

Photo Interrupter

KI1400,1401

Tentative

Installation at 4 directions ※ 1

Description

Model **KI1400/1401** are compact size of Photo Interrupter and consist of an Infra Red LED and a Photo IC.

Feature

- Built-in amplifier, Open collector output type.
- Built in resistor for LED drive.

Application

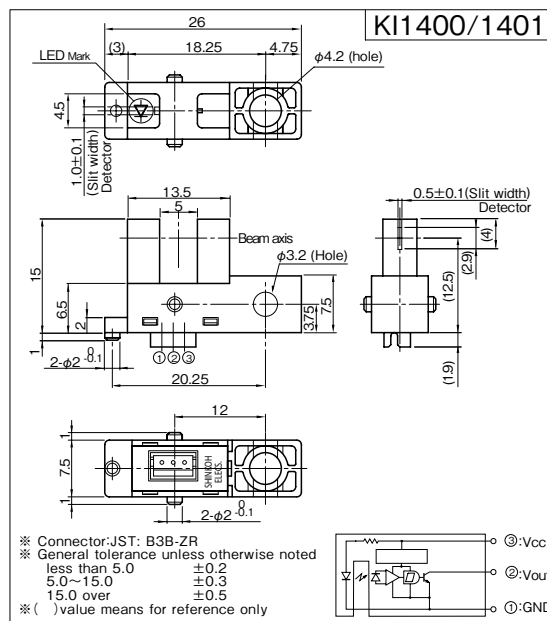
- Object passing for Card reader, Bill exchanger.
- Coin-passing for Auto vending machine and Amusement.
- Object passing in Auto vender and Ticket vending machine.
- Paper detection for O.A. equipment.

※ 1 Registered utility model No.3114641 (JPO)

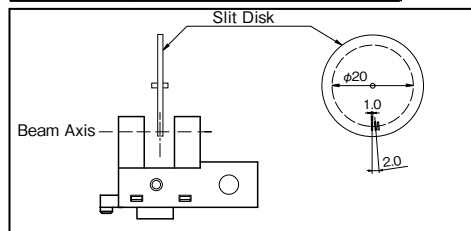
Absolute Maximum Ratings [Ta=25°C Unless otherwise noted]

Item	Symbol	Rating	Units
Supply Voltage	V _{CC}	6	V
Low Level Output Current	I _{OL}	50	mA
Output Voltage	V _O	28	V
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-40 ~ +80	°C

Dimension (Unit:mm)



Model	Operating mode
KI1400	at Beam detecting High
KI1401	at Beam detecting Low



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

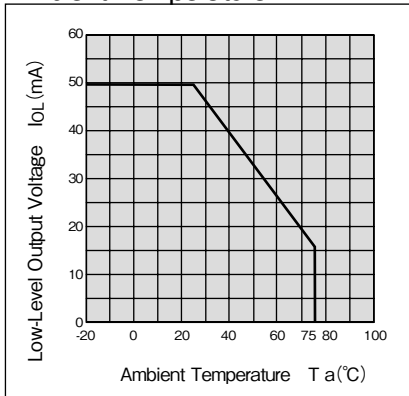
Electro-Optical Characteristics [V_{CC}=5V, Ta=25°C Unless otherwise noted]

Item	Symbol	Condition	min.	typ.	max.	Units
Supply Voltage	V _{CC}		4.5	5.0	5.5	V
Low Level Supply Current	I _{CCL}	KI1400 at Light block by object	—	—	25	mA
		KI1401 at Beam detecting	—	—	25	
High Level Supply Current	I _{CCH}	KI1400 at Beam detecting	—	—	25	mA
		KI1401 at Light block by object	—	—	25	
Low Level Output Voltage	V _{OL}	KI1400 at Light block by object, I _{OL} =16mA	—	—	0.4	V
		KI1401 at Beam detecting, I _{OL} =16mA	—	—	0.4	
High Level Output Voltage	V _{OH}	KI1400 at Beam detecting, R _L =47k Ω	V _{CC} × 0.9	—	—	V
		KI1401 at Light block by object, R _L =47k Ω	V _{CC} × 0.9	—	—	
Frequency	f		3000	—	—	Hz
Response Time	Rise	t _r	—	1.47	—	μ sec
	Fall	t _f	—	0.02	—	

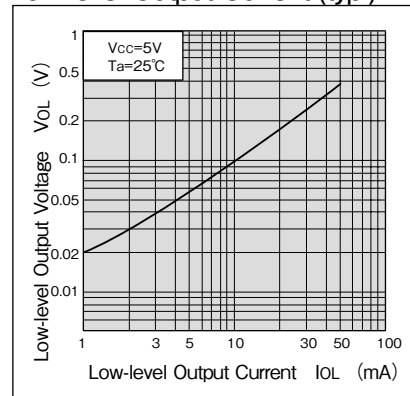
KI1400/1401

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

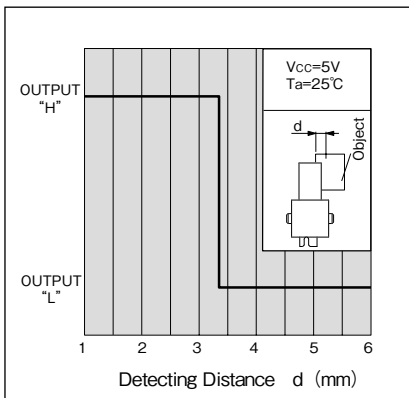
Low-level Output Current vs. Ambient Temperature



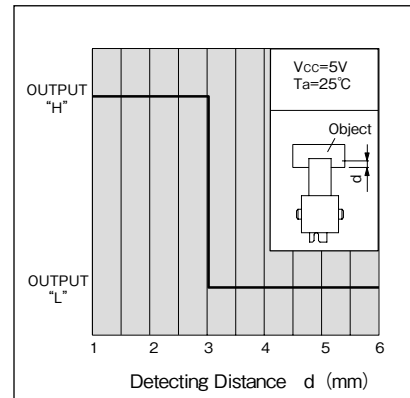
Low-level Output Voltage vs. Low-level Output Current (typ.)



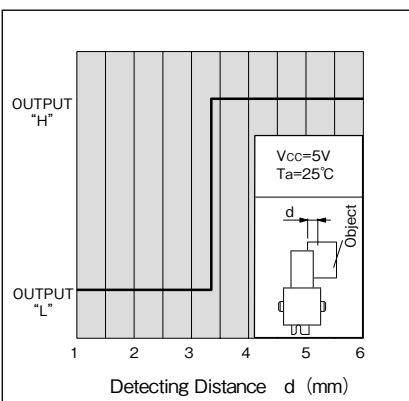
Detecting Position vs. Relative Light Current 1 (typ.) KI1400



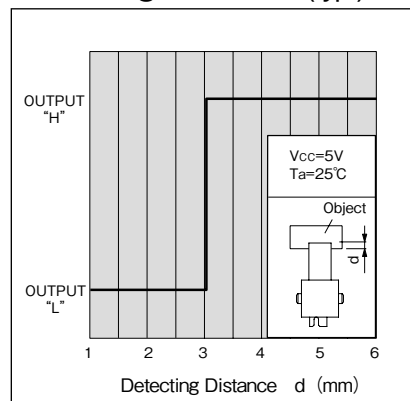
Detecting Position vs. Relative Light Current 2 (typ.) KI1400



Detecting Position vs. Relative Light Current 1 (typ.) KI1401



Detecting Position vs. Relative Light Current 2 (typ.) KI1401



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

05.11-1B



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 Bld., 3-24-13, Minami-Ohi, Shinagawa,
 Tokyo

Website: <http://www.shinkoh-elecs.com/>