



EX-14A-PN | Ultra-slim Photoelectric Sensor EX-10



※Photo may vary from actual product.

Product Number	EX-14A-PN
Part Number	EX-14A-PN
Product	Ultra-slim Photoelectric Sensor
Details	Convergent reflective (Diffused beam type) [Front sensing]
Product name	Ultra-slim Photoelectric Sensor EX-10
Features	Amplifier built-in extraordinarily small and slim size

Spec Detail










As of November 27, 2020

Specifications and design of the products are subject to change without notice for the product improvement.

Item		Specifications
Product Number	EX-14A-PN	
Part Number	EX-14A-PN	
CE marking directive compliance	EMC Directive, RoHS Directive	
Sensing range	2 to 25 mm 0.079 to 0.984 in (Conv. point: 10 mm 0.394 in) (Note) The sensing range and the hysteresis are specified for white non-glossy paper (50 × 50 mm 1.969 × 1.969 in) as the object.	
Min. sensing object	ø0.1 mm ø0.004 in copper wire (Completely beam interrupted object) (Setting distance: 10 mm 0.394 in)	
Hysteresis	15 % or less of operation distance (Note) The sensing range and the hysteresis are specified for white non-glossy paper (50 × 50 mm 1.969 × 1.969 in) as the object.	
Repeatability(perpendicular to sensing axis)	0.1 mm 0.004 in or less	
Supply voltage	12 to 24 V DC plus or minus 10 % Ripple P-P 10 % or less	
Current consumption	13 mA or less	
Output	PNP open-collector transistor - Maximum source current: 50 mA - Applied voltage: 30 V DC or less (between output and +V) - Residual voltage: 2 V or less (at 50 mA source current), 1 V or less (at 16 mA source current)	
Output:Utilization category	DC-12 or DC-13	
Output:Short-circuit protection	Incorporated	
Response time	0.5 ms or less	
Operation indicator	Orange LED (lights up when the output is ON)	
Incident beam indicator	-	
Stability indicator	Green LED (lights up under stable light received condition or stable dark condition)	
Pollution degree	3 (Industrial environment)	
Protection	IP67 (IEC)	
Ambient temperature	-25 to +55 °C -13 to +131 °F (No dew condensation or icing allowed), Storage: -30 to +70 °C -22 to +158 °F	
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH	
Ambient illuminance	Incandescent light: 3,000 lx or less at the light-receiving face	

Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure
Insulation resistance	20 MOhm , or more, with 250 V DC megger between all supply terminals connected together and enclosure
Vibration resistance	10 to 500 Hz frequency, 3 mm 0.118 in double amplitude (20 G max.) in X, Y and Z directions for two hours each
Shock resistance	500 m/s ² acceleration (50 G approx.) in X, Y and Z directions three times each
Emitting element	Red LED (Peak emission wavelength: 680 nm 0.027 mil, modulated)
Material	Enclosure: Polyethylene terephthalate Lens: Polyallylate
Cable	0.1 mm ² 3-core (emitter: 2-core) cabtyre cable, 2 m 6.562 ft long
Cable extension	Extension up to total 50 m 164.042 ft is possible with 0.3 mm ² , or more, cable.
Weight	Net weight: 20 g approx Gross weight: 40 g approx
Accessory	Mounting screws: 1 set

Accessories

		
Product Number CHX-SC2	Product Number MS-EX10-1	Product Number MS-EX10-11
Part Number CHX-SC2	Part Number MS-EX10-1	Part Number MS-EX10-11
Product Sensor Checker	Product name Mounting bracket	Product name Mounting bracket
Product name Sensor Checker CHX-SC2		
		
Product Number MS-EX10-13	Product Number MS-EX10-3	Product Number MS-M2
Part Number MS-EX10-13	Part Number MS-EX10-3	Part Number MS-M2
Product name Mounting bracket	Product name Mounting bracket	Product name Mounting screw
		
Product Number OS-EX10-12	Product Number OS-EX10-15	Product Number OS-EX10E-12
Part Number OS-EX10-12	Part Number OS-EX10-15	Part Number OS-EX10E-12
Product name Slit mask	Product name Slit mask	Product name Slit mask