



WT27-2R810

W27-2

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WT27-2R810	1016073

Other models and accessories → www.sick.com/W27-2

Illustration may differ



Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D)	24.6 mm x 80 mm x 53.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	100 mm ... 1,500 mm ¹⁾
Sensing range	100 mm ... 1,500 mm
Type of light	Infrared light
Light source	LED ²⁾
Light spot size (distance)	Ø 25 mm (800 mm)
Adjustment	PotentiometerPotentiometer
Time type	Off delay On delay Switch on delay and time delay off
Delay time	Adjustable via time delay selector switch, 0.5 s, 10 s

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

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

Mechanics/electronics

Supply voltage	24 V AC/DC ... 240 V AC/DC ¹⁾
Power consumption	< 2 VA

¹⁾ + 10 %, -20 %.

²⁾ Provide suitable spark suppression for inductive or capacitive loads.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ C = interference suppression.

⁷⁾ Reference voltage: 250 V AC, overvoltage category 2.

Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching mode	Light/dark switching ²⁾
Switching mode selector	Selectable via time delay selector switch
Switching current (switching voltage)	4 A (240 V AC) 0.2 A (120 V DC) 4 A (24 V DC)
Response time	< 6 ms ³⁾
Switching frequency	10 Hz ⁴⁾
Connection type	Mini connector 7/8", 5-pin
Circuit protection	A ⁵⁾ C ⁶⁾
Protection class	II ⁷⁾
Weight	100 g
Housing material	Plastic, ABS
Enclosure rating	IP65
Ambient operating temperature	-40 °C ... +60 °C
Ambient storage temperature	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

1) + 10 %, -20 %.

2) Provide suitable spark suppression for inductive or capacitive loads.

3) Signal transit time with resistive load.

4) With light/dark ratio 1:1.

5) A = V_S connections reverse-polarity protected.

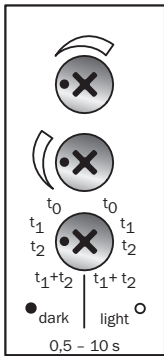
6) C = interference suppression.

7) Reference voltage: 250 V AC, overvoltage category 2.

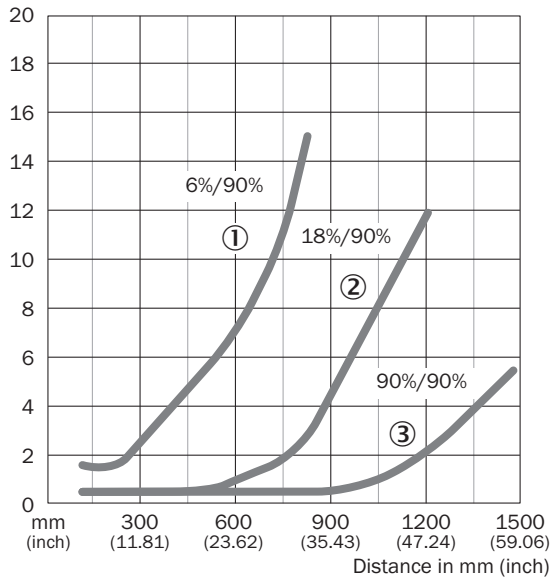
Classifications

ECl@ss 5.0	27270904
ECl@ss 5.1.4	27270904
ECl@ss 6.0	27270904
ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904
ECl@ss 9.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719
UNSPSC 16.0901	39121528

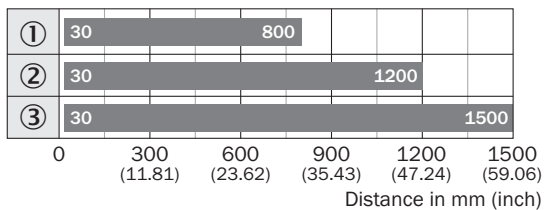
Adjustments possible



Characteristic curve



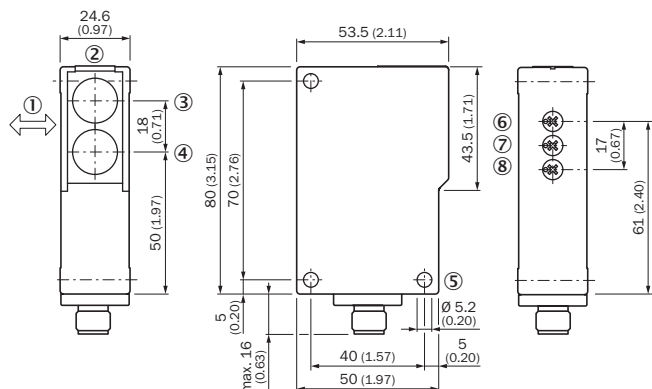
Sensing range diagram



■ Sensing range

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

Dimensional drawing (Dimensions in mm (inch))



- ① Standard direction
- ② LED signal strength indicator
- ③ Optical axis, sender
- ④ Optical axis, receiver
- ⑤ Mounting hole, Ø 5.2 mm
- ⑥ Adjustment of sensing range

Recommended accessories

Other models and accessories → www.sick.com/W27-2

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N04 for universal clamp, steel, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N04	2051610
Device protection (mechanical)			
	Protective housing for universal clamp, Zinc plated steel (protective housing), Zinc die cast (clamping bracket), Universal clamp (2031357), 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 plates			
	Mounting bracket with articulated arm for W11-2, W27, Dx50, steel, zinc coated, mounting hardware included	BEF-WN-MULTI	2064469
	Mounting bracket with hinged arm, steel, zinc coated, mounting hardware included	BEF-WN-W27	2009122

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.”

WORLDWIDE PRESENCE:

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