

OMRON

solution GUIDE

Wafer Mapping

Precise detection of wafer to ensure proper loading of wafers into FOUP.



Key Features

- Low cost & high performance amplifier
- Optional version with bracket attached to fiber, no additional accessories required

Challenges:

- Agile end effectors are required to load costly and delicate wafers into the FOUP, leaving little room to mounting sensors used to detect the presence of wafers.
- Wafers thicknesses range from 300 micron to 0.5 mm, proving a challenge to reliably detect
- As the demand for chips rise, manufacturers are challenged to reduce costs to produce while increasing efficiency.

Why E32-A03 with E3X-ZV for Wafer Mapping?

- The fiber optic head E32-A03 requires a small footprint on the end effector with dimensions of just 20.5mm length and 3 mm diameter
- E32-A03 has a 0.1 mm minimum detectable object size and 1.5° aperture angle specification, detecting thin wafers with ease.
- The E3X-ZV/MZV Omron's low cost, high performance amplifier will help reduce manufacturing costs while maintaining advanced detection capabilities.

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Part Number	Description
E32-A03	Thrubeam Fiber head, 2 m length, sideview no bracket, flexible cable
E32-A03-1	Thrubeam Fiber head, 2 m length, sideview with brackets
E3X-ZV11 2M	Fiber Amplifier, 2 m cable, NPN, 1 output
E3X-ZV41 2M	Fiber Amplifier, 2 m cable, PNP, 1 output
E3X-ZV6	Fiber Amplifier, wire-saving connector, NPN, 1 output
E3X-ZV8	Fiber Amplifier, wire-saving connector, PNP, 1 output
E3X-CN11	Connector Cable, 2 m