



WTB27-302641S08

W27

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
WTB27-302641S08	1029141

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	24.6 mm x 80.6 mm x 54 mm
Housing design (light emission)	Rectangular
Sensing range max.	30 mm ... 1,100 mm ¹⁾
Sensing range	100 mm ... 250 mm
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 15 mm (500 mm)
Wave length	660 nm
Adjustment	Potentiometer Potentiometer fixed with glue
Special features	Sensing range preset at 250 mm on an object with 18 % remission Potentiometer sealed With semiconductor relay 24 VDC

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

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	50 mA ³⁾

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

²⁾ May not fall below or exceed U_y tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ C = interference suppression.

⁷⁾ E = semiconductor relay short-circuit protected.

⁸⁾ Reference voltage: 50 V DC.

Switching output	Relay
Switching current (switching voltage)	100 mA (30 V DC) 100 mA (20 V AC)
Response time	≤ 3 ms
Switching frequency	200 Hz ⁴⁾
Connection type	Male connector Q6, 6-pin, AC/UC-coded
Circuit protection	A ⁵⁾ C ⁶⁾ E ⁷⁾
Protection class	II ⁸⁾
Weight	120 g
Special device	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP65
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

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

2) May not fall below or exceed U_{γ} tolerances.

3) Without load.

4) With light/dark ratio 1:1.

5) A = V_S connections reverse-polarity protected.

6) C = interference suppression.

7) E = semiconductor relay short-circuit protected.

8) Reference voltage: 50 V DC.

Safety-related parameters

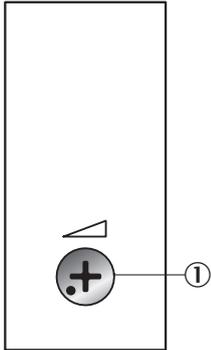
MTTF_D	543 years
DC_{avg}	0 %

Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719

ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Adjustments Potentiometer

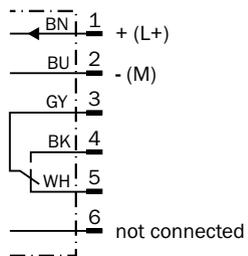


① Potentiometer

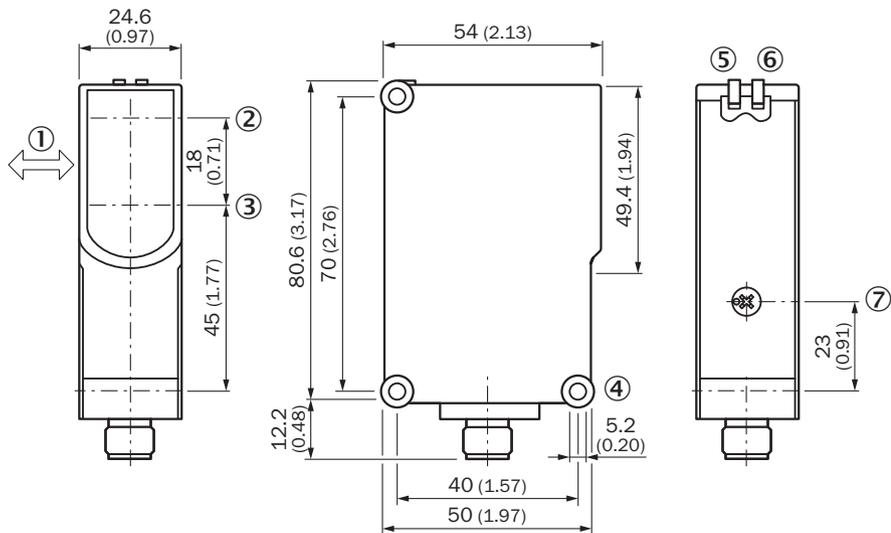
Connection type



Connection diagram Cd-183



Dimensional drawing WTB27-3, potentiometer



Dimensions in mm (inch)

- ① Standard direction of the material being detected
- ② Optical axis, sender
- ③ Optical axis, receiver
- ④ Mounting hole \varnothing 5.2 mm
- ⑤ LED indicator green: Supply voltage active
- ⑥ LED indicator yellow: Status of received light beam
- ⑦ Sensing range adjustment: potentiometer

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> • Description: Mounting bracket with hinged arm • Material: Steel • Details: Steel, zinc coated • Items supplied: Mounting hardware included • Suitable for: W23-2, W27-3, Reflex Array 	BEF-WN-W27	2009122
device protection and care			
	<ul style="list-style-type: none"> • Description: Protective housing for W26, W27-3 and mounting rods with diameter 12 mm ... 20 mm • Material: Steel, zinc diecast • Items supplied: Universal clamp BEF-KHS-KH1 (2022726), mounting hardware • Suitable for: W27-3, W26, RAY26 	BEF-SG-W27	2039601

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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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