

KI659,660

Description

Model **KI659/660** consist of an Infra Red LED and a High sensitive Photo IC(Digital Output).

Feature

- Built-in amplifier.
- For paper dust: Visible Light cut resin.
- Wide gap-8mm, Deep ditch-14mm.
- Custom model in Beam axis is available in range of 4mm.
- The other model of Open Collector output;
Low level at emitting ... **KI669**
High level at emitting ... **KI670**

Application

- Object passing for Card reader, Bill exchanger.
- Coin-passing for Auto vending machine and Amusement.
- Paper detection for O.A. equipment.

Absolute Maximum Ratings

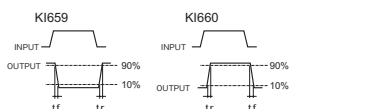
[Ta=25°C Unless otherwise noted]

Item	Symbol	Rating	Units
Supply Voltage	V _{CC}	6	V
Low Level Output Current	I _{OL}	50	mA
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-40 ~ +80	°C

Electro-Optical Characteristics

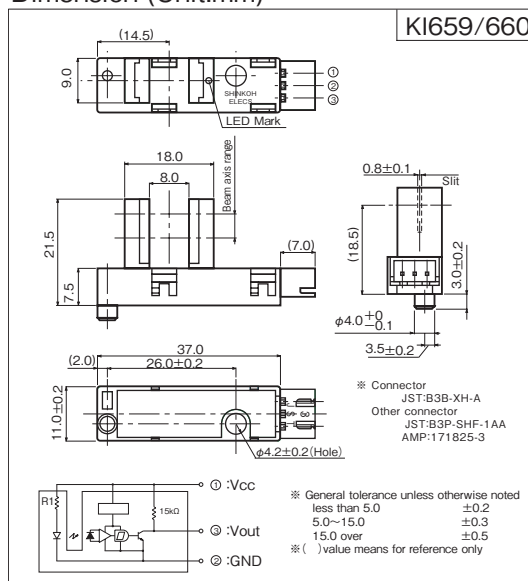
[V_{CC}=5V, Ta=25°C Unless otherwise noted]

Item	Symbol	Condition	min.	typ.	max.	Units
Supply Voltage	V _{CC}		4.5	5.0	5.5	V
Low Level Supply Current	I _{CC}	KI659 at Beam detecting	—	—	25	mA
		KI660 at Light block by object	—	—	25	
High Level Supply Current	I _{CC}	KI659 at Light block by object	—	—	25	mA
		KI660 at Beam detecting	—	—	25	
Low Level Output Voltage	V _{OL}	KI659 at Beam detecting,	—	—	0.4	V
		KI660 I _{OL} =16mA	—	—	0.4	
High Level Output Voltage	V _{OH}	KI659 at Light block by object, I _{OL} =16mA	V _{CC} × 0.9	—	—	V
		KI660 at Light block by object at Beam detecting	V _{CC} × 0.9	—	—	
Frequency	f		3000	—	—	Hz
Response Time	Rise	tr	—	0.86	—	μ sec
	Fall	tf	—	0.03	—	

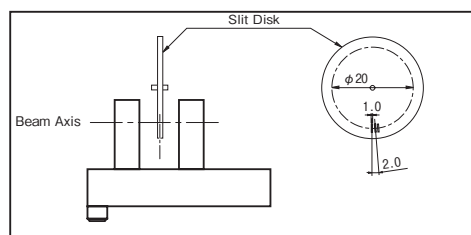


Wide Gap • Slit less Type

Dimension (Unit:mm)



Model	Operating mode
KI659	at Beam detecting Low
KI660	at Beam detecting High

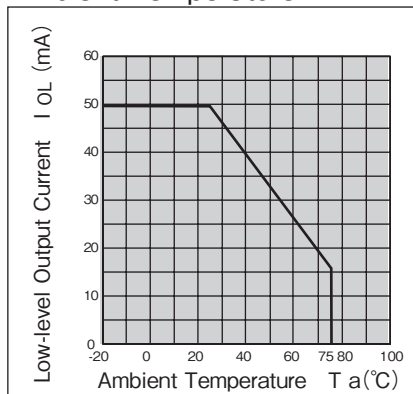


Note: Each value shown at rotating of slit disk.
Don't output as DC.

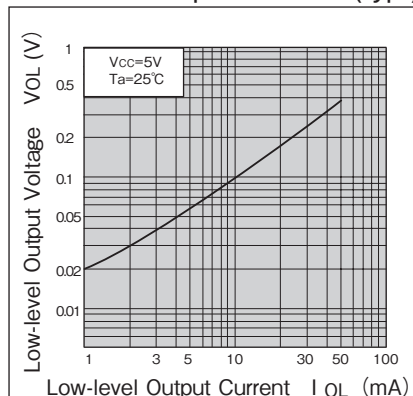
KI659/660

Note: Operation never exceeds each value of Absolute Maximum Ratings.

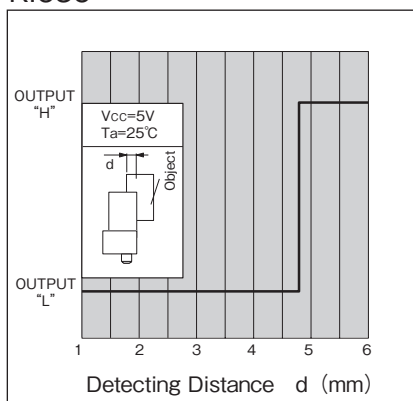
Low-level Output Current vs. Ambient Temperature



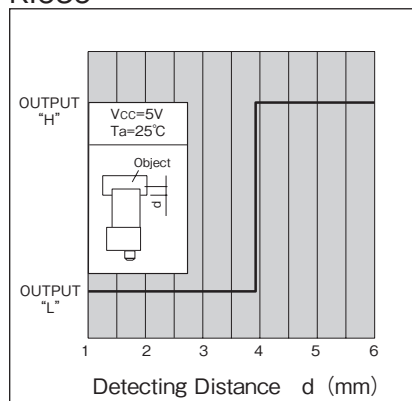
Low-level Output Voltage vs. Low-level Output Current (typ.)



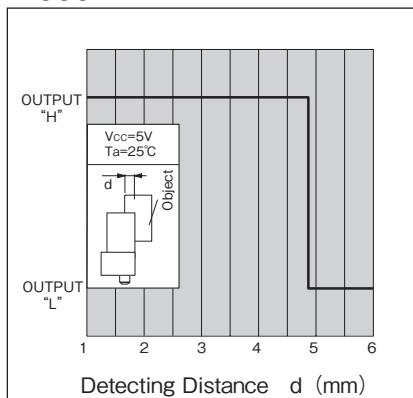
Detecting Position 1 (typ.)
KI659



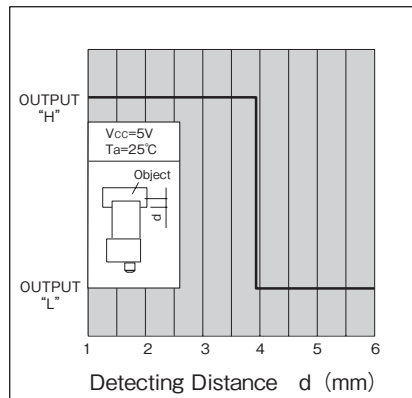
Detecting Position 2 (typ.)
KI659



Detecting Position 1 (typ.)
KI660



Detecting Position 2 (typ.)
KI660



- A Custom designed package is available on request.
- Specification are subject to change without notice.

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Head Office: 3-16-9, Minami-Kamonomiya, Odawara, Kanagawa
 Zip code: 250-0875 Japan
 Tel: +81 -465-45-1212 / Fax: +81 -465-45-1213
 Tokyo Office: 5F, Ebuchi Bldg., 3-24-13, Minami-Ohi, Shinagawa,
 Tokyo
 Website: <http://www.shinkoh-elecs.com/>