Photoelectric Sensor with Separate Digital Amplifier (Laser-type)

E3C-LDA

CSM_E3C-LDA_DS_E_4_2

Variable Laser Beam for Spot, Line, or Area Detection

- Long-distance detection (diffuse reflective: 1 m, retro-reflective: 7 m).
- Beam shape selectable from spot, line, and area types to match various applications.
- Adjustable spot diameter.
- Adjustable optical axis.
- The E3DC-LDA0, which supports the EtherCAT Sensor Communications Unit and the CompoNet Sensor Communications Unit, is also included in product lineup.

⚠ **Refer to *Safety Precautions* on page 9.**

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

Features

Diffuse Reflective Model

■ All three beam types provide ample long-distance detection of 1,000 mm.

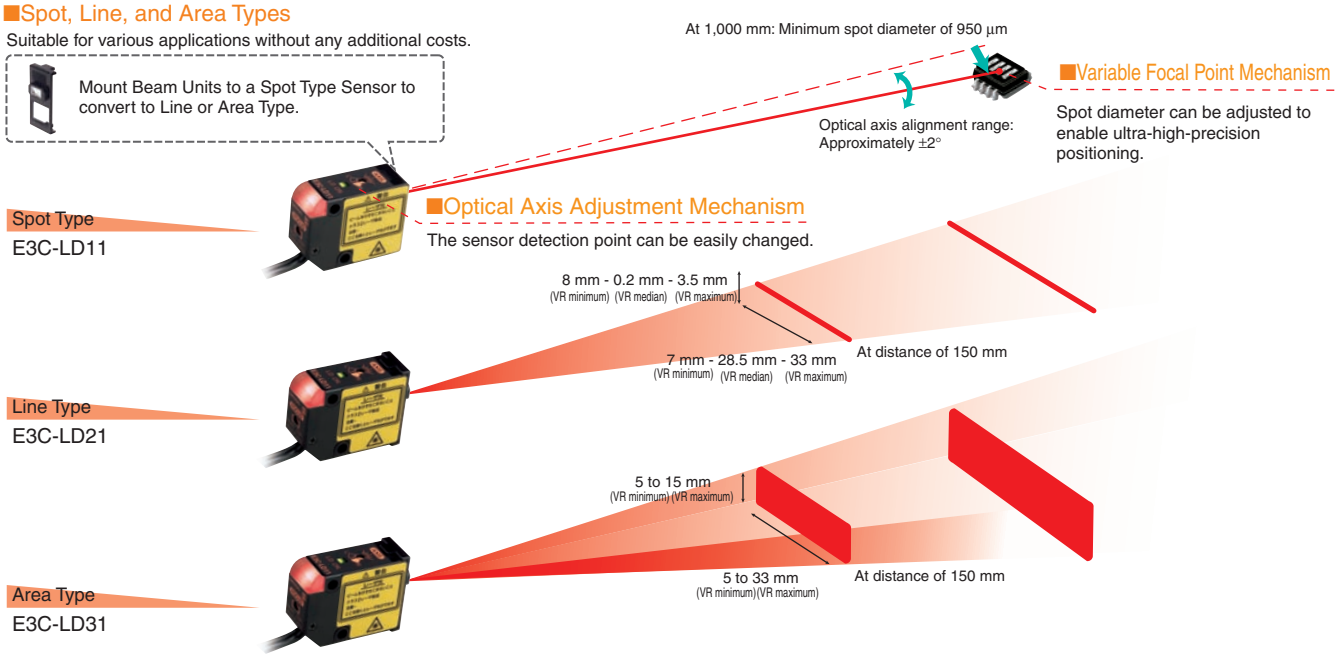
Sensing distance of 1 m.

Three beam types means a wider variety of applications.

■Spot, Line, and Area Types

Suitable for various applications without any additional costs.

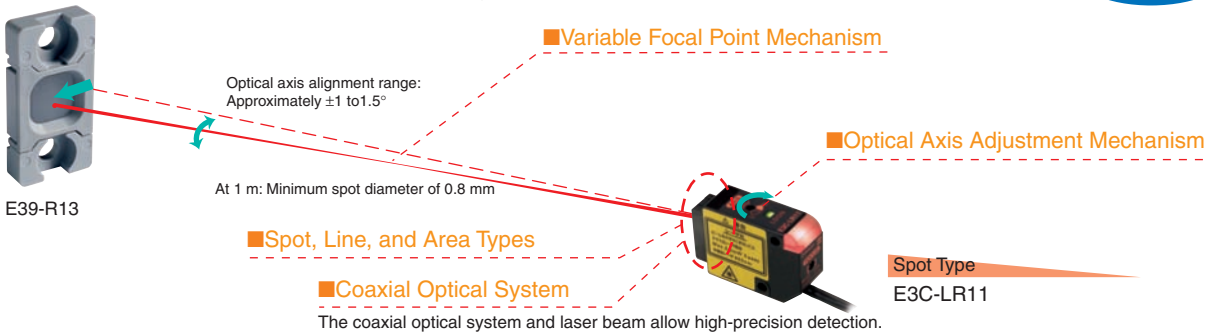
Mount Beam Units to a Spot Type Sensor to convert to Line or Area Type.



Coaxial Retroreflective Model

■ Easy Sensor Installation and Sensing Characteristics Equivalent to Through-beam Sensors.

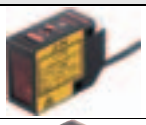
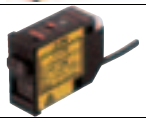
Sensing distance of 7 m.



The coaxial optical system and laser beam allow high-precision detection.
The built-in MSR Function inhibits the effect of reflected light from the workpiece.

Ordering Information

Sensor Heads (Dimensions ➜ page 12, 13)

Sensing method	Appearance	Beam shape	Model	Remarks
Diffuse-reflective		Spot (variable)	**E3C-LD11 2M**	Mounting a Beam Unit (sold separately) allows the use of line and area beams.
		Line (variable)	**E3C-LD21 2M**	This model number is for the set consisting of the E39-P11 mounted to the E3C-LD11.
		Area (variable)	**E3C-LD31 2M**	This model number is for the set consisting of the E39-P21 mounted to the E3C-LD11.
Coaxial Retro-reflective		Spot (variable)	**E3C-LR11* 2M**	Mounting a Beam Unit (order separately) enables the use of line and area beams.
		Spot (2.0-mm fixed dia.)	**E3C-LR12* 2M**	---

* Select a Reflector (order separately) according to the application.

Amplifier Units

Pre-wired Amplifier Units (Dimensions ➜ page 14)

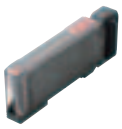
Item		Appearance	Functions	Model	
				NPN output	PNP output
Advanced models	External-input models		Remote setting / Counter / Differential operation	**E3C-LDA21 2M**	**E3C-LDA51 2M**
	Twin-output models		Area output / Self-diagnosis / Differential operation	**E3C-LDA11 2M**	**E3C-LDA41 2M**
	ATC function		ATC (Active Threshold Control)	**E3C-LDA11AT 2M**	**E3C-LDA41AT 2M**
	Analog output		Analog output	**E3C-LDA11AN 2M**	**E3C-LDA41AN 2M**

Amplifier Units with Wire-saving Connectors (A Wire-saving Connector (sold separately) is required.) (Dimensions ➜ page 15, 16)

Item		Appearance	Functions	Model	
				NPN output	PNP output
Advanced models	External-input models		Remote setting / Counter / Differential operation	**E3C-LDA7 ***	**E3C-LDA9 ***
	Twin-output models		Area output / Self-diagnosis / Differential operation	**E3C-LDA6 ***	**E3C-LDA8 ***
	ATC function		ATC (Active Threshold Control)	**E3C-LDA6AT**	**E3C-LDA8AT**

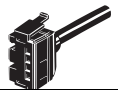
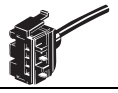
* These models allow you to use an E3X-DRT21-S VER.3 Sensor Communications Unit. When using the E3X-DRT21-S VER.3, use an E3X-CN02 Connector without a Cable for the Wire-saving Connector.

Amplifier Unit with Connector for Sensor Communications Unit (for EtherCAT and CompoNet) (Dimensions ➜ page 16)

Item		Appearance	Functions	Model	Applicable Sensor Communcations Unit
Advanced models	Twin-output models		Area output / Self-diagnosis / Differential operation	**E3C-LDA0**	**E3X-ECT**
					E3X-CRT

Accessories (Order Separately)

Wire-saving connectors (Required for models for Wire-saving Connectors.) *Protective stickers: provided. (Dimensions ➜ E3X-DA-S/MDA)

Item	Appearance	Cable length	No. of conductors	Model
Master Connector		2 m	4	**E3X-CN21**
Slave Connector			2	**E3X-CN22**

Ordering Precaution for Amplifier Units with Wire-saving Connectors

Amplifier Units and Connectors are sold separately. Refer to the following tables when placing an order.

Amplifier Unit				Applicable Connector (order separately)	
Model	NPN output	PNP output		Master Connector	Slave Connector
Advanced models	E3C-LDA6	E3C-LDA8	+	E3X-CN21	E3X-CN22
	E3C-LDA7	E3C-LDA9			
	E3C-LDA6AT	E3C-LDA8AT			

When Using 5 Amplifier Units

5 Amplifier Units	+	1 Master Connector	4 Slave Connectors