

# Specifications

## ■ DC 3-WIRE MODELS

Part number		E2F-X1R5□□	E2F-X2□□	E2F-X5□□	E2F-X10□□
Sensor Type		Inductive			
Body	Size	M8	M12	M18	M30
	Type	Shielded			
Supply voltage		10 to 30 VDC			
Current consumption		17 mA max.			
Detectable object type		Metallic objects			
Effective maximum detecting distance (with standard target)		1.5 mm (0.06 in) ±15%	2 mm (0.08 in) ±10%	5 mm (0.20 in) ±10%	10 mm (0.39 in) ±10%
Usable detecting range (with standard target)		0 to 1.2 mm (0 to 0.05 in)	0 to 1.6 mm (0 to 0.06 in)	0 to 4 mm (0 to 0.16 in)	0 to 8 mm (0 to 0.31 in)
Standard target size (mild steel, L x W x H)		8 x 8 x 1 mm (0.31 x 0.31 x 0.04 in)	12 x 12 x 1 mm (0.47 x 0.47 x 0.04 in)	18 x 18 x 1 mm (0.71 x 0.71 x 0.04 in)	30 x 30 x 1 mm (1.18 x 1.18 x 0.04 in)
Differential travel		10% max. of effective max. detecting distance			
Control output	DC solid-state	Type	NPN-NO open collector with pull-up (E2F-X□□E1) NPN-NC open collector with pull-up (E2F-X□□E2) PNP-NO open collector with pull-down (E2F-X□□F1) PNP-NC open collector with pull-down (E2F-X□□F2)		
		Max. load	200 mA		
		Max. on-state voltage drop	2 VDC		
Response frequency		2 Hz	1.5 kHz	600 Hz	400 Hz
Circuit protection	Output short-circuit	Provided; automatic resetting type			
	DC power supply reverse polarity	Provided			
	Weld field immunity	Not provided			
	RFI immunity	Not provided			
Indicators		Target Present (red LED)			
Materials	Housing	Plastic			
	Sensing face	Plastic			
	Cable sheath	Plastic			
Mounting		Two plastic M8 nuts included. Bracket Y92E-B8 optional.	Two plastic M12 nuts included. Bracket Y92E-B12 optional.	Two plastic M18 nuts included. Bracket Y92E-B18 optional.	Two plastic M30 nuts included. Bracket Y92E-B30 optional.
Connections	Prewired	3-conductor cable, 2 m (6.56 ft) length			
Weight with cable		Approx. 40 g (1.4 oz)	Approx. 50 g (1.8 oz)	Approx. 130 g (4.6 oz)	Approx. 170 g (6.0 oz)
Enclosure ratings	UL	—			
	NEMA	1, 3, 4, 6, 12, 13			
	IEC 144	IP68			
Approvals	UL	—			
	CSA	—			
Ambient operating temperature		-25°C to 70°C (-13° to 158°F)			
Vibration		10 to 55 Hz, 1.5 mm (0.06 in) double amplitude			
Shock		Approx. 100 G			

## ■ AC 2-WIRE MODELS

Part number		E2E2F-X1R5Y□	E2F-X2Y□	E2F-X5Y□-US E2F-X5Y□-53-US	E2F-X10Y□-US E2F-X10Y□-53-US	
Sensor Type		Inductive				
Body	Size	M8	M12	M18	M30	
	Type	Shielded				
Supply voltage		20 to 264 VDC, 50/60 Hz		20 to 264 VAC, 50/60 Hz (E2F-X□□Y□-US) 90 to 140 VAC, 50/60 Hz (E2F-X□□Y□-53-US)		
Current consumption		5 mA max.				
Detectable object type		Metallic objects				
Effective maximum detecting distance (with standard target)		1.5 mm (0.06 in) ±15%	2 mm (0.08 in) ±10%	5 mm (0.20 in) ±10%	10 mm (0.39 in) ±10%	
Usable detecting range (with standard target)		0 to 1.2 mm (0 to 0.05 in)	0 to 1.6 mm (0 to 0.06 in)	0 to 4 mm (0 to 0.16 in)	0 to 8 mm (0 to 0.31 in)	
Standard target size (mild steel, L x W x H)		8 x 8 x 1 mm (0.31 x 0.31 x 0.04 in)	12 x 12 x 1 mm (0.47 x 0.47 x 0.04 in)	18 x 18 x 1 mm (0.71 x 0.71 x 0.04 in)	30 x 30 x 1 mm (1.18 x 1.18 x 0.04 in)	
Differential travel		10% max. of effective max. detecting distance				
Control output	AC solid-state	Type	SCR-NO (E2F-X□□Y1-□□-□□) SCR-NC (E2F-X□□Y2-□□-□□)			
		Max. load	100 mA	300 mA for E2F-X□□Y□-US and E2F-X□□Y□-53-US at -25°C to 70°C (-13°F to 158°F) 500 mA for E2F-X□□Y□-US at -25°C to 55°C (-13°F to 131°F)		
		Min. load	5 mA			
		Max. off-state leakage current	1.7 mA at 200 VAC		1.7 mA at 200 VAC (E2F-X□□Y□-US) 1.5 mA at 200 VAC (E2F-X□□Y□-53-US)	
		Max. on-state voltage drop	See "Residual Load Voltage Characteristics" graph in <i>Engineering Data</i> .			
Response frequency		25 Hz				
Circuit protection	Output short-circuit	Not provided		Provided on E2F-X□□Y□-53-US types only; manual resetting type		
	Weld field immunity	Not provided				
	RFI immunity	Not provided				
Indicators		Output Operation (red LED)				
Materials	Housing	Polyarylate				
	Sensing face	Polyarylate				
	Cable sheath	Polyvinyl Chloride				
Mounting		Two plastic M8 nuts included. Bracket Y92E-B8 optional.	Two plastic M12 nuts included. Bracket Y92E-B12 optional.	Two plastic M18 nuts included. Bracket Y92E-B18 optional.	Two plastic M30 nuts included. Bracket Y92E-B30 optional.	
Connections	Prewired	2-conductor cable, 2 m (6.56 ft) length				
Weight with cable		Approx. 40 g (1.4 oz)	Approx. 50 g (1.8 oz)	Approx. 130 g (4.6 oz)	Approx. 170 g (6.0 oz)	
Enclosure ratings	UL	—		1		
	NEMA	1, 3, 4, 6, 12, 13				
	IEC 144	IP68				
Approvals	UL	—		Recognized, File number E76675		
	CSA	—		Certified, File number LR45951		
Ambient operating temperature		-25°C to 70°C (-13° to 158°F)				
Vibration		10 to 55 Hz, 1.5 mm (0.06 in) double amplitude				
Shock		Approx. 100 G				