



Photoelectric sensors W260, Through-beam photoelectric sensor

WS/WE260-E470



Model Name > [WS/WE260-E470](#)
Part No. > [6021817](#)



Illustration may differ

At a glance

- Long sensing ranges
- Mounting brackets for sender and receiver are 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



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	25 mm x 78 mm x 63 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 35 m
Sensing range:	0 m ... 30 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Sensitivity adjustment:	Potentiometer, 270°
Angle of dispersion:	Ca. 1.4 °
Light spot size (distance):	Ø 700 mm (30 m)

¹⁾ Average service life of 100,000 h at $T_A = +25\text{ °C}$

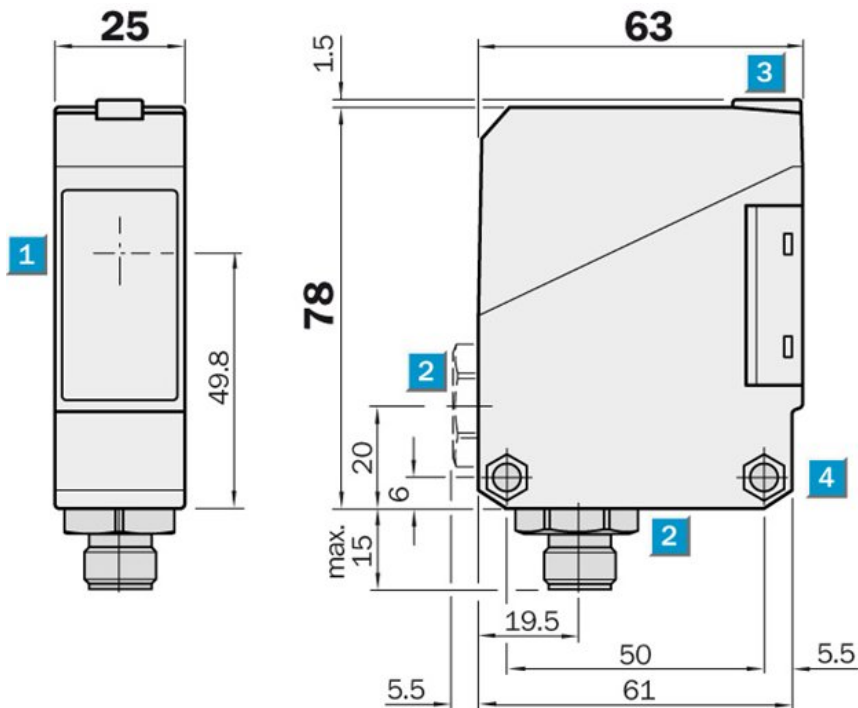
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	$\leq 5\text{ V}_{pp}$ ²⁾
Power consumption, sender:	20 mA ³⁾
Power consumption, receiver:	35 mA ⁴⁾
Output type:	NPN

Switching mode:	Light/dark-switching
Output characteristic:	Open collector
Switching mode selector:	Selectable via light/dark selector
Output current I _{max} :	100 mA
Response time:	≤ 0.5 ms ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Angle of reception:	Ca. 20 °
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ^{7) 8) 9) 10)}
Protection class:	II ¹¹⁾
Weight:	120 g
Housing material:	ABS, Plastic
Optics material:	PC
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W260
Test input sender off:	TE to 0 V
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

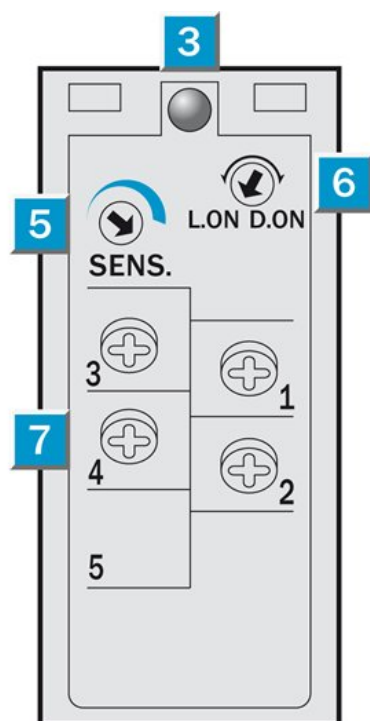
- ¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ^{3) 4)} Without load ⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ Reference voltage 50 V DC

Dimensional drawing



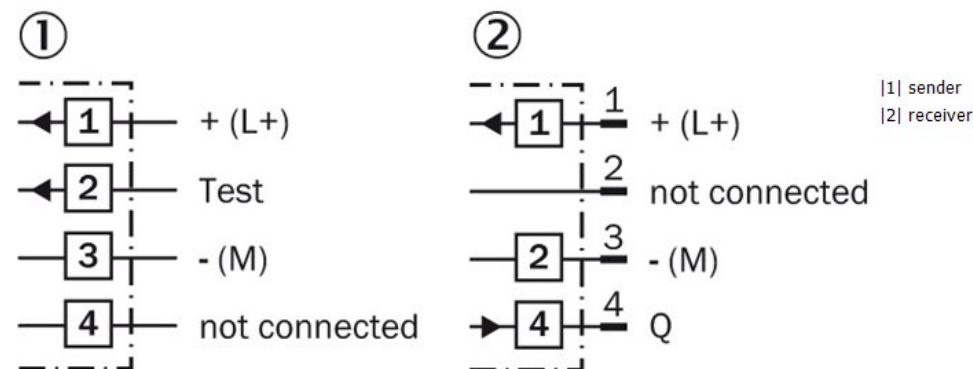
- [1] centre of optical axis, sender/ receiver
- [2] Cable entry gland 1/2" PF thread for cable diameters from 6 to 10 mm optionally at bottom or rear; or connector M12, bottom
- [3] LED indicator orange: WE 260: switching output activeWS 260: sender active
- [4] Mounting hole ø 5.2 mm, for M5 hexagon nuts on both sides

Adjustments possible

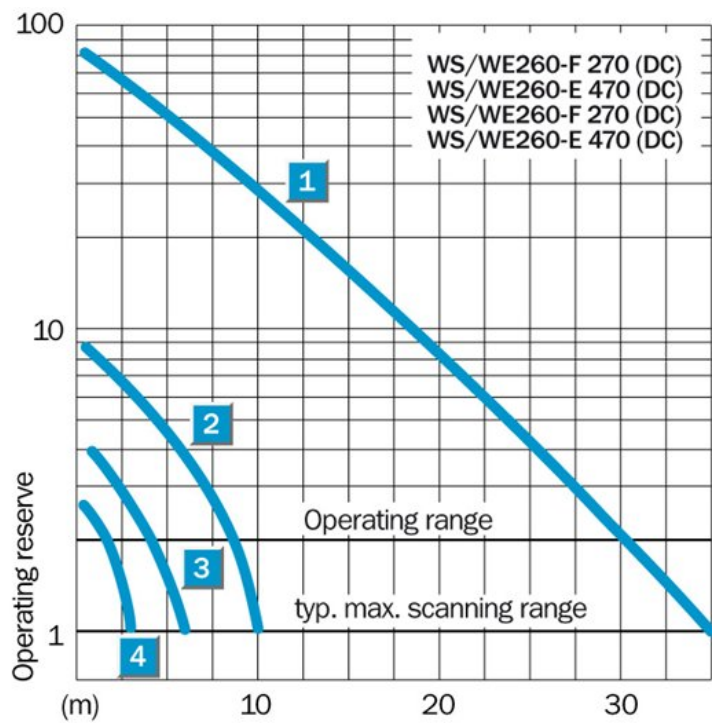


- |3| LED indicator orange: WE 260:
switching output activeWS 260: sender active
- |5| LED signal strength indicator (WE)
- |6| Light/ dark rotary switch L =
light switching, D = dark switching
- |7| Terminals

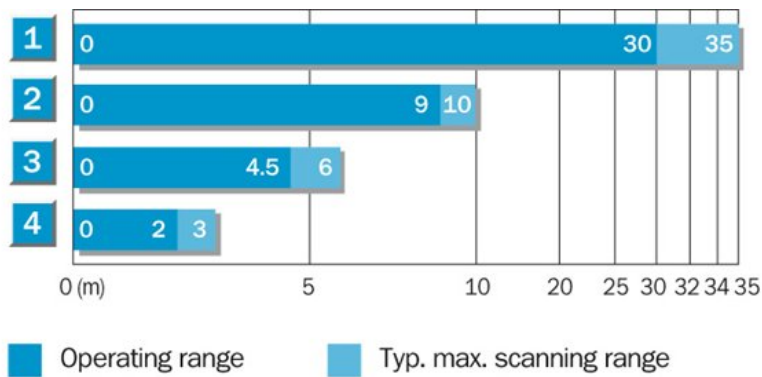
Connection diagram



Characteristic curve



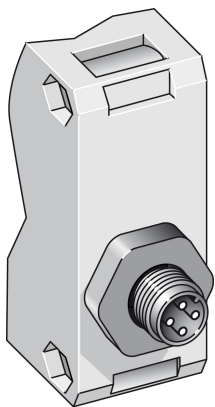
Sensing range diagram



Scanning range reduction when using slotted masks

1	Without slotted mask
2	Orifice width 5 mm
3	Orifice width 2 mm
4	Orifice width 1 mm

Connection type



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