



WL27-2R830

W27-2

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WL27-2R830	1016072

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

Illustration may differ



Detailed technical data

Features

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

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 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⁾
Time functions	Off delay 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 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

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.

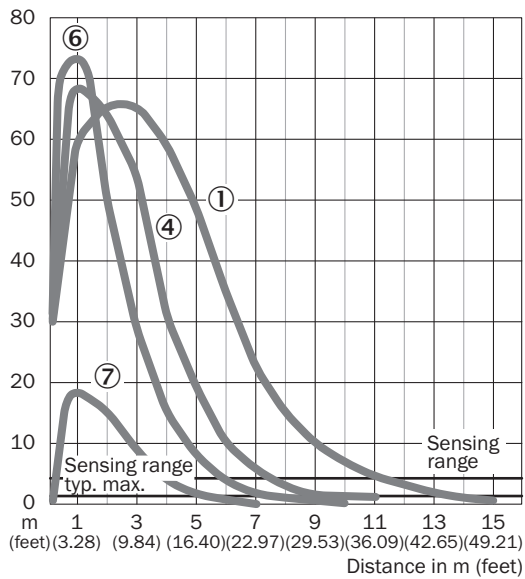
6) C = interference suppression.

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

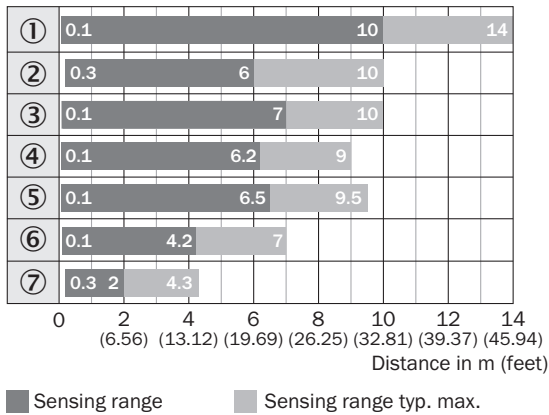
Classifications

ECI@ss 5.0	27270902
ECI@ss 5.1.4	27270902
ECI@ss 6.0	27270902
ECI@ss 6.2	27270902
ECI@ss 7.0	27270902
ECI@ss 8.0	27270902
ECI@ss 8.1	27270902
ECI@ss 9.0	27270902
ECI@ss 10.0	27270902
ECI@ss 11.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
UNSPSC 16.0901	39121528

Characteristic curve



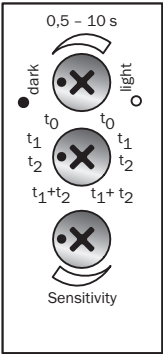
Sensing range diagram



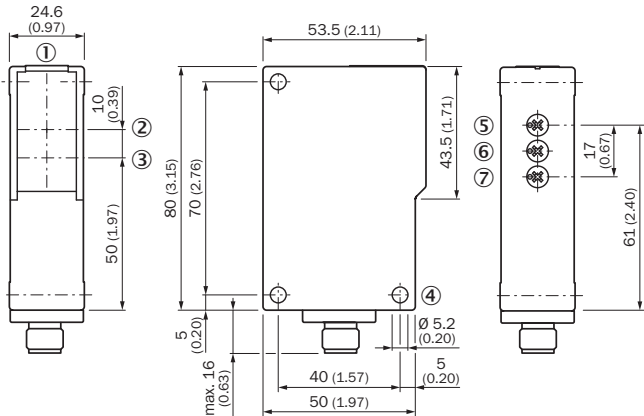
Reflector type

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

Adjustments



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/W27-2

	Brief description	Type	Part no.
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Reflectors			
	Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting	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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