

Highly Durable Proximity Sensor for Tough Environments

- Completely stainless-steel housing
- Aluminum chip immunity
- Embedding installation to metal (steel) fittings
- Chemical resistance certified by Ecolab Europe
- Lineup includes pre-wire models and DC 3-wire NPN output models with fluororesin coating.



Be sure to read *Safety Precautions* on page 9.

Note: Models with a fluororesin coating also use vinyl chloride for the cable material and require separate protection.

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

Features

One-piece completely stainless-steel housing with a face thickness of 0.8 mm

The face thickness is approximately 4 times that of previous models (E2ES) to enable sensing in even more severe conditions than ever.



Brush Test



After 3 Minutes

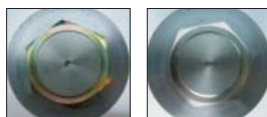


E2FM

E2EQ
(Spatter-resistant)

The stainless-steel head means almost no wear when cleaned with a metal brush.

Continuous Impact Test



E2ES

The E2ES with a top wall thickness of 0.2 mm was **penetrated** after 10,000 impacts.

E2FM

The E2FM was not **penetrated** after 250,000 impacts (depth: 0.26 mm).

More than 20 times the durability of the E2ES!

Chemical and Detergent Proof

The one-piece completely stainless-steel housing of the sensing section withstands the following chemicals better.

- Sodium chloride
- Gasoline
- Dilute sodium hydroxide
- Dilute hydrochloric acid
- Mineral oil
- Barium hydroxide
- Any many others

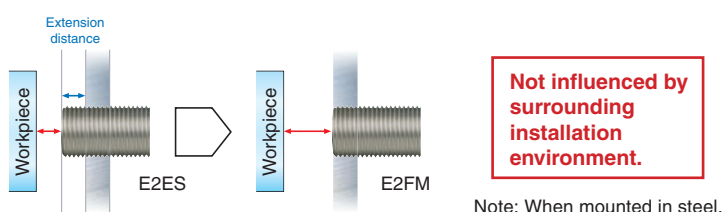
Note: Cannot be used for explosion-proof applications.

Built-in Chip Immunity

Chip immunity performance has been provided to greatly reduce false signals caused by spatter accumulation and other causes, almost eliminating the needs for cleaning, e.g., with metal brushes.



Flush Mounting



Main Performance Comparison to Previous OMRON Products

Face thickness

	E2FM	E2ES
M8	0.4 mm	---
M12	0.8 mm	---
M18	0.8 mm	0.2 mm
M30	0.8 mm	0.2 mm

Sensing distance

	E2FM	E2ES
M8	1.5 mm	---
M12	2.0 mm	---
M18	5.0 mm	4.0 mm
M30	10.0 mm	8.0 mm

Response frequency

	E2FM	E2ES
M8	200 Hz	---
M12	100 Hz	---
M18	100 Hz	12 Hz
M30	50 Hz	8 Hz

Ambient operating temperature

E2FM	E2ES
-25 to 70°C	0 to 50°C

The chemical resistance has been certified by Ecolab Europe

