



WL11-2P2430S05

W11-2

SMALL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|----------------|----------|
| WL11-2P2430S05 | 1056080 |

Other models and accessories → www.sick.com/W11-2

Detailed technical data

Features

| | |
|--|---|
| Functional principle | Photoelectric retro-reflective sensor |
| Functional principle detail | Dual lens |
| Dimensions (W x H x D) | 15.6 mm x 48.5 mm x 42 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0.05 m ... 3 m ¹⁾ |
| Sensing range | 0.05 m ... 2 m ¹⁾ |
| Focus | Approx. 2.2° |
| Type of light | Visible red light |
| Light source | LED ²⁾ |
| Light spot size (distance) | Ø 50 mm (3 m) |
| Angle of dispersion | Approx. 2.2° |
| Wave length | 640 nm |
| Adjustment | None |
| Special features | Increased immunity against foil wrapped targets |

¹⁾ Reflector PL80A.

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

| | |
|--|---|
| Supply voltage U_B | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | < 5 V _{pp} ²⁾ |
| Current consumption | 30 mA ³⁾ |
| Switching output | PNP |
| Output function | Complementary |
| Switching mode | Light/dark switching |
| Signal voltage PNP HIGH/LOW | U _v - 2.5 V / approx. 0 V |
| Output current I_{max.} | ≤ 100 mA |
| Response time | ≤ 2.5 ms ⁴⁾ |
| Switching frequency | 200 Hz ⁵⁾ |
| Connection type | Male connector M12, 4-pin |
| Circuit protection | A ⁶⁾ C ⁷⁾ D ⁸⁾ |
| Protection class | II ⁹⁾ |
| Weight | 120 g |
| Polarisation filter | ✓ |
| Special device | ✓ |
| Housing material | Plastic, ABS |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP66 IP67 IP69K |
| Ambient operating temperature | -30 °C ... +60 °C |
| Ambient temperature, storage | -40 °C ... +75 °C |
| UL File No. | NRKH.E181493 & NRKH7.E181493 |

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ C = interference suppression.

⁸⁾ D = outputs overcurrent and short-circuit protected.

⁹⁾ Reference voltage DC 50 V.

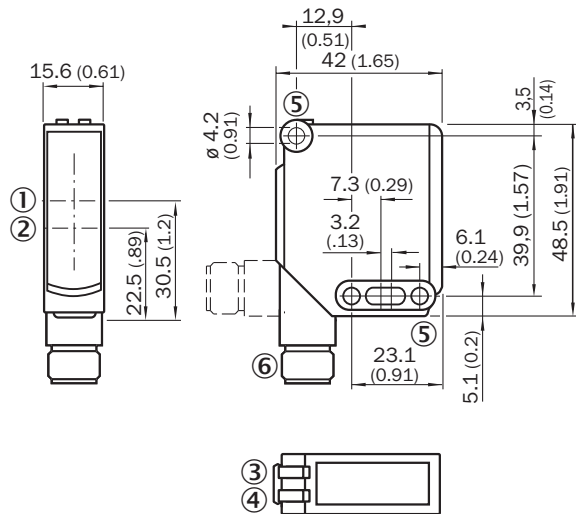
Classifications

| | |
|---------------------|----------|
| 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 |

Dimensional drawing (Dimensions in mm (inch))

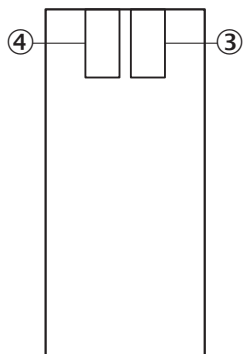
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- ① Optical axis, sender
- ② Optical axis, receiver
- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam
- ⑤ Mounting hole \varnothing 4.2 mm
- ⑥ M12 connector, 4-pin or cable

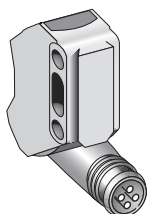
Adjustments

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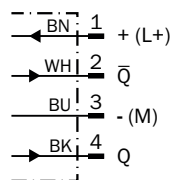
- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam

Connection type




Connection diagram





Cd-083



Recommended accessories

Other models and accessories → www.sick.com/W11-2

| | Brief description | Type | Part no. |
|---|--|------------|----------|
| Mounting brackets and plates | | | |
|  | Mounting bracket, large, stainless steel, mounting hardware included | BEF-WG-W12 | 2013942 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
|  | Universal mounting bracket for reflectors, steel, zinc coated | BEF-WN-REFX | 2064574 |
| Plug connectors and cables | | | |
|  | <ul style="list-style-type: none"> • 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, 40 mm x 60 mm, PMMA/ABS, Screw-on, 2 hole mounting | PL40A | 1012720 |
| Others | | | |
|  | <ul style="list-style-type: none"> • 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 |

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