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.

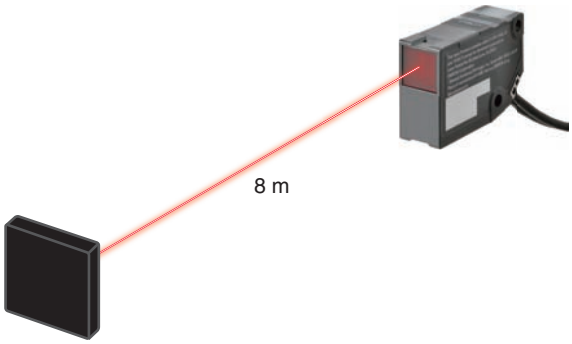
Refer to the *Safety Precautions* on page 14.

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

Features

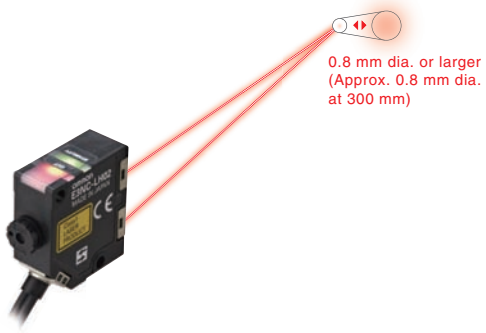
Retro-reflective Models: E3NC-LH03

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



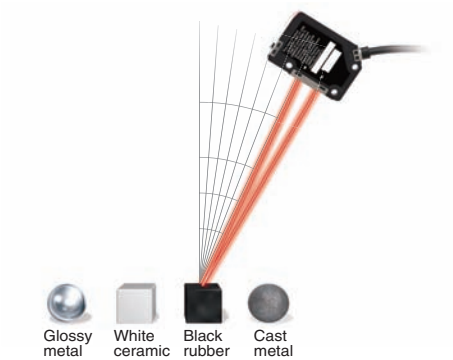
Diffuse-reflective Models: E3NC-LH02 PAT.P

- 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**
				Class 1	2 m	**E3NC-SH250 2M**
			35 to 100 mm		2 m	**E3NC-SH100 2M**

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