

WL260-F470

W260

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WL260-F470	6020977

Included in delivery: BEF-W260 (1), P250 (1)

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

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Dimensions (W x H x D)	25 mm x 78 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.01 m ... 14 m ¹⁾
Sensing range	0.01 m ... 9.5 m ²⁾ 0.01 m ... 11.5 m ¹⁾
Focus	Approx. 1.7°
Type of light	Visible red light
Light source	LED ³⁾
Light spot size (distance)	Ø 240 mm (8 m)
Angle of dispersion	Approx. 1.7°
Adjustment	Potentiometer, 270°

¹⁾ Reflector PL80A.

²⁾ Reflector P250.

³⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
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¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

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⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

⁹⁾ D = outputs overcurrent and short-circuit protected.

¹⁰⁾ Reference voltage: 50 V DC.

Ripple	< 5 V _{pp} ²⁾
Current consumption	35 mA ³⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Output current I_{max.}	≤ 100 mA
Response time	≤ 1.5 ms ⁴⁾
Switching frequency	333 Hz ⁵⁾
Connection type	Male connector M12, 4-pin
Circuit protection	A ⁶⁾ B ⁷⁾ C ⁸⁾ D ⁹⁾
Protection class	II ¹⁰⁾
Weight	120 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Items supplied	Reflector P250, mounting bracket BEF-W260
Test input sender off	TE to V _S
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C
UL File No.	NRNT2.E128350 & NRNT8.E128350

1) Limit values when operated in short-circuit protected network: max. 8 A.

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) B = inputs and output reverse-polarity protected.

8) C = interference suppression.

9) D = outputs overcurrent and short-circuit protected.

10) Reference voltage: 50 V DC.

Safety-related parameters

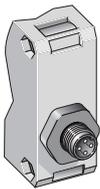
MTTF_D	908 years
DC_{avg}	0 %

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

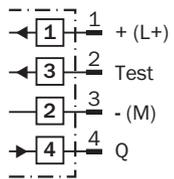
eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type

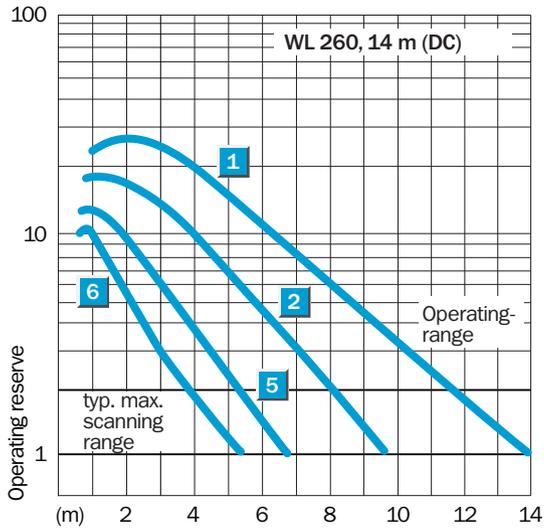


Connection diagram

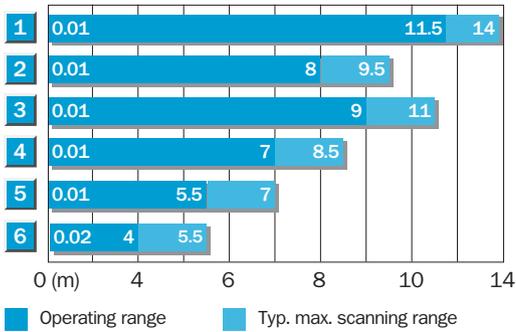
Cd-079



Characteristic curve

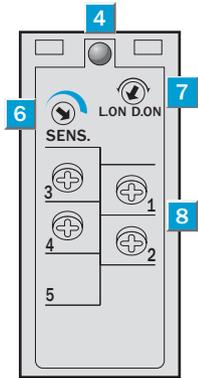


Sensing range diagram



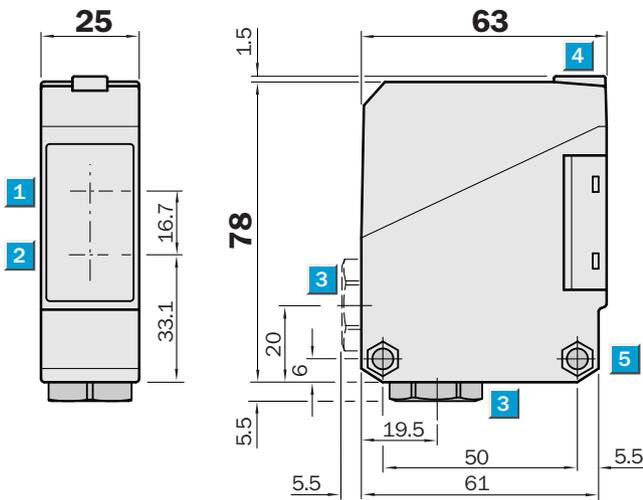
Reflector type	Operating range
1 PL 80 A	0.01 ... 11.5 m
2 P 250	0.01 ... 8 m
3 PL 50 A or PL 40 A	0.01 ... 9 m
4 PL 30 A or PL 31 A	0.01 ... 7 m
5 PL 20 A	0.01 ... 5.5 m
6 Reflective tape Diamond Grade	0.02 ... 4 m

Adjustments



- ④ Status indicator LED, yellow: Output active
- ⑥ Adjustment of sensing range
- ⑦ Light/ dark rotary switch: L = light switching, D = dark switching
- ⑩ Terminals

Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, without mounting hardware	BEF-W260	5304819
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932
Reflectors			
	Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

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:

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