



# RAY26P-34162130ZZZ

Reflex Array

MULTITASK PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
RAY26P-34162130ZZZ	1105727

Other models and accessories → [www.sick.com/Reflex\\_Array](http://www.sick.com/Reflex_Array)

### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric retro-reflective sensor, autocollimation Reflex Array
<b>Dimensions (W x H x D)</b>	24.6 mm x 82.5 mm x 53.3 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Minimum object size</b>	1 mm, position-independent detection within the light array
<b>Detection height</b>	20 mm
<b>Sensing range max.</b>	0 m ... 1.5 m <sup>1) 2)</sup>
<b>Distance of the sensor to reflector</b>	≥ 0 m
<b>Type of light</b>	Visible red light
<b>Light source</b>	PinPoint LED
<b>Light spot size (distance)</b>	24 mm x 9 mm (1 m)
<b>Wave length</b>	635 nm
<b>Adjustment</b>	BluePilot: Teach-in
<b>AutoAdapt</b>	✓
<b>Special applications</b>	Detecting objects with position tolerances, Detecting perforated objects, Detecting uneven, shiny objects, Detecting transparent objects, Detecting flat objects

<sup>1)</sup> Reflector PL80A.

<sup>2)</sup> At minimum object size 1 mm.

## Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub>
<b>Current consumption</b>	25 mA <sup>2)</sup> 40 mA <sup>3)</sup>
<b>Power consumption, sender</b>	<sup>3)</sup>
<b>Power consumption, receiver</b>	<sup>3)</sup>
<b>Switching output</b>	Push-pull: PNP/NPN
<b>Output function</b>	Factory setting: Pin 2 / white: NPN normally closed (light switching), PNP normally open (dark switching), Pin 4 / black: NPN normally open (dark switching), PNP normally closed (light switching)
<b>Switching mode</b>	Light/dark switching
<b>Signal voltage PNP HIGH/LOW</b>	Approx. V <sub>S</sub> - 2.5 V / 0 V
<b>Signal voltage NPN HIGH/LOW</b>	Approx. V <sub>S</sub> / < 2.5 V
<b>Output current I<sub>max.</sub></b>	≤ 100 mA
<b>Response time</b>	≤ 3 ms <sup>4)</sup>
<b>Switching frequency</b>	170 Hz <sup>5)</sup>
<b>Connection type</b>	Cable with M12 male connector, 4-pin, 270 mm <sup>6)</sup>
<b>Cable material</b>	PVC
<b>Circuit protection</b>	A <sup>7)</sup> B <sup>8)</sup> C <sup>9)</sup> D <sup>10)</sup>
<b>Protection class</b>	III
<b>Weight</b>	80 g
<b>Housing material</b>	Plastic, VISTAL®
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP66 IP67
<b>Ambient operating temperature</b>	-40 °C ... +60 °C <sup>11) 12)</sup>
<b>Ambient storage temperature</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Limit values.

<sup>2)</sup> 16 V DC ... 30 V DC, without load.

<sup>3)</sup> 10 V DC ... 16 V DC, without load.

<sup>4)</sup> Signal transit time with resistive load in switching mode.

<sup>5)</sup> With light/dark ratio 1:1 in switching mode.

<sup>6)</sup> Do not bend below 0 °C.

<sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>8)</sup> B = inputs and output reverse-polarity protected.

<sup>9)</sup> C = interference suppression.

<sup>10)</sup> D = outputs overcurrent and short-circuit protected.

<sup>11)</sup> Avoid condensation on the front screen of the sensor and on the reflector.

<sup>12)</sup> Allowed temperature change after Teach +/- 20 K.

### Safety-related parameters

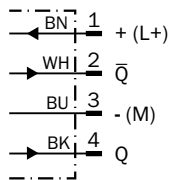
<b>MTTF<sub>D</sub></b>	709 years
<b>DC<sub>avg</sub></b>	0%

### Classifications

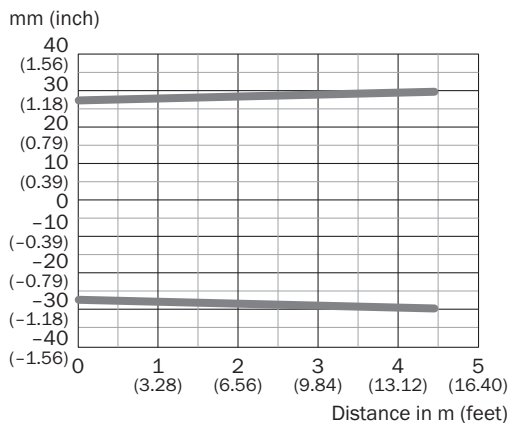
<b>ECl@ss 5.0</b>	27270902
<b>ECl@ss 5.1.4</b>	27270902
<b>ECl@ss 6.0</b>	27270902
<b>ECl@ss 6.2</b>	27270902
<b>ECl@ss 7.0</b>	27270902
<b>ECl@ss 8.0</b>	27270902
<b>ECl@ss 8.1</b>	27270902
<b>ECl@ss 9.0</b>	27270902
<b>ECl@ss 10.0</b>	27270902
<b>ECl@ss 11.0</b>	27270902
<b>ETIM 5.0</b>	EC002717
<b>ETIM 6.0</b>	EC002717
<b>ETIM 7.0</b>	EC002717
<b>UNSPSC 16.0901</b>	39121528

### Connection diagram

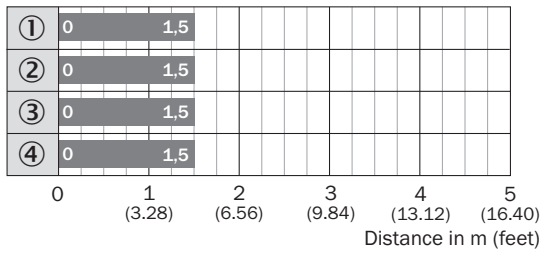
Cd-083



### Light spot size

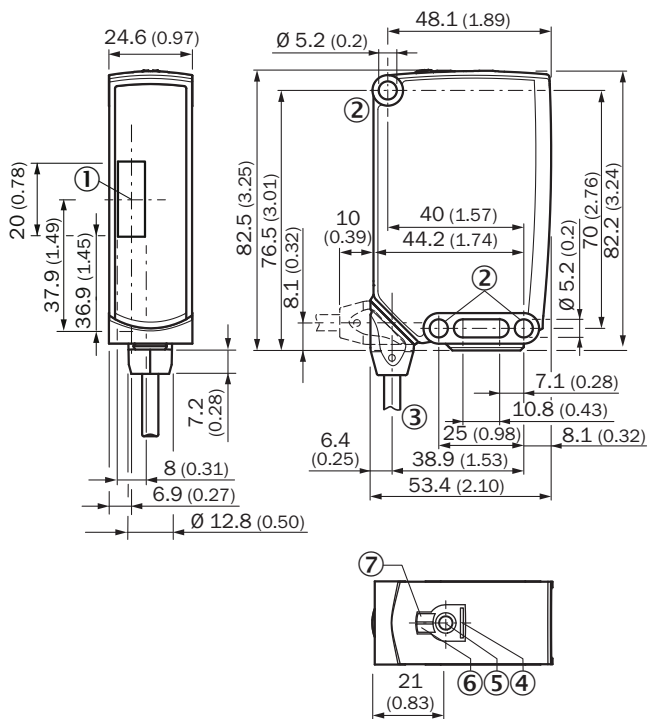


**Sensing range diagram**



- Sensing range
- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector PL30A
- ④ Reflector P250F





**Dimensional drawing (Dimensions in mm (inch))**



- ① Center of optical axis
- ② Mounting hole,  $\varnothing$  5.2 mm
- ③ Connection
- ④ BluePilot blue: AutoAdapt indicator during run mode
- ⑤ Teach-in button
- ⑥ LED indicator yellow: Status of received light beam
- ⑦ LED indicator green: Supply voltage active

### Recommended accessories

Other models and accessories → [www.sick.com/Reflex\\_Array](http://www.sick.com/Reflex_Array)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-W23	2019085
<b>Reflectors</b>			
	Rectangular, screw connection, 84 mm x 84 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932

## 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](http://www.sick.com)