



WS/WE45-P260S01  
W45

COMPACT PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	Part no.
WS/WE45-P260S01	1016031

Other models and accessories → [www.sick.com/W45](http://www.sick.com/W45)

## Detailed technical data

### Features

<b>Sensor/ detection principle</b>	Through-beam photoelectric sensor
<b>Dimensions (W x H x D)</b>	60 mm x 105 mm x 105 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 35 m <sup>1)</sup>
<b>Sensing range</b>	0 m ... 35 m
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>2)</sup>
<b>Light spot size (distance)</b>	Ø 560 mm (35 m)
<b>Adjustment</b>	Potentiometer
<b>Time type</b>	On delay Off delay ON and OFF delay
<b>Time functions</b>	Adjustable via time delay selector switch: 0.5 ... 12 s 0.015 ... 0.3 s
<b>Special features</b>	For the detection of hot objects with surface temperatures of > 800 °C

<sup>1)</sup> Valid only for ambient temperature.

<sup>2)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 60 V DC <sup>1)</sup>
-----------------------	-----------------------------------

<sup>1)</sup> Limit values.

<sup>2)</sup> May not exceed or fall below U<sub>V</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>7)</sup> C = interference suppression.

<sup>8)</sup> D = outputs overcurrent and short-circuit protected.

<sup>9)</sup> Reference voltage: 50 V DC.

<sup>10)</sup> Flashes at approx. 5 Hz, switch to VS.

<sup>11)</sup> Up to 120 °C with cooling plates BEF-KP-W 45.

<b>Ripple</b>	$\leq 5 V_{pp}^{2)}$
<b>Power consumption, sender</b>	50 mA <sup>3)</sup>
<b>Power consumption, receiver</b>	50 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Output function</b>	Complementary
<b>Switching mode</b>	Light/dark switching
<b>Output current <math>I_{max}</math></b>	200 mA
<b>Response time</b>	$\leq 500 \mu s^{4)}$
<b>Switching frequency</b>	1,000 Hz <sup>5)</sup>
<b>Connection type</b>	Terminal connection with PG13,5, 6-pin
<b>Circuit protection</b>	A <sup>6)</sup> C <sup>7)</sup> D <sup>8)</sup>
<b>Protection class</b>	I <sup>9)</sup>
<b>Weight</b>	1,600 g
<b>Alarm output</b>	100 mA <sup>10)</sup>
<b>Special device</b>	✓
<b>Housing material</b>	Metal
<b>Enclosure rating</b>	IP67
<b>Items supplied</b>	Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery
<b>Test input sender off</b>	TE to 0 V
<b>Ambient operating temperature</b>	-25 °C ... +55 °C <sup>11)</sup>
<b>Ambient storage temperature</b>	-40 °C ... +70 °C
<b>Part number of individual components</b>	2018948 WE45-P260S01 2018949 WS45-D260S01

1) Limit values.

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: 50 V DC.

10) Flashes at approx. 5 Hz, switch to  $V_S$ .

11) Up to 120 °C with cooling plates BEF-KP-W 45.

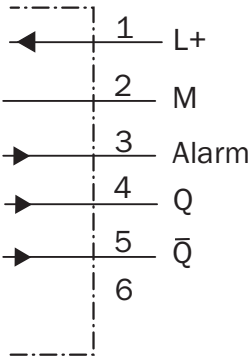
## Classifications

<b>ECI@ss 5.0</b>	27270901
<b>ECI@ss 5.1.4</b>	27270901
<b>ECI@ss 6.0</b>	27270901
<b>ECI@ss 6.2</b>	27270901
<b>ECI@ss 7.0</b>	27270901
<b>ECI@ss 8.0</b>	27270901

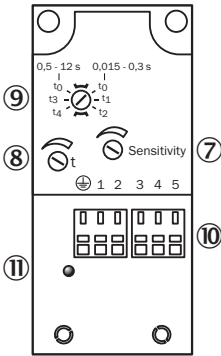
<b>ECI@ss 8.1</b>	27270901
<b>ECI@ss 9.0</b>	27270901
<b>ETIM 5.0</b>	EC002716
<b>ETIM 6.0</b>	EC002716
<b>UNSPSC 16.0901</b>	39121528

Connection diagram

Connection diagram

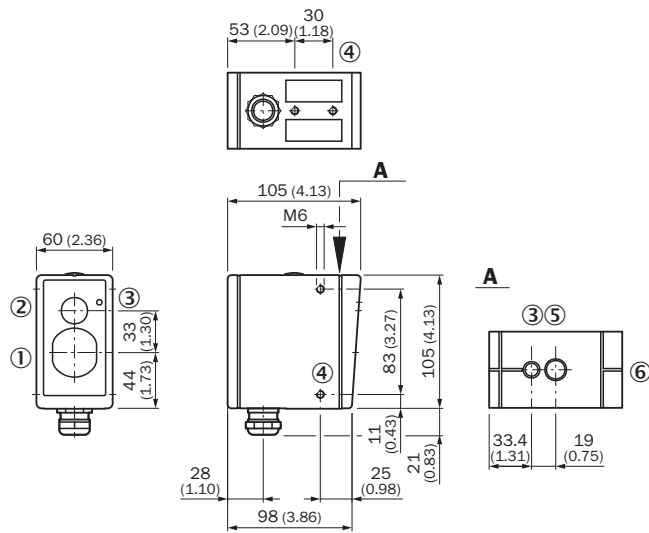


Adjustments possible



- ⑦ Sensitivity control
- ⑧ Time control
- ⑨ Time delay selector switch
- ⑩ Terminal strip
- ⑪ Status indicator

**Dimensional drawing** (Dimensions in mm (inch))



## 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](http://www.sick.com)