



WL27-2R830

W27

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
WL27-2R830	1016072

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

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Dimensions (W x H x D)	24.6 mm x 80 mm x 53.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.1 m ... 14 m ¹⁾
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Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 220 mm (10 m)
Adjustment	Potentiometer

¹⁾ Reflector PL80A.

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

Mechanics/electronics

Supply voltage U_B	24 V AC/DC ... 240 V AC/DC
Power consumption	< 2 VA
Switching output	Relay, electrically isolated ¹⁾
Output function	Change-over contacts
Switching mode	Light/dark switching ¹⁾
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 ²⁾

¹⁾ Provide suitable spark suppression for inductive or capacitive loads.

²⁾ Signal transit time with resistive load.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_S connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Reference voltage: 250 V AC, overvoltage category 2.

Switching frequency	10 Hz ³⁾
Time functions	Off delay Switch-on delay Switch on delay and time delay off
Delay time	Adjustable via time delay selector switch, 0.5 s ... 10 s
Connection type	Mini connector 7/8", 5-pin
Circuit protection	A ⁴⁾ C ⁵⁾
Protection class	II ⁶⁾
Weight	100 g
Housing material	Plastic, ABS
Enclosure rating	IP65
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C

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

2) Signal transit time with resistive load.

3) With light/dark ratio 1:1.

4) A = V_S connections reverse-polarity protected.

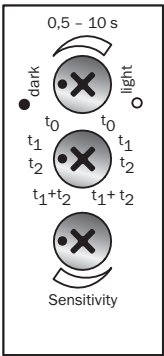
5) C = interference suppression.

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

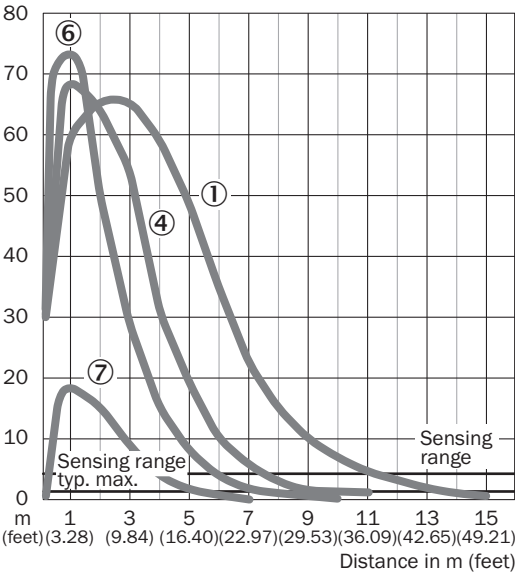
Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

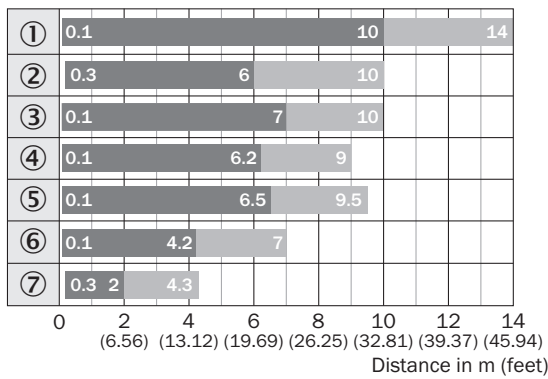
Adjustments



Characteristic curve



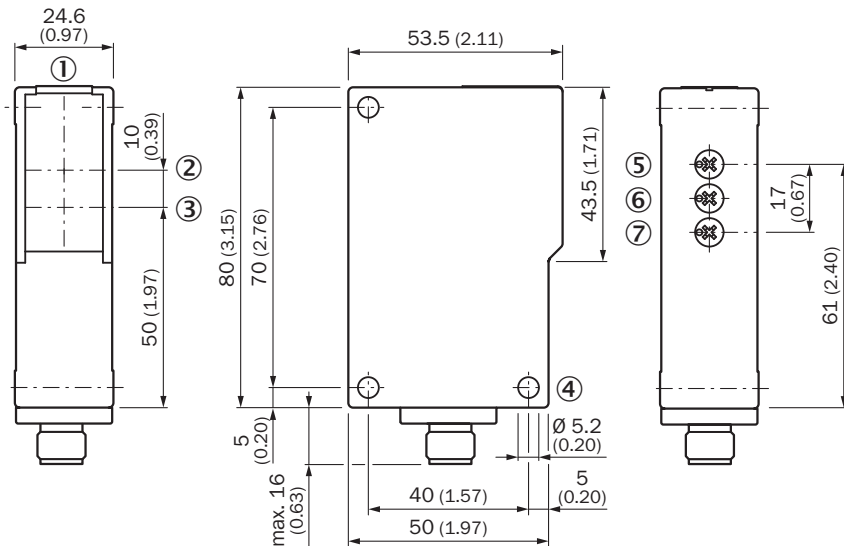
Sensing range diagram



Reflector type

- ① PL80A
- ② C110
- ③ PL50A
- ④ PL40A
- ⑤ PL30A
- ⑥ PL20A
- ⑦ Reflective tape
Diamond Grade

Dimensional drawing






Dimensions in mm (inch)

- ① LED signal strength indicator
- ② Optical axis, sender
- ③ Optical axis, receiver
- ④ Mounting hole, Ø 5.2 mm
- ⑤ sensitivity control

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
	<ul style="list-style-type: none"> Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A 	BEF-WN-REFX	2064574
reflectors and optics			
	<ul style="list-style-type: none"> Description: Rectangular, screw connection Dimensions: 51 mm 61 mm Ambient operating temperature: -30 °C ... +65 °C 	P250	5304812

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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