

REPLACEMENT PARTS

Description	Part number
Mounting hardware including one pair of metal nuts and one washer	Fits M8 size sensors Fits M12 size sensors Fits M18 size sensors Fits M30 size sensors
	M8-MHWS M12-MHWS M18-MHWS M30-MHWS

Specifications

SENSORS WITHOUT SHORT-CIRCUIT PROTECTION (E2E-X□Y□)

Part number	E2E-X18MY□□	E2E-X2MY□	E2E-X2Y□ -US□	E2E-X5MY □±US□	E2E-X5Y □±US□	E2E-X10MY □±US□	E2E-X10Y □±US□	E2E-X18MY □±US□
Size	M8		M12		M18		M30	
Type	Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded
Sensing distance	1.5 mm (0.06 in) ±10%	2 mm (0.08 in) ±10%	2 mm (0.08 in) ±10%	5 mm (0.20 in) ±10%	5 mm (0.20 in) ±10%	10 mm (0.39 in) ±10%	10 mm (0.39 in) ±10%	18 mm (0.71 in) ±10%
Supply voltage (operating voltage range) (See note 1)	24 to 240 VAC, 50/60 Hz (20 to 264 VAC)							
Current consumption	1.7 mA max.							
Sensing object	Magnetic metals (refer to <i>Engineering Data</i> for non-magnetic metals)							
Setting distance	0 to 1.2 mm (0 to 0.05 in)	0 to 1.6 mm (0 to 0.06 in)	0 to 1.6 mm (0 to 0.06 in)	0 to 4.0 mm (0 to 0.16 in)	0 to 4.0 mm (0 to 0.16 in)	0 to 8.0 mm (0 to 0.31 in)	0 to 8.0 mm (0 to 0.31 in)	0 to 14.0 mm (0 to 0.55 in)
Standard object (mild steel)	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)	12 x 12 x 1 mm (0.47 x 0.47 x 0.04 in)	15 x 15 x 1 mm (0.59 x 0.59 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)	30 x 30 x 1 mm (1.18 x 1.18 x 0.04 in)	54 x 54 x 1 mm (2.13 x 2.13 x 0.04 in)
Differential travel	10% max. of sensing distance							
Response frequency	25 Hz							
Operation (with sensing object approaching)	Y1 models: Load ON Y2 models: Load OFF							
Control output (switching capacity)	5 to 100 mA max.		5 to 200 mA max.		5 to 300 mA max.			
Indicator	Operation indicator (red LED)							
Ambient temperature (See note 2)	Operating: -25°C to 70°C (-13°F to 158°F) with no icing		Operating: -40°C to 85°C (-40°F to 185°F) with no icing					
Ambient humidity	Operating: 35% to 95%							
Temperature influence	±15% max. of sensing distance at 23°C in temperature range of -40°C to 85°C (-40°F to 185°F) ±10% max. of sensing distance at 23°C in temperature range of -25°C to 70°C (-13°F to 158°F)							
Voltage influence	±1% max. of sensing distance in rated voltage range ±15%							
Residual voltage	Refer to <i>Engineering Data</i>							
Insulation resistance	50 MΩ min. (at 500 VDC) between current carry parts and case							
Dielectric strength	4,000 VAC for 1 min between current carry parts and case (2,000 VAC for M8 types)							
Vibration resistance	10 to 55 Hz, 1.5-mm double amplitude for 2 hrs each in X, Y, and Z directions							
Shock resistance	500 m/s ² (approx. 50G) for 10 times each in X, Y, and Z axes		1,000 m/s ² (approx. 50G) for 10 times each in X, Y, and Z axes 500 m/s ² (approx. 50G) for E2E-X5M					
Enclosure rating	IEC	IP67						
	NEMA	1, 4, 6, 12, 13						

Note: 1. When using an M18 or M30 size E2E at an ambient temperature between 70°C and 85°C (158°F and 185°F), make sure that the E2E has a control output of 200 mA maximum.

2. When supplying 24 VAC to any of the above models, make sure that the operating ambient temperature range is -25°C to 85°C (-13°F to 185°F).

(This table continues on the next page.)

Specifications Table - continued from previous page

Part number	E2E-X1R5Y □	E2E-X2MY □□	E2E-X2Y□- US	E2E-X5MY□ -US	E2E-X5Y□- US□	E2E-X10MY □=US□	E2E-X10Y □=US	E2E-X18MY □=US
Approvals	UL	-		Recognized, File Number E76675				
	CSA	-		Certified, File Number LR45951				
Weight	Prewired	Approx. 45 g		Approx. 120 g		Approx. 160 g		Approx. 270 g
	Connector	---	Approx. 25 g		Approx. 45 g		Approx. 125 g	Approx. 124 g
Material	Body	Stainless steel		Brass				
	Sensing face	PBT						

■ SENSORS WITH SHORT-CIRCUIT PROTECTION (E2E-X□Y□-53-US)

Part number	E2E-X5Y□-53-US		E2E-X10MY□-53-US	E2E-X10Y□-53-US	E2E-X18MY□-53-US
Body	Size	M18			M30
	Type	Shielded	Unshielded	Shielded	Unshielded
Supply voltage	90 to 140 VAC, 50/60 Hz				
Effective maximum detecting distance (with standard target)	5 mm (0.20 in) ±10%		10 mm (0.40 in) ±10%		18 mm (0.71 in) ±10%
Usable detecting range (with standard target)	0 to 4 mm (0 to 0.16 in)		0 to 8 mm (0 to 0.31 in)		0 to 14 mm (0 to 0.55 in)
Standard target size (mild steel, L x W x H)	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)		54 x 54 x 1 mm (2.13 x 2.13 x 0.04 in)
Differential travel	10% max. of effective detecting distance				
Control output	AC solid state	Type	SCR-NO (E2E-X□□□Y1-□□-□□) SCR-NC (E2E-X□□□Y2-□□-□□)		
		Max. load	300 mA		
		Min. load	5 mA		
		Max. offstate leakage current	1.5 mA (See "Leakage Current Characteristics" graph in <i>Engineering Data</i> .)		
		Max. on-state voltage drop	(See "Leakage Current Characteristics" graph in <i>Engineering Data</i> .)		
Response frequency	25 Hz				
Circuit protection	Output short-circuit	Provided			
	Weld field immunity	Not provided			
	RFI immunity	Not provided			
Indicators	Target present (red LED)				
Materials	Housing	Nickel-plated brass			
	Sensing face	Plastic			
	Cable sheath	Plastic			
Mounting	Two lock washers and M18 nuts included. Bracket Y92E-B18 optional.			Two lock washers and M30 nuts included. Bracket Y92E-B30 optional.	
Connections	Prewired	2-conductor cable, 2 m (6.56 ft) length			
Weight with cable	Approx. 160 g (5.6 oz.)			Approx. 270 g (9.5 oz.)	
Enclosure ratings	UL	1			
	NEMA	1, 4, 6, 12, 13			
	IEC 144	IP67			
Approvals	UL	Recognized, File Number E76675			
	CSA	Certified, File Number LR45951			
Ambient operating temperature	-25° to 70°C (-13° to 158°F)				
Vibration	10 to 55 Hz, 1.5 mm (0.06 in) double amplitude				
Shock	Approx. 100 G's				