

Photoelectric Sensor



Z SERIES

- ZR- X250
- ZR- QX200
- BGS-Z

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.

Carefully read and understand the safety precautions before operation. The important information is provided to protect your health and property. Do not apply any other installing or operating procedure other than that described in this manual.

Safety Precautions

- CAUTION**
- It is dangerous to wire or attach/remove the connector with the power on. Make sure to turn off the power before operation.
 - Make sure to use the product with the protective cover attached and closed.
 - Installing in the following places may result in malfunction.
 1. A dusty or steamy place
 2. A place generating corrosive gas
 3. A place directly receiving scattering water or oil.
 4. A place suffered from heavy vibration or impact.
 - The product is not designed for outdoor use.
 - Do not use the sensor in transient state after power on (approx. 100 ms).
 - Do not wire with the high voltage cable or the power line. Failure to do this will cause malfunction by induction or damage.
 - The sensor performance or digital display values may depend on the individual units or the condition of detected product.
 - This product is not an explosion-proof construction. Do not use the product under flammable, explosive gas or liquid environment.
 - Do not use the product in water.
 - Do not disassemble, repair, or convert the product. Failure to do this may cause failure, fire, or electric shock.
 - Operate within the rated range.
 - Do not bend the cable when below the freezing point

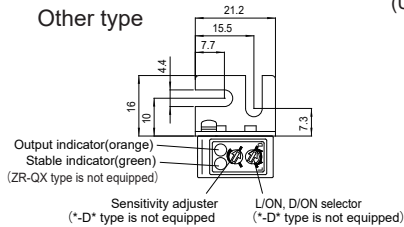
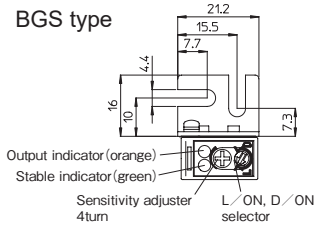
This product cannot be used as a safety device to protect human body.

DIMENSIONS

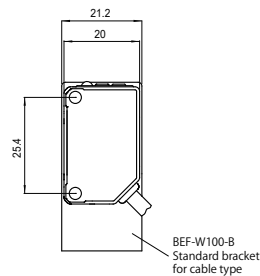
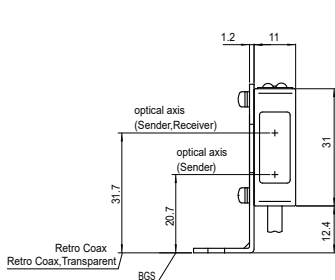
BGS type

Other type

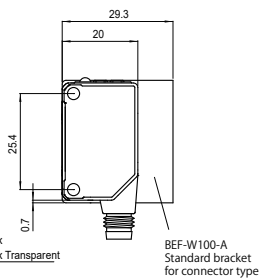
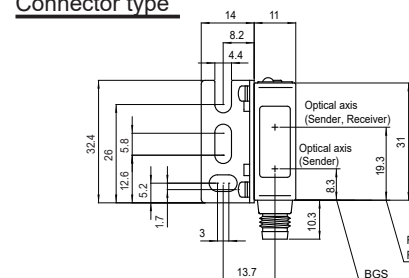
(Unit mm)



Cable type



Connector type

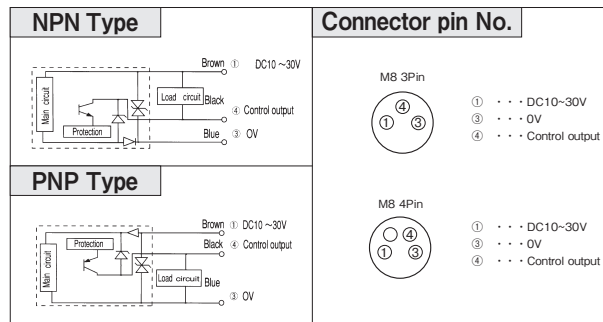


SPECIFICATION

	Retro Coax.	Retro Coax. Transparent	BGS			
	Cable type	ZR-X250(N,P)	ZR-QX200(N,P)	BGS-Z10(N,P)	BGS-Z15(N,P)	BGS-Z30(N,P)
	Connector type	ZR-X250C(N4,N3,P4,P3)	ZR-QX200(N4,N3,P4,P3)	BGS-Z10C(N,P)	BGS-Z15C(N,P)	BGS-Z30C(N,P)
Detecting distance	0~2.5m(V-61)	0~2m(P250F)	5~100mm※1	5~150mm※1	10~300mm※1	
Adjustable distance range	-		20~100mm※1	20~150mm※1	50~300mm※1	
Light Source	Red LED					
Spot size	φ 60 mm / at 2m		φ 10 mm / at 100 mm	φ 15 mm / at 150 mm	φ 30 mm / at 300 mm	
Supply voltage	DC10 ~ 30V Including ripple (P-P) 10%					
Current consumption	20mA max.		30mA max.			
Response time	250μs max.		500μs max.			
Control output	NPN / PNP Open collector 100mA max. /DC 30 V					
Operation mode	Light ON, Dark ON Selectable by switch					
Sensitivity adjustment	1 turn volume		6 turn volume (endless)		4 turn volume (endless)	
Indicators	Output indicator (orange LED) / Stable indicator (green LED)	Output indicator (orange LED)	Output indicator (orange LED) / Stable indicator (green LED)			
Ambient temp./ humidity	-25 ~ 55 °C / 35 ~ 85 %RH					
Protection category / material	IP67 / Case : ABS (glass fiber included) Front cover, Lens : PMMA					

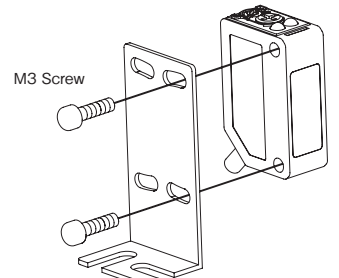
※1 White 90% 100x100 mm

INPUT AND OUTPUT CIRCUIT DIAGRAMS



Attachment

Tightening torque need to be under 0.5N · m



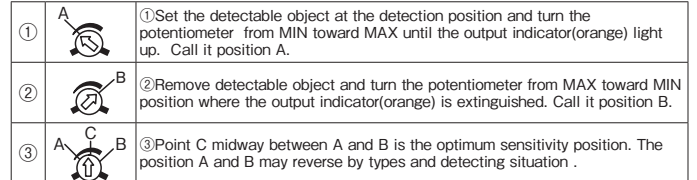
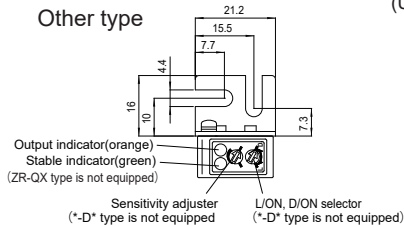
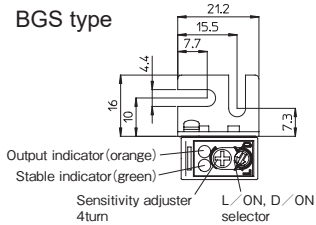
DIMENSIONS

Adjusting the potentiometer

BGS type

Other type

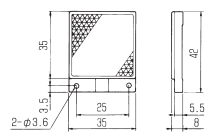
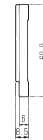
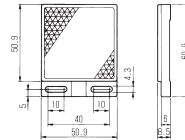
(Unit mm)



Reflectors

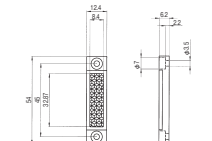
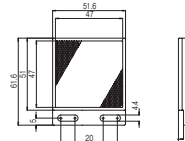
- Type : V-61 (Included ZR-X type.)
- 2.5m : ZR-X types

- Type : V-42 (Optional)
- 1.5m : ZR-X type



- Type : P250F (Included ZR-QX type.)
- 2.0m : ZR-QX200 only

- Type : P45 (Optional)
- 0.8m : ZR-X types



UL Satisfaction Ratings **UL** **US**
 Input : 10 ~ 24 Vdc, Class 2, max. 30 mA
 Output : 10 ~ 24 Vdc, Class 2, max. 50 mA
 Maximum Ambient temperature: 55°C

http://www.optex-fa.com/rohs_cn/

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! 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.