



WT27L-2S830A

W27-2 Laser

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WT27L-2S830A	1016359

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

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 ... 800 mm ¹⁾
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Type of light	Visible red light
Light source	Laser ²⁾
Light spot size (distance)	Ø 2 mm (400 mm)
Wave length	650 nm
Laser class	2 (EN 60825-1), low power. Eyes are normally protected by averting reaction and eyelid closing reflex.
Adjustment	Potentiometer
Special applications	Detecting small objects

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 50,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	24 V DC ... 240 V DC ¹⁾ 24 V AC ... 240 V AC ¹⁾
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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.

Power consumption	< 2 VA
Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching current (switching voltage)	4 A (240 V AC) 4 A (24 V DC)
Response time	< 6 ms ³⁾
Switching frequency	10 Hz ⁴⁾
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	-10 °C ... +45 °C
Ambient storage temperature	-10 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

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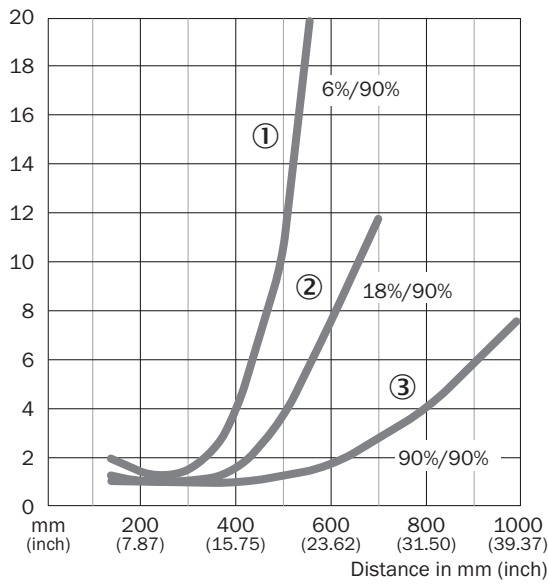
⁶⁾ C = interference suppression.

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

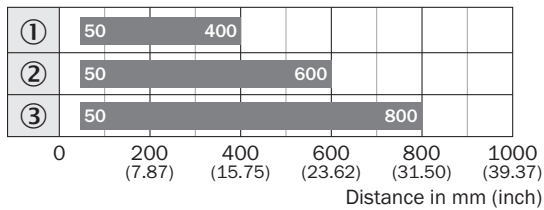
Classifications

ECl@ss 5.0	27270904
ECl@ss 5.1.4	27270904
ECl@ss 6.0	27270904
ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904
ECl@ss 9.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719
UNSPSC 16.0901	39121528

Characteristic curve



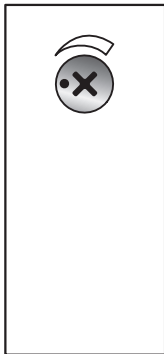
Sensing range diagram



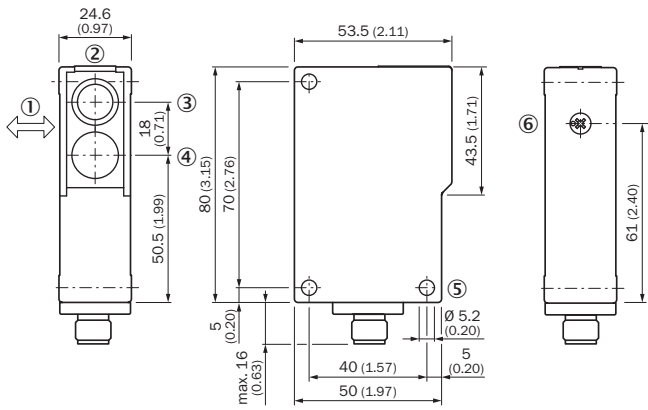
■ Sensing range

Adjustments possible

Potentiometer



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 Sensing range adjustment: potentiometer

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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