

**Dust-proof type****KI1233 / KI1234**

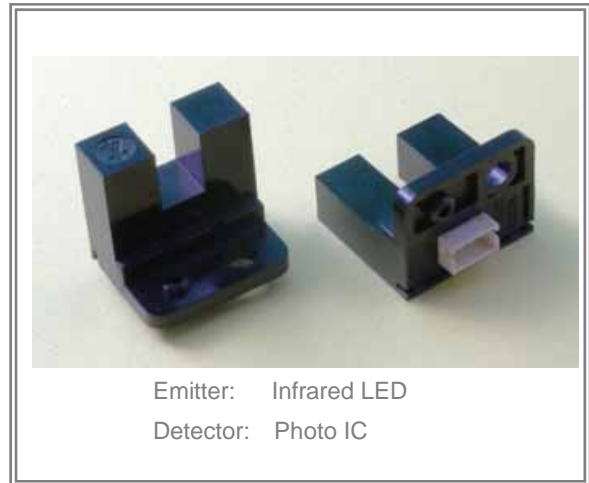
Photo Interrupter

**Feature**

- Built-in amplifier, Open collector output type
- Easy to remove paper dust
- High-performance: slit width 0.5mm
- Visible light cut filter
- Built in resistor for LED drive

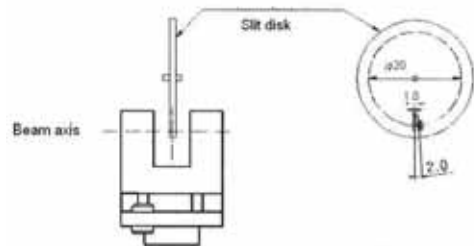
**Application**

- 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>	1.47	
	Fall	T <sub>F</sub>	0.02	

**\*\*\* KI1233 (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> ×0.9	V	Detecting the beam, R <sub>L</sub> =47k

**\*\*\* KI1234 (operating mode: Low level at the time of beam detection)\*\*\***

Item	Symbol	Rating	Unit	Condition
Supply Voltage	V <sub>CC</sub>	Typ. 5.0	V	
Low-level supply 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> ×0.9	V	Blocking the beam by object, R <sub>L</sub> =47k

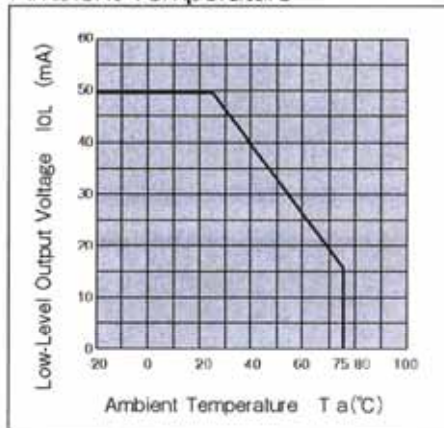
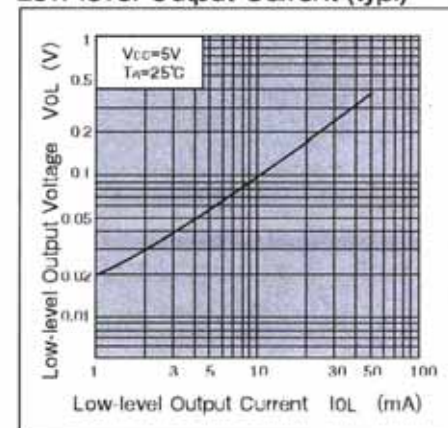
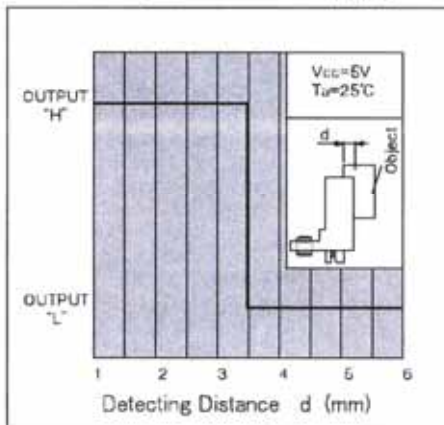
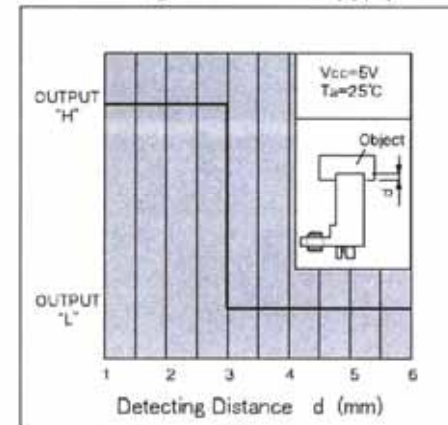
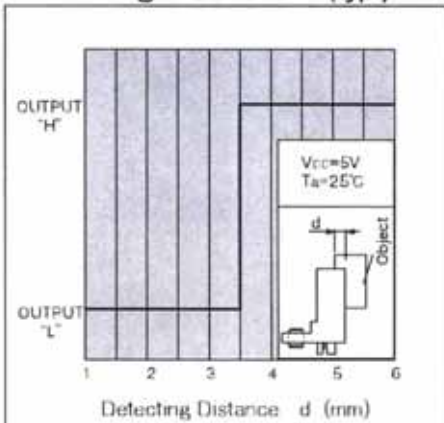
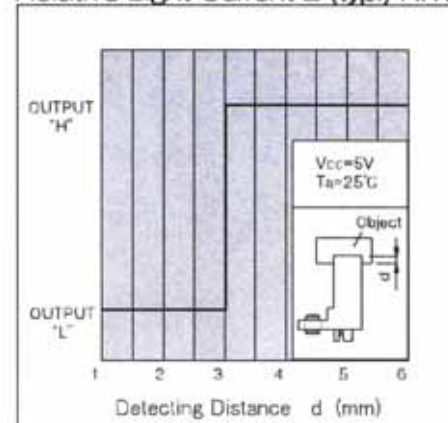
The data is subject to change without notice.

Dust-proof type

**KI1233 / KI1234**

Photo Interrupter

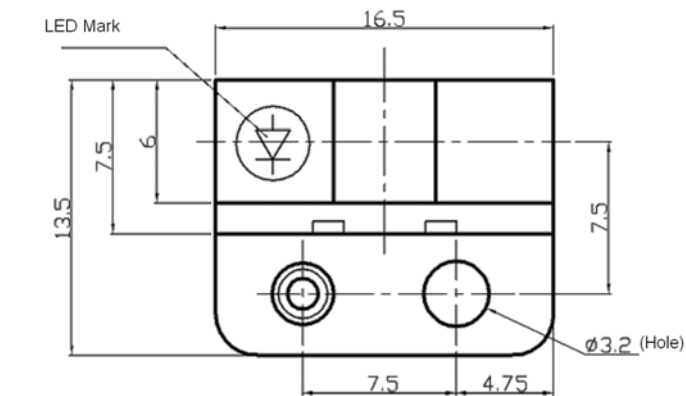
## Characteristics Graphs

Low-level Output Current vs.  
Ambient TemperatureLow-level Output Voltage vs.  
Low-level Output Current (typ.)Detecting Position vs.  
Relative Light Current 1 (typ.) KI1233Detecting Position vs.  
Relative Light Current 2 (typ.) KI1233Detecting Position vs.  
Relative Light Current 1 (typ.) KI1234Detecting Position vs.  
Relative Light Current 2 (typ.) KI1234

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**Drawing** (unit: mm)

\*\* Tolerance (unless otherwise specified)

Less than 5.0	$\pm 0.2$
5.0 ~ 15.0	$\pm 0.3$
More than 15.0	$\pm 0.5$

Value in ( ) : for reference only

