

WT27-2R610

W27-2

PRODUCT PORTFOLIO





# Ordering information

Туре	Part no.
WT27-2R610	1015091

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 <sup>1)</sup>
Sensing range	100 mm 1,500 mm
Type of light	Infrared light
Light source	LED <sup>2)</sup>
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

 $<sup>^{1)}</sup>$  Object with 90 % reflectance (referred to standard white, DIN 5033)

## Mechanics/electronics

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

<sup>1) + 10 % - 20 %</sup> 

 $<sup>^{2)}</sup>$  Average service life: 100,000 h at  $T_U$  = +25 °C.

 $<sup>^{2)}\,\</sup>mbox{Provide}$  suitable spark suppression for inductive or capacitive loads.

 $<sup>^{\</sup>rm 3)}$  Signal transit time with resistive load.

<sup>4)</sup> With light/dark ratio 1:1.

 $<sup>^{5)}</sup>$  A =  $V_S$  connections reverse-polarity protected.

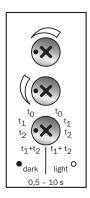
 $<sup>^{6)}</sup>$  C = interference suppression.

<sup>&</sup>lt;sup>7)</sup> Reference voltage: 250 V AC.

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 mode 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  5 Witching frequency  10 Hz <sup>4)</sup> Connection type  Connector Q6, 6-pin, AC/UC-coding  Circuit protection  C 6)  Protection class  II 7)  Weight  Housing material  Enclosure rating  Ambient operating temperature  Light/dark switching <sup>2)</sup> Selectable via time delay selector switch  4 (240 V AC) 0.2 A (120 V DC) 4 (240 V DC) 4 (240 V BC) 4 (2	Output type	Relay, electrically isolated <sup>2)</sup>
Switching mode selector  Selectable via time delay selector switch  \$\frac{4}{240 \times \text{NC}} \\ \text{0.2 A (120 V DC)} \\ \text{4 A (24 V DC)} \\ \text{4 A (24 V DC)} \\ \text{Response time} \\  \$\frac{6}{6} \text{ms}^{3}\$  Switching frequency  \$\text{10 Hz}^{4}\$  Connection type  Connector Q6, 6-pin, AC/UC-coding  Circuit protection  \$\text{A}^{5}\$ \$\text{C}^{6}\$  Protection class  \$\text{II}^{7}\$  Weight  \$\text{400 V AC}\$ \$\text{100 V DC}\$ \$\text{4 MDC}\$  \$\text{100 MDC}\$ \$\text{400 V AC}\$ \$\text{100 MDC}\$ \$	Output function	Change-over contacts
Switching current (switching voltage)  4 A (240 V AC) 0.2 A (120 V DC) 4 A (24 V DC)  Response time  5 of ms 3)  Switching frequency  10 Hz 4)  Connection type  Connector Q6, 6-pin, AC/UC-coding  Circuit protection  A 5) C 6) C 6)  Protection class  II 7)  Weight  Housing material  ABSplastic  Enclosure rating  Ambient operating temperature  -40 °C +75 °C	Switching mode	Light/dark switching <sup>2)</sup>
0.2 Å (120 V DC) 4 Å (24 V DC)  Response time	Switching mode selector	Selectable via time delay selector switch
Switching frequency  10 Hz 4)  Connection type  Circuit protection  A 5) C 6)  Protection class  II 7)  Weight  100 g  Housing material  ABSplastic  Enclosure rating  Ambient operating temperature  -40 °C +60 °C  -40 °C +75 °C	Switching current (switching voltage)	0.2 Å (120 V DC)
Connection type Circuit protection $A^{5)} C^{6)}$ Protection class $II^{7)}$ Weight $100 g$ Housing material ABSplastic Enclosure rating Ambient operating temperature $-40 °C + 75 °C$	Response time	< 6 ms <sup>3)</sup>
Circuit protection  A 5	Switching frequency	10 Hz <sup>4)</sup>
Protection classII 7)Weight100 gHousing materialABSplasticEnclosure ratingIP 65Ambient operating temperature-40 °C +60 °CAmbient storage temperature-40 °C +75 °C	Connection type	Connector Q6, 6-pin, AC/UC-coding
Weight 100 g  Housing material ABSplastic  Enclosure rating IP 65  Ambient operating temperature -40 °C +60 °C  Ambient storage temperature -40 °C +75 °C	Circuit protection	
Housing material  ABSplastic  Enclosure rating  IP 65  Ambient operating temperature  -40 °C +60 °C  -40 °C +75 °C	Protection class	II <sup>7)</sup>
Enclosure rating  IP 65  Ambient operating temperature  -40 °C +60 °C  -40 °C +75 °C	Weight	100 g
Ambient operating temperature -40 °C +60 °C  -40 °C +75 °C	Housing material	ABSplastic
Ambient storage temperature -40 °C +75 °C	Enclosure rating	IP 65
	Ambient operating temperature	-40 °C +60 °C
<b>UL File No.</b> NRKH.E181493 & NRKH7.E181493	Ambient storage temperature	-40 °C +75 °C
	UL File No.	NRKH.E181493 & NRKH7.E181493

<sup>&</sup>lt;sup>1)</sup> + 10 %, -20 %.

# Adjustments possible



<sup>&</sup>lt;sup>2)</sup> Provide suitable spark suppression for inductive or capacitive loads.

<sup>3)</sup> Signal transit time with resistive load.

<sup>4)</sup> With light/dark ratio 1:1.

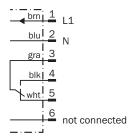
<sup>&</sup>lt;sup>5)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>6)</sup> C = interference suppression.

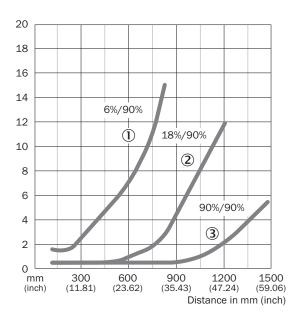
<sup>7)</sup> Reference voltage: 250 V AC.

## Connection diagram

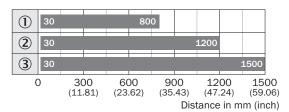
#### Cd-181



#### Characteristic curve



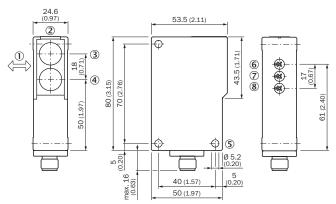
## Sensing range diagram



#### Sensing range

- $\ensuremath{\textcircled{1}}$  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
- Optical axis receiver
- (5) Mounting hole, Ø 5.2 mm
- Sensing range adjustment

#### Recommended accessories

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

	Brief description	Туре	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	
H	Weather hood for universal clamp bracket, steel, zinc coated, mounting hardware included	OBW-KHS-M01	2023240	
Mounting brackets and mounting 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:**

Contacts and other locations -www.sick.com

