



Photoelectric Sensor  
**D SERIES** Laser type

- DT- 4000 (E)
- DR- 500 (E)
- BGS-DL10 (E)
- BGS-DL30 (E)

**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.

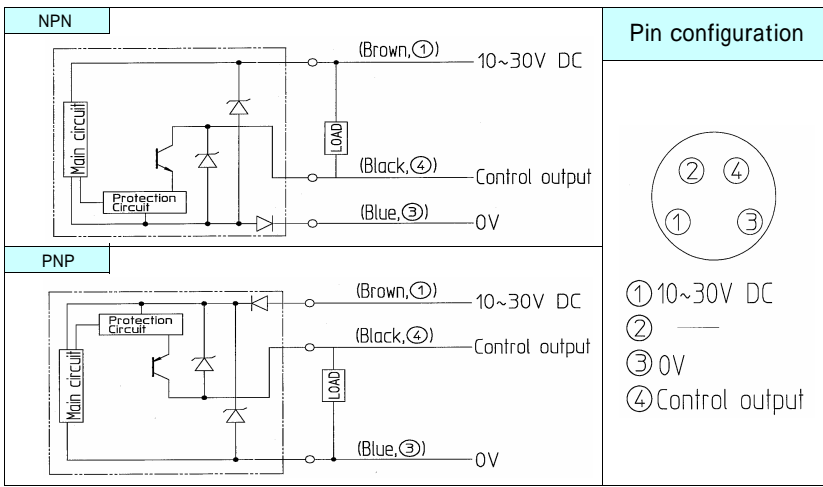
**Specifications**

Type	Through beam type	Retro reflection type	BGS type	
			Accurate type	Longer type
Cable type	DT-4000 (N,P)-(E)	DR-500 (N,P)-(E)	BGS-DL10(N,P)-(E)	BGS-DL30(N,P)-(E)
M8 connector type	DT-4000C (N,P)-(E)	DR-500C (N,P)-(E)	BGS-DL10C (N,P)-(E)	BGS-DL30C (N,P)-(E)
Setting range	40 m	5m *1	40 ~ 100mm	100 ~ 300mm
Supply voltage	DC10 ~ 30V including 10% ripple (P-P)			
Current consumption	40mA max.	30mA max.	35mA max.	
Response time	0.5ms max.		0.7ms max.	
Repeat accuracy *2	0.5mm/20m	0.3mm/5m	0.2mm/100mm	0.2mm/300mm
Light source	Red Laser diode (WL : 650nm Max. 2mW class 2)			
Indicator	Receiver : Output indicator (Orange LED) Source pilot lamp (Green LED)	Output indicator (Orange LED), Laser emitter indication (Green LED)		
	Emitter : Laser emitter indication (Green LED)			
Control output	NPN/PNP open collector DC30V 100mA max.			
Operation mode	Light ON / Dark ON Switchable			
Sensitivity adjustment	1-turn volume			
Ambient tem/ humid	-10 ~ 40 / 35 ~ 95%			
Protect category/material	IEC Standard IP67 housing : heat-resistant ABS(antibacterial) lens : PC button : NBR			
Weight	cable type: about 66g / connector type: about 20g			

\*1 with reflector P250F

\*2 in the vertical direction of optical axis (theoretical value)

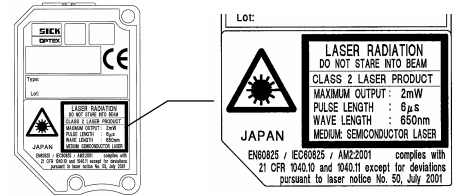
**Input/Output circuit design**



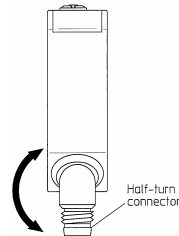
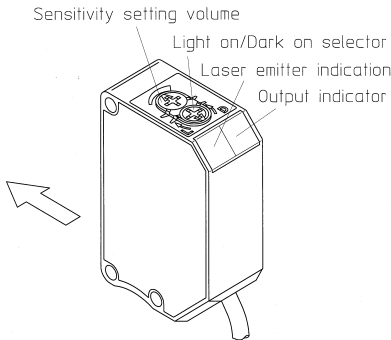
**Warnings**

**Laser beam**

This item utilizes visible light laser beam and is subject to safety standard class 2 ( ) of JIS C6802 as well as IEC and FDA regulations.  
Must not stare into laser beam directly or reflection by mirror.  
Must not disassemble.  
Automatic stop function of laser emission is not equipped.  
This product have already been registered at CDRH (Center for Devices and Radiological Health).



**Parts name**



\* For connector type only

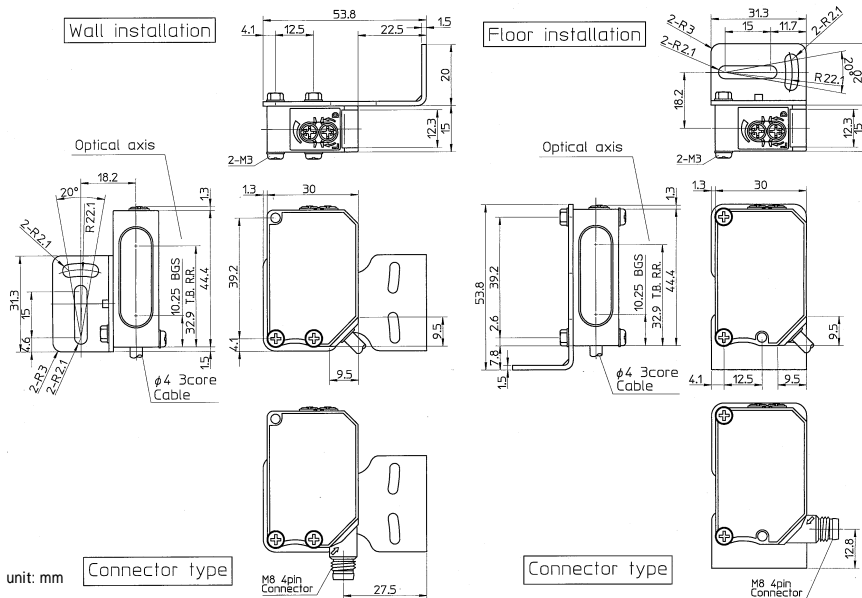
Turn the connector as Black Arrow indicates, otherwise you will damage the connector. The damage will be unreparable.

**Cautions**

Warm-up period (apprx.100 msec.) must be secured.  
Should avoid parallel wiring with high-voltage wire and/ or power line.  
Never install in same conduit.  
Avoid dust, oil and water adhesion to sensor forehead to escape light's insulation and refraction.  
In case of adhesion, wipe with dustless cloth or lens cleaner.  
In case of switching regulator, frame ground (FG) must be grounded.  
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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

**Dimensions**



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.

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