

# Photoelectric Sensor

## Z SERIES

- ZT- 1200 ☐ ☐ ☐ - ☐
- ZR- 350 ☐ ☐ ☐ - ☐
- ZD- 70 ☐ ☐ ☐ - ☐
- ZD- L09 ☐ ☐ ☐ - ☐
- ZR- X250 ☐ ☐ ☐ - ☐
- ZR-QX200 ☐ ☐ ☐ - ☐

## INSTRUCTION MANUAL

- Confirm if the item meets your needs.
- Before the use, you should first thoroughly read this manual and operate correctly as mentioned.
- You should keep this manual at hand for proper use.

## SPECIFICATION

|                                | Through beam                                                          | Retro ref.             | Diffused ref.     | Limited range      | Retro Coax.               | Retro Coax. Transparent       |
|--------------------------------|-----------------------------------------------------------------------|------------------------|-------------------|--------------------|---------------------------|-------------------------------|
| Cable type                     | ZT-1200 (N,P) (D) (-B)                                                | ZR-350 (N,P) (D) (-B)  | ZD-70 (N,P) (-B)  | ZD-L09 (N,P) (-B)  | ZR-X250 (N,P)             | ZR-QX200 (N,P)                |
| Connector type                 | ZT-1200C (N,P) (D) (-B)                                               | ZR-350C (N,P) (D) (-B) | ZD-70C (N,P) (-B) | ZD-L09C (N,P) (-B) | ZR-X250C (N4, N3, P4, P3) | ZR-QX200C (N4, N3, P4, P3)    |
| Detecting distance             | 12m                                                                   | 3.5m (V-61)            | 70cm              | 10-90mm            | 2.5m (V-61)               | 2m (P250F)                    |
| Supply voltage                 | DC10~30V Including ripple (P-P) 10%                                   |                        |                   |                    |                           |                               |
| Current consumption            | Sender : 20mA max.                                                    |                        | 20mA max.         |                    |                           |                               |
|                                | Receiver : 15mA max.                                                  |                        |                   |                    |                           |                               |
| Response time                  | 0.5ms max.                                                            |                        |                   |                    | 250 μs max.               | 0.5ms max.                    |
| Control output                 | NPN/PNP Open collector 100mA max./DC30V                               |                        |                   |                    |                           |                               |
| Operation mode                 | Light ON, Dark ON Selectable by switch/Dark ON fixed(depend on model) |                        |                   |                    |                           |                               |
| Sensitivity adjustment         | 1 turn volume/Not equippend(depend on model)                          |                        |                   |                    |                           |                               |
| Indicator                      | Output indicator (orange LED) /Stable indicator (green LED)           |                        |                   |                    |                           | Output indicator (orange LED) |
| Ambient temp./humidity         | -25~55℃/35~85%RH                                                      |                        |                   |                    |                           |                               |
| protection category / material | IP67 / Case : ABS (glass included) Front cover, Lens : PMMA           |                        |                   |                    |                           |                               |

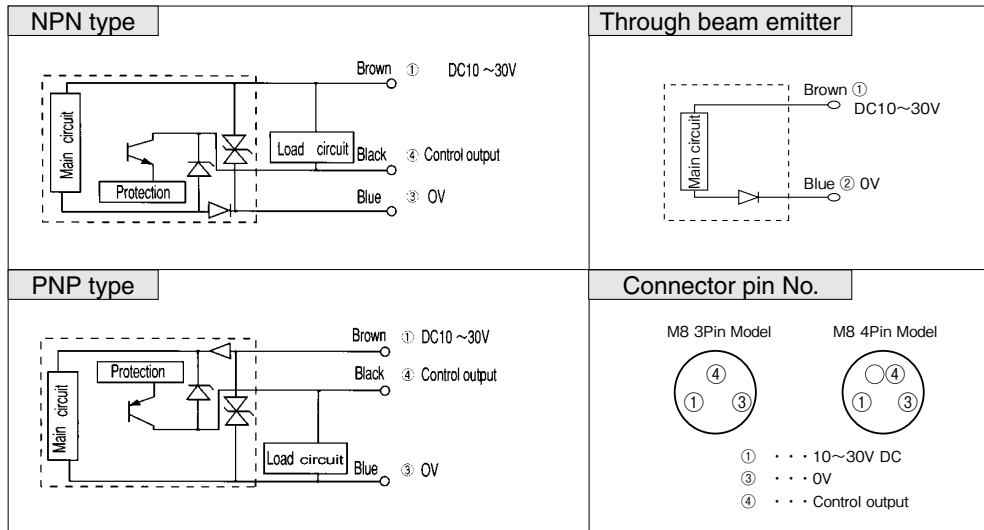
'D' in the type : Sensitivity adjuster is not equipped and dark on fixed.

'-B' in the type : Without accessories. (bracket, reflector)

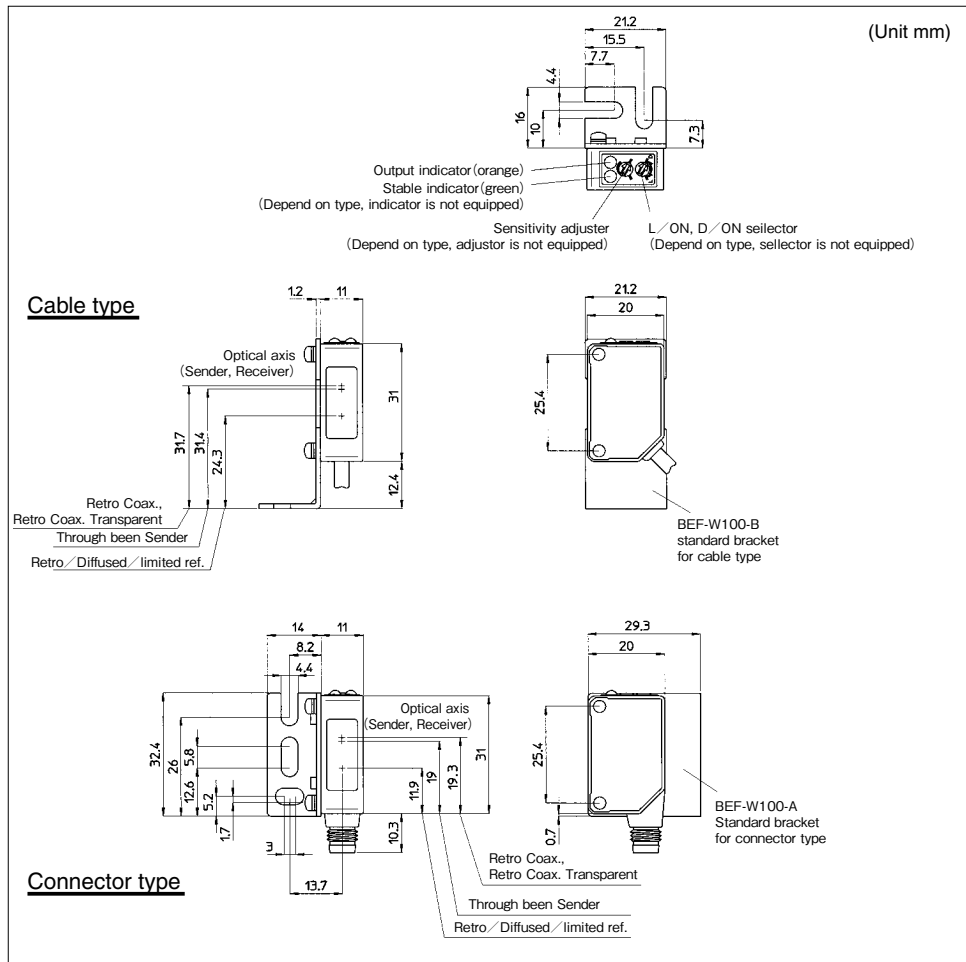
**! Must not use this item as safety equipment for the purpose of human body protection.**

- Specifications and equipment are subject to change without any obligations on the part of manufacture.
- For more information, questions and comments regarding products, please contact us below.

## INPUT AND OUTPUT CIRCUIT DIAGRAMS

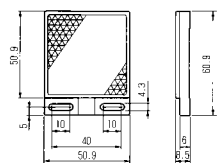


## DIMENSIONS



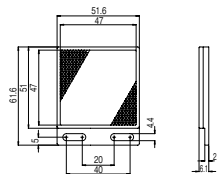
## ACCESSORIES

- Standard reflector (for Retro-ref., Retro Coax.)  
Detecting distance 3.5m (Retro-ref.) Type : V-61  
2.5m (Retro Coax.)



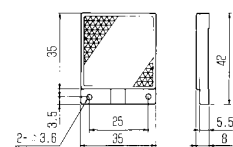
(Unit mm)

- Standard reflector (for Retro Coax. Transparent)  
Detecting distance 2m Type : P250F



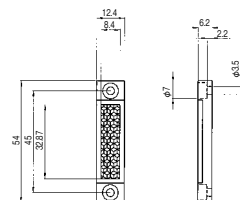
(Unit mm)

- Optional reflector  
Detecting distance 2m (Retro-ref.) Type : V-42  
1.5m (Retro Coax.)



(Unit mm)

- Optional reflector  
Detecting distance 1.2m (Retro-ref.) Type : P-45  
0.8m (Retro Coax.)



(Unit mm)

Manufactured and sold by :

**OPTEX FA CO., LTD.**  
607-8085 Kyoto Yamashina Takehanadounomae 46-1, Japan  
TEL. +81-(0)75-594-8123 FAX. +81-(0)75-594-8124

Website: <http://www.optex-fa.com>