

OMRON solution GUIDE

Food & Commodity

Detecting misaligned products traveling through production line and activating necessary adjustments



Key Features

- Compact straight barreled 90° angled design simplify sensor installation
- LED indicators provide visual feedback on sensor's operational status
- Retro reflective models are polarized to prevent false reads on mirrored surfaces
- High EMC protection and ambient light offer immunity in environments with excess noise or light

Challenges of Application

- Demand for efficient sorting processes capable of handling high volume of products
- Large variety of products necessitates sensors that are adaptable and able to deliver consistent results
- Processes such as robot cells require precise alignment in order to reliably perform the delegated task

Why the E3FA sensor for Automated Adjust Mechanism?

- Options of ABS plastic, stainless steel and nickel-plated brass housings increase the number of environmental settings sensors can be utilized within
- With modes like background suppression, retro-reflective, and through-beam, can adapt to diverse detection needs in automated adjustment mechanisms
- Background suppression provides stable detection of objects of varying colors preventing false outputs from background objects

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Sensor Type	Material	Connection	PNP Model (I/O Link)	NPN Model
Through-beam (emitter + receiver)	20m (Red LED)	2m Cable	E3FA-TP11 2M	E3FA-TP11 2M
		M12 Connector (4 pins)	E3FA-TP21	E3FA-TP21
retroreflective with MSR function	0.1 to 4m (Red LED)	2m Cable	E3FA-RP11 2M	E3FA-RN11 2M
		M12 Connector (4 pins)	E3FA-RP21	E3FA-RN21
Diffuse-reflective	100m (Red LED)	2m Cable	E3FA-DP11 2M	E3FA-DN11 2M
		M12 Connector (4 pins)	E3FA-DP21	E3FA-DN21
	300m (Red LED)	2m Cable	E3FA-DP12 2M	E3FA-DN12 2M
		M12 Connector (4 pins)	E3FA-DP22	E3FA-DN22
	1m (Red LED)	2m Cable	E3FA-DP13 2M	E3FA-DN13 2M
		M12 Connector (4 pins)	E3FA-DP23	E3FA-DN23
Background suppression	100m (Red LED)	2m Cable	E3FA-LP11 2M	E3FA-LN11 2M
		M12 Connector (4 pins)	E3FA-LP21	E3FA-LN21
	200m (Red LED)	2m Cable	E3FA-LP12 2M	E3FA-LN12 2M
		M12 Connector (4 pins)	E3FA-LP22	E3FA-LN22