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Product data sheet



WL45-R260

W45

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

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WL45-R260 | W45

COMPACT PHOTOELECTRIC SENSORS



Illustration may differ

Ordering information

Type	Part no.
WL45-R260	1008562

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
Special features	Cable gland, for cross-section: 0,14 mm^2 ... 2,5 mm^2, max. 16 A

[1] OP60-00.
[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	20 V AC/DC ... 250 V AC/DC [1]
Power consumption	≤ 3 VA
Switching output	Relay, electrically isolated [2]
Output function	Change-over contacts
Switching mode	Light/dark switching [2]

[1] Limit values.
[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] Up to 140 °C with cooling plates (see accessories).

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Switching mode selector	Selectable via time delay selector switch
Switching current (switching voltage)	4 A @ 250 V AC, 4 A @ 24 V DC, 0.125 A @ 120 V DC UL: 4 A @ 250 V AC, general purpose / 2 A @ 250 V AC, pilot duty
Response time	≤ 20 ms
Switching frequency	10 Hz [3]
Time functions	On delay Off delay ON and OFF delay
Delay time	Adjustable via time delay selector switch, 0.5 s ... 12 s
Connection type	Terminal connection with PG13,5, 6-pin
Circuit protection	A [4] C [5]
Protection class	I
Weight	800 g
Polarisation filter	✓
Housing material	Metal
Enclosure rating	IP67
Ambient operating temperature	–25 °C ... +55 °C [6]
Ambient temperature, storage	–40 °C ... +70 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] Limit values.
[2] Provide suitable spark suppression for inductive or capacitive loads.
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[6] Up to 140 °C with cooling plates (see accessories).

Safety-related parameters

$MTTF_D$	467 years
DC_{avg}	0 %

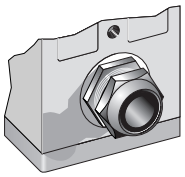
Classifications

eCl@ss 5.0	27270902
eCl@ss 5.1.4	27270902
eCl@ss 6.0	27270902
eCl@ss 6.2	27270902
eCl@ss 7.0	27270902
eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
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ETIM 5.0	EC002717
ETIM 6.0	EC002717

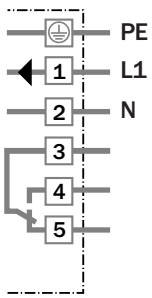
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ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

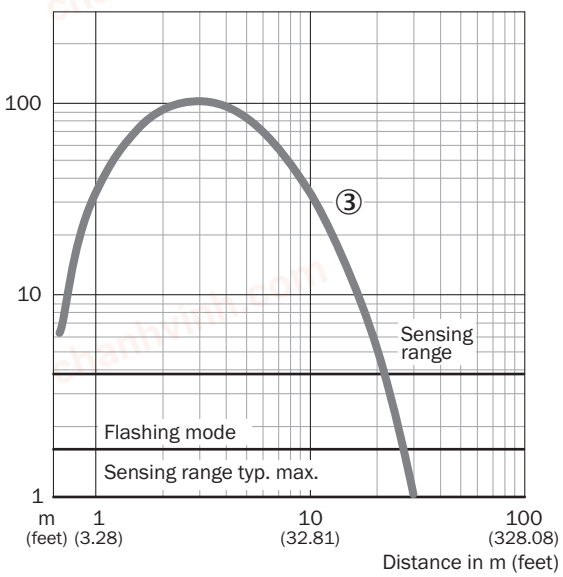
Connection type



Connection diagram

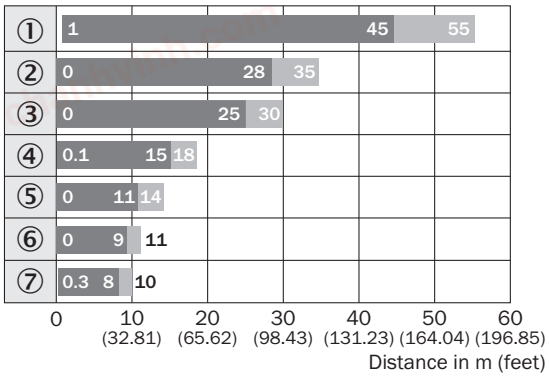


Characteristic curve



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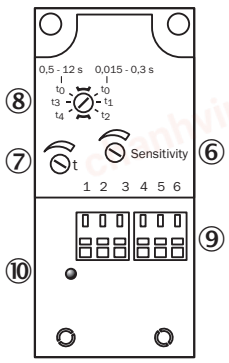
Sensing range diagram



Reflector type

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

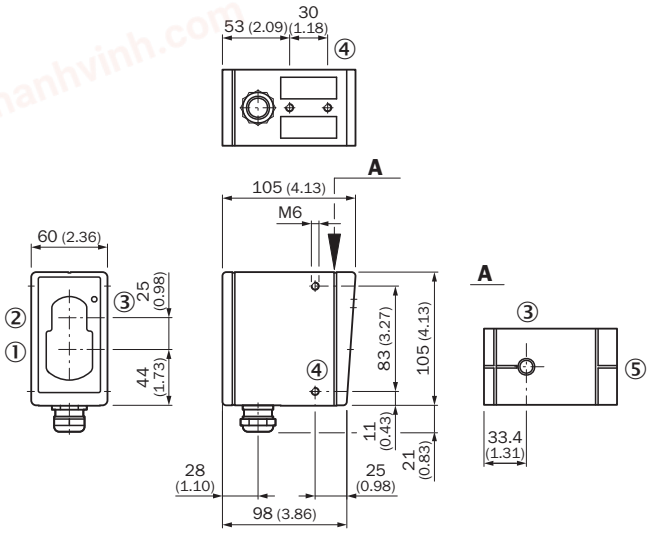
Adjustments



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

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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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For us, that is "Sensor Intelligence."

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