



DATA SHEET

WT27L-2S930A01

W27
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WT27L-2S930A01

ORDERING INFORMATION

Type	part no.
WT27L-2S930A01	1017933

Further device versions and accessories at www.sick.com/W27

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 ... 800 mm ¹⁾
Sensing range	100 mm ... 800 mm
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. ³⁾
Adjustment	Potentiometer
Special applications	Detecting small objects

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

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

³⁾ Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

MECHANICS/ELECTRONICS

Supply voltage U_s	24 V DC ... 240 V DC 24 V AC ... 240 V AC
Power consumption	< 2 VA
Switching output	Relay, electrically isolated ¹⁾
Output function	Change-over contacts
Switching mode	¹⁾
Switching current (switching voltage)	4 A (240 V AC) 4 A (24 V DC)
Response time	< 6 ms ²⁾
Switching frequency	10 Hz ³⁾
Connection type	Micro connector, 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	-10 °C ... +45 °C
Ambient temperature, storage	-10 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

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

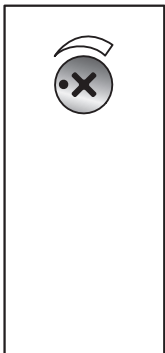
²⁾ Signal transit time with resistive load.

³⁾ With light/dark ratio 1:1.

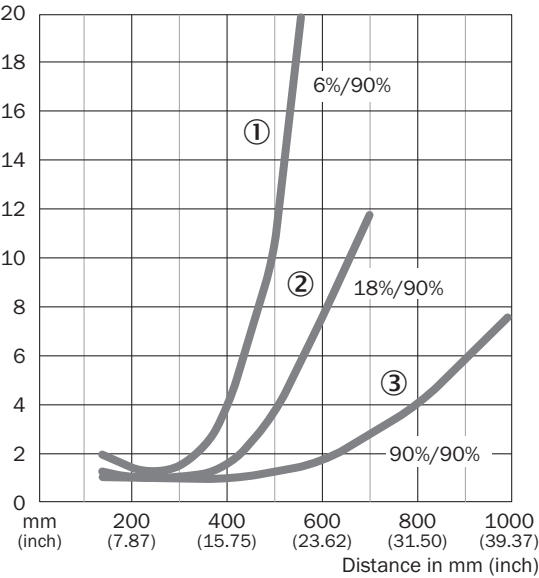
⁴⁾ A = V_s connections reverse-polarity protected.

⁵⁾ C = interference suppression.

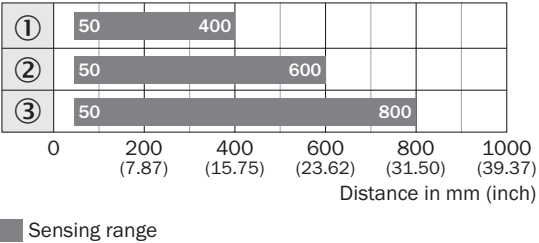
⁶⁾ Reference voltage: 250 V AC, overvoltage category 2.

ADJUSTMENTS POTENTIOMETER

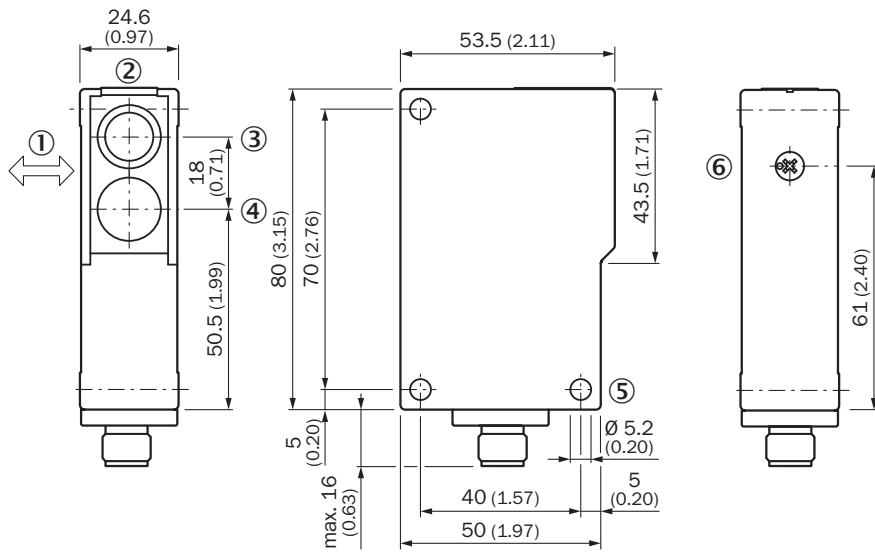
CHARACTERISTIC CURVE



SENSING RANGE DIAGRAM



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, Ø 5.2 mm
- ⑥ Sensing range adjustment: potentiometer

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1017933



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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