



Photoelectric sensors
W260, Photoelectric retro-reflective sensor

WL260-F470



Model Name > [WL260-F470](#)
Part No. > [6020977](#)



At a glance

- Long sensing ranges
- Mounting bracket and reflector included with delivery
- Selectable operation mode (light/dark)
- Optional time stages
- M12 connector or terminal chamber
- Versions for 10 - 30 V DC or 12 - 240 V DC/ 24 – 240 V AC voltage supply

Your benefits

- High operating reserve provides increased reliability
- Configuration controls are protected by a cover, ensuring less damage and a longer service life
- Easily accessible terminal chamber for electrical connections simplifies installation
- Simplified integration due to mounting compatibility since variants for DC or DC/AC voltage supply are available in the same design
- Polarizing filter ensures reliable detection, even with shiny targets



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
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 ... 11.5 m, 0.01 m ... 9.5 m ^{2) 3)}
Type of light:	Visible red light
Light source:	LED ⁴⁾
Light spot (distance):	240 mm (8 m)
Sensitivity adjustment:	Potentiometer, 270°
Angle of dispersion:	1.7 °

^{1) 3)} PL80A ²⁾ P250 ⁴⁾ Average service life 100,000 h at Ta = +25 °C

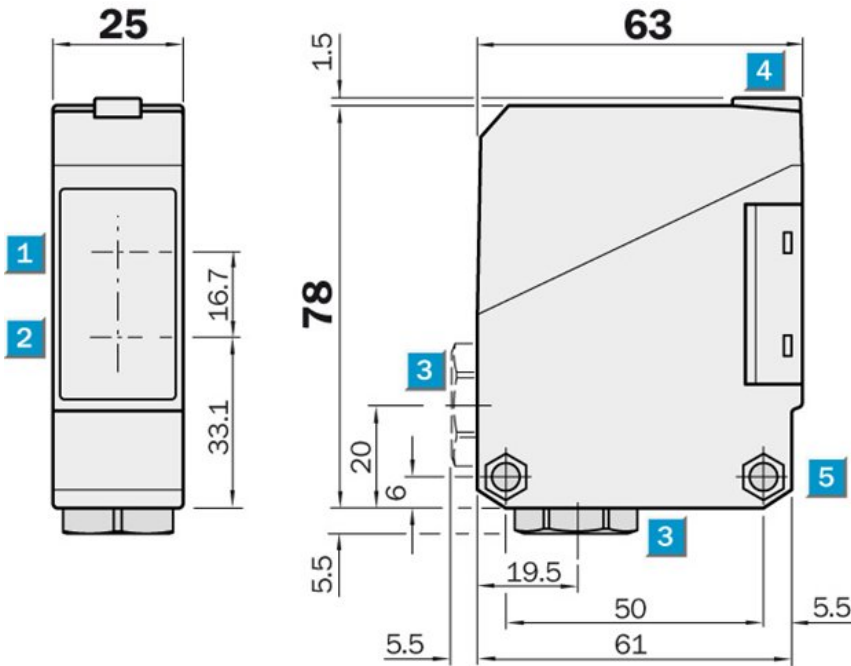
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 35 mA ³⁾
Output type:	PNP, Light/dark-switching, selectable via light/dark selector, open collector

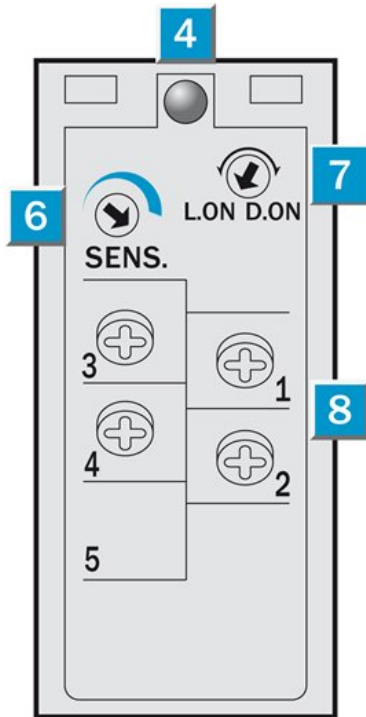
Output current I _{max} ..:	100 mA
Response time:	≤ 1.5 ms ⁴⁾
Switching frequency:	333 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ^{6) 7) 8) 9)}
Protection class:	II ¹⁰⁾
Weight:	120 g
Polarisation filter:	✓
Housing material:	ABS
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W260, Reflector P250
Test input sender off:	TE to VS
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S 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

Dimensional drawing

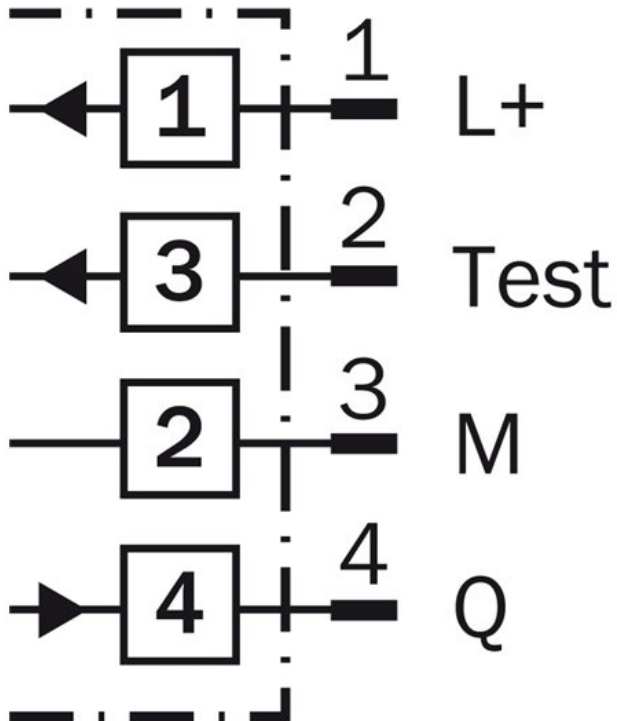


Adjustments possible

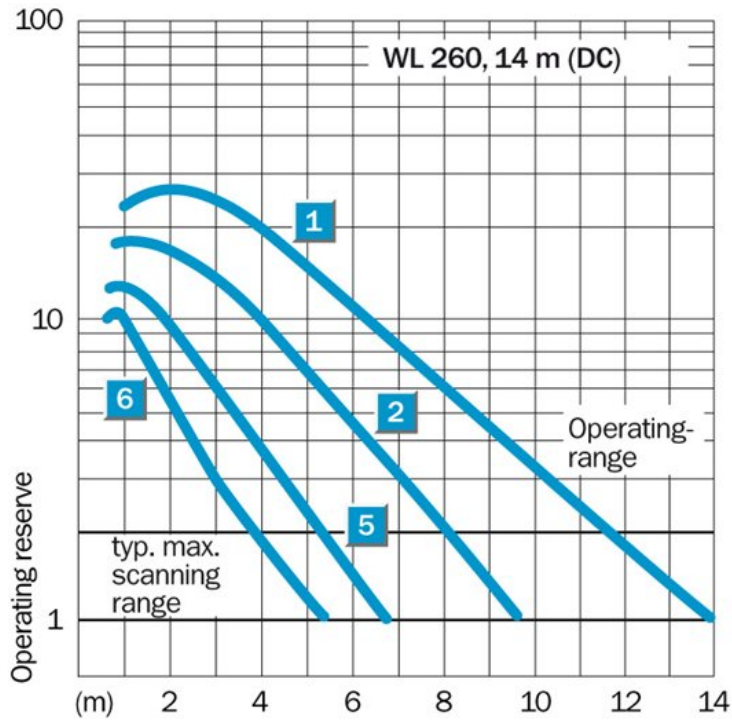


- |4| Status indicator LED, yellow: Output active
- |6| Sensing distance adjustment
- |7| Light/ dark rotary switch L= light switching, D= dark switching
- |8| Terminals

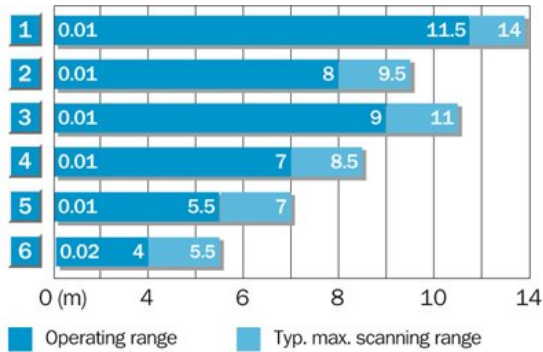
Connection diagram



Characteristic curve

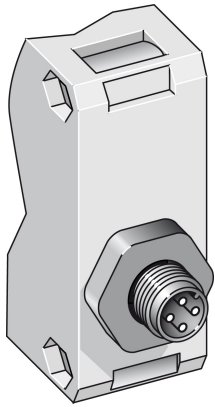


Sensing range diagram



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

Connection type



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