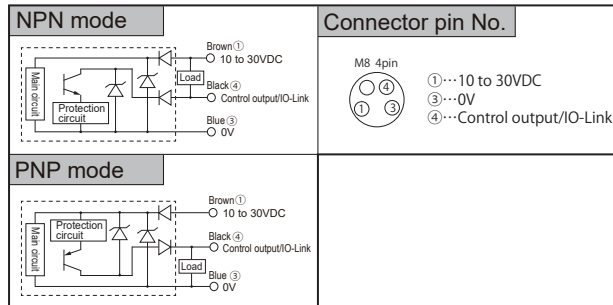


Specifications

		BGS type		
Cable type		Z4B-S08 (N/P)	Z4B-10 (N/P)	Z4B-30 (N/P)
Connector type		Z4B-S08C (N4/P4)	Z4B-10C (N4/P4)	Z4B-30C (N4/P4)
Sensing distance*1		5 to 80mm	5 to 100mm	10 to 300mm
Adjustable distance range*1		20 to 80mm	20 to 100mm	50 to 300mm
Light Source		Red LED		
Spot size		Approx. φ 2.5/60mm	Approx. φ 10/100mm	Approx. φ 30/300mm
Supply voltage		10 to 30VDC including ripple (P-P)10%		
Current consumption		30mA Max.		
Response time		1ms Max.		
Hysteresis*1		3% Max	3% Max	5% Max
Control output		NPN/PNP Open collector 100 mA/30 VDC Max. (Residual voltage 1.8 V Max.)		
Output mode		Light ON, Dark ON selectable by switch		
Sensitivity adjustment		6-turn potentiometer (endless)		4-turn potentiometer (endless)
Indicators		Output indicator (orange LED), Stability indicator (green LED)		
Applicable regulations	EMC	EMC directive (2014/30/EU)		
	Environment	RoHS directive (2011/65/EU), China RoHS (MIIT Order No. 32)		
Applicable standards		EN 60947-5-2		
Company standards		Noise resistance: Feilen Level 3 cleared		
Ambient temp./humidity		-25 to 55°C/35 to 85%RH (No condensation or freezing)		
Storage temp./humidity		-40 to 70°C/35 to 95%RH (No condensation or freezing)		
Ambient illuminance		Sunlight: 50,000 lx or less, Incandescent lamp: 5,000 lx or less		
Degree of protection/material		IP67 / Case: ABS, Front Cover: PMMA		

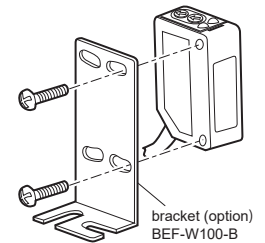
*1 White paper 100 mm × 100 mm

Input and output circuit diagram



Attachment

- Tightening torque need to be under 0.5N·m.
- Use M3 screw to mount.(more than 7.5mm insert)



FASTUS INSTRUCTION MANUAL

BGS Sensor

Z4B SERIES

Z4B-10□□□ Z4B-30□□□
Z4B-S08□□□



OPTEX FA CO., LTD.

- Please confirm if specifications fulfill your needs.
- Please read this manual carefully before the use and keep this for future reference.

Safety Precautions

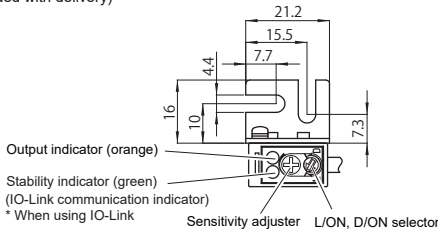
CAUTION

- It is dangerous to wire or attach/remove the connector with the power on.
- 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. 250 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 may depend on the individual units or the condition of detected product.
- 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 may cause the cable to break.

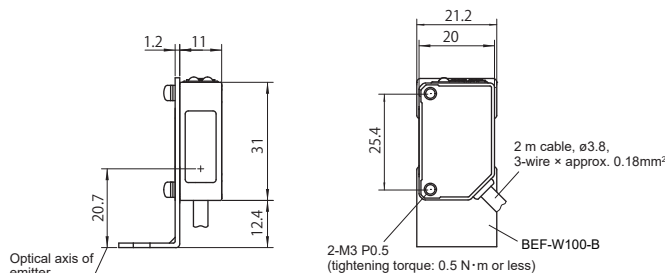
This product cannot be used as a safety device to protect human body.

Dimensions

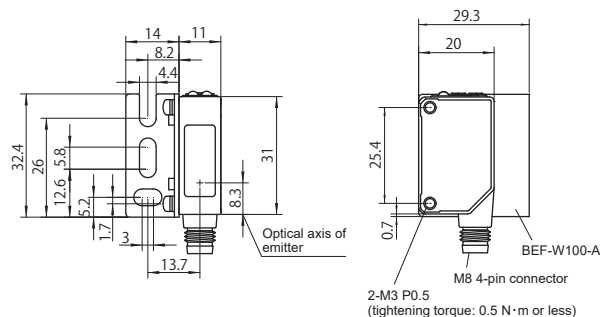
If mounting brackets are needed, order additionally.
(Not included with delivery)



Cable type : When using brackets of BEF-W100-B (option)



Connector type : When using brackets of BEF-W100-A (option)



Adjusting the potentiometer

1. Turn the sensitivity adjustment potentiometer to the left, stopping at the position where the output indicator (orange) turns off.
 2. Turn the sensitivity adjustment potentiometer to the right, stopping at the position where the output indicator (orange) and the stability indicator (green) light up.
- This completes the setting of the sensitivity.

- * The output indicator lighting (in orange) and turning off may be reversed depending on the output mode (light ON/dark ON).
- * Turn the potentiometer slowly. It may be damaged if turned with excessive force.

Stability indicator functions



Stability indicator

Indicator status	Description
Lit continuously	Stable detection is being performed.
Lit for 0.1 seconds + off for 0.4 seconds	Indicates that detection is unstable. In detail, the indicator starts flashing when the detection margin drops below 10% and stops flashing when the detection margin meets or exceeds 10%.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

* This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Support for the China RoHS directive



For details on the support for the China RoHS (the Administrative Measure on the Control of Pollution Caused by Electronic Information Products), see the following website.
https://www.optex-fa.com/rohs_cn/

Ramco Innovations

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Download the IO-Link index list and setting file (IODD file) from the Optex FA website.