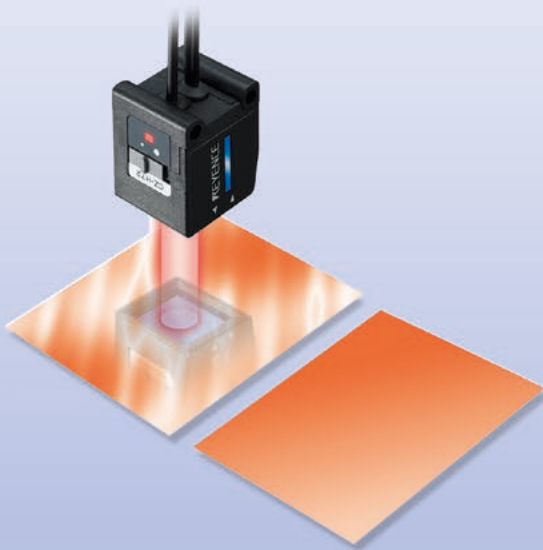# Luster Detection Sensor Head
CZ-H72

Detecting presence/absence of adhesive on targets
It extracts only the luster component from the target's surface

Most targets reflect both regular and diffuse light components. The special luster capturing optics in the CZ-H72 sensor head extract only the luster component and eliminate the undesirable effects of diffuse reflections.
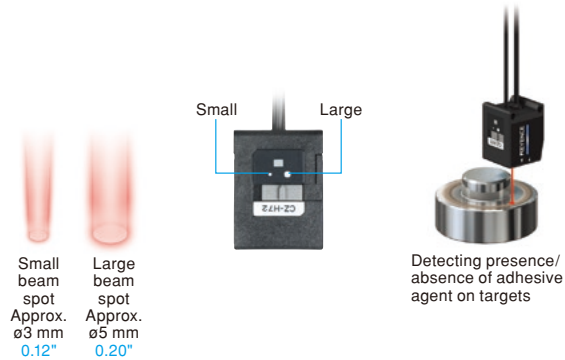
Unaffected by colored patterns or print below a glossy surface

The CZ-H72 can reliably detect targets by their luster level, without being affected by colors or print

Selectable beam spot size

Choose from 3 mm 0.12" or 5 mm 0.20" diameter beam spots (when detecting from 15 mm 0.59")
Note: Total detecting range is from 10 to 20 mm (0.39" to 0.79")

Small beam spot Approx. ø3 mm 0.12"

Large beam spot Approx. ø5 mm 0.20"

Small Large

Detecting presence/absence of adhesive agent on targets

FILM mode for detecting presence/absence of films

The amplifier features a built-in FILM mode, which can be selected for difficult detection of such targets as packaging films for cigarettes or Compact Discs. These films exhibit birefringence, which can prevent stable detection in conventional photoelectric sensors.

Detecting presence/absence of wrapping film

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Applications

Detecting presence/absence of flat paint on plastics
Detects different types of molded articles by checking presence/absence of flat paint. It can recognize up to 4 different types of targets without tooling changes.

Detecting presence/absence of plating at contact points
Detects presence/absence of plating electrodes. With selectable large/small beam spots, it can stably detect small targets.

Detecting presence/absence of sealing tape
Detects presence/absence of sealing tape. It stably detects patterned transparent sticker without being affected by background colors or patterns.

Lineup

Sensor head

Type	Detection range	Smallest spot diameter	Model
Luster detection	15 mm 0.59" (Center)	Small 3 mm 0.12" dia. Large 5 mm 0.20" dia. at reference distance of 15 mm 0.59"	**CZ-H72**

Amplifier

Type		Main unit	Expansion unit
Model	NPN	**CZ-V21A**	**CZ-V22A**
	PNP	**CZ-V21AP**	**CZ-V22AP**
Appearance			

Specifications

Sensor head

Type		Luster detection (Adjustable beam spot)
Model		**CZ-H72**
Detection range		15 mm 0.59" (Center) [1.]
Smallest spot diameter		Small: 3 mm 0.12" dia. Large: 5 mm 0.20" dia. at reference distance of 15 mm 0.59"
Light source		Red LED (665 nm)
Minimum bend radius of fiber		25 mm 0.98"
Ambient light		Incandescent lamp: 10,000 lux max., Sunlight: 20,000 lux max.
Ambient temperature		-10 to +55°C (14 to 131°F), No freezing
Vibration resistance		10 to 55 Hz, 1.5 mm 0.06" double amplitude in X, Y, and Z directions, 2 hours respectively
Enclosure rating		IP40
Material	Housing	Fiberglass reinforced plastic
	Lens cover	Glass
Weight (with 2-m 6.6' cable)		Approx. 50 g

* Refer to ➡ **P.191** for amplifier specifications.
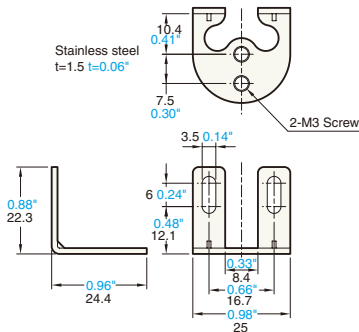1. Small beam spot: 15 ±3 mm 0.59" ±0.12", Large beam spot: 15 ±5 mm 0.59" ±0.20"
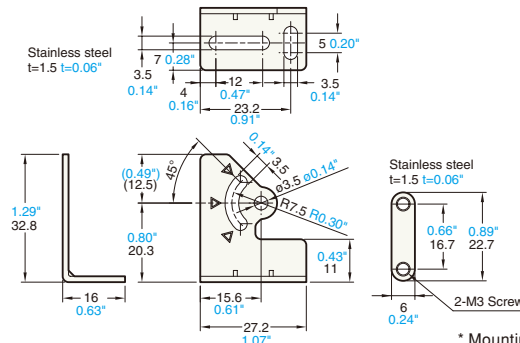
Dimensions

Unit: mm inch

Sensor head
CZ-H72

When sensor head mounted without rotation
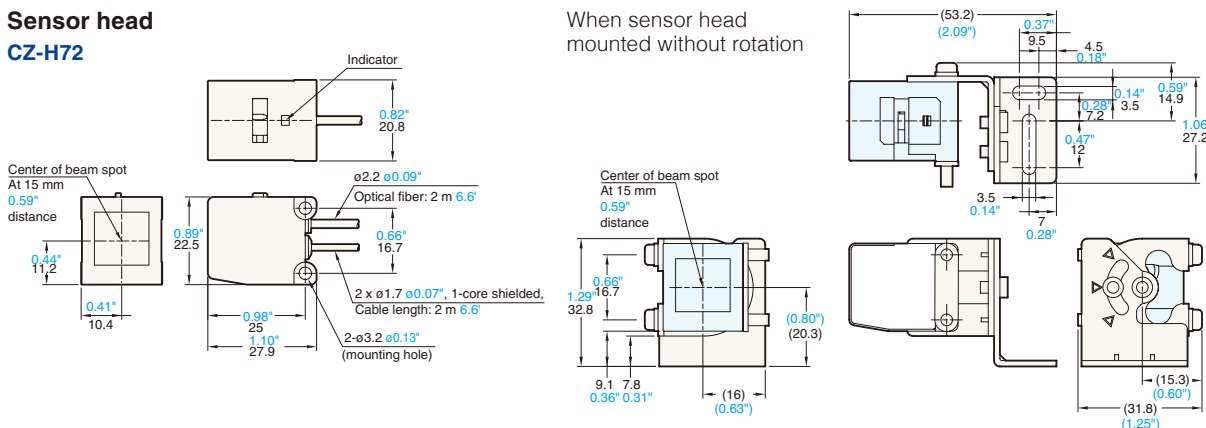
Mounting bracket A*

Mounting bracket B*

* Mounting bracket A/B is attached to **CZ-H72**.