



Photoelectric sensors
W27-2 Laser, Photoelectric proximity sensor,
Background suppression

WT27L-2S830A01



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Model Name > [WT27L-2S830A01](#)
Part No. > [1016360](#)



Illustration may differ

At a glance

- 2 mm diameter light spot at a distance of 400 mm
- Precise adjustable background suppression
- Visible red laser LED
- Sensing range adjustment via potentiometer
- UL approval

Your benefits

- Precise detection of very small parts up to a distance of 400 mm due to 2 mm light spot
- Highly visible red laser provides quick and easy alignment
- Durable design provides high resistance to vibration



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⁾
Sensing range:	100 mm ... 800 mm
Type of light:	Visible red light
Light source:	Laser ²⁾
Laser class:	2 (IEC 825), low power. Eyes normally protected by averting reaction and eyelid closing reflex
Light spot diameter (distance):	Ø 2 mm (400 mm)
Adjustment of operating distance:	Potentiometer

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life 50,000 h at T_A = +25 °C

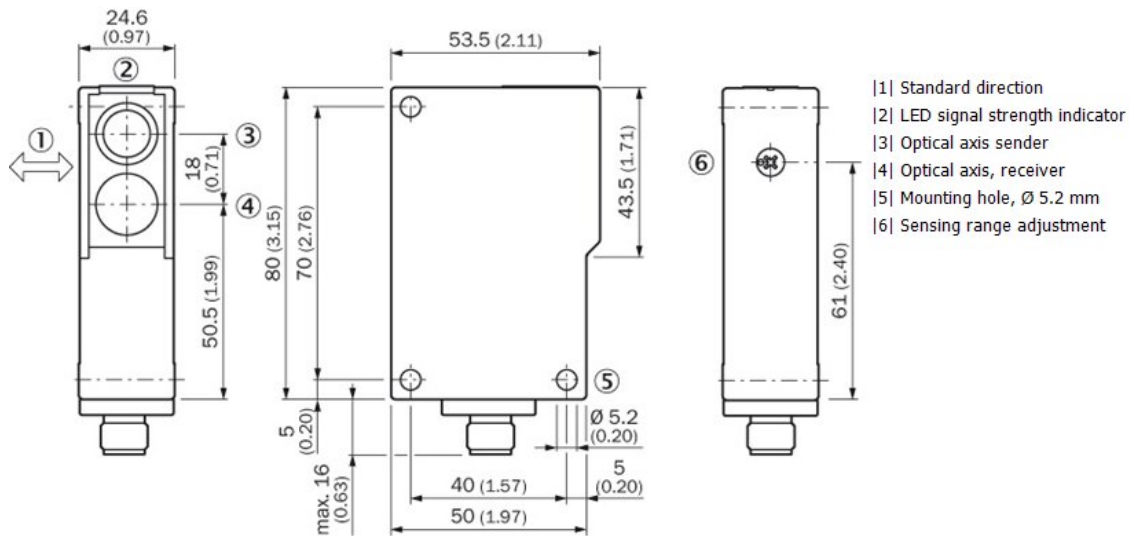
Mechanics/electronics

Supply voltage:	24 V AC/DC ... 240 V AC/DC ¹⁾
Power consumption:	< 2 VA
Output type:	Relay ²⁾
Output function:	Change-over contacts
Output characteristic:	Electrically isolated
Switching current (switching voltage):	4 A (24 V DC), 4 A (240 V AC)
Response time:	< 6 ms ³⁾

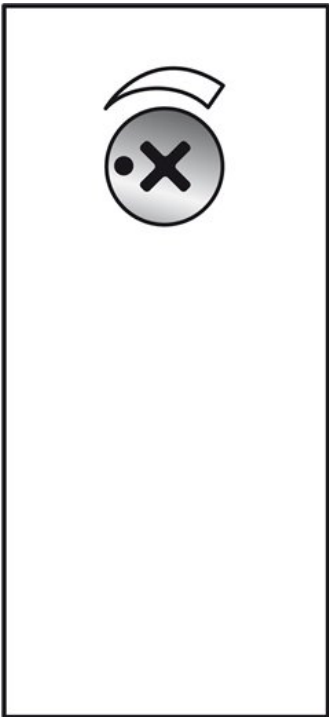
Switching frequency:	10 Hz ⁴⁾
Connection type:	Mini connector 7/8", 5-pin
Circuit protection::	A, C ^{5) 6)}
Protection class:	II ⁷⁾
Weight:	100 g
Special device:	✓
Housing material:	ABS
Enclosure rating:	IP 65
Ambient operating temperature:	-10 °C ... 45 °C
Ambient storage temperature:	-10 °C ... 75 °C
UL File-No.:	UL No. NRKH.E147756

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

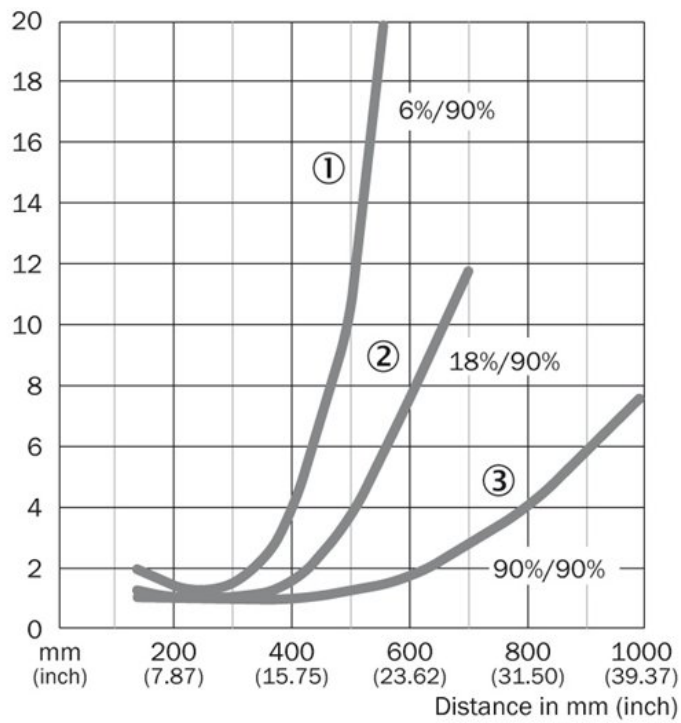
Dimensional drawing



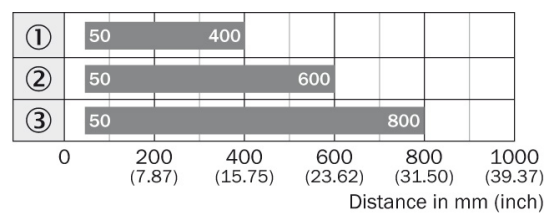
Adjustments possible



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

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