chanhvinh.com

Product data sheet



WL45-P260

W45

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

chanhvinh.com

WL45-P260 | W45

COMPACT PHOTOELECTRIC SENSORS



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_U = +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).

chanhvinh.com

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

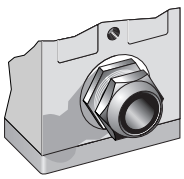
$MTTF_D$	422 years
DC_{avg}	0 %

Classifications

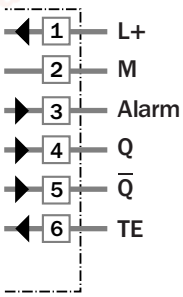
eCl@ss 5.0	27270902
eCl@ss 5.1.4	27270902
eCl@ss 6.0	27270902
eCl@ss 6.2	27270902
eCl@ss 7.0	27270902

eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type

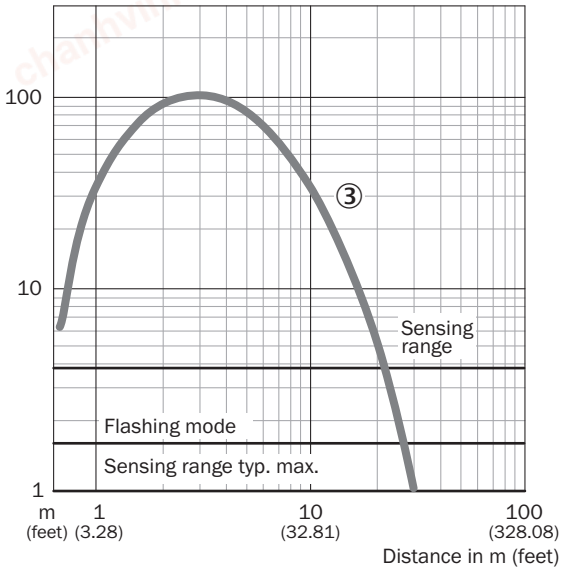


Connection diagram

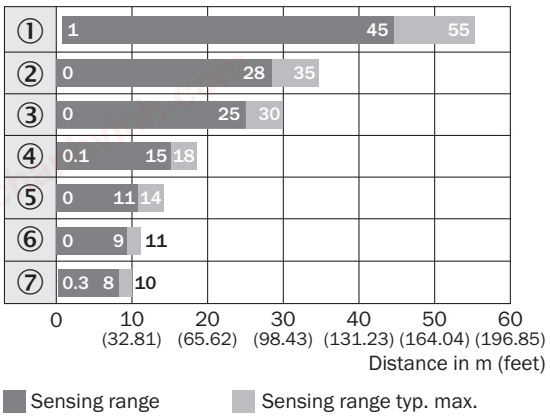


chanhvinh.com

Characteristic curve



Sensing range diagram

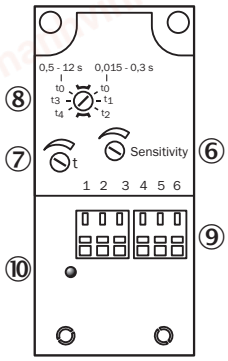


Reflector type

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

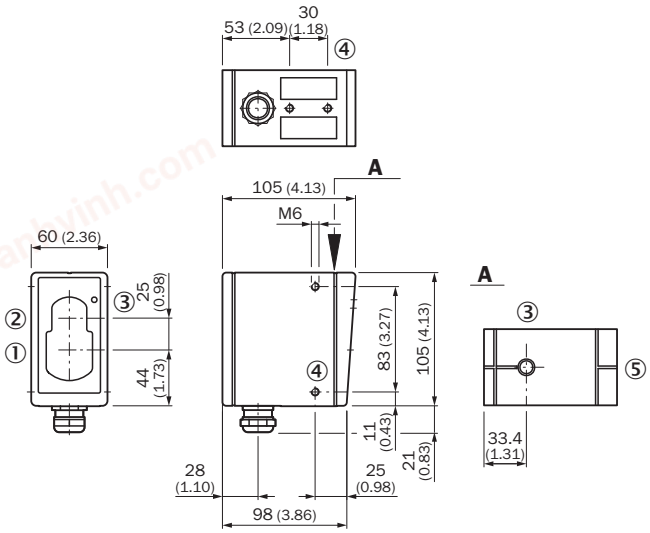
chanhvinh.com

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

chanhvinh.com

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

chanhvinh.com

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