

E3AS-HL Series CMOS photoelectric sensors

Product Guide



Overview

Designed to give manufacturers peace of mind by enhancing flexibility and minimizing maintenance needs, E3AS-HL Series sensors achieve stable detection even as objects vary thanks to unique alignment technology and the option to use a line beam or a spot beam.

In order to satisfy market demand, products have become more diversified, and lifecycles have become shorter. This heightens the need for quick equipment design and stable operation, which the E3AS Series contributes to.

Applications

- Small part detection – screw head/nut detection
- Absence detection – positioning with small holes
- Grooved surface detection (line beam) – tires, corrugate, pizza
- Flexible line applications where part color changes
- BGS/FGS applications – multiple conveyor lines and/or bright backgrounds

Primary Benefits

- Unique sensing technology that dramatically reduces the influence of color patterns, glossiness and shape to achieve stable detection on flexible lines
- Ability to closely differentiate between stacked objects
- Intuitive teaching mechanism that makes commissioning easier and reduces the need for specialized training

Key features




- Small CMOS laser spot or line beam
- Foreground/background suppression (FGS/BGS)
- Single teach button (background teaching, two-point teaching, key locking)
- Predictive maintenance and configuration with IO-Link
- Output monitoring for performance tracking
- Antifouling coating to reduce false detection and minimize cleaning
- Washdown-rated for F&C applications
- Detergent resistance based on Ecolab certification
- Compact body that overcomes space limitations and increases design flexibility
- Easy-to-read OLED display to confirm detection level and threshold setting to reduce error

E3AS-HL Product Selection



Connection Method	Sensing Distance	Spot		Line	
		PNP	NPN	PNP	NPN
M8 Connector	35mm - 500mm	E3AS-HL500MT M3	E3AS-HL500MN M3	E3AS-HL500LMT M3	E3AS-HL500LMN M3
M12 Pigtail		E3AS-HL500MT-M1TJ 0.3M	E3AS-HL500MN-M1TJ 0.3M	E3AS-HL500LMT-M1TJ 0.3M	E3AS-HL500LMN-M1TJ 0.3M
M8 Connector	35mm - 150mm	E3AS-HL150MT M3	E3AS-HL150MN M3	E3AS-HL150LMT M3	E3AS-HL150LMN M3
M12 Pigtail		E3AS-HL150MT-M1TJ 0.3M	E3AS-HL150MN-M1TJ 0.3M	E3AS-HL150LMT-M1TJ 0.3M	E3AS-HL150LMN-M1TJ 0.3M

Accessories

Name	Flexible Mounting Bracket ¹	Air Blow Unit ¹	Front Protection Cover ²
Appearance			
Description	Optical axis can be adjusted in three directions: vertical, horizontal, and angular.	Blows paper dust and cleaning solutions off the sensing surface.	Protects sensing surfaces from collisions with workpieces, containers, and pallets.
Part Number	E39-L261 (flexible bracket) + E39-L262 (50mm mounting pole) / E39L263 (100mm mounting pole)	E39-E16	E39-E19

1. Patent pending in Japan and patented in Japan. (As of May 2020)

2. E3AS-HL only. Note: For details on ratings and specifications, refer to the *Ratings and Specifications* in this catalog.

Related Products

Product Name	XS3FM4	XW5T	S8VKG
Type	M8 Connector Cordsets	Terminal Blocks	Power supplies
Description	Straight and Right-angle	DIN track terminal blocks with screw terminals	Single phase DIN rail power supply
Common Part Numbers	XS3F-M8PPVC4S2M, XS3F-M8PVC4S5M, XS3F-M8PVC4A2M, XS3F-M8PVC4A5M	XW5T-S4.0-1.1-1	S8VK-G01524