WT27L-2S830A

W27

SICK
Sensor Intelligence.

Ordering information

Type	part no.
WT27L-2S830A	1016359

Other models and accessories ➔ 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_B	24 V DC ... 240 V DC 24 V AC ... 240 V AC
Power consumption	< 2 VA
Switching output	Relay, electrically isolated [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.

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	Mini connector 7/8", 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.

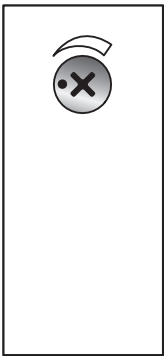[4] A = V_S connections reverse-polarity protected.

[5] C = interference suppression.

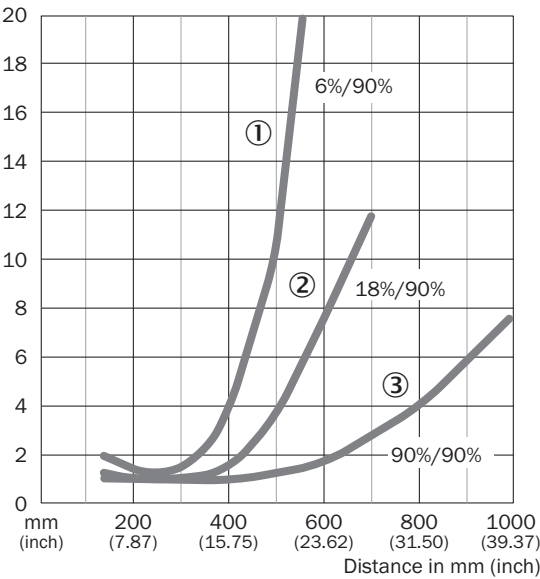[6] Reference voltage: 250 V AC, overvoltage category 2.

Classifications

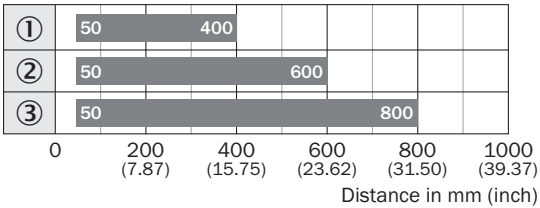| ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC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

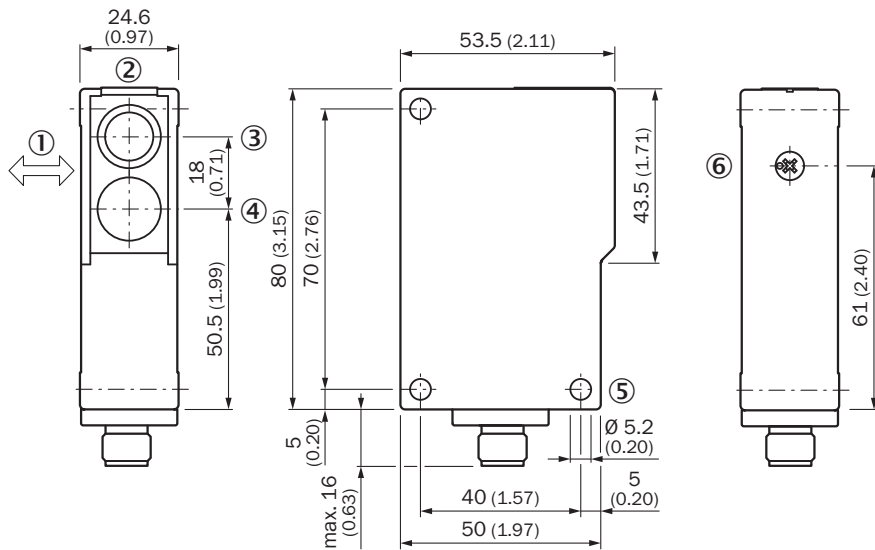## Adjustments Potentiometer

Characteristic curve

Sensing range diagram

■ Sensing range

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

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	• **Description:** Mounting bracket with hinged arm • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Mounting hardware included • **Suitable for:** W23-2, W27-3, Reflex Array	BEF-WN-W27	2009122
	• **Description:** Mounting bracket • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Mounting hardware included • **Suitable for:** W23-2, W27-3, Reflex Array	BEF-WN-W23	2019085
	• **Material:** Aluminum • **Details:** Aluminum • **Items supplied:** Including mounting material (sensor) and mounting material (bracket) • **Usable for:** Adapter plate for W23L/W27L to W12L	BEF-AP-W12	2127742

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."

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