

Photo Interrupter

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KI669,670

Wide Gap · Slit less Type

Dimension (Unit:mm)

Description

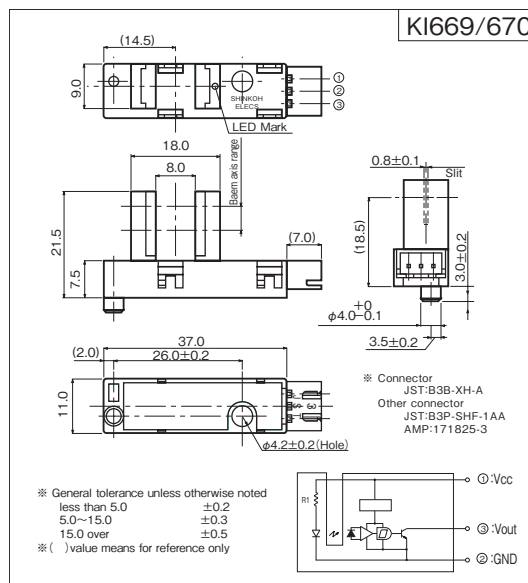
Model **KI669/670** consist of an Infra Red LED and a High sensitive Photo IC(Digital Output).

Feature

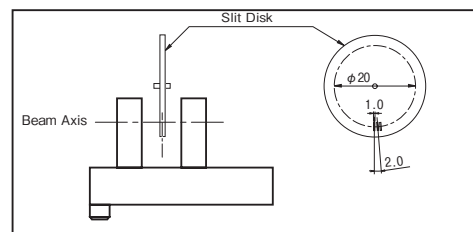
- Built-in amplifier, Open collector output type.
- For paper dust: Visible Light cut resin.
- Wide gap-8mm, Deep ditch-14mm.
- Custom model in Beam axis is available in range of 4mm.
- The other model of Pull-up Resistor type;
 - Low level at emitting ··· **KI659**
 - High level at emitting ··· **KI660**

Application

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



| Model | Operating mode |
|--------------|------------------------|
| KI669 | at Beam detecting Low |
| KI670 | at Beam detecting High |



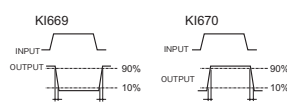
Note: Each value shown at rotating of slit disk.
Don't output as DC.

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 _{CCL} | KI669 at Beam detecting | — | — | 25 | mA |
| | | KI670 at Light block by object | — | — | 25 | |
| High Level Supply Current | I _{CCH} | KI669 at Light block by object | — | — | 25 | mA |
| | | KI670 at Beam detecting | — | — | 25 | |
| Low Level Output Voltage | V _{OL} | KI669 at Beam detecting, I _{OL} =16mA | — | — | 0.4 | V |
| | | KI670 at Light block by object, I _{OL} =16mA | — | — | 0.4 | |
| High Level Output Voltage | V _{OH} | KI669 at Light block by object, R _L =47k Ω | V _{CC} × 0.9 | — | — | V |
| | | KI670 at Beam detecting, R _L =47k Ω | V _{CC} × 0.9 | — | — | |
| Frequency | f | | 3000 | — | — | Hz |
| Response Time | Rise | t _r | — | 0.86 | — | μ sec |
| | Fall | t _f | — | 0.03 | — | |

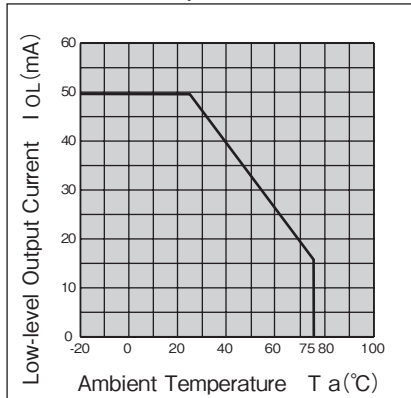


KI669/670

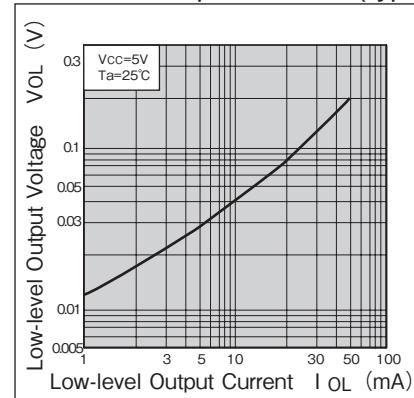
Note: Operation never exceeds each value of Absolute Maximum Ratings.

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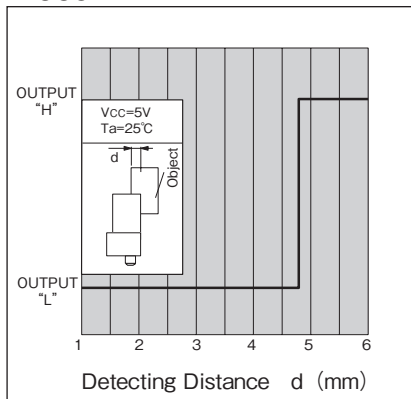
Low-level Output Current vs. Ambient Temperature



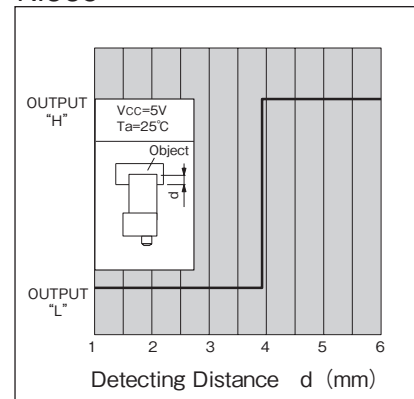
Low-level Output Voltage vs. Low-level Output Current (typ.)



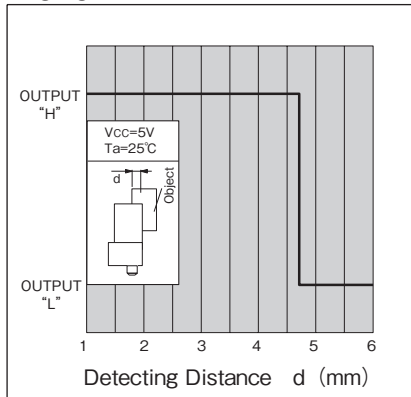
Detecting Position 1 (typ.)
KI669



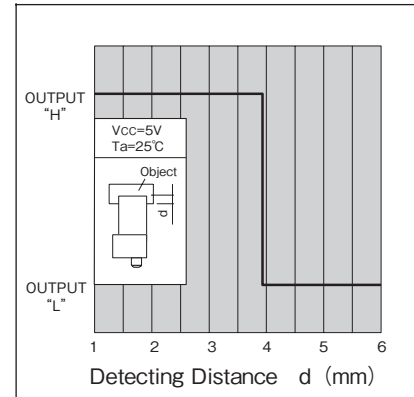
Detecting Position 2 (typ.)
KI669



Detecting Position 1 (typ.)
KI670



Detecting Position 2 (typ.)
KI670



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

04-09-1A

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