Compact Photoelectric Sensor with Stainless Steel Housing

E3ZM

CSM_E3ZM_DS_E_5_2

Stainless Steel Housing Ideal for Food Industry PAT Pending

- Strong resistance against detergents, disinfectants, and jet liquid flow.
- Product lineup includes BGS Reflective Models and Through-beam Models with built-in slits.
- Certified by Ecolab Europe.

CE

⚠ Be sure to read *Safety Precautions* on page 13.

Features

World's Strongest

Withstands Detergent and Disinfectant Spray

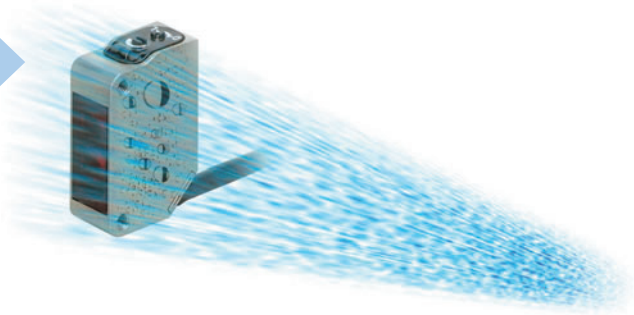
We used SUS316L for the case and the best material for all parts to achieve 200 times the durability of the E3Z (in 1.5% solution of sodium hydroxide at 70˚C) to make the E3ZM suitable for the cleaning conditions of food-processing machinery.

World's First

Superior Protective Structure

The first IP69K* (DIN 40050-9) protective structure in the world for a square metal photoelectric sensor. Suitable for high-temperature, high-pressure jet water spray cleaning applications.

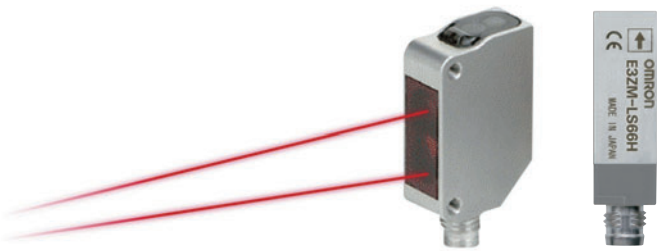
* Refer to the footnote on page 5 (ratings and specifications table).



Industry's Best

Shape and Markings Designed for Greater Hygiene

Few indentations in the shape means less dust and water can collect, making the E3ZM more hygienic. No labels have been used in order to prevent foreign matter contaminating food products. The E3ZM model and lot numbers are imprinted using a laser marker.



Structural Design That Provides Excellent Environment-resistance*

Indicator cover: Polyethersulfone (PES)

Excellent resistance to detergents and disinfectants.

Waterproofing ring: Fluorine rubber

Excellent resistance to detergents and disinfectants.

Sensitivity adjustment and mode selector switch: Polyetheretherketone (PEEK)

Excellent resistance to detergents and disinfectants. Also has excellent abrasion resistance.

Optical plate: Polymethylmethacrylate (PMMA)

Excellent resistance to detergents and disinfectants. High transparency and other qualities give PMMA excellent optical characteristics.

Case: SUS316L

Excellent corrosion resistance to many chemical reagents.

Seal

The seal provides the durability to high-temperature and high-pressure water that complies with IP69K.

Cable: Polyvinylchloride

Excellent resistance to detergents and disinfectants.

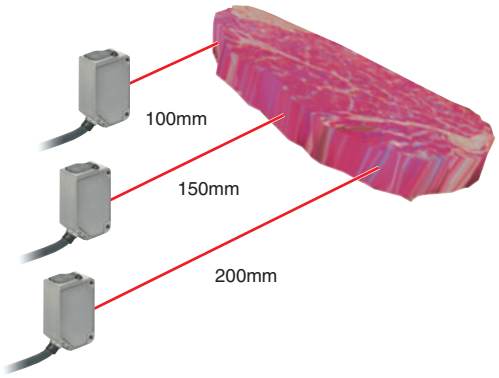
*Do not use the E3ZM in an oily environment.

Unique Members of the E3ZM Family

BGS Reflective Models

E3ZM-LS6□H/-LS8□H

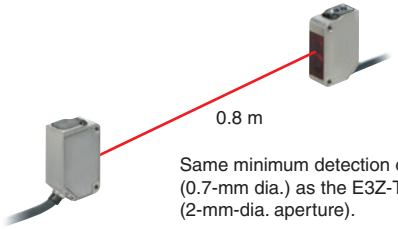
Three models with different fixed sensitivity (rated sensing distances) have been created. These models cover the sensing ranges of the E3Z-LS61.



Through-beam Inner Aperture Models

E3ZM-T63

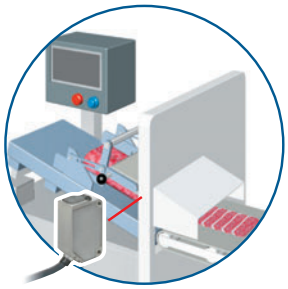
Fine beam without attaching an external aperture. This eliminates malfunctions from residual water drops, even immediately after washing.



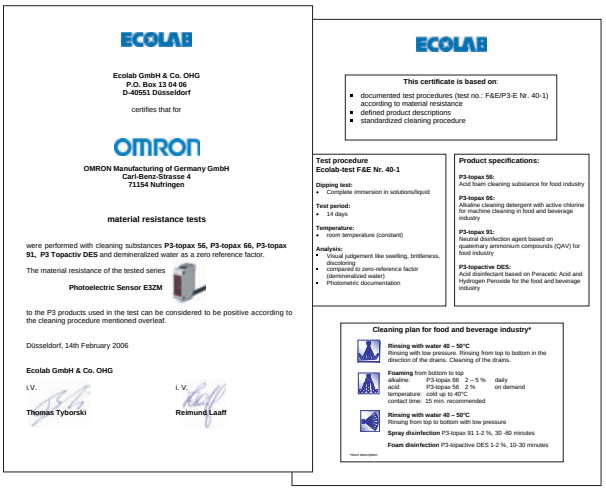
Same minimum detection object (0.7-mm dia.) as the E3Z-T61+E39-S65C (2-mm-dia. aperture).

A Better Fit for the Application

The E3ZM can be used in those harsh cleaning environments in which the E3Z was difficult to use. E3ZM passed the material resistance tests and is certified by Ecolab.



Processing and wrapping of meat or raw food products



ECOLAB

Ecolab GmbH & Co. OHG
P.O. Box 13 04 06
D-40551 Düsseldorf

certifies that for

OMRON

OMRON Manufacturing of Germany GmbH
Carl-Benz-Strasse 4
71154 Nufringen

material resistance tests

were performed with cleaning substances **P3-topax 56, P3-topax 66, P3-topax 91, P3 Topactiv DES** and demineralized water as a zero reference factor.

The material resistance of the tested series

Photoelectric Sensor E3ZM

to the P3 products used in the test can be considered to be positive according to the cleaning procedure mentioned overleaf.

Düsseldorf, 14th February 2006

Ecolab GmbH & Co. OHG

i.V. **Thomas Tyborski**

i. V. **Reimund Laaff**

ECOLAB

This certificate is based on:

- documented test procedures (test no.: F&E/P3-E Nr. 40-1) according to material resistance
- defined product descriptions
- standardized cleaning procedure

Test procedure
Ecolab-test F&E Nr. 40-1

Dipping test:
- Complete immersion in solutions/liquid

Test period:
- 14 days

Temperature:
- room temperature (constant)

Analysis:
- Visual judgement like swelling, brittleness, discoloring
- compared to zero-reference factor (demineralized water)
- Photometric documentation

Product specifications:

P3-topax 56:
Acid foam cleaning substance for food industry

P3-topax 66:
Alkaline cleaning detergent with active chlorine for machine cleaning in food and beverage industry

P3-topax 91:
Neutral disinfection agent based on quaternary ammonium compounds (QAV) for food industry

P3-topactive DES:
Acid disinfectant based on Peracetic Acid and Hydrogen Peroxide for the food and beverage industry

Cleaning plan for food and beverage industry*

Rinsing with water 40 – 50°C
Rinsing with low pressure. Rinsing from top to bottom in the direction of the drains. Cleaning of the drains.

Foaming from bottom to top
alkaline: P3-topax 66 2 – 5 % daily
acid: P3-topax 56 2 % on demand
temperature: cold up to 40°C
contact time: 15 min. recommended

Rinsing with water 40 – 50°C
Rinsing from top to bottom with low pressure

Spray disinfection P3-topax 91 1-2 %, 30 -60 minutes

Foam disinfection P3-topactive DES 1-2 %, 10-30 minutes

*short description