



WS/WE260-R270

W260

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|---------------|----------|
| WS/WE260-R270 | 6020774 |

Included in delivery: BEF-W260 (2)

Other models and accessories → www.sick.com/W260

Detailed technical data

Features

| | |
|--|-----------------------------------|
| Device type | Photoelectric sensors |
| Sensor/ detection principle | Through-beam photoelectric sensor |
| Dimensions (W x H x D) | 25 mm x 78 mm x 63 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0 m ... 45 m |
| Sensing range | 0 m ... 40 m |
| Focus | Approx. 1° |
| Type of light | Visible red light |
| Light source | LED ¹⁾ |
| Light spot size (distance) | Ø 700 mm (40 m) |
| Angle of dispersion | Approx. 1° |
| Adjustment | Potentiometer, 270° |

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

Mechanics/electronics

| | |
|------------------------------------|--|
| Supply voltage | 12 V DC ... 240 V DC ¹⁾ 24 V AC ... 240 V AC ¹⁾ |
| Power consumption, sender | ≤ 4 VA |
| Power consumption, receiver | ≤ 5 VA |
| Switching output | Relay, electrically isolated ²⁾ |
| Output function | Change-over contacts |

¹⁾ +/- 10%.

²⁾ Provide suitable spark suppression for inductive or capacitive loads.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_S connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Rated voltage: 250 V AC/DC.

| | |
|--|---|
| Switching mode | Light switching ²⁾ |
| Switching current (switching voltage) | 3 A (240 V AC) 3 A (30 V DC) |
| Response time | ≤ 20 ms |
| Switching frequency | 25 Hz ³⁾ |
| Angle of reception | Approx. 20° |
| Time functions | On delay Off delay |
| Delay time | Adjustable via time delay selector switch, 0.1 s ... 10 s Adjustable via time control, |
| Connection type | Cable gland |
| Circuit protection | A ⁴⁾ C ⁵⁾ |
| Protection class | II ⁶⁾ |
| Weight | 120 g |
| Interference emission | Level EN 61000-6-3 Residential and commercial areas |
| Housing material | Plastic, ABS |
| Optics material | Plastic, PC |
| Enclosure rating | IP67 |
| Items supplied | Mounting bracket BEF-W260 |
| Usage category | AC-15, DC-13, according to EN 60947-1 |
| Electromagnetic compatibility (EMC) | Level EN 61000-6-3 Residential and commercial areas |
| Ambient operating temperature | -25 °C ... +55 °C |
| Ambient temperature, storage | -40 °C ... +70 °C |
| UL File No. | EN50081-1, 242356 |

¹⁾ +/- 10%.

²⁾ Provide suitable spark suppression for inductive or capacitive loads.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_S connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Rated voltage: 250 V AC/DC.

Safety-related parameters

| | |
|-------------------------|-----------|
| MTTF_D | 331 years |
| DC_{avg} | 0 % |

Classifications

| | |
|---------------------|----------|
| ECl@ss 5.0 | 27270901 |
| ECl@ss 5.1.4 | 27270901 |
| ECl@ss 6.0 | 27270901 |
| ECl@ss 6.2 | 27270901 |
| ECl@ss 7.0 | 27270901 |
| ECl@ss 8.0 | 27270901 |
| ECl@ss 8.1 | 27270901 |

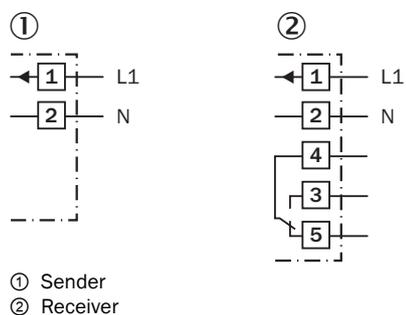
| | |
|-----------------------|----------|
| ECl@ss 9.0 | 27270901 |
| ECl@ss 10.0 | 27270901 |
| ECl@ss 11.0 | 27270901 |
| ETIM 5.0 | EC002716 |
| ETIM 6.0 | EC002716 |
| ETIM 7.0 | EC002716 |
| ETIM 8.0 | EC002716 |
| UNSPSC 16.0901 | 39121528 |

Connection type

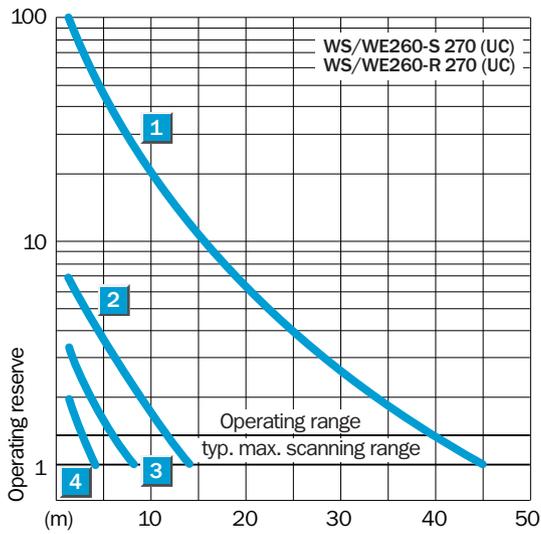


Connection diagram

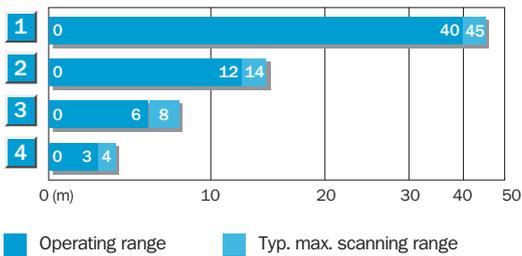
Cd-227



Characteristic curve



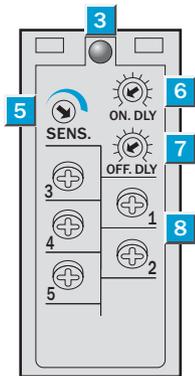
Sensing range diagram



Scanning range reduction when using slotted masks

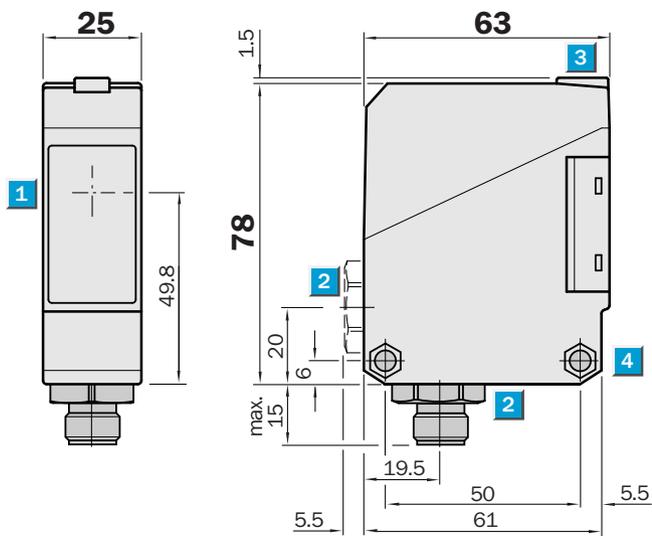
| | |
|---|----------------------|
| 1 | Without slotted mask |
| 2 | Slot width 5 mm |
| 3 | Slot width 2 mm |
| 4 | Slot width 1 mm |

Adjustments



- ③ LED indicator orange: WE 260: switching output activeWS 260: sender active
- ⑤ Sensitivity control
- ⑥ Time control ON delay t_{ON}
- ⑦ Time control OFF delay t_{OFF}
- ⑧ Terminals

Dimensional drawing (Dimensions in mm (inch))



- ① Center of optical axis, sender/ receiver
- ② Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or connector M12, bottom
- ③ LED indicator orange: WE 260: switching output activeWS 260: sender active
- ④ Mounting hole \varnothing 5.2 mm, for M5 hexagon nuts on both sides

Recommended accessories

Other models and accessories → www.sick.com/W260

| | Brief description | Type | Part no. |
|---|---|----------|----------|
| Mounting brackets and plates | | | |
|  | Mounting bracket, steel, zinc coated, without mounting hardware | BEF-W260 | 5304819 |

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:

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