



WL45-P260

W45

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WL45-P260	1008668

Other models and accessories → www.sick.com/W45

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Dimensions (W x H x D)	60 mm x 105 mm x 105 mm
Housing design (light emission)	Rectangular
Sensing range max.	1 m ... 55 m ¹⁾
Sensing range	1 m ... 45 m ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 230 mm (16 m)
Adjustment	Potentiometer

¹⁾ OP60-00.

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 60 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	50 mA ³⁾

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 VS.

¹¹⁾ Up to 140 °C with cooling plates (see accessories).

Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Output current I_{max.}	≤ 200 mA
Response time	≤ 1.2 ms ⁴⁾
Switching frequency	400 Hz ⁵⁾
Time functions	On delay Off delay ON and OFF delay
Delay time	Adjustable via time delay selector switch, 0.5 s ... 12 s 0.015 s ... 0.3 s
Connection type	Terminal connection with PG13,5, 6-pin
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Protection class	I ⁹⁾
Weight	800 g
Polarisation filter	✓
Alarm output	100 mA ¹⁰⁾
Housing material	Metal
Enclosure rating	IP67
Test input sender off	TE to 0 V
Ambient operating temperature	-25 °C ... +55 °C ¹¹⁾
Ambient temperature, storage	-40 °C ... +70 °C

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 VS.

11) Up to 140 °C with cooling plates (see accessories).

Safety-related parameters

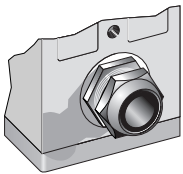
MTTF_D	422 years
DC_{avg}	0 %

Classifications

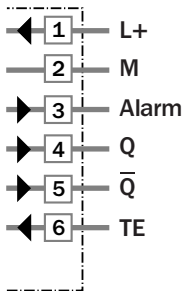
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eCl@ss 5.1.4	27270902
eCl@ss 6.0	27270902
eCl@ss 6.2	27270902
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eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
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ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

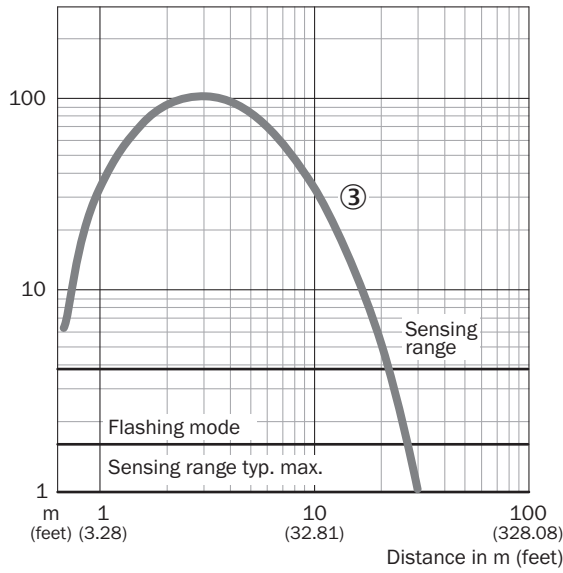
Connection type



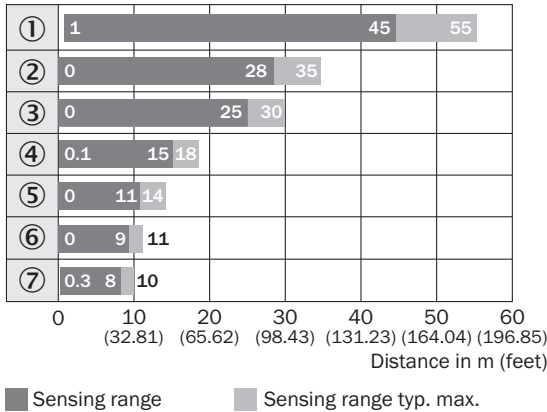
Connection diagram



Characteristic curve



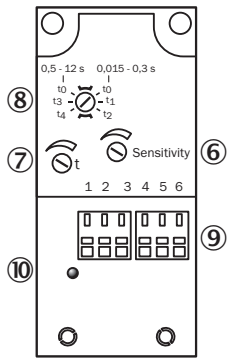
Sensing range diagram



Reflector type

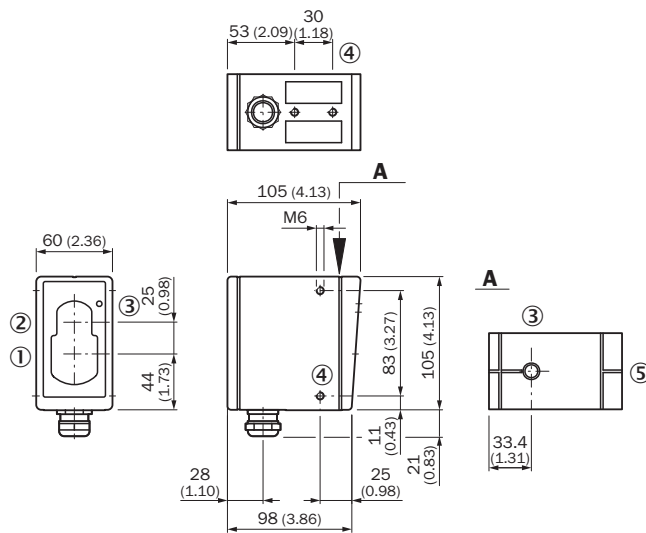
- ① OP60 ... ∞
- ② 4 x PL80
- ③ PL80A
- ④ C110
- ⑤ PL50
- ⑥ PL30
- ⑦ Reflective tape
Diamond Grade

Adjustments



- ⑥ Sensitivity control
- ⑦ Time control
- ⑧ Time delay selector switch
- ⑨ Terminal strip
- ⑩ Status indicator


Dimensional drawing (Dimensions in mm (inch))



- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- ③ LED signal strength indicator
- ④ M6 threaded mounting hole, 8 mm deep
- ⑤ Alignment sight

Recommended accessories

Other models and accessories → www.sick.com/W45

	Brief description	Type	Part no.
Reflectors			
	Rectangular, screw connection, 84 mm x 84 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865

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