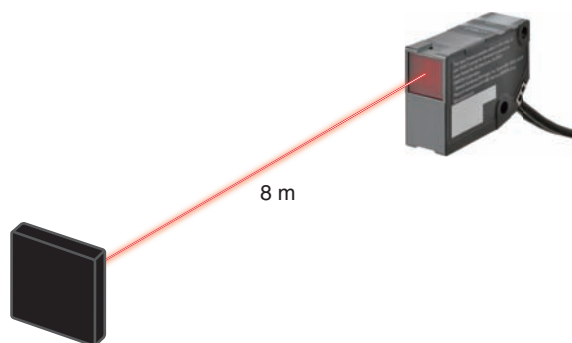


For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Features

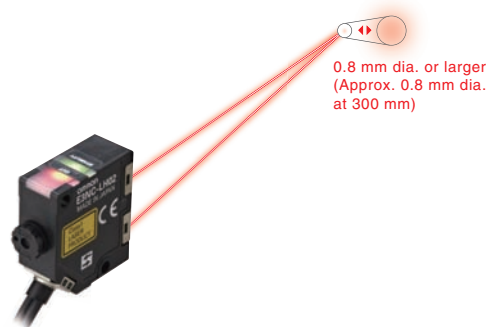
Retro-reflective Models: E3NC-LH03

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



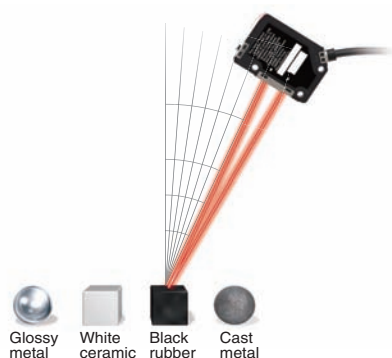
Diffuse-reflective Models: E3NC-LH02 **PAT.P**

- 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.



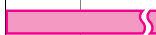
Amplifier Units

- 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.