



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⁾
Sensitivity 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

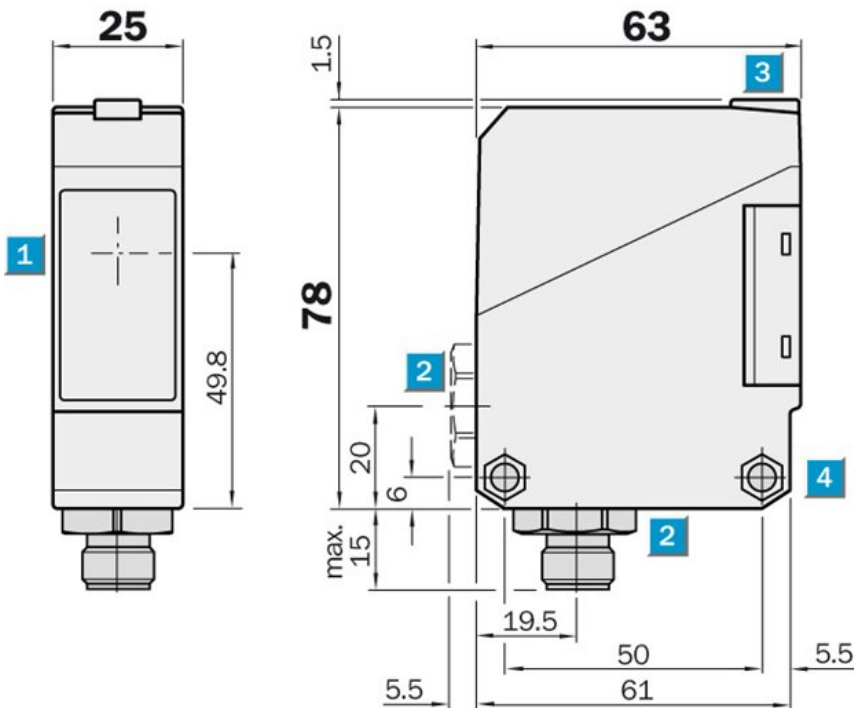
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 V _{pp} ²⁾
Power consumption, sender:	20 mA ³⁾
Power consumption, receiver:	35 mA ⁴⁾
Switching output:	PNP
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 dispersion:	Ca. 1.4 °
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 temperature operation:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

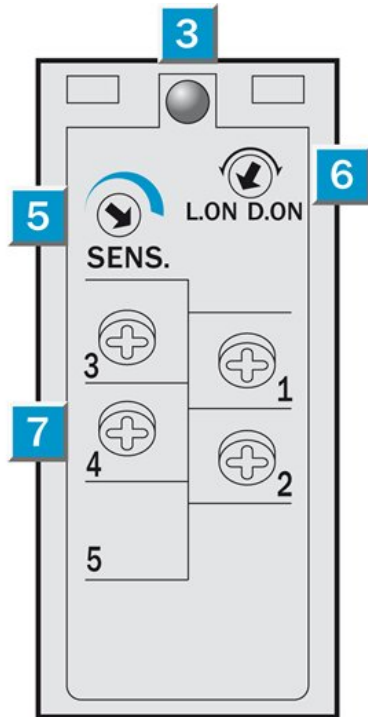
1) Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ^{3) 4)} Without load ⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity 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

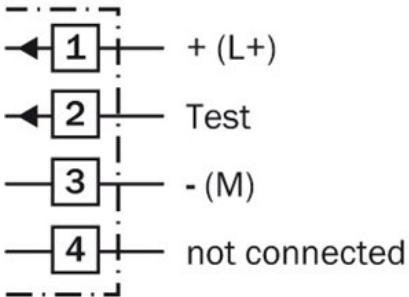
Adjustments possible



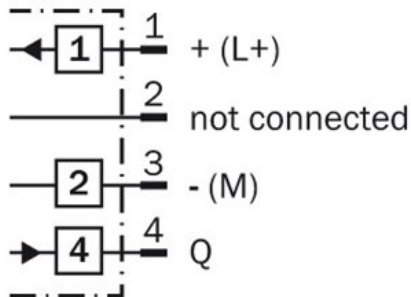
- |3| LED indicator orange: WE 260:
switching output activeWS 260: sender active
- |5| LED signal strength indicator (WE)
- |6| Light/ dark rotary switch L =
light switching, D = dark switching
- |7| Terminals

Connection diagram

①

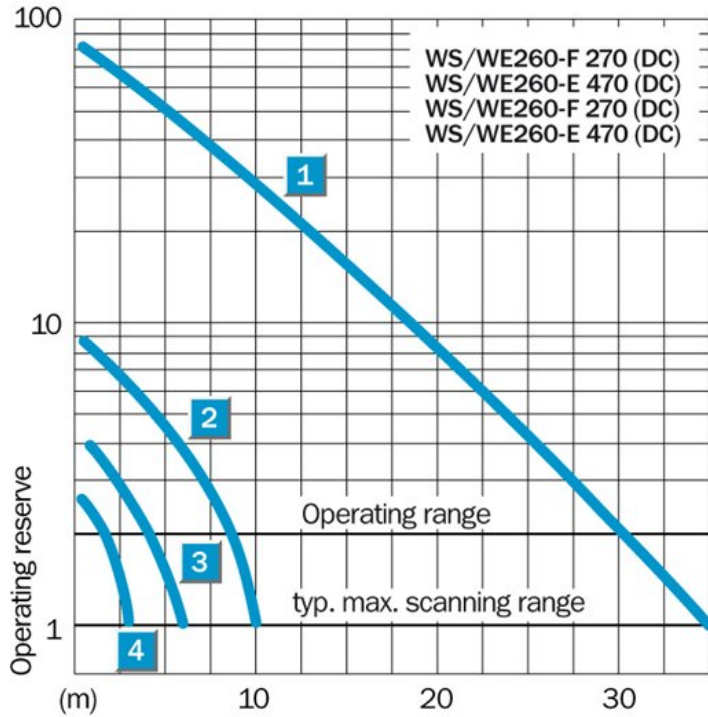


②

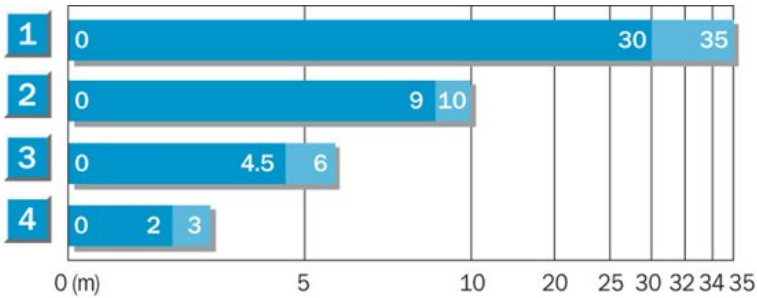


- |1| sender
- |2| receiver

Characteristic curve



Sensing range diagram

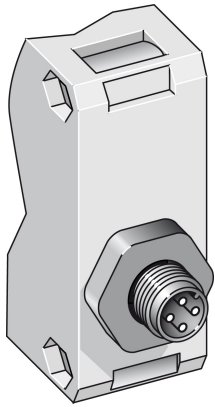


■ Operating range
 ■ Typ. max. scanning range

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



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com