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## Sensors

Micro Photoelectric Sensors >

Amplifier Built-in / U-shaped  
Micro Photoelectric Sensor  
[Compact / Connector built-in  
type] PM-65

PM-T65

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# PM-T65 | Amplifier Built-in / U-shaped Micro Photoelectric Sensor [Compact / Connector built- in type] PM-65



\*Photo may vary from actual product.



### Configuration examples of IO-Link compatible devices

Product	Download		
	Catalog/ Datasheet	CAD	Manual
Product	Amplifier Built-in / U-shaped Micro Photoelectric Sensor		
Details	Compact / Connector built-in type [T type]		
Product name	<a href="#">Amplifier Built-in / U-shaped Micro Photoelectric Sensor [Compact / Connector built-in type] PM-65</a>		

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**Technical Inquiries,  
Purchase Support &  
Additional Assistance**

Technical Support

Product Selection Support

General Inquiries

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Technical Support

Product Selection Support

General Inquiries

**Spec Detail**

**Accessories (Option)**



As of October 09, 2024 (JST)

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

## Spec Detail

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

Item	Specifications
Product Number	PM-T65



Item		Specifications
		Download
Catalog/ Datasheet	CAD	Manual
Products Name	shaped Micro Photoelectric Sensor	
Product details	Compact / Connector built-in type [T type]	
Applicable regulations and certifications	CE Marking (EMC Directive, RoHS Directive), UKCA Marking (EMC Regulations, RoHS Regulations), UL/c-UL Listing Recognition certification	
Sensing range	6 mm <a href="#">0.236 in</a> (fixed)	
Minimum sensing object	0.8 × 1.2 mm <a href="#">0.031 × 0.047 in</a> opaque object	
Hysteresis	0.05 mm <a href="#">0.002 in</a> or less	
Repeatability	0.01 mm <a href="#">0.0004 in</a> or less	
Supply voltage	5 to 24 V DC ±10 % Ripple P-P 10 % or less	
Current consumption	15 mA or less	
Output	NPN open-collector transistor <ul style="list-style-type: none"> <li>•Maximum sink current: 50 mA</li> <li>•Applied voltage: 30 V DC or less (between output and 0 V)</li> <li>•Residual voltage: 2 V or less (at 50 mA sink</li> </ul>	

Item		Specifications
		Download
Catalog/ Datasheet	CAD	Manual
Output:Output operation		outputs: Light-ON / Dark-ON
Output:Short-circuit protection		Incorporated
Response time		Under light received condition: 20 $\mu$ s or less Under light interrupted condition: 80 $\mu$ s or less (Maximum response frequency: 3 kHz) (Note) (Note) Refer to the note on the specification page for the response frequency.
Operation indicator		Orange LED (lights up under light received condition)
Pollution degree		3
Protection		IP40 (IEC)
Ambient temperature		-25 to +55 °C -13 to +131 °F (No dew condensation or icing allowed), Storage: -30 to +80 °C -22 to +176 °F
Ambient humidity		5 to 85 % RH, Storage: 5 to 95 % RH
Ambient illuminance		Fluorescent light: 1,000 lx at the light-



Item		Specifications
		Download
Catalog/ Datasheet	CAD	Manual
Voltage withstandability		supply terminals connected together and enclosure
Insulation resistance		20 MΩ, or more, with 250 V DC megger between all supply terminals connected together and enclosure
Vibration resistance		10 to 2,000 Hz frequency, 1.5 mm <a href="#">0.059 in</a> double amplitude (maximum acceleration 196 m/s <sup>2</sup> ) in X, Y and Z directions for two hours each
Shock resistance		15,000 m/s <sup>2</sup> acceleration (1,500 G approx.) in X, Y and Z directions three times each
Emitting element		Infrared LED (Peak emission wavelength: 855 nm <a href="#">0.034 mil</a> , non-modulated)
Material		Enclosure: PBT Display section: Polycarbonate
Cable length		Extension up to total 100 m <a href="#">328.084 ft</a> is possible with 0.3 mm <sup>2</sup> , or more, cable. (Note) If the cable is extended to 20 m



Item		Specifications
		Download
Catalog/ Datasheet	CAD	Manual
		<p>attached to the sensor is 4.5 V or higher.</p>
Weight		<p>Net weight: 3 g approx. Gross weight: 3 g approx.</p>
Remark		<p>Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F.</p>

## Accessories (Option)

	Product number	Part number	Product	Detail
No image	<a href="#">CN-14A</a>	CN-14A	-	-
No image	<a href="#">CN-14A-C1</a>	CN-14A-C1	-	-
No image	<a href="#">CN-14A-C2</a>	CN-14A-C2	-	-

	Product number	Part number	Product	Detail
			Download	
	Catalog/ Datasheet	CAD	Manual	

[View more](#)

### Recently checked products

### Recently checked product numbers

- PM-Y65 | Amplifier Built-in / U-shaped Micro Photoelectric Sensor [Compact / Connector built-in type] PM-65 >
- DP-101A | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- CY-122A-P-Z | Cylindrical Photoelectric Sensor CY-100 SERIES(Discontinued) >
- PM-F44P | Small U-shaped Micro Photoelectric Sensor[Amplifier Built-in] PM-44/PM-54(Discontinued) >
- LS-401-C2 | Digital Laser Sensor LS-400 >

## Contact Us

**Components & Devices Technical Support**

**FA Sensors & Components**

**Motors for FA & Industrial Application**

**Motors for Facility/Home appliance & Automotive**

Technical Inquiries, Purchase Support & Additional Assistance  <b>Contact Us</b>	<b>Technical</b> <b>Sup</b>	<b>Technical</b>	<b>Technical</b>
	Tech Inquiries, Purchase Support & Additional Assistance  <b>Contact Us</b>	Catalog/ Datasheet	CAD  Inquiries, Purchase Support & Additional Assistance  <b>Contact Us</b>

## Guidelines for Ordering and Usage

Requests to customers (FA Sensors & Components [Excluding motors])

Requests to customers (Dedicated to industrial motors)

### Components & Devices

- Relays / Couplers
- Connectors
- Switches
- Encoders / Potentiometers
- Touch Solutions

### FA Sensors & Components

- |                                       |  |                                 |
|---------------------------------------|--|---------------------------------|
| Fiber Sensors                         | Sensor Options                               | Static Control Devices          |
| Photoelectric Sensors / Laser Sensors | Wire-Saving Systems                          | Laser Markers / 2D Code Readers |
| Micro Photoelectric Sensors           | Programmable Controllers / Motion Controller | Machine Vision System           |
| Light Curtains / Safety Components    | Human Machine Interface                      | Energy Management Solutions     |

### Motors for FA & Industrial Application

- AC Servo
- Motors for HVAC & Automotive

Area Sensors

Pressure

Sensors / Flow

Inductive

Proximity

Sensors

Particular Use

Sensors

Download

Catalog/  
Datasheet

CAD

Manual

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