



WS/WE260-E470

W260

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

| Type | part no. |
|---------------|----------|
| WS/WE260-E470 | 6021817 |

Included in delivery: BEF-W260 (1)

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

Detailed technical data

Features

| | |
|--|-----------------------------------|
| Functional 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 ... 35 m |
| Sensing range | 0 m ... 30 m |
| Focus | Approx. 1.4° |
| Type of light | Visible red light |
| Light source | LED ¹⁾ |
| Light spot size (distance) | Ø 700 mm (30 m) |
| Angle of dispersion | Approx. 1.4° |
| Adjustment | Potentiometer, 270° |

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 | 20 mA ³⁾ |
| Power consumption, receiver | 35 mA ³⁾ |
| Switching output | NPN |

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⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

⁹⁾ D = outputs overcurrent and short-circuit protected.

¹⁰⁾ Reference voltage: 50 V DC.

| | |
|---|--|
| Switching mode | Light/dark switching |
| Switching mode selector | Selectable via light/dark selector |
| Output current I_{\max} | $\leq 100 \text{ mA}$ |
| Response time | $\leq 0.5 \text{ ms}^{4)}$ |
| Switching frequency | $1,000 \text{ Hz}^{5)}$ |
| Angle of reception | Approx. 20° |
| Connection type | Male connector M12, 4-pin |
| Circuit protection | A ⁶⁾ B ⁷⁾ C ⁸⁾ D ⁹⁾ |
| Protection class | II ¹⁰⁾ |
| Weight | 120 g |
| Housing material | Plastic, ABS |
| Optics material | Plastic, PC |
| Enclosure rating | IP67 |
| Items supplied | Mounting bracket BEF-W260 |
| Test input sender off | TE to 0 V |
| Ambient operating temperature | $-25^\circ \text{C} \dots +55^\circ \text{C}$ |
| Ambient temperature, storage | $-40^\circ \text{C} \dots +70^\circ \text{C}$ |
| UL File No. | NRNT2.E128350 & NRNT8.E128350 |

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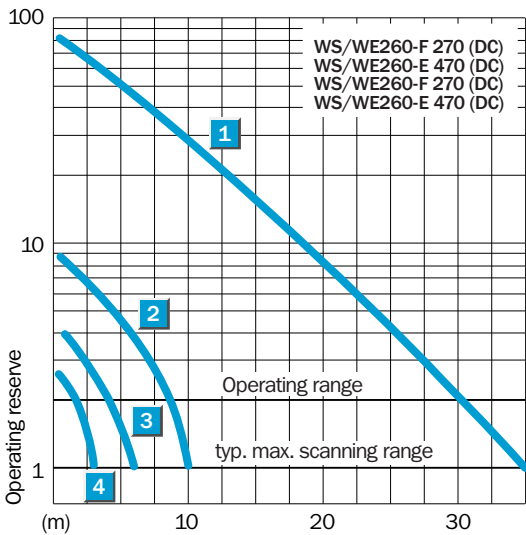
Safety-related parameters

| | |
|-------------------------|-----------|
| MTTF_D | 608 years |
| DC_{avg} | 0 % |

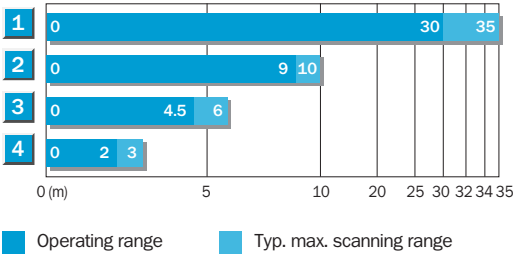
Classifications

| | |
|---------------------|----------|
| ECLASS 5.0 | 27270901 |
| ECLASS 5.1.4 | 27270901 |
| ECLASS 6.0 | 27270901 |
| ECLASS 6.2 | 27270901 |
| ECLASS 7.0 | 27270901 |
| ECLASS 8.0 | 27270901 |
| ECLASS 8.1 | 27270901 |
| ECLASS 9.0 | 27270901 |

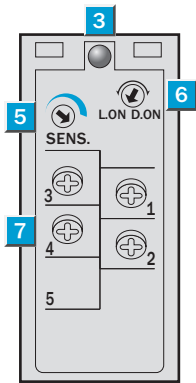
Characteristic curve



Sensing range diagram

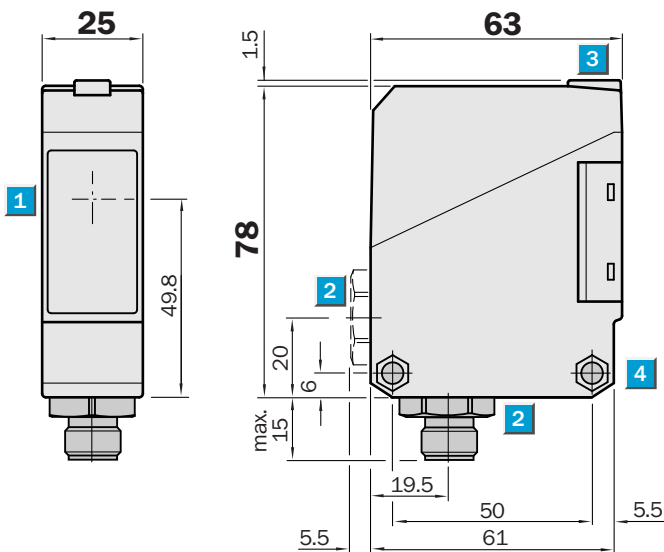


Adjustments



- ③ LED indicator orange:
- ③ WE 260: switching output active
- ③ WS 260: sender active
- ⑤ LED signal strength indicator (WE)
- ⑥ Light/ dark rotary switch: L = light switching, D = dark switching
- ⑦ 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:
- ③ WE 260: switching output active
- ③ WS 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 systems | | | |
|  | <ul style="list-style-type: none"> Description: Mounting bracket Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware | BEF-W260 | 5304819 |
|  | <ul style="list-style-type: none"> Description: Plate N11N for universal clamp bracket Material: Stainless steel Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) Items supplied: Universal clamp (5322627), mounting hardware Usable for: DeltaPac, Glare, WTD20E | BEF-KHS-N11N | 2071081 |
| connectors and cables | | | |
|  | <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, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation | YF2A14-050UB3XLEAX | 2095608 |
|  | <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, Uncontaminated zones | YF2A14-050VB3XLEAX | 2096235 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² | 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:

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