



Photoelectric sensors
W260, Through-beam photoelectric sensor

WS/WE260-F470



Model Name > [WS/WE260-F470](#)
Part No. > [6020974](#)



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⁾
Angle of dispersion:	Ca. 1.4 °
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 700 mm (30 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

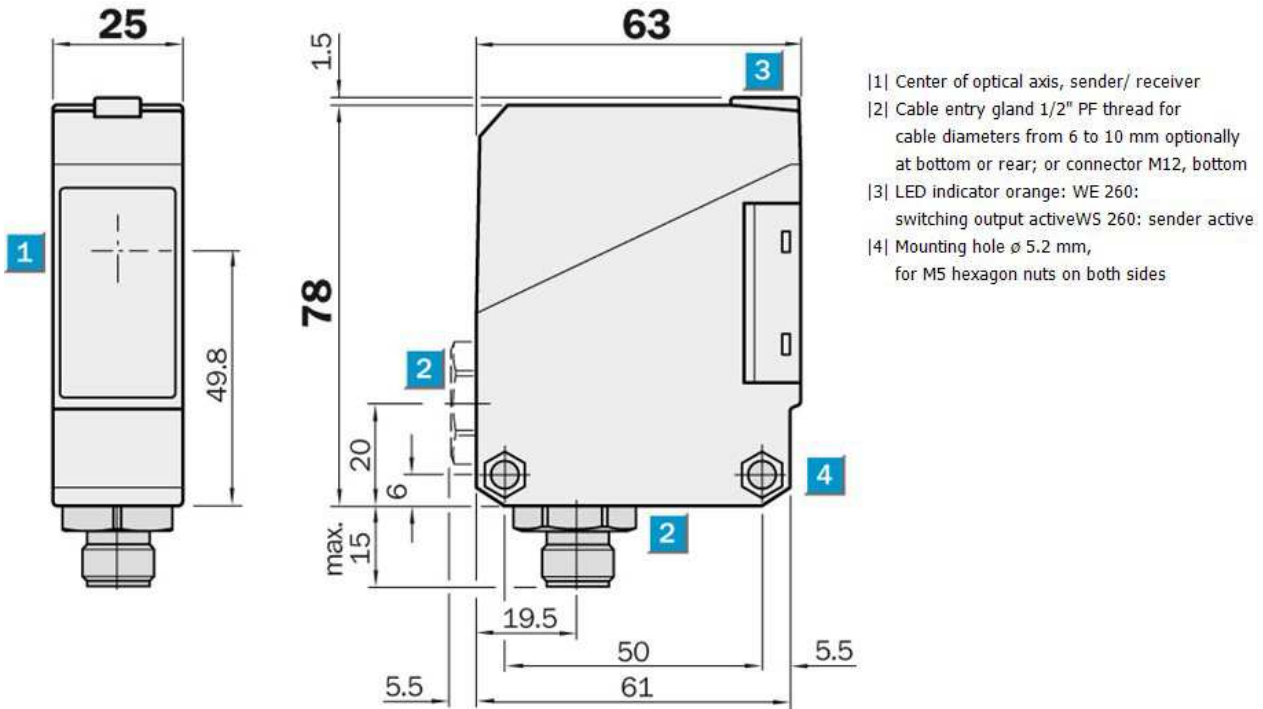
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	≤ 5 V _{pp} ²⁾
Power consumption, sender:	20 mA ³⁾
Power consumption, receiver:	35 mA ⁴⁾
Output type:	PNP, open collector

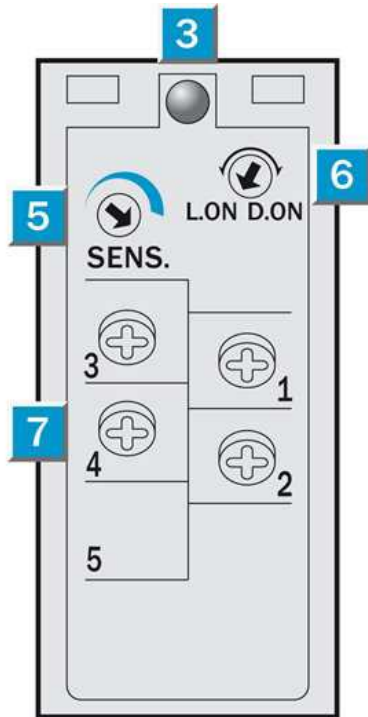
Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark selector
Output current I _{max} ..:	100 mA
Response time:	≤ 0.5 ms ⁵⁾
Switching frequency:	1,000 Hz ⁶⁾
Angle of reception:	Ca. 20 °
Electrical connection:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ^{7) 8) 9) 10)}
Protection class:	II ¹¹⁾
Weight:	120 g
Optics material:	PC
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W260
Test input sender off:	TE to 0 V
Ambient temperature operation:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRNT2.E128350 & NRNT8.E128350
Housing material:	ABS, Plastic

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



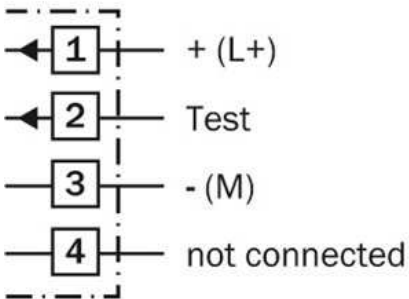
Adjustments possible



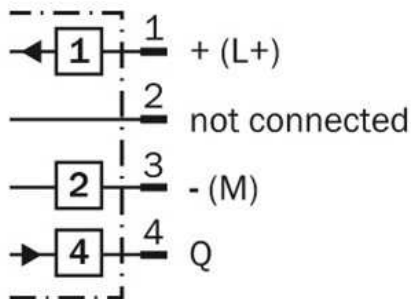
- |3| LED indicator orange: WE 260:
switching output activeWS 260: sender active
- |5| LED signal strength indicator (WE)
- |6| Light/ dark rotary switch:L =
light switching, D = dark switching
- |7| Terminals

Connection diagram

①

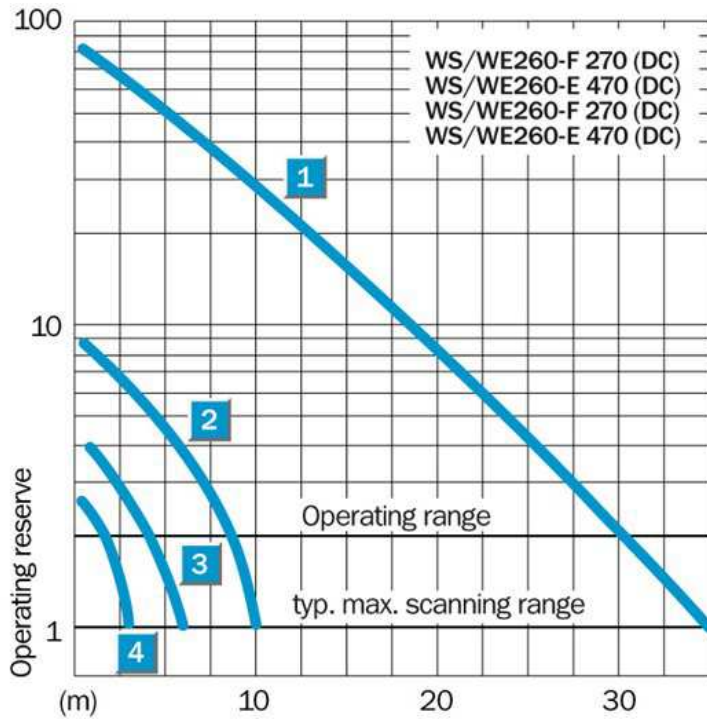


②

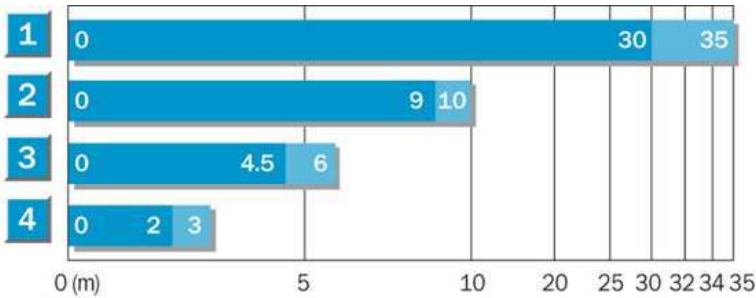


- |1| sender
- |2| receiver

Characteristic curve



Sensing range diagram

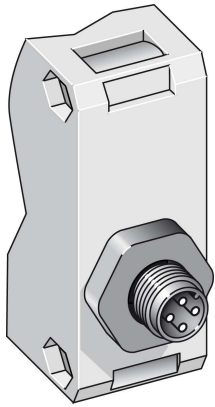


■ Operating range ■ Typ. max. scanning range

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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