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

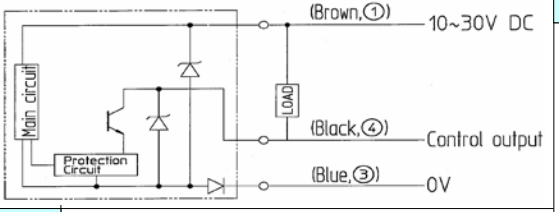
Type	Through beam type	Retro reflection type	BGS type	
			Accurate type	Longer type
Cable type	DT-4000 (N,P)-(E)	DR-500 (N,P)-(E)	BGS-DL10(N,P)-(E)	BGS-DL30(N,P)-(E)
M8 connector type	DT-4000C (N,P)-(E)	DR-500C (N,P)-(E)	BGS-DL10C (N,P)-(E)	BGS-DL30C (N,P)-(E)
Setting range	40 m	5m *1	40～100mm	100～300mm
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

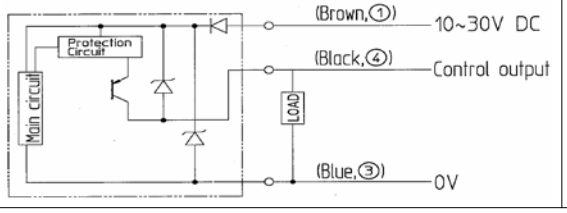
*2 in the vertical direction of optical axis (theoretical value)

Input/Output circuit design

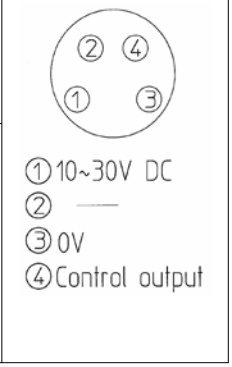
NPN



PNP



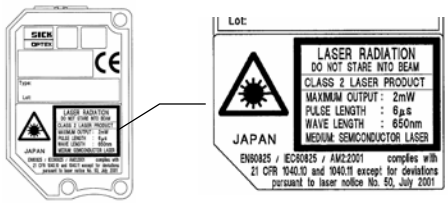
Pin configuration



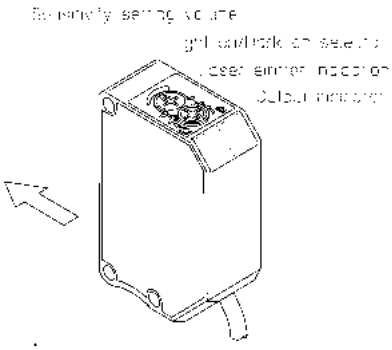
Warnings

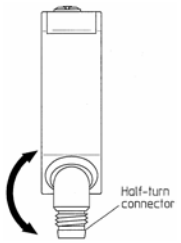
Laser beam

- This item utilizes visible light laser beam and is subject to safety standard class 2(Ⅱ) 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

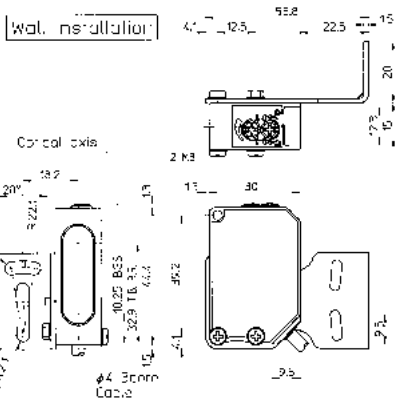
Turn the connector as Black Arrow indicates, otherwise you will damage the connector. The damage will be unrepairable.

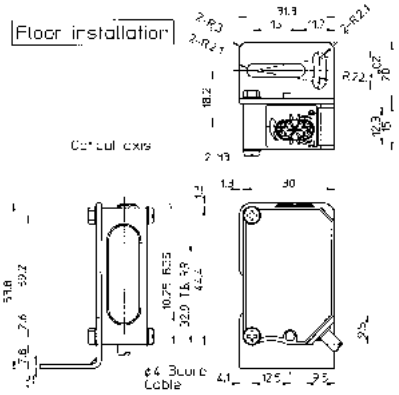
Cautions

- 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





unit: mm

- 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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