



Stainless Steel Sensors Offer Exceptional Durability to Reduce Your Maintenance Costs

- One-piece 303 stainless steel face/barrel construction resists damage caused by work piece contact, scouring abrasion, and harsh chemicals
- Up to 0.8 mm thick sensing face for superior mechanical durability, wear resistance
- Operation not influenced by the build-up of aluminum or iron cutting chips and weld slag on the sensing face
- 20% longer sensing range (10 mm) with M30 models versus the CENELEC standard 8 mm
- Wrench flats for easy installation
- 3-wire DC models have built-in connectors; 2-wire DC models have a 0.3 m pig-tail lead with connector
- Thick insulation protects pig-tail lead for increased endurance in harsh environments
- Surge suppressor, load short-circuit protection

Reduce Your Maintenance Costs

- M12 connectors simplify installation, shorten service time
- Thick sensing face withstands repeated scouring to remove weld spatter
- Chemical-resistant 303 stainless steel case reduces failure from corrosion
- Rated IP67 for washdown
- Flush mountable in ferrous materials to protect sensor from side impact damage



Applications

AUTO BODY WELDING



- Sensing face resists weld splatter
- Withstands repeated scouring abrasion

METAL PROCESSING



- Resists coolants and lubricants
- Resists impact from workpiece collisions
- Ignores build-up of metal cuttings on sensing face

FOOD PACKAGING



- Resists water and chemical washdown
- Mounts flush in conveyor rails

Specifications

- Voltage range: 10 to 30 VDC operating range
- Output type:
 - PNP-NO or NPN-NO (3-wire DC)
 - NO with polarity or NO without polarity (2-wire DC)
- Load rating:
 - 200 mA at 30 VDC max.; 2 V residual voltage (3-wire DC);
 - 3 to 100 mA; 3 V residual voltage with polarity (2-wire DC)
 - 3 to 100 mA, 5 V residual voltage without polarity (2-wire DC)
- Current consumption: 10 mA max. (3-wire DC)
- Leakage current: 0.8 mA (2-wire DC)
- Circuit protection:
 - 3-wire DC: Reversed power supply polarity protection, Surge suppressor, Load short-circuit protection, and Reversed output polarity protection (except M8 size)
 - 2-wire DC: Surge suppressor, Load short-circuit protection
- Differential travel: 15% max. of sensing distance
- Operating ambient: -25° to 70°C, 35% to 95% RH

Ordering Information

DC 2-Wire Proximity Sensors, Pigtail with M12 Connector

Type	Size	Sensing distance	Output configuration	Operation mode	Model
Shielded	M8	1.5 mm	Polarity: Yes; Pin arrangement: 1-4	N.O.	E2FM-X1R5D1-M1GJ
			Polarity: No; Pin arrangement: 3-4		E2FM-X2D1-M1GJ
	M12	2 mm	Polarity: Yes; Pin arrangement: 1-4		E2FM-X2D1-M1GJ-T
			Polarity: No; Pin arrangement: 3-4		E2FM-X5D1-M1GJ
	M18	5 mm	Polarity: Yes; Pin arrangement: 1-4		E2FM-X5D1-M1GJ-T
			Polarity: No; Pin arrangement: 3-4		E2FM-X10D1-M1GJ
	M30	10 mm	Polarity: Yes; Pin arrangement: 1-4		E2FM-X10D1-M1GJ-T
			Polarity: No; Pin arrangement: 3-4		

DC 3-Wire Proximity Sensors, M12 Connector

Type	Size	Sensing distance	Operation mode	Model	
				PNP Output	NPN Output
Shielded	M8	1.5 mm	N.O.	E2FM-X1R5B1-M1	E2FM-X1R5C1-M1
	M12	2 mm		E2FM-X2B1-M1	E2FM-X2C1-M1
	M18	5 mm		E2FM-X5B1-M1	E2FM-X5C1-M1
	M30	10 mm		E2FM-X10B1-M1	E2FM-X10C1-M1

Connector Cordsets and Weld Jackets

Connector type	Keyway	Cable size	Shape	Length	Part number
3-wire DC, female MicroChange® socket	Single	22 AWG	Straight connector	2 m (6.56 ft)	Y96E-43SD2
				5 m (16.40 ft)	Y96E-43SD5
				10 m (32.8 ft)	Y96E-43SD10
			Right angle connector	2 m (6.56 ft)	Y96E-43RD2
				5 m (16.40 ft)	Y96E-43RD5
				10 m (32.8 ft)	Y96E-43RD10
Weld jacket slips over cable and connector to protect against spatter	-	1/2" jacket diameter	-	36 inch	Y92E-WJ12X36IN
	-	3/4" jacket diameter	-	36 inch	Y92E-WJ34X36IN

Note: Specifications are subject to change.

OMRON

OMRON ELECTRONICS LLC
877.486.6766
www.omron.com/oei

OMRON CANADA
416.286.6465
www.omron.ca

MEXICO SALES OFFICES		ARGENTINA SALES OFFICE	
Mexico, D.F. 555.660.3144	Monterrey, N.L. 818.377.4281	Cono Sur	54.114.787.1129
Ciudad Juárez 656.623.7083	Querétaro 442.135.4510	BRAZIL SALES OFFICE	
OTHER LATIN AMERICAN SALES		Sao Paulo	555.11.554.6488 www.omron.com.br
Florida, EU 1.954.227.2121	www.espanol.omron.com	CHILE SALES OFFICE	
		Santiago	562.206.4592

