

Single-beam Safety Sensor E3ZS/E3FS

CSM_E3ZS_E3FS_DS_E_10_4

Detects Intrusions into Hazardous Areas with a Single Beam and Complies with International Safety Standards.



! Be sure to read the "Safety Precautions" on page 13.

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

Note: Manufacturing of the E3FS listed in this datasheet was discontinued at the end of August 2016.

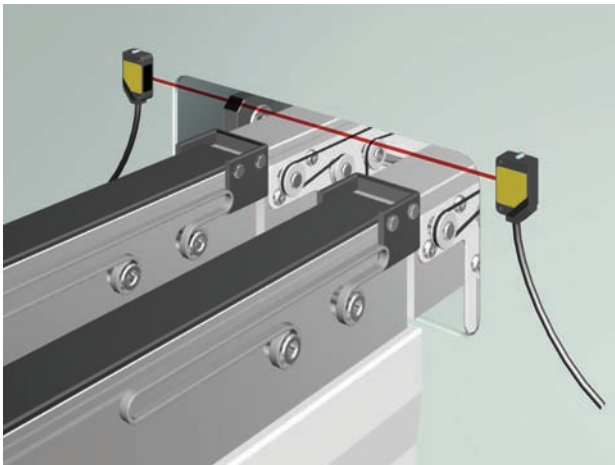
Features

Connect to a G9SP to Create a Type 2 Safety Sensor



Application Examples

For gaps in small-sized equipment



Protect personnel from the hazards of gaps in small-sized equipment or of semi-automated machinery.

The E3ZS is a Human Body Detection Sensor (Type 2) for production equipment. Make sure to use it in combination with an G9SP Safety Controller.

When used by itself, the E3ZS conforms to PLc/Safety Category 1 (EN ISO13849-1). No particular safety restrictions apply to the G9SP when used by itself, except the inability to use in human detection safety applications. We recommend using it in Light ON mode and using it with error detection via test input.

Note: Test Input

Use this function to enable the emitter of E3ZS to be turned ON/OFF from outside. It is possible to detect a number of E3ZS errors by monitoring the status of the test input and the E3ZS output signal.

For gaps in small to medium-sized equipment






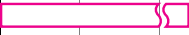


Use as a safety measure for protection from hazardous gaps or as guards for medium-sized equipment.

The E3FS is a Human Body Detection Sensor (Type 2) for production equipment. Make sure to use it in combination with a G9SP Safety Controller.

Ordering Information

Sensors

Red light Infrared light

| Sensor method | Appearance | Case material | Sheath material | Connection method | Sensing distance | Output | Model |
|---------------|---|----------------------------|-----------------|-----------------------|--|--------|------------------|
| Through-beam |  | Polybutylene terephthalate | PVC | Pre-wired cable (2 m) |  0.2 to 3 m | PNP | E3ZS-T81A |
| |  | ABS | | |  10 m | | E3FS-10B4 2M * |
| |  | Brass | --- | M12 connector |  10 m | | E3FS-10B4-M1-M * |

* Manufacturing has been discontinued.

Controller


Safety Controller G9SP Series

| Name | No. of I/O points | | | | Unit version | Model |
|-------------------|-------------------|--------------|---------------------------|------------------|--------------|-----------|
| | Safety inputs | Test outputs | Safety outputs | Standard outputs | | |
| Safety Controller | 10 | 4 | Semiconductor outputs: 4 | 4 | Ver.2.0 | G9SP-N10S |
| | 10 | 6 | Semiconductor outputs: 16 | --- | | G9SP-N10D |
| | 20 | 6 | Semiconductor outputs: 8 | --- | | G9SP-N20S |


Note: For details, refer to the G9SP Catalog (F090).

Accessories


Branch Connector

| Appearance | Model |
|---|---------|
|  | F39-CN3 |

Sensor Mounting Bracket (for E3FS)

| Appearance | Model |
|---|----------|
|  | Y92E-B18 |

Sensor Mounting Bracket (for E3ZS)

| Appearance | Model |
|---|----------|
|  | E39-L104 |