



WTE27X-3P1861

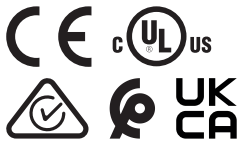
W27

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
WTE27X-3P1861	1066386

Other models and accessories → www.sick.com/W27

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
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.	10 mm ... 300 mm ¹⁾
Type of light	Visible red light
Light source	PinPoint LED ²⁾
Light spot size (distance)	Ø 15 mm (400 mm)
Adjustment	Potentiometer
Special applications	Explosive areas

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not fall below or exceed U_V 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.

Current consumption	35 mA ³⁾
Switching output	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	$\leq 1.5 \text{ ms}$ ⁴⁾
Switching frequency	350 Hz ⁵⁾
Connection type	Cable, 4-wire, 10 m ⁶⁾
Cable material	Plastic, PVC
Circuit protection	A ⁷⁾ B ⁸⁾ C ⁹⁾
Protection class	II ¹⁰⁾
Weight	750 g
Housing material	Metal, Stainless steel V2A (1.4301) Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
ATEX marking	ATEX II 3G Ex nA op is IIB T4 Gc X ATEX II 3D Ex tc IIIB T135 °C Dc X In accordance with directive 2014/34 / EU
Ex area category	3D, 3G
Ambient operating temperature	-20 °C ... +50 °C
Ambient temperature, storage	-40 °C ... +75 °C

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Classifications

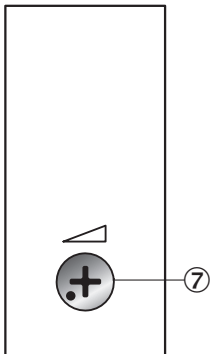
ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903

ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Certificates

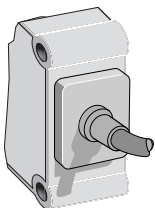
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

Adjustments

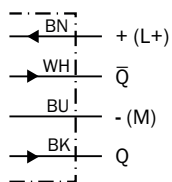


⑦ Sensing range adjustment: potentiometer

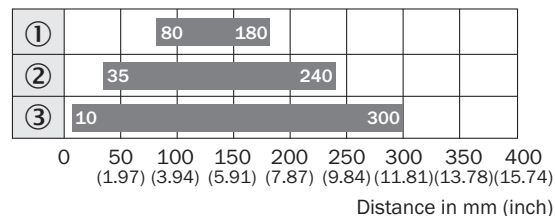
Connection type



Connection diagram Cd-094



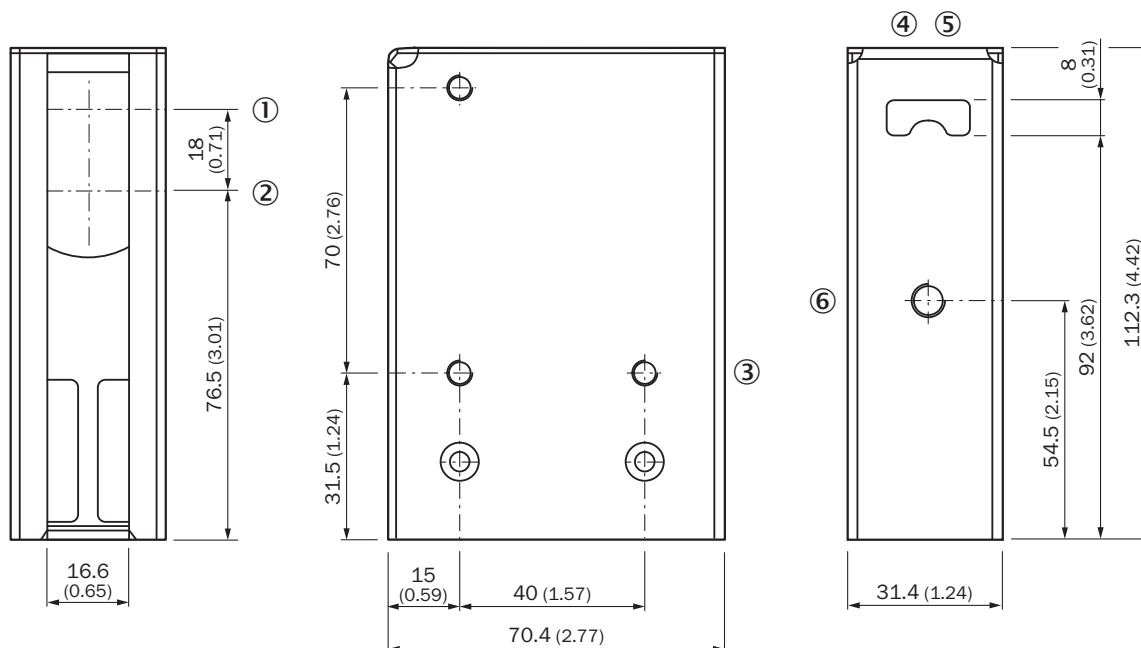
Sensing range diagram WTE27-3 EX



- ① Sensing range on black, 6 % remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90 % remission

- ① Sensing range on black, 6% remission factor
- ② Sensing range on gray, 18% remission factor
- ③ Sensing range on white, 90% remission factor

Dimensional drawing




Dimensions in mm (inch)

- ① Center of optical axis, sender
- ② Center of optical axis, receiver

- ③ Mounting hole ø 5.2 mm
- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam
- ⑥ Sensing range adjustment: potentiometer

Recommended accessories

Other models and accessories → www.sick.com/W27

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none">• Connection type head A: Male connector, M12, 4-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: ≤ 0.75 mm²	STE-1204-G	6009932

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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