## **OMRON**<sup>®</sup> **E2F-D Anti-Microbial Inductive Sensors**



Proximity Sensors with FDA-Approved Bacteria Inhibiting Housing Reduces Risk of Food Contamination

An exciting new development for the food processing industry, E2F-D sensors feature a sealed hard plastic housing with a special FDA-approved anti-microbial additive that keeps the surface clear of bacteria.

- Bacteria-killing silver ions are continuously released and diffused to the surface of the PBT housing and PA mounting nuts
- The effect is long lasting, the slow release of ions effectively keeps the sensor surface free of bacteria and other organisms over the typical lifetime of a machine which may be many years.
- Improves overall machine hygiene and significantly reduces risk of food contamination.
- Food manufacturers are freed from the continuous spiral of having to use increasingly concentrated and aggressive cleaning agents to destroy bacteria that are themselves becoming ever more resistant to these agents.
- IP67 and IP69K tested and certified for highest water resistance
- Tested detergent resistance
- Short-barrel and long-barrel shielded models available
- Pre-wired with 2m cable



Physiologically neutral material for safe usage in food environments. (FDA approved)

## **Test Results**



Bacteria growing on an ordinary sensor after touching with finger.



Bacteria growth on ordinary sensor after 12 hours.



Active bacteria reduction on E2F-D housing after 12 hours.

## **Specifications**

- Voltage range: 12-24 VDC
- Load rating: 300 mA max.; residual voltage 2.5 V max.
- Current consumption: 15 mA max. at 24 VDC

- Circuit protection: Reverse polarity, Output short-circuit for control
- Differential travel: >1%...<15% of sensing distance
- Operating ambient: -25° to 70°C, 35% to 95% RH (miniature)

## **Ordering Information**

Size	Barrel type	Sensing distance (mm)	Shielded	Circuit type	Response frequency	Body material	Overall length (mm)	Model
M12	Short	4.0	Yes	NPN-NO	2 kHz	PBT	41	E2F-DX4ME1 2M
				NPN-NC	2 kHz	PBT	41	E2F-DX4ME2 2M
				PNP-N0	2 kHz	PBT	41	E2F-DX4MF1 2M
				PNP-NC	2 kHz	PBT	41	E2F-DX4MF2 2M
M12	Long	4.0	Yes	NPN-NO	2 kHz	PBT	52.5	E2F-DX4ME1-L 2M
				NPN-NC	2 kHz	PBT	52.5	E2F-DX4ME2-L 2M
				PNP-N0	2 kHz	PBT	52.5	E2F-DX4MF1-L 2M
				PNP-NC	2 kHz	PBT	52.5	E2F-DX4MF2-L 2M
M18	Short	8.0	Yes	NPN-NO	1 kHz	PBT	43	E2F-DX8ME1 2M
				NPN-NC	1 kHz	PBT	43	E2F-DX8ME2 2M
				PNP-N0	1 kHz	PBT	43	E2F-DX8MF1 2M
				PNP-NC	1 kHz	PBT	43	E2F-DX8MF2 2M
M18	Long	8.0	Yes	NPN-NO	1 kHz	PBT	72.5	E2F-DX8ME1-L 2M
				NPN-NC	1 kHz	PBT	72.5	E2F-DX8ME2-L 2M
				PNP-N0	1 kHz	PBT	72.5	E2F-DX8MF1-L 2M
				PNP-NC	1 kHz	PBT	72.5	E2F-DX8MF2-L 2M

Note: Specifications are subject to change.

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