RAY10 Reflex Array

Photoelectric sensor with light array for detecting flat objects

SICK
Sensor Intelligence.

Advantages

Simple alignment and reliable object detection

The RAY10 Reflex Array photoelectric sensor has a uniform, visible light band. The photoelectric sensor can be aligned quickly and easily thanks to this light band. After alignment, only a teach-in is needed before the sensor is ready for object detection.

Thanks to the PinPoint LED, the light band on the reflector is easy to see

Save valuable time during commissioning thanks to the quick alignment and easy adjustment of the sensor

Predictive maintenance

During operation, blue LEDs indicate the degree of contamination of the sensor and reflector. The integrated IO-Link technology enables quick and reliable transmission of these maintenance signals to the controller (PLC). This means maintenance and cleaning of the sensor can be planned at an early stage, avoiding unplanned downtime.

➕ **Prevent unplanned downtime with the help of predictive maintenance**

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Technical data overview

Dimensions (W x H x D)	21.5 mm x 36 mm x 37.7 mm
Functional principle detail	With minimum distance to reflector (dual lens system), Reflex Array
Light source	PinPoint LED
Type of light	Visible red light
Enclosure rating	IP67
Housing material	Plastic
Adjustment	Potentiometer

Product description

Photoelectric sensors from the RAY10 Reflex Array product family enable reliable object detection of flat objects as well as fast commissioning. When combined with a reflector, the photoelectric sensors also detect small, flat, transparent or uneven objects from a size of 5 mm. Within a 25 mm-high uniform light array, the sensors detect the leading edge of the respective object for this purpose. This allows perforated objects to be reliably detected without multiple switching.

At a glance

• Sender and receiver in a single housing, combined with a reflector
• Detection of objects > 5 mm, within a detection height of 25 mm
• ASIC from SICK
• Visible uniform light array (PinPoint LED)
• AutoAdapt technology (predictive maintenance)

Your benefits

• Reduce overall costs by up to 50% compared to solutions with separate sender and receiver housings
• Reliable, position-independent detection of very flat objects
• Productivity increase thanks to reliable object detection (regardless of object property) and prevention of multiple switching (for perforated, non-uniform objects)
• Quick and easy optical alignment, commissioning and monitoring
• Reduction of downtime of conveyor systems

Ordering information

- **Minimum object size:** ≥ 5 mm
- **Sensing range max.:** 0 m ... 1.5 m
- **Detection height:** 25 mm
- **Functional principle detail:** With minimum distance to reflector (dual lens system), Reflex Array
- **Functional principle:** Photoelectric retro-reflective sensor
- **Type of light:** visible red light
- **Adjustment:** Potentiometer

Switching output	Switching mode	Connection type	Type	Part no.
PNP	Dark switching	Cable with M8 male connector, 4-pin, 1,000 mm [1]	RAY10-KZ3EBLP06	1098291
	Light switching	Cable with M8 male connector, 4-pin, 1 m [1]	RAY10-PZ3EBL	1100989
		Cable with M8 male connector, 4-pin, 300 mm [1]	RAY10-PZ3CBL	1102078
	Light/dark switching	Cable with M8 male connector, 4-pin, 1 m [1]	RAY10-HK3EBL	1142656
		Cable with M8 male connector, 4-pin, 2 m [1]	RAY10-HK3GBL	1142657
Push-pull: PNP/NPN	Light switching	Cable with M12 male connector, 4-pin, 300 mm [1]	RAY10-AT4CBL	1102079
	Light/dark switching	Cable with M12 male connector, 4-pin, 1 m [1]	RAY10-AB4EBL	1093749
			RAY10-AB4EBLA00	1096103
		Cable with M12 male connector, 4-pin, 300 mm [1]	RAY10-AB4CBL	1091724
			RAY10-AB4CBLA00	1096100
		Cable, 4-wire, 2 m [1]	RAY10-AB1GBLA00	1095884
		Cable with flying leads, 4-wire, 2 m [1]	RAY10-AB1GBL	1093745
		Cable with male connector M8, 4-pin, snap, 1 m [1]	RAY10-AB5EBL	1093746
			RAY10-AB5EBLA00	1096101
		Cable with male connector M8, 4-pin, snap, 300 mm [1]	RAY10-AB5CBL	1093747
			RAY10-AB5CBLA00	1096102

[1] Do not bend below 0 °C.

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

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