



WS/WE34-V530

W34

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|--------------|----------|
| WS/WE34-V530 | 1019256 |

Other models and accessories → www.sick.com/W34

Detailed technical data

Features

| | |
|--|-----------------------------------|
| Sensor/ detection principle | Through-beam photoelectric sensor |
| Dimensions (W x H x D) | 27 mm x 92 mm x 70 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0 m ... 60 m |
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| Type of light | Visible red light |
| Light source | LED ¹⁾ |
| Light spot size (distance) | Ø 700 mm (50 m) |
| Angle of dispersion | Approx. 1° |
| Wave length | 660 nm |
| Adjustment | Potentiometer |
| Alarm output | ✓ |

¹⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

| | |
|------------------------------------|-----------------------------------|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | < 5 V _{pp} ²⁾ |
| Power consumption, sender | 50 mA |
| Power consumption, receiver | 40 mA |

¹⁾ Limit values.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ C = interference suppression.

⁷⁾ D = outputs overcurrent and short-circuit protected.

⁸⁾ Reference voltage: 50 V DC.

| | |
|---|---|
| Switching output | NPN PNP |
| Switching mode | Light switching Dark switching |
| Switching mode selector | Selectable via PNP/NPN selector, selectable via light/dark selector |
| Output current I_{\max} | 100 mA |
| Response time | $\leq 500 \mu\text{s}$ ³⁾ |
| Switching frequency | 1,000 Hz ⁴⁾ |
| Angle of reception | Approx. 2.5° |
| Connection type | Male connector M12, 5-pin |
| Circuit protection | A ⁵⁾ C ⁶⁾ D ⁷⁾ |
| Protection class | II ⁸⁾ |
| Weight | 280 g |
| Housing material | Plastic, ABS |
| Enclosure rating | IP67 |
| Test input sender off | TE to 0 V |
| Ambient operating temperature | -40 °C ... +60 °C |
| Ambient storage temperature | -40 °C ... +75 °C |
| UL File No. | NRKH.E181493 & NRKH7.E181493 |
| Part number of individual components | 2022813 WE34-V530 2022821 WS34-D530 |

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³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ C = interference suppression.

⁷⁾ D = outputs overcurrent and short-circuit protected.

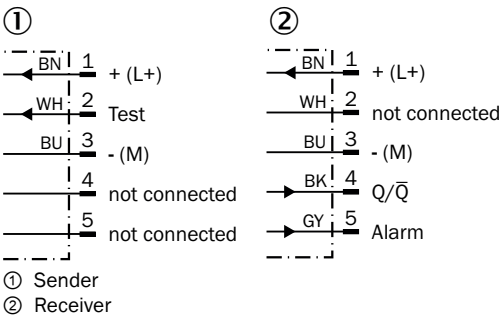
⁸⁾ Reference voltage: 50 V DC.

Classifications

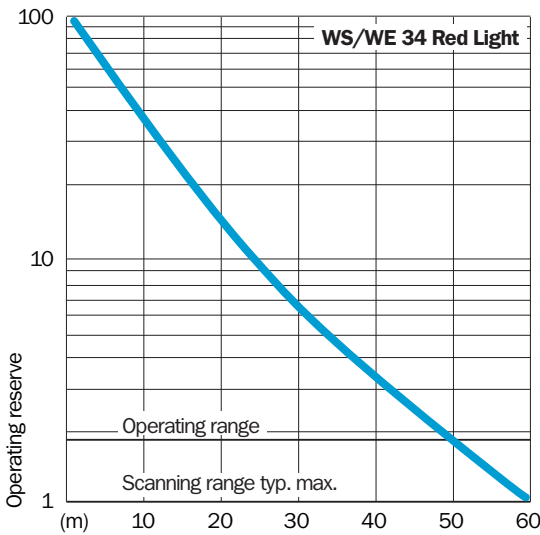
| | |
|-----------------------|----------|
| ECI@ss 5.0 | 27270901 |
| ECI@ss 5.1.4 | 27270901 |
| ECI@ss 6.0 | 27270901 |
| ECI@ss 6.2 | 27270901 |
| ECI@ss 7.0 | 27270901 |
| ECI@ss 8.0 | 27270901 |
| ECI@ss 8.1 | 27270901 |
| ECI@ss 9.0 | 27270901 |
| ETIM 5.0 | EC002716 |
| ETIM 6.0 | EC002716 |
| UNSPSC 16.0901 | 39121528 |

Connection diagram

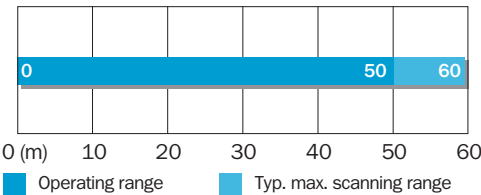
Connection diagram



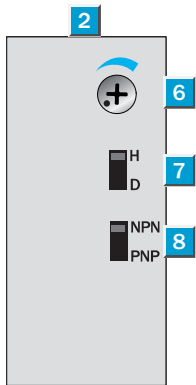
Characteristic curve



Sensing range diagram

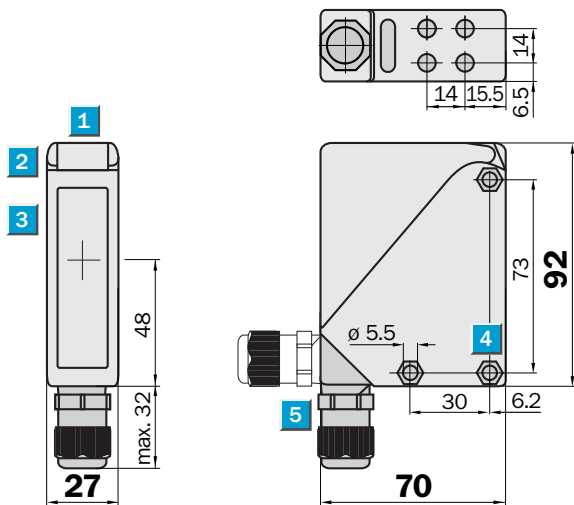


Adjustments possible



- ② LED signal strength indicator
- ⑥ Sensitivity control
- ⑦ Light/dark selector


Dimensional drawing (Dimensions in mm (inch))



- ① Alignment sight
- ② LED signal strength indicator
- ③ Center of optical axis
- ④ Mounting hole \varnothing 5.5 mm, for M5 hexagon nuts on both sides
- ⑤ M16 screw fixing rotatable by 90°

Recommended accessories

Other models and accessories → www.sick.com/W34

| | Brief description | Type | Part no. |
|---|--|------------|----------|
| Mounting brackets and plates | | | |
|  | Mounting bracket, Stainless steel (1.4301), mounting hardware included | BEF-WN-W24 | 2015248 |

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.”

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