

With visible guide beam

Guide beam for easy aiming, Wide beam for reliable sensing



Product
name

Discrete sensor

Distance-adjustable photoelectric switch

Model No.

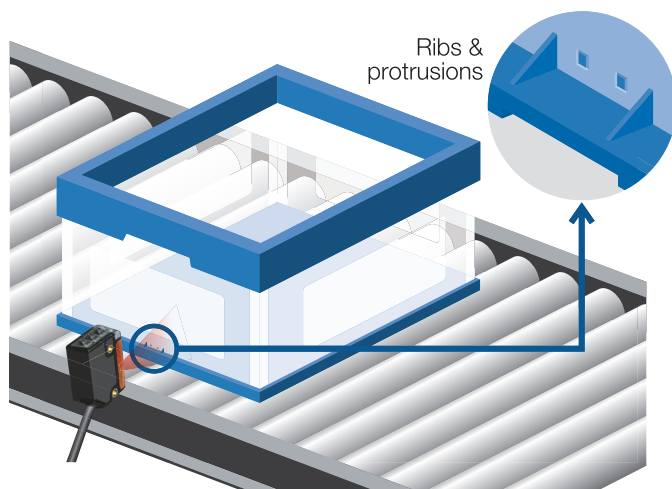
HP7-G_ / F_ / S_

Process and
equipment name

Conveyor systems,
sorter systems,
automated warehouses,
movable shelves

Current Situation

- With infrared-light sensors, it is hard to know where the sensor is aimed.
- Recently, we are seeing more foldable translucent containers (because the contents are visible) and containers with lids (because they are more sanitary).
- In some cases, sensors are set in advance to minimize onsite adjustment.
- With laser sensors and other sensors with a narrow optical axis, detection can become unreliable, depending on the location (due to ribs or protrusions).
- Sensors with an adjustment knob are difficult to handle because the results vary depending on the worker.



Current Issues

Problem [1]

To avoid translucent places and other places where sensing is unreliable, so that we can prevent malfunctions, we want to see where the sensing area is.

Problem [2]

Malfunctions at ribs or protrusions must be prevented.

Problem [3]

We would like everyone to be able to adjust sensors the same way.

Use a guide beam to check the targeted position

Solution 1

A red guide beam lets you see where the sensor is aimed. You can aim the sensor where detection is reliable and avoid translucent parts of foldable containers and other places where sensing is not reliable.

Note: Detection may not be possible depending on the translucency of the target object. Please check detectability in the actual situation.

Minimize sensing errors with a broad LED spot

Solution 2

With a wide LED sensing light, sensing extends over an area. Since the spot is not a mere pinpoint, errors due to ribs or projections on a foldable container can be minimized.

Use auto-tuning for consistent, reliable detection

Solution 3

With this easy tuning method, adjustment is reliable because everybody obtains the same set distance.

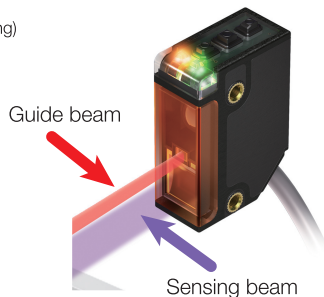
Solution 1

Solution 2

Equipped with a guide beam* for visual installation check

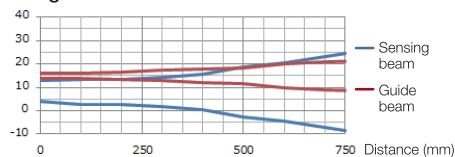
A red guide beam flashes during tuning and adjustment.

(Normal state) Guide beam OFF (While tuning/adjusting) Guide beam ON



*Products made in Aug. 2018 and later

Relative positions of sensing and guide beams



- Numbers are not exact—use graph only for approximate reference.

- If guide beam is hard to see, darken the surroundings and use a white paper (etc.) target.

Solution 3

Easy tuning

Anybody can quickly set or adjust to the same distance.

Position tuning

The distance is set to a position slightly in front of where the target object is detected.



Center button

Hold down the center button for approx. 1 second until the orange LED starts to blink.

Orange LED blinks rapidly (at approx. 10 Hz)

Device enters tuning mode



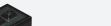
Center button

With target object in the desired location, press the center button twice briefly.

Blinking stops and normal operation begins.

Setup is complete

Model and price list

Type	Appearance	Detection method	Max. detection distance	Light source	Output	Model No.
Distance-adjustable diffuse scan		Background Suppression	750mm	Infrared	NPN/NO	HP7-G81
		Foreground Suppression	250mm		PNP/NO	HP7-G82
					NPN/NO	HP7-F21
					PNP/NO	HP7-F22
			500mm		NPN/NO	HP7-F41
					PNP/NO	HP7-F42

Please read "Terms and Conditions" from the following URL before ordering and use.

<https://www.azbil.com/products/factory/order.html>

Other product names, model numbers and company names may be trademarks of the respective company.

[Notice] Specifications are subject to change without notice.

No part of this publication may be reproduced or duplicated without the prior written permission of Azbil Corporation.

Azbil Corporation

Advanced Automation Company

1-12-2 Kawana, Fujisawa
Kanagawa 251-8522 Japan

URL: <https://www.azbil.com>