



WT27-2R830S24

W27

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WT27-2R830S24	1016496

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

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	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 ... 1,000 mm ¹⁾
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Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 15 mm (500 mm)
Adjustment	Potentiometer

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

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⁾

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	100 g
Special device	✓
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

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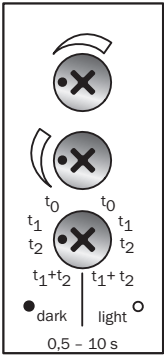
⁵⁾ C = interference suppression.

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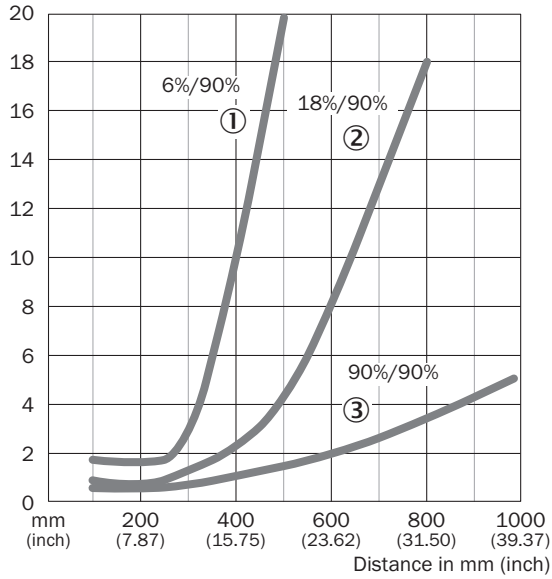
Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

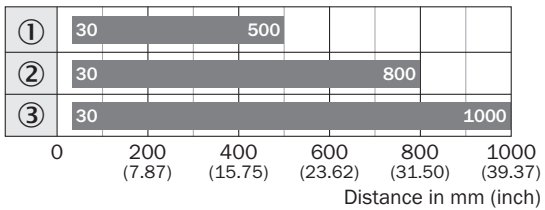
Adjustments



Characteristic curve



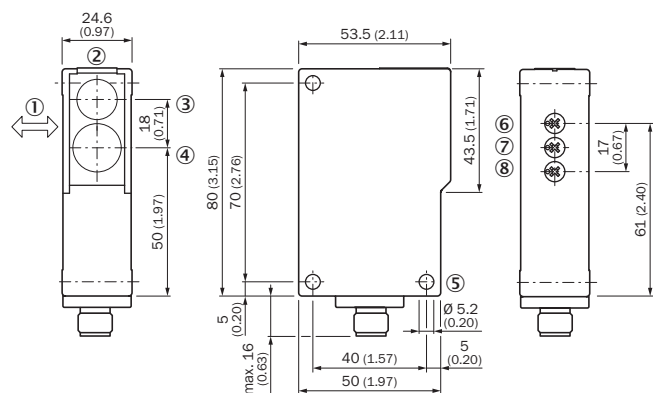
Sensing range diagram



■ 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, $\varnothing 5.2$ mm
- ⑥ Adjustment of sensing range

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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