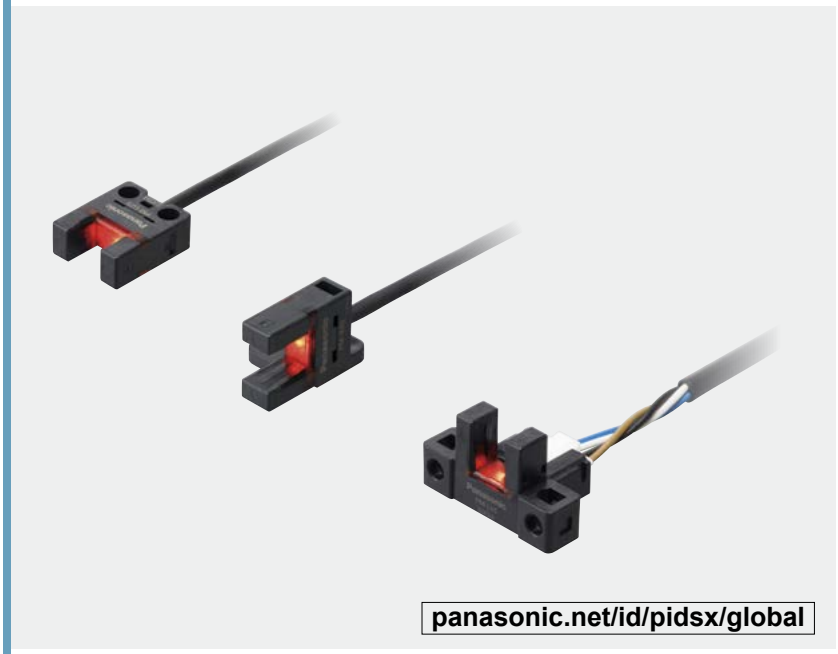
U-shaped Micro Photoelectric Sensor **Amplifier Built-in**

# PM-25 SERIES PM-45 SERIES PM-65 SERIES

Related Information
■ General terms and conditions ..... F-3
■ Selection guide ..... P.393~
■ Glossary of terms / General precautions.....P.1549~ / P.1552~
■ Korea's S-mark..... P.1602



panasonic.net/id/pidsx/global

CE
cULus Recognition
Certified (Some models only)

PNP output type available

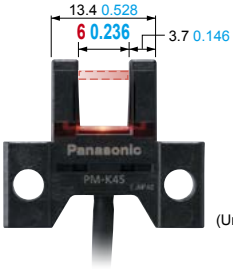
## One step ahead in performance and mounting ease

### Three protection circuits standard on all models
**PM-25/45/65 SERIES**

All models are standardly equipped with the following protection circuits in their compact bodies. These protection circuits minimize the possibility of sensor malfunctions caused by erroneous wiring.
① Reverse supply polarity protection circuit
② Reverse output polarity protection circuit
③ Output short-circuit protection circuit

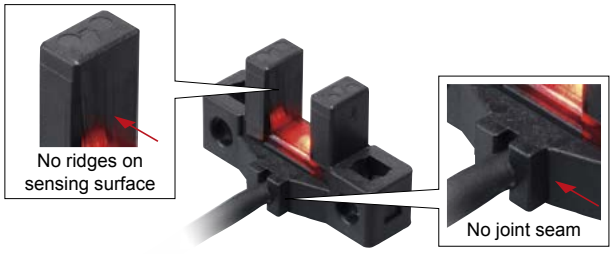
### Ample beam emitting / receiving distance of 6 mm 0.236 in
**PM-25/45/65 SERIES**

The beam emitting and receiving sections are 0.5 mm 0.02 in thinner than those on our conventional models while their external dimensions are the same. As a result, the distance between the beam emitting point and receiving point increased by 1 mm 0.039 in. The wider distance means less possibility of collision between the sensing section and sensing object.



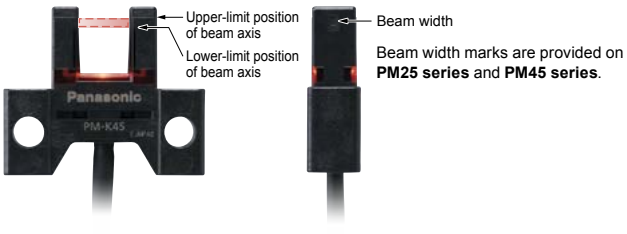

### Industry's first*! IP64 rating
*As of April 2017, in-company survey.
**PM-25/45 SERIES**

Our original integrated molding method has eliminated grooves and gaps on the sensing surface and main body, thus reducing the possibility of malfunctions caused by splashing water or dust.




### Beam marks for easy adjustment
**PM-25/45/65 SERIES**

The upper-limit and lower-limit positions of beam can be visually confirmed from the front, back, right and left sides of the sensor unit. This allows easy adjustment of the position of sensing object.

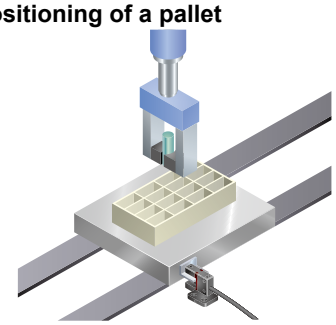



Beam width marks are provided on **PM25 series** and **PM45 series**.

< Front / back > < Right / left >

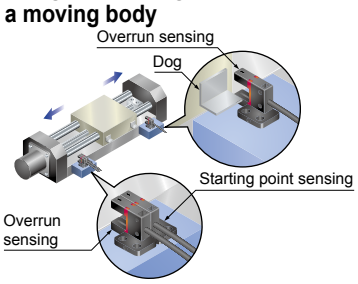
## APPLICATIONS

### Positioning of a pallet



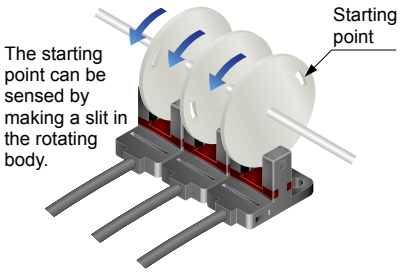
Pallet is stopped by sensing the dog*.

### Sensing the starting point and overrun of a moving body




Starting point and overrun is sensed using the dog* on the base.

### Sensing the starting point on a rotating body



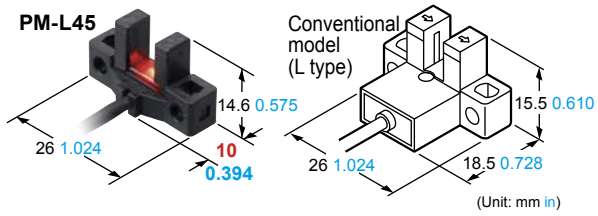

*"Dog" refers to the sensing object for activating the sensor's detecting operation.

## Large and easy to see Multi-angle operation indicator PM-25/45/65 SERIES

The large operation indicator (orange) lights up when the beam enters. The indicator is easy to see from above and from the sides.

## Compact size PM-45 SERIES

All new models require significantly less mounting space than our conventional models when mounted with the same pitch. What's more, the new models can directly replace our conventional models currently in use.




(Unit: mm in)

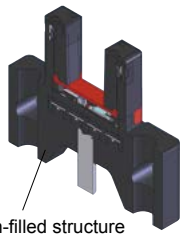
## All models easy to mount with M3 screws PM-25/45/65 SERIES

The sensor unit can be installed with one or two M3 screws.
* M3 screws and washers are not included.

- Models requiring one M3 screw for installation
  **PM-F25**, **PM-R25**, **PM-F65**, **PM-R65**
- Models requiring two M3 screws for installation
  Models other than above

## Resistant to vibrations and impacts PM-25/45/65 SERIES

The sections where stress concentrates, such as the connecting section of the cable and internal circuit, are covered with a resin. This helps prevent malfunctions caused by vibrations and impacts.



Resin-filled structure
(cross-sectional view)

## VARIATION

Sensors come in various shapes to suit a wide range of mounting conditions

### Ultra-small / Cable type PM-25 SERIES

Easy mounting with M2/M3 screws!

| | | | |
|---|---|---|---|
| NPN output | 1 m 3.281 ft cable | 3 m 9.843 ft cable | 1 m 3.281 ft bending-resistant cable |
| PNP output | 1 m 3.281 ft cable | 3 m 9.843 ft cable | 1 m 3.281 ft bending-resistant cable |

### Compact / Cable type PM-45 SERIES

Compact size!

| | | | |
|---|---|---|---|
| NPN output | 1 m 3.281 ft cable | 3 m 9.843 ft cable | 1 m 3.281 ft bending-resistant cable |
| PNP output | 1 m 3.281 ft cable | 3 m 9.843 ft cable | 1 m 3.281 ft bending-resistant cable |

### Compact / Connector built-in type PM-65 SERIES

Easy connection with a single touch using commercially-available connectors

| | | |
|---|---|---|
| NPN output | Connector attached cable 1 m 3.281 ft, 2 m 6.562 ft, 3 m 9.843 ft, 5 m 16.404 ft | Connector attached bending-resistant cable 1 m 3.281 ft, 2 m 6.562 ft, 3 m 9.843 ft, 5 m 16.404 ft |
| PNP output | Connector attached cable 1 m 3.281 ft, 2 m 6.562 ft, 3 m 9.843 ft, 5 m 16.404 ft | Connector attached bending-resistant cable 1 m 3.281 ft, 2 m 6.562 ft, 3 m 9.843 ft, 5 m 16.404 ft |