OMRON

Long Barrel Inductive Prox

E2E2 2-Wire DC

Reduce Wiring to Control Devices with 2-Wire Inductive Prox Sensors

- Thick nickel-plated brass barrel for ruggedness
- Solid potted internal circuitry withstands shocks and water washdown to IP67
- Wrench flats allow easy installation

Ordering Information

■ PREWIRED SENSORS

Type	Size	Sensing distance	Part number	
			NO	NC
Shielded 	M12	3 mm	**E2E2-X3D1**	**E2E2-X3D2**
	M18	7 mm	**E2E2-X7D1**	**E2E2-X7D2**
	M30	10 mm	**E2E2-X10D1**	**E2E2-X10D2**
Unshielded 	M12	8 mm	**E2E2-X8MD1**	**E2E2-X8MD2**
	M18	14 mm	**E2E2-X14MD1**	**E2E2-X14MD2**
	M30	20 mm	**E2E2-X20MD1**	**E2E2-X20MD2**

Note: A different oscillating frequency is available to reduce mutual interference. Add a “5” to the part number (e.g., E2E2-X3D15).

■ ACCESSORIES

Description		Part number
Mounting brackets	Fits M12 size sensors Fits M18 size sensors Fits M30 size sensors	**Y92E-B12** **Y92E-B18** **Y92E-B30**
Silicone rubber covers for shielded sensors	Fits M12 size sensors Fits M18 size sensors Fits M30 size sensors	**Y92E-E12-2** **Y92E-E18-2** **Y92E-E30-2**

■ REPLACEMENT PARTS

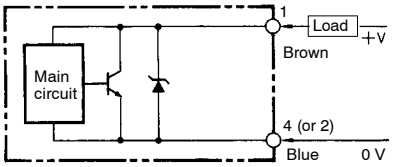
Description		Part number
Mounting hardware including one pair of metal nuts and one washer	Fits M12 size sensors Fits M18 size sensors Fits M30 size sensors	**M12-MHWS** **M18-MHWS** **M30-MHWS**

Specifications

Part number			E2E2-X3D□	E2E2-X8MD□	E2E2-X7D□	E2E2-X14MD□	E2E2-X10D□	E2E2-X20M□
Size			M12		M18		M30	
Type			Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded
Sensing distance			3 mm (0.12 in) ±10%	8 mm (0.31 in) ±10%	7 mm (0.28 in) ±10%	14 mm (0.55 in) ±10%	10 mm (0.39 in) ±10%	20 mm (0.79 in) ±10%
Supply voltage (operating voltage range)			12 to 24 VDC, ripple (p-p): 10% max., (10 to 30 VDC)					
Leakage current			0.8 mA max.					
Sensing object			Magnetic metals (refer to *Engineering Data* for non-magnetic metals)					
Setting distance			0 to 2.4 mm (0 to 0.09 in)	0 to 6.4 mm (0 to 0.25 in)	0 to 5.6 mm (0 to 0.22 in)	0 to 11.2 mm (0 to 0.44 in)	0 to 8.0 mm (0 to 0.31 in)	0 to 16.0 mm (0 to 0.63 in)
Standard object (mild steel)			12 x 12 x 1 mm (0.47 x 0.47 x 0.04 in)	30 x 30 x 1 mm (1.18 x 1.18 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			1.0 kHz	0.8 kHz	0.5 kHz	0.4 kHz	0.4 kHz	0.1 kHz
Operation (with sensing object approaching)			D1 models: Load ON D2 models: Load OFF					
Control output (switching capacity)			3 to 100 mA					
Circuit protection			Surge absorber, load short-circuit protection					
Indicator			D1 models: Operation indicator (red LED), operation set indicator (green LED) D2 models: Operation indicator (red LED)					
Ambient temperature		Operating	-25°C to 70°C (-13°F to 158°F) with no icing					
Ambient humidity		Operating	35% to 95%					
Temperature influence			±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			3.0 V max. (under load current of 100 mA with cable length of 2 m)					
Insulation resistance			50 MΩ min. (at 500 VDC) between current carry parts and case					
Dielectric strength			1,000 VAC for 1 min. between current carry parts and case					
Vibration resistance			10 to 55 Hz, 1.5-mm double amplitude for 10 times each in X, Y, and Z axes					
Shock resistance			1,000 m/s^2 (approx. 100G) for 10 times each in X, Y, and Z axes					
Enclosure rating	IEC		IP67					
	NEMA		1, 4, 6, 12, 13					
Weight			65 g		150 g		220 g	
Material	Body		Brass					
	Sensing face		PBT					

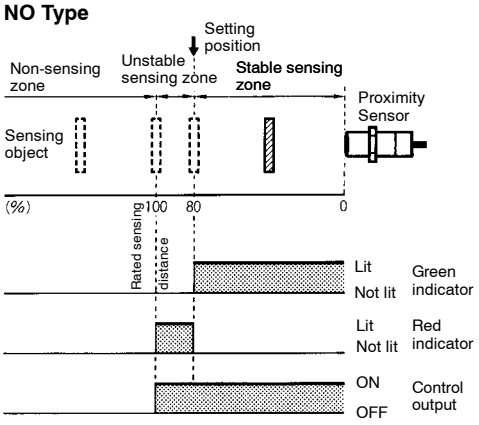
Operation

■ OUTPUT CIRCUITS

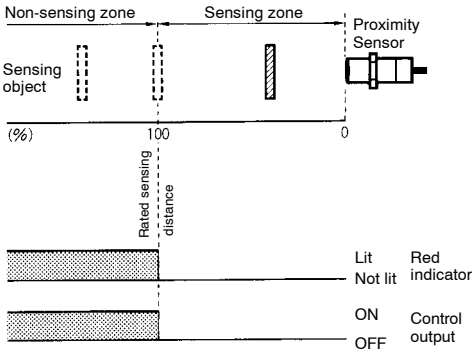


■ TIMING CHARTS

NO Type



NC Type

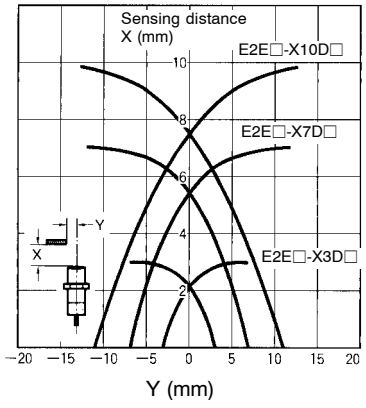


Engineering Data

■ OPERATING RANGE (TYPICAL)

Shielded Models

E2E2-X□D□



Unshielded Models

E2E2-X□MD□