



WSE27X-3P1830

W27-3 Ex

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Model name	Part no.
WSE27X-3P1830	1027991

Other models and accessories → www.sick.de/W27-3_Ex

Detailed technical data

Features

Sensor/detection principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	31.4 mm x 112.3 mm x 70.4 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 35 m
Sensing range	0 m ... 25 m
Type of light	Visible red light
Light source	LED ¹⁾
Angle of dispersion	Approx. 1.5°
Light spot size (distance)	Ø 600 mm, 25 m
Wave length	645 nm

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	35 mA ³⁾
Power consumption, receiver	20 mA ³⁾

¹⁾ Limit values, operation in short-circuit protected network max. 8 A.

²⁾ May not exceed or fall short of V_S tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ C = interference suppression.

¹⁰⁾ Reference voltage: 50 V DC.

Output type	PNP
Output function	Complementary
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Approx. $V_S - 2.5 \text{ V} / 0 \text{ V}$
Output current I_{max}	$\leq 100 \text{ mA}$
Response time	$\leq 500 \mu\text{s}$ ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Angle of reception	Approx. 3°
Connection type	Cable, 4-wire, 10 m ⁶⁾
Cable material	PVC
Circuit protection	A ⁷⁾ B ⁸⁾ C ⁹⁾
Protection class	II ¹⁰⁾
Weight	1,500 g
Housing material	ABSStainless steel V2A (1.4301)Stainless steel, plastic
Optics material	PMMA
Enclosure rating	IP 67
ATEX marking	EX II 3G EX nA op is IIB T4 Gc X EX II 3D EX tc IIIB T135 °C Dc
Hazardous area category	3D, 3G
Ambient operating temperature	-20 °C ... +50 °C
Ambient storage temperature	-40 °C ... +75 °C
Part number of individual components	Sender, WS27X-3D1830, 2033628, Receiver, WE27X-3P1830, 2033627

1) Limit values, operation in short-circuit protected network max. 8 A.

2) May not exceed or fall short of V_S tolerances.

3) Without load.

4) Signal transit time with resistive load.

5) With light/dark ratio 1:1.

6) Do not bend below 0 °C.

7) A = V_S connections reverse-polarity protected.

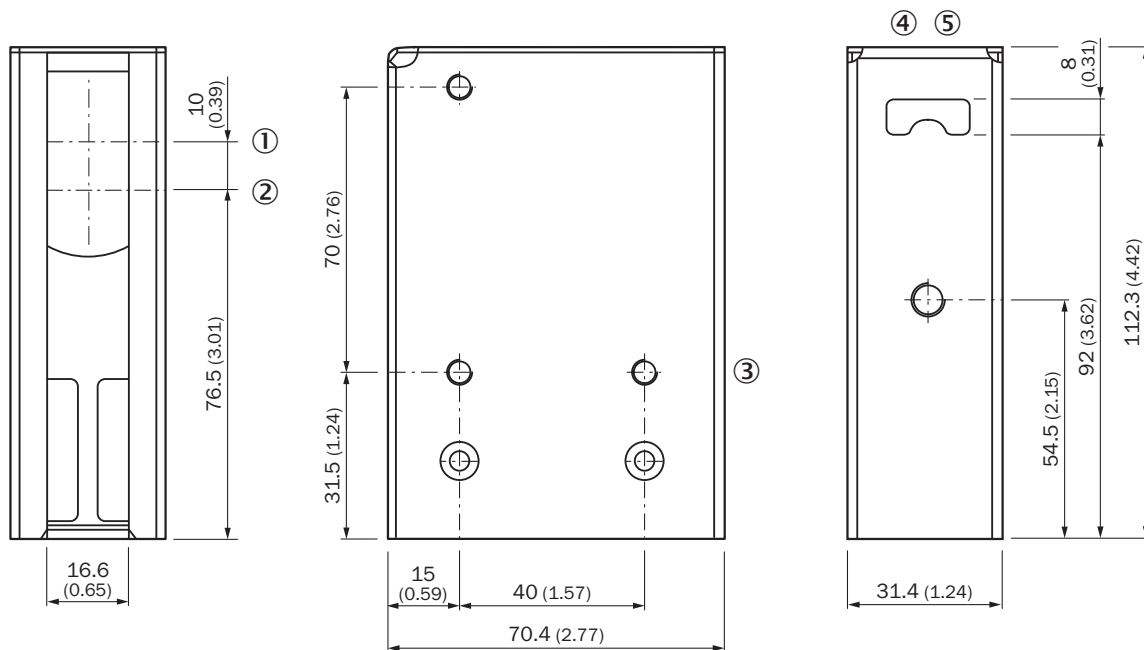
8) B = inputs and output reverse-polarity protected.

9) C = interference suppression.

10) Reference voltage: 50 V DC.

Dimensional drawing (Dimensions in mm (inch))

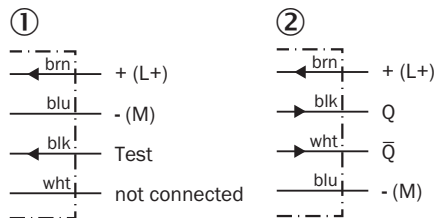
WSE27-3 EX



- ① Optical axis, sender
- ② Optical axis, receiver
- ③ Mounting hole \varnothing 5.2 mm
- ④ Status indicator LED green: supply voltage on
- ⑤ Status indicator LED, yellow: Status of received light beam

Connection diagram

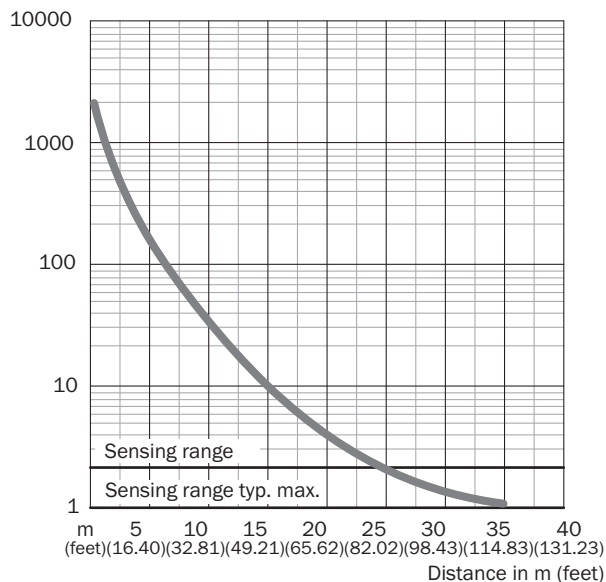
Cd-088



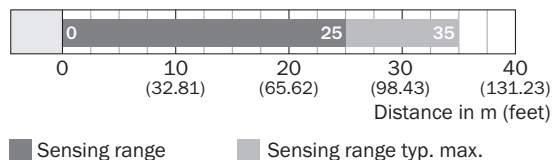
- ① Sender
- ② Receiver

Characteristic curve

WSE27-3 EX




Sensing range diagram



Recommended accessories

Other models and accessories → www.sick.de/W27-3_Ex

	Brief description	Model name	Part no.
Universal bar clamp systems			
	Plate N04 for universal clamp bracket, steel, Zinc plated steel (sheet), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-KHS-N04	2051610
Device protection (mechanical)			
	Protective housing for universal clamp, Zinc plated steel (protective housing), Diecast zinc (clamp), Universal clamp, mounting hardware	BEF-SG-W27	2039601
	Weather hood for universal clamp bracket, steel, zinc coated, mounting hardware included	OBW-KHS-M01	2023240
Mounting brackets and mounting plates			

	Brief description	Model name	Part no.
	Mounting bracket with hinged arm, steel, zinc coated, mounting hardware included	BEF-WN-MULTI	2064469
		BEF-WN-W27	2009122

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