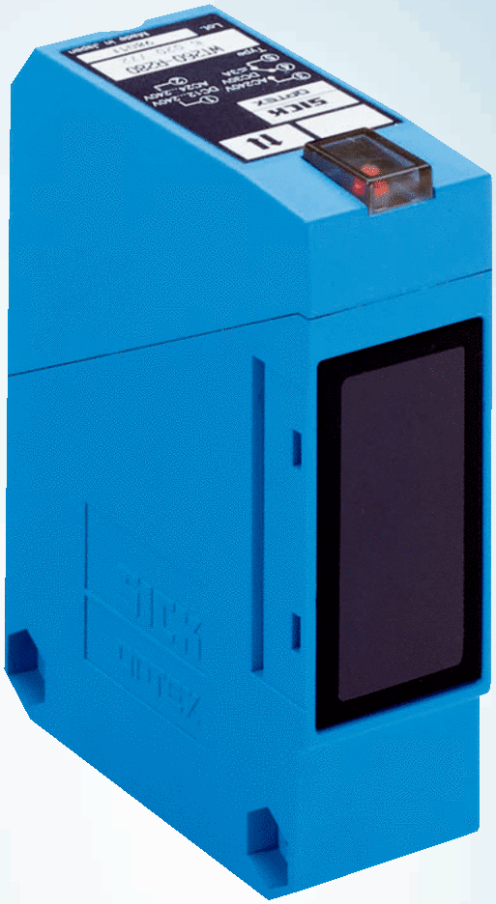
Data sheet



# WT260-R270

## W260

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

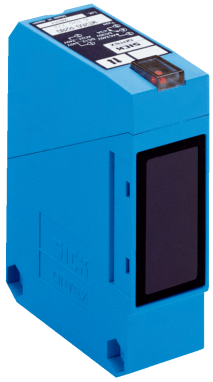


Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| WT260-R270 | 6020770 |

**Included in delivery:** BEF-W260 (1)

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

## Detailed technical data

### Features

| | |
|---|---|
| **Functional principle** | Photoelectric proximity sensor |
| **Functional principle detail** | Energetic |
| **Dimensions (W x H x D)** | 25 mm x 78 mm x 63 mm |
| **Housing design (light emission)** | Rectangular |
| **Sensing range max.** | 5 mm ... 1,700 mm [1] |
| **Sensing range** | 5 mm ... 1,300 mm |
| **Focus** | Approx. 1.8° |
| **Type of light** | Visible red light |
| **Light source** | LED [2] |
| **Light spot size (distance)** | Ø 60 mm (1,300 mm) |
| **Angle of dispersion** | Approx. 1.8° |
| **Adjustment** | Potentiometer, 270° |

[1] Object with 90% remission (based on standard white, DIN 5033).
[2] Average service life: 100,000 h at $T_U$ = +25 °C.

### Mechanics/electronics

| | |
|---|---|
| **Supply voltage** | 12 V DC ... 240 V DC [1] |

[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.

| | |
|---|---|
| | 24 V AC ... 240 V AC [1] |
| **Power consumption** | ≤ 5 VA |
| **Switching output** | Relay, electrically isolated [2] |
| **Output function** | Change-over contacts |
| **Switching mode** | Light switching [2] |
| **Switching current (switching voltage)** | 3 A (240 V AC)<br>3 A (30 V DC) |
| **Response time** | ≤ 20 ms |
| **Switching frequency** | 25 Hz [3] |
| **Time functions** | On delay<br>Off delay |
| **Delay time** | Adjustable via time delay selector switch, 0.1 s ... 10 s<br>Adjustable via time control |
| **Connection type** | Cable gland |
| **Circuit protection** | A [4]<br>C [5] |
| **Protection class** | II [6] |
| **Weight** | 120 g |
| **Interference emission** | Level EN 61000-6-3<br>Residential and commercial areas |
| **Housing material** | Plastic, ABS |
| **Optics material** | Plastic, PC |
| **Enclosure rating** | IP67 |
| **Items supplied** | Mounting bracket BEF-W260 |
| **Electromagnetic compatibility (EMC)** | Level EN 61000-6-3<br>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

| | |
|---|---|
| **$MTTF_D$** | 613 years |
| **$DC_{avg}$** | 0 % |

## Certificates

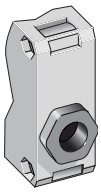
| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China-RoHS** | ✓ |

| | |
|---|---|
| **cRUus certificate** | ✓ |
| **Photobiological safety (DIN EN 62471) certificate** | ✓ |

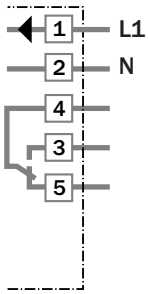
## Classifications

| | |
|---|---|
| **ECLASS 5.0** | 27270903 |
| **ECLASS 5.1.4** | 27270903 |
| **ECLASS 6.0** | 27270903 |
| **ECLASS 6.2** | 27270903 |
| **ECLASS 7.0** | 27270903 |
| **ECLASS 8.0** | 27270903 |
| **ECLASS 8.1** | 27270903 |
| **ECLASS 9.0** | 27270903 |
| **ECLASS 10.0** | 27270904 |
| **ECLASS 11.0** | 27270904 |
| **ECLASS 12.0** | 27270903 |
| **ETIM 5.0** | EC001821 |
| **ETIM 6.0** | EC001821 |
| **ETIM 7.0** | EC002719 |
| **ETIM 8.0** | EC002719 |
| **UNSPSC 16.0901** | 39121528 |

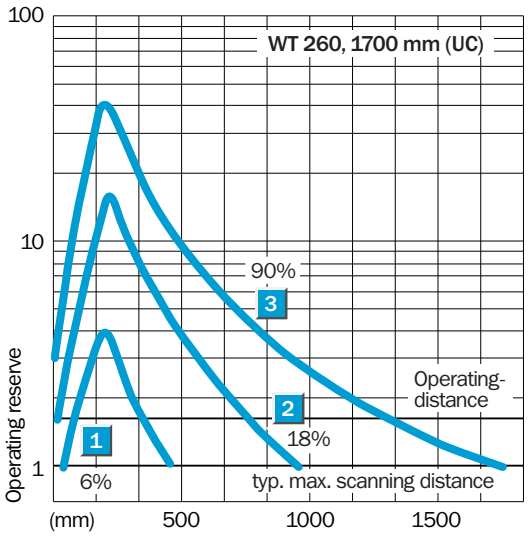
## Connection type



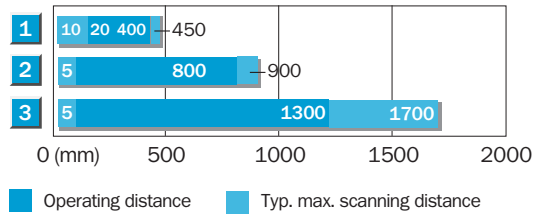
## Connection diagram



## Characteristic curve

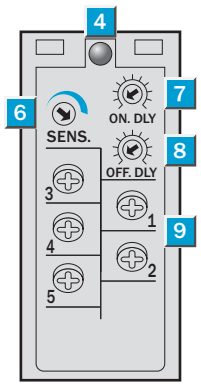



## Sensing range diagram




| | |
|---|---|
| 1 | Scanning range on black, 6 % remission |
| 2 | Scanning range on grey, 18 % remission |
| 3 | Scanning range on white, 90 % remission |

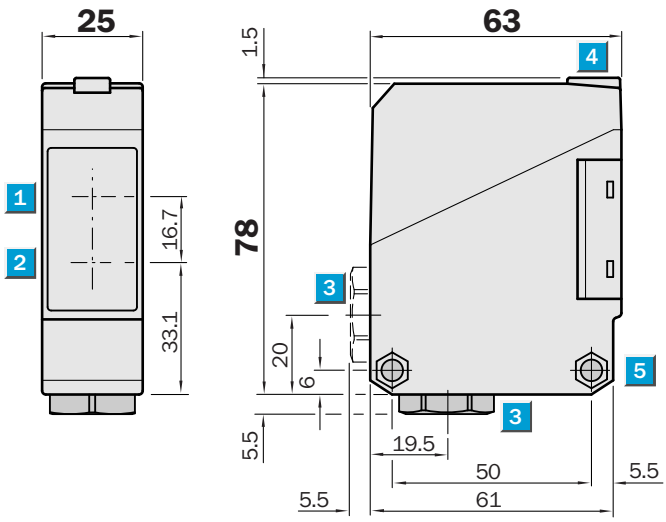
## Adjustments




④ LED signal strength indicator, red
⑥ sensitivity control
⑦ Time control ON delay $t_{ON}$
⑧ Time control OFF delay $t_{OFF}$

⑨ Terminals

## Dimensional drawing




Dimensions in mm (inch)

## Recommended accessories

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

| | Brief description | Type | part no. |
|---|---|---|---|
| Mounting systems | | | |
|  | • **Description:** Mounting bracket<br>• **Material:** Steel<br>• **Details:** Steel, zinc coated<br>• **Items supplied:** 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:

Contacts and other locations –www.sick.com