Product data sheet

RAY26P-34112C30ZZZ

RAY26 Reflex Array

MULTITASK PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
RAY26P-34112C30ZZZ	1121282

Other models and accessories ➜ www.sick.com/RAY26_Reflex_Array

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Autocollimation, Reflex Array
Dimensions (W x H x D)	24.6 mm x 82.5 mm x 53.3 mm
Housing design (light emission)	Rectangular
Minimum object size	2 mm, position-independent detection within the light array
Detection height	10 mm
Sensing range max.	0 m ... 1.5 m [1) 2)]
Distance of the sensor to reflector	≥ 0 m
Type of light	Visible red light
Light source	PinPoint LED [3)]
Light spot size (distance)	10 mm x 9 mm (1 m)
Wave length	635 nm
Adjustment	BluePilot: Teach-in
AutoAdapt	✓
Special applications	Detecting objects with position tolerances, Detecting perforated objects, Detecting uneven, shiny objects, Detecting transparent objects, Detecting flat objects

1) Reflector PL80A.
2) At minimum object size 10 mm.
3) Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp}
Current consumption	25 mA, 40 mA [2] [3]
Switching output	Push-pull: PNP/NPN [4]
Output function	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)
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Approx. V_S – 2.5 V / 0 V
Signal voltage NPN HIGH/LOW	Approx. VS / < 2.5 V
Output current $I_{max.}$	≤ 100 mA
Response time	≤ 500 µs [5]
Switching frequency	1,000 Hz [6]
Connection type	Cable with M12 male connector, 4-pin, 270 mm [7]
Cable material	PVC
Circuit protection	A [8] B [9] C [10] D [11]
Protection class	III
Weight	100 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67
Ambient operating temperature	–40 °C ... +60 °C [12] [13]
Ambient temperature, storage	–40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] Limit values.
[2] 16 V DC ... 30 V DC, without load.
[3] 10 V DC ... 16 V DC, without load.
[4] Pin 4 and pin 2: This switching output must not be connected to another output.
[5] Signal transit time with resistive load in switching mode.
[6] With light/dark ratio 1:1 in switching mode.
[7] Do not bend below 0 °C.
[8] A = V_S connections reverse-polarity protected.
[9] B = inputs and output reverse-polarity protected.
[10] C = interference suppression.
[11] D = outputs overcurrent and short-circuit protected.
[12] Avoid condensation on the front screen of the sensor and on the reflector.
[13] Allowed temperature change after Teach +/- 20 K.

Safety-related parameters

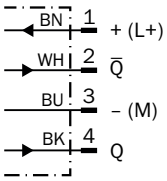
$MTTF_D$	709 years
DC_{avg}	0 %

Classifications

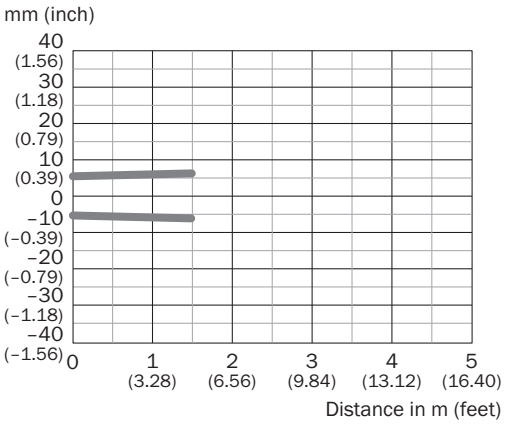
ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection diagram

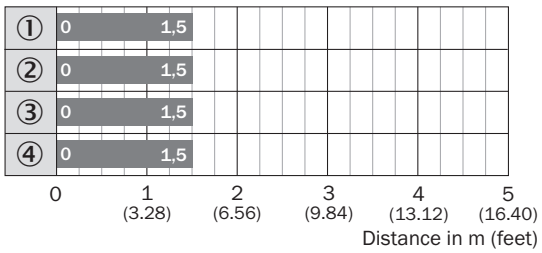
Cd-414



Light spot size



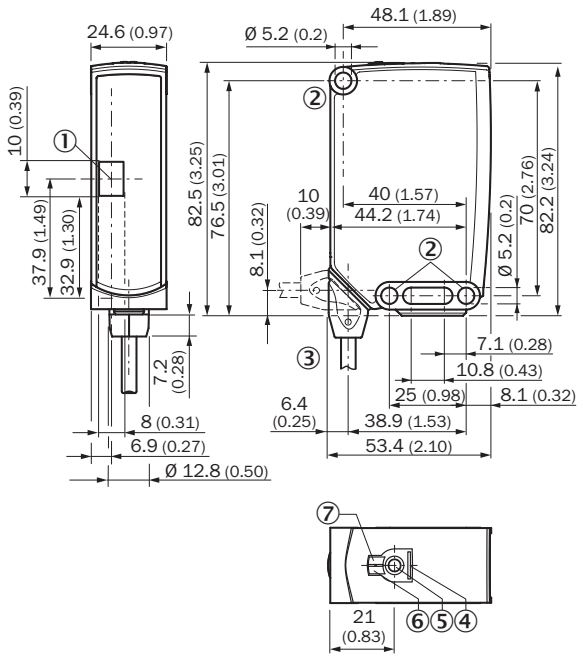
Sensing range diagram



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, Ø 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/RAY26_Reflex_Array

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-W23	2019085
Plug connectors and cables			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals	YF2A14-050VB3XLEAX	2096235
	• **Connection type head A:** Male connector, M12, 4-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932
Reflectors			
	Rectangular, screw connection, 100 mm x 100 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL100	5321625
	Rectangular, screw connection, 84 mm x 84 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Rectangular, self-adhesive, 50 mm x 80 mm, PMMA/ABS, self-adhesive	PL81	5322795

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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.”

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