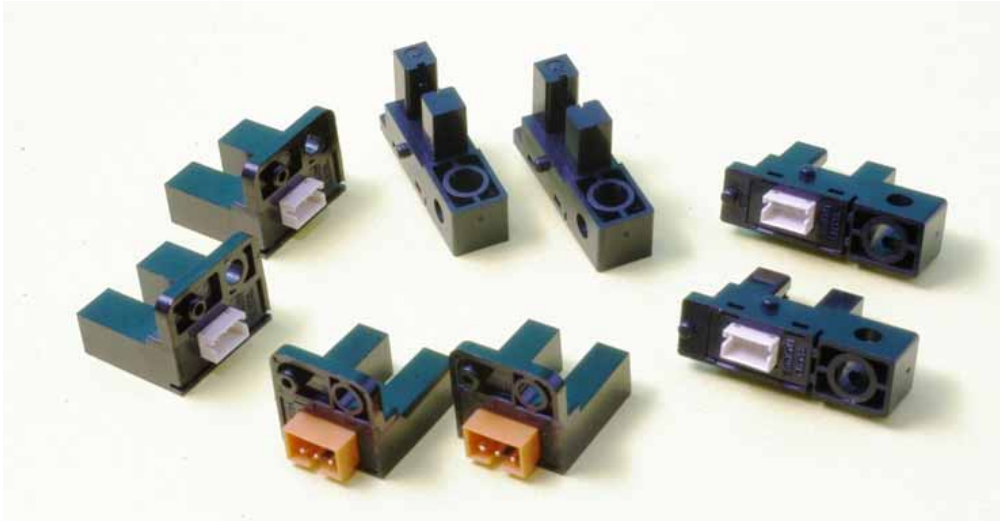


PHOTO INTERRUPTER [Transmission type]

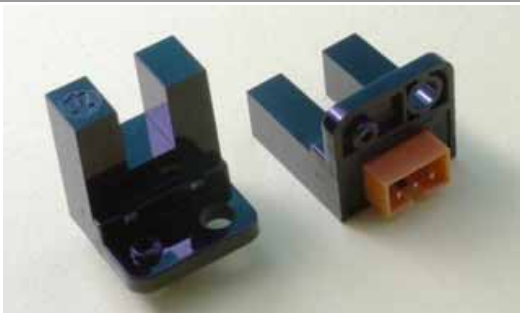
KI-series is a photo interrupter with super-high performance. They feature extremely high performance with 0.5mm of slit width detector and are suitable to check object passing in card reader, ticket vending machine and bill exchanger.



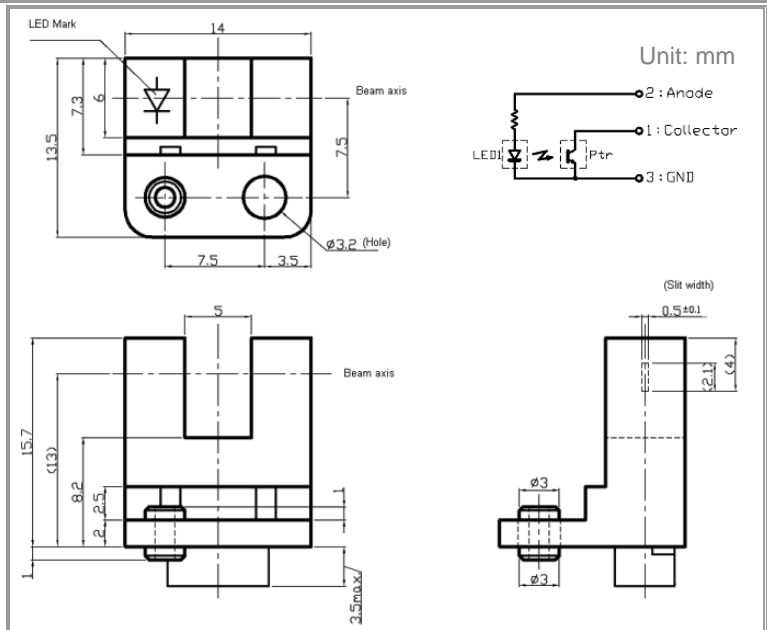
DUST-PROOF MODEL

KI-1232

Analog output: photo transistor



- Photo transistor output
- Easy to remove paper dust
- Visible light cut filter
- Wide gap: 5mm



Electro-Optical Characteristics [Ta=25]

Item	Symbol	Rating	Unit	Condition
Emitter	Supply Voltage	V_{CC}	Typ. 5.0	V
Detector	Dark Current	I_{CEO}	Max. 0.2	μA
Coupled	Light Current	I_C	Min. 0.3	mA
	Response Time	T_R/T_F	Typ. 50	μsec

* V_{CC} =Max. 6V

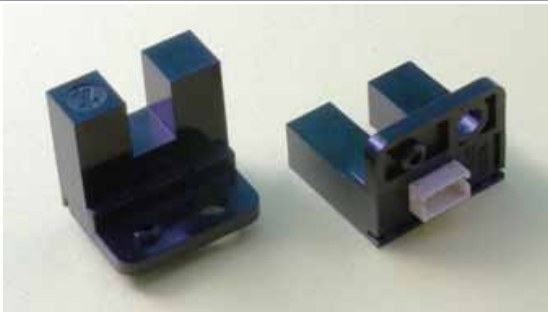
The data is subject to change without notice.

PHOTO INTERRUPTER

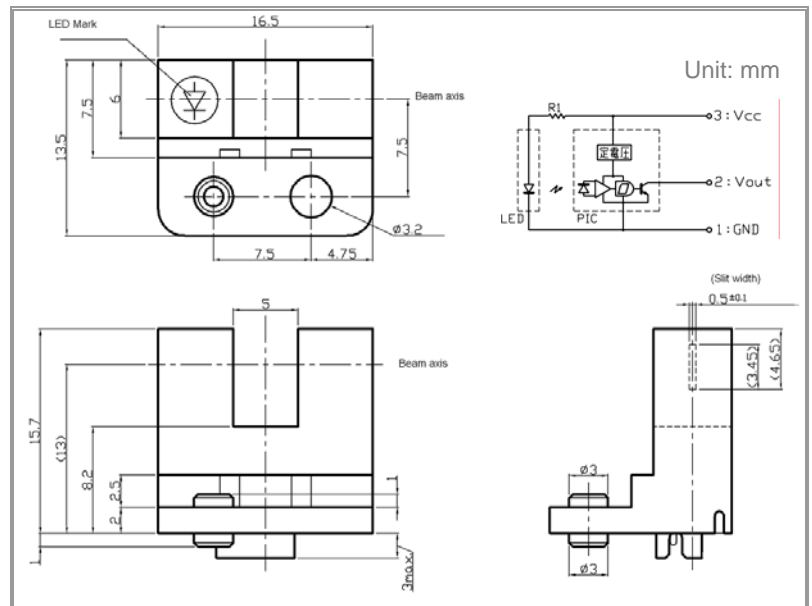
DUST-PROOF MODEL

KI-1233, KI-1234

Output: photo IC



- 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



Electro-Optical Characteristics [Ta=25]

*** KI1233 (operating mode: High level at the time of beam detection)***

Item	Symbol	Rating	Unit	Condition
Supply Voltage	V _{CC}	Typ. 5.0	V	
Low-level supply current	I _{CCL}	Max. 25	mA	Blocking the beam by object
High-level output current	I _{CCH}	Max. 25	mA	Detecting the beam
Low-level output voltage	V _{OL}	Max. 0.4	V	Blocking the beam by object, I _{OL} =16mA
High-level output voltage	V _{OH}	Min. V _{CC} ×0.9	V	Detecting the beam, R _L =47k
Frequency	f	Min. 3000	Hz	
Response Time	Rise	T _R	1.47	μ sec
	Fall	T _F	0.02	

* V_{CC}=Max. 6V

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

Item	Symbol	Rating	Unit	Condition
Supply Voltage	V _{CC}	Typ. 5.0	V	
Low-level supply current	I _{CCL}	Max. 25	mA	Detecting the beam
High-level output current	I _{CCH}	Max. 25	mA	Blocking the beam by object
Low-level output voltage	V _{OL}	Max. 0.4	V	Detecting the beam, I _{OL} =16mA
High-level output voltage	V _{OH}	Min. V _{CC} ×0.9	V	Blocking the beam by object, R _L =47k
Frequency	f	Min. 3000	Hz	
Response Time	Rise	T _R	1.47	μ sec
	Fall	T _F	0.02	

* V_{CC}=Max. 6V

PHOTO INTERRUPTER

FLEXIBLE PACKAGE MODEL

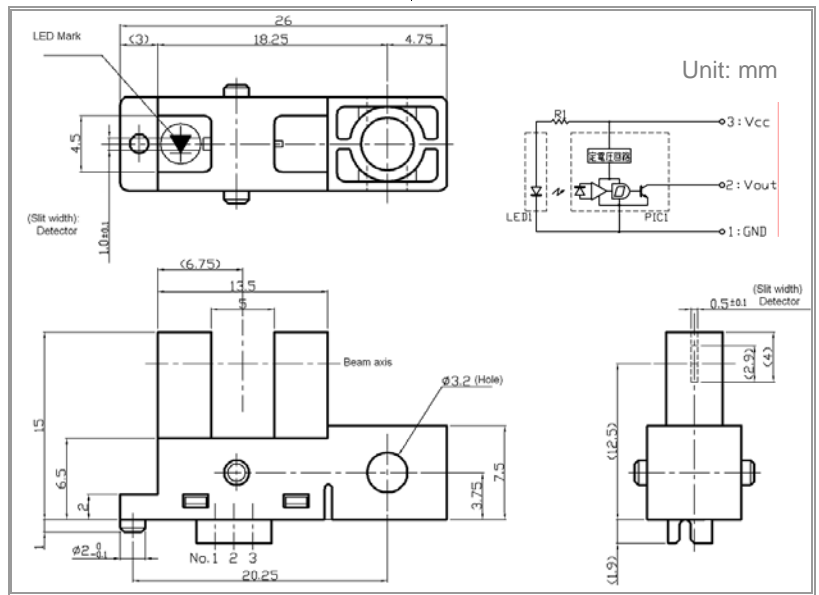
[Excellent flexibility in installation so as to be utilized for the applied equipment in common use.]

KI-1400, KI-1401

Output: photo IC



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



Electro-Optical Characteristics [Ta=25]

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

Item	Symbol	Rating	Unit	Condition
Supply Voltage	V_{CC}	Typ. 5.0	V	
Low-level supply current	I_{CCL}	Max. 25	mA	Blocking the beam by object
High-level output current	I_{CCH}	Max. 25	mA	Detecting the beam
Low-level output voltage	V_{OL}	Max. 0.4	V	Blocking the beam by object, $I_{OL}=16\text{mA}$
High-level output voltage	V_{OH}	Min. $V_{CC} \times 0.9$	V	Detecting the beam, $R_L=47\text{k}$
Frequency	f	Min. 3000	Hz	
Response Time	Rise	T_R	1.47	μsec
	Fall	T_F	0.02	

* $V_{CC}=\text{Max. } 6\text{V}$

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

Item	Symbol	Rating	Unit	Condition
Supply Voltage	V_{CC}	Typ. 5.0	V	
Low-level supply current	I_{CCL}	Max. 25	mA	Detecting the beam
High-level output current	I_{CCH}	Max. 25	mA	Blocking the beam by object
Low-level output voltage	V_{OL}	Max. 0.4	V	Detecting the beam, $I_{OL}=16\text{mA}$
High-level output voltage	V_{OH}	Min. $V_{CC} \times 0.9$	V	Blocking the beam by object, $R_L=47\text{k}$
Frequency	f	Min. 3000	Hz	
Response Time	Rise	T_R	1.47	μsec
	Fall	T_F	0.02	

* $V_{CC}=\text{Max. } 6\text{V}$