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The industry's thinnest\* (0.8mm)

# Compact 4-way Detection Sensor

RPI-1040



\*July 2008 ROHM Survey

## Applications

Automatically orients the image based on camera position, allowing for easy viewing and image correction (i.e. autofocus, white balance adjustment)

### Orientation Detection

For Images  
(Mobile phones, digital cameras)



The image rotates along with the camera

### Image Rotation

For Displays  
(Projectors, photo frames)



### Tilt Detection

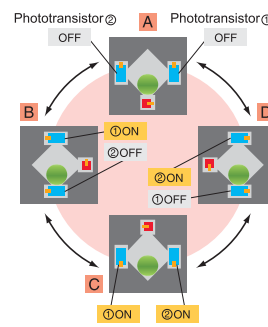
Prevents combustion  
Damage Prevention  
(LCD TVs)



Optimized for any device requiring direction detection functionality

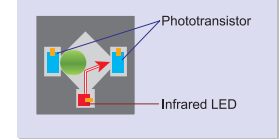
Visit our website for more application examples    
[www.rohm.com/products/opto\\_device/sensor/4\\_direction/uses.html](http://www.rohm.com/products/opto_device/sensor/4_direction/uses.html)

## Operating Principle



An infrared LED and 2 phototransistors are used to detect orientation in 4 directions

Construction



**New noise reduction function**

Noise normally generated during detection is eliminated. Ideal for a wide variety of applications.

**Silent rotation**

## Optical Method - Advantages

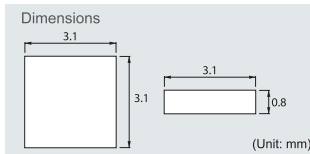
Not susceptible to vibration or magnetic fields

Method	Vibration	Magnetic Field
Optical	○	○
Mechanical	△	○
Magnetic	○	×

## Electrical Characteristics

	Typ.	Conditions
Collector Current	1mA	IF=5mA, VCE=5V (While Dark)
Leakage Current	0.1mA	IF=5mA, VCE=5V (While Dark)

## 0.8mm Thin



37% smaller and 79% less volume than conventional products



Conventional Product

RPI-1040



Conventional Product

RPI-1040

Excellence in Electronics



ROHM CO., LTD.

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