

## Flexible package type

## KI1400 / KI1401

Photo Interrupter

## Feature

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

## Application

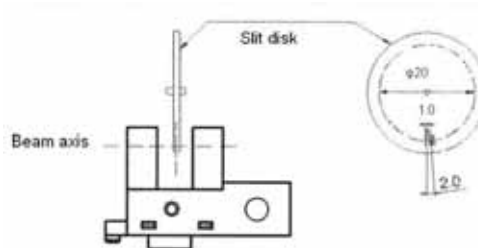
- Object-passing  
for Card reader, bill exchanger, ticket machine
- Coin-passing  
for vending machine, amusement machine
- Paper detection for OA equipment



## Absolute Maximum Ratings

[Ta = 25 unless otherwise specified]

Parameter	Symbol	Value	Unit
Supplied Voltage	V <sub>CC</sub>	6	V
Low Level Output Current	I <sub>OL</sub>	50	mA
Output Voltage	V <sub>O</sub>	28	V
Operating Temperature	T <sub>opr</sub>	-25 ~ +75	
Storage Temperature	T <sub>stg</sub>	-30 ~ +80	



Note: the indicated value should be measured  
when slit disk is rotating as mentioned above

## Electro-optical Characteristics

[Ta = 25 unless otherwise specified]

Item	Symbol	Rating	Unit	Condition
Frequency	f	Min. 3000	Hz	
Response Time	Rise	T <sub>R</sub>	μ sec	
	Fall	T <sub>F</sub>		

## \*\*\* KI1400 (operating mode: High level at the time of beam detection)\*\*\*

Item	Symbol	Rating	Unit	Condition
Supplied Voltage	V <sub>CC</sub>	Typ. 5.0	V	
Low-level supplied current	I <sub>CCL</sub>	Max. 25	mA	Blocking the beam by object
High-level output current	I <sub>CCH</sub>	Max. 25	mA	Detecting the beam
Low-level output voltage	V <sub>OL</sub>	Max. 0.4	V	Blocking the beam by object, I <sub>OL</sub> =16mA
High-level output voltage	V <sub>OH</sub>	Min. V <sub>CC</sub> x 0.9	V	Detecting the beam, R <sub>L</sub> =47k

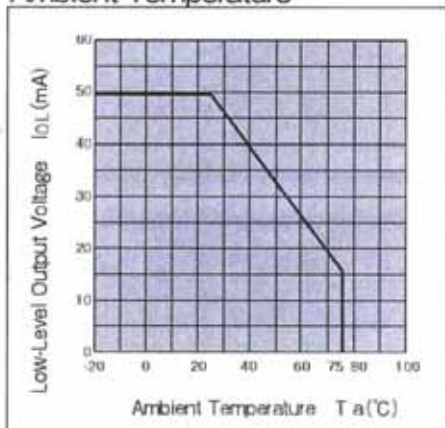
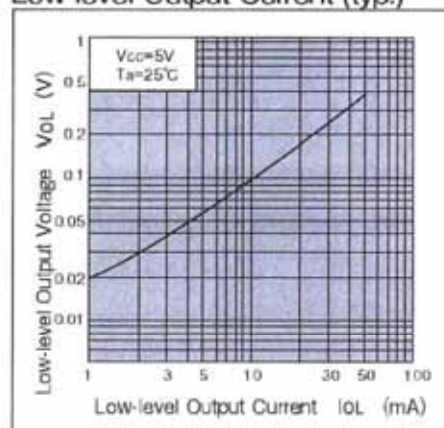
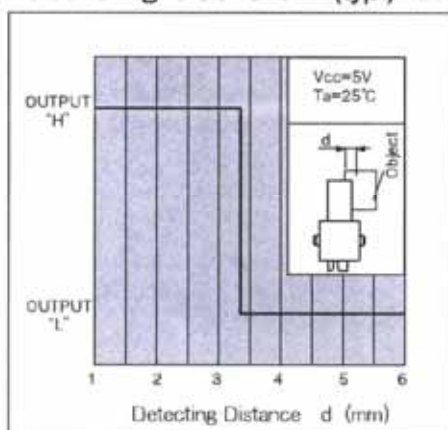
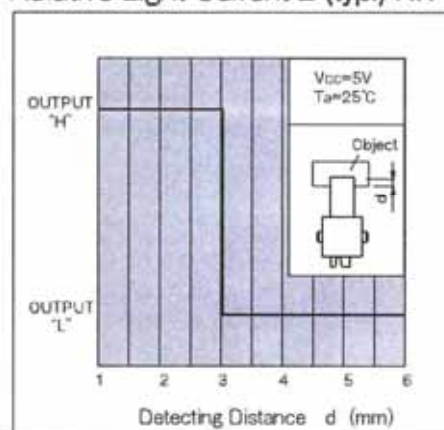
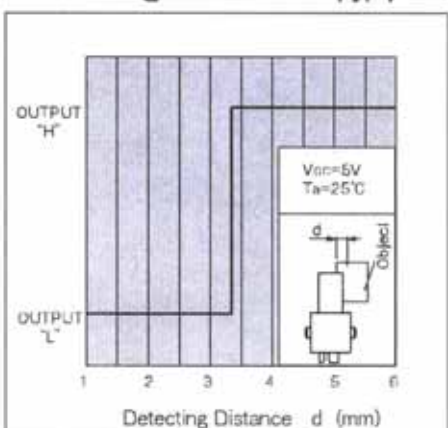
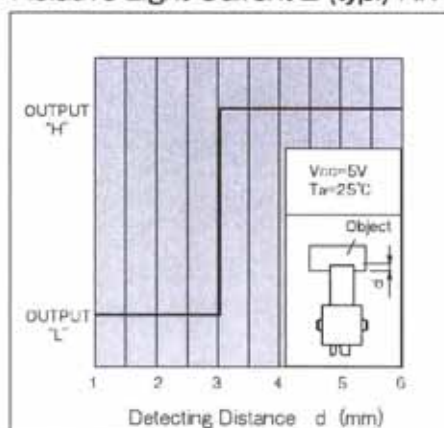
## \*\*\* KI1401 (operating mode: Low level at the time of beam detection)\*\*\*

Item	Symbol	Rating	Unit	Condition
Supplied Voltage	V <sub>CC</sub>	Typ. 5.0	V	
Low-level supplied current	I <sub>CCL</sub>	Max. 25	mA	Detecting the beam
High-level output current	I <sub>CCH</sub>	Max. 25	mA	Blocking the beam by object
Low-level output voltage	V <sub>OL</sub>	Max. 0.4	V	Detecting the beam, I <sub>OL</sub> =16mA
High-level output voltage	V <sub>OH</sub>	Min. V <sub>CC</sub> x 0.9	V	Blocking the beam by object, R <sub>L</sub> =47k

Flexible package type

**KI1400 / KI1401**

Photo Interrupter

**Characteristics Graphs**Low-level Output Current vs.  
Ambient TemperatureLow-level Output Voltage vs.  
Low-level Output Current (typ.)Detecting Position vs.  
Relative Light Current 1 (typ.) KI1400Detecting Position vs.  
Relative Light Current 2 (typ.) KI1400Detecting Position vs.  
Relative Light Current 1 (typ.) KI1401Detecting Position vs.  
Relative Light Current 2 (typ.) KI1401

**TENTATIVE**

**ALPHA-ONE ELECTRONICS LTD.**

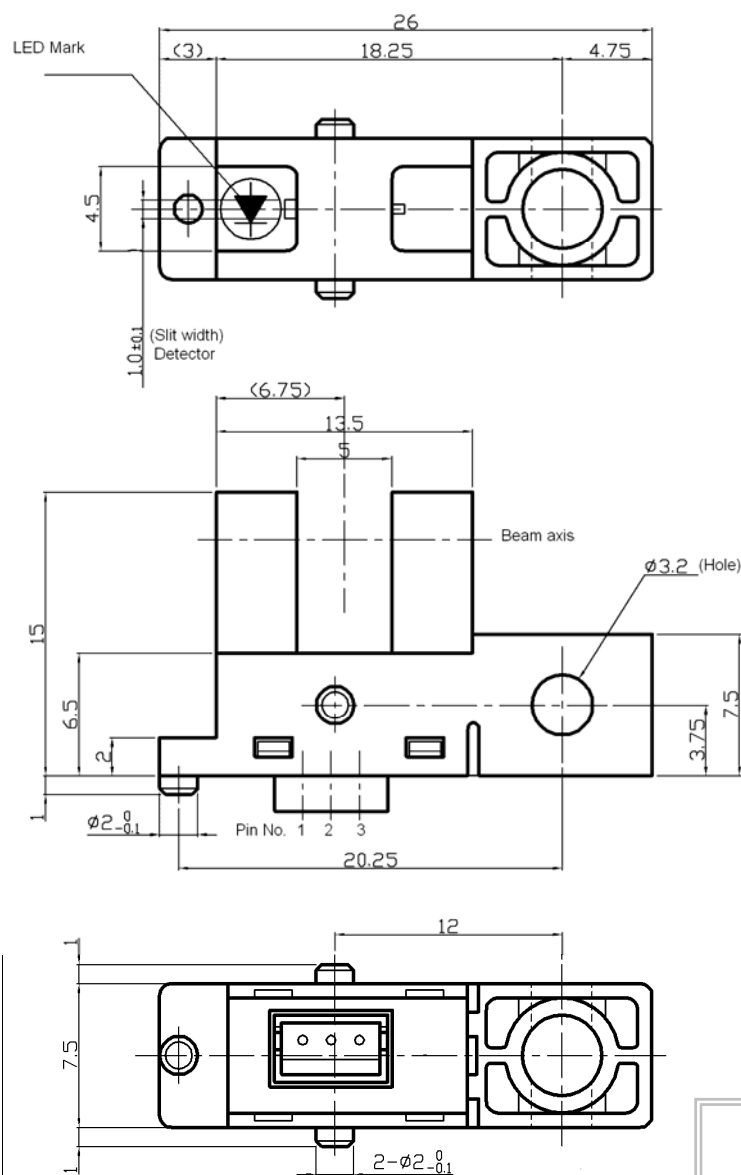
Kanagawa, Japan

Flexible package type

**KI1400 / KI1401**

Photo Interrupter

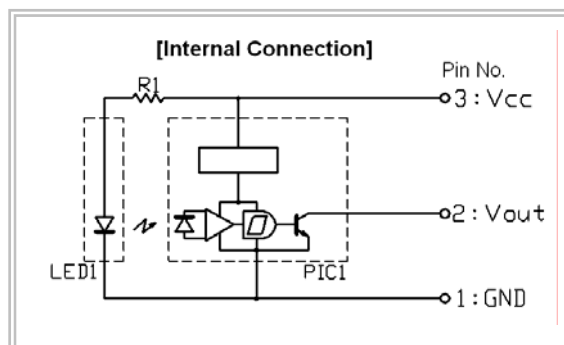
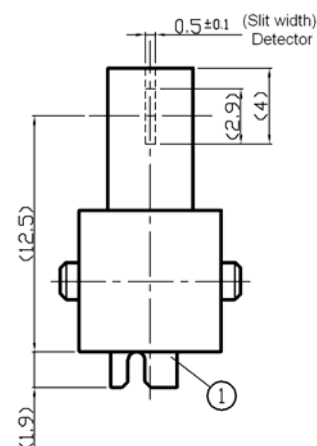
**Drawing (unit: mm)**



\*\* Tolerance (unless otherwise specified)

Less than 5.0	± 0.2
5.0 ~ 15.0	± 0.3
More than 15.0	± 0.5

Value in ( ) : for reference only



The data is subject to change without notice.