



WS/WE27-2R830

W27

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WS/WE27-2R830	1016075

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

Illustration may differ



Detailed technical data

Features

Functional principle	Through-beam photoelectric 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 m ... 35 m
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Focus	Approx. 3°
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 1,200 mm (25 m)
Angle of dispersion	Approx. 3°
Adjustment	Potentiometer

¹⁾ Average service life: 100,000 h at T_J = +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⁾

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 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⁾
Switching frequency	10 Hz ³⁾
Time functions	Off delayswitch-on delayswitch 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	200 g
Housing material	Plastic, ABS
Enclosure rating	IP65
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493
Part number of individual components	2018984 WS27-2U830 2018985 WE27-2R830

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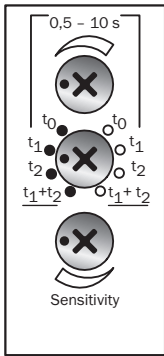
⁵⁾ C = interference suppression.

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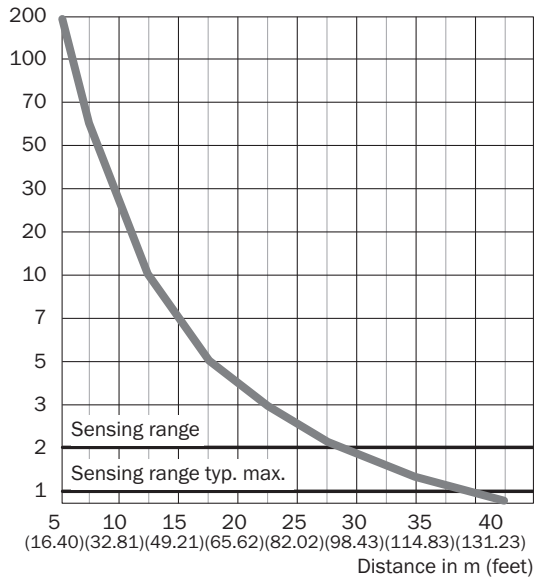
Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

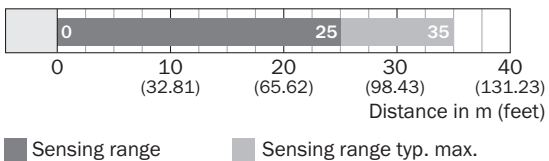
Adjustments



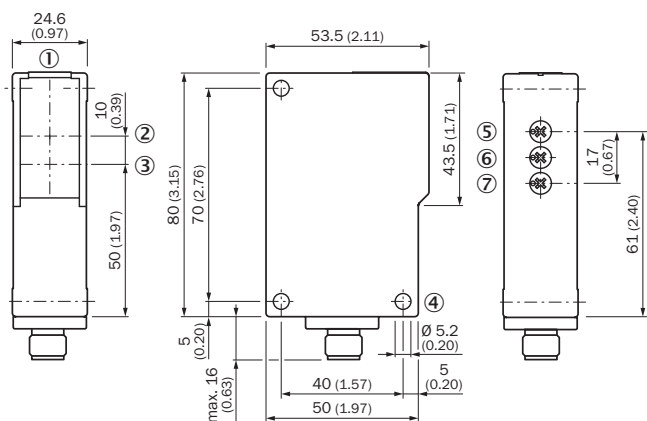
Characteristic curve



Sensing range diagram



Dimensional drawing (Dimensions in mm (inch))



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

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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