



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

WT27L-2F430A01



**Model Name** > WT27L-2F430A01  
**Part No.** > 1019512



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 <sup>1)</sup>
Sensing range:	100 mm ... 800 mm
Type of light:	Visible red light
Light source:	Laser <sup>2)</sup>
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

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Average service life 50,000 h at T<sub>A</sub> = +25 °C

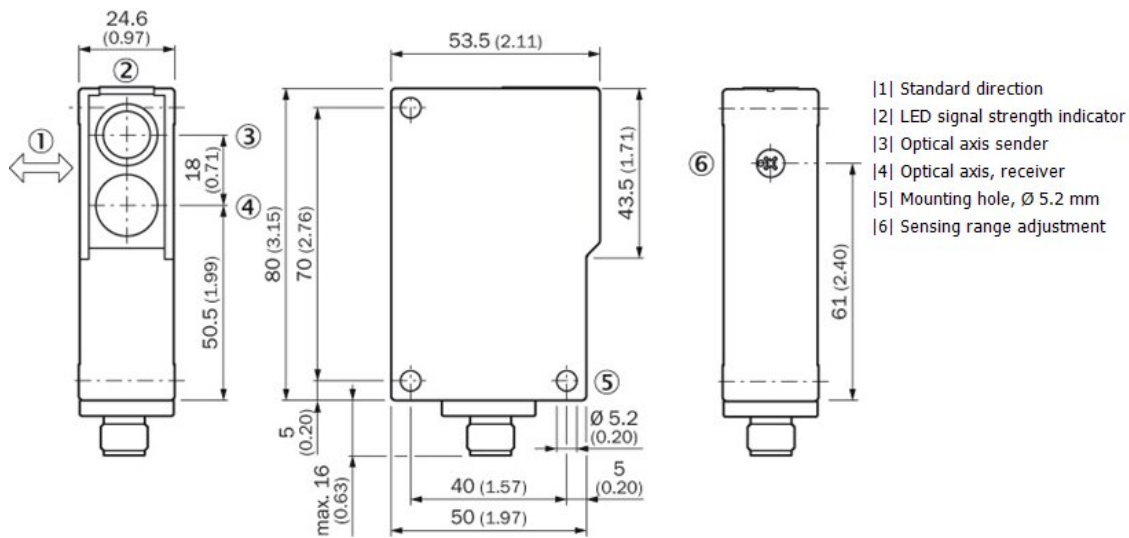
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	≤ 5 % <sup>2)</sup>
Power consumption:	≤ 35 mA <sup>3)</sup>
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark-switching
Output current I <sub>max</sub> .:	100 mA

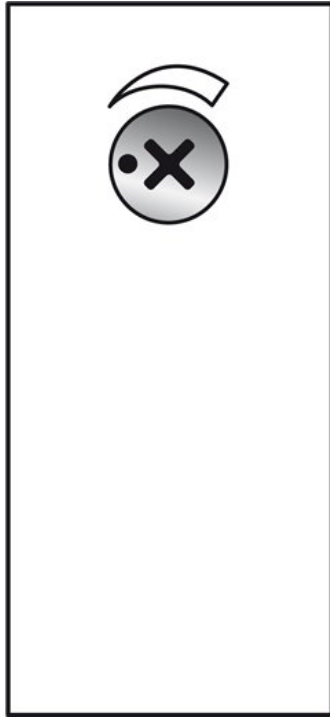
Response time:	< 500 $\mu$ s <sup>4)</sup>
Switching frequency:	1,000 Hz <sup>5)</sup>
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D <sup>6) 7) 8)</sup>
Protection class:	II <sup>9)</sup>
Weight:	100 g
Special device:	✓
Housing material:	ABS
Enclosure rating:	IP 67
Ambient operating temperature:	-10 °C ... 45 °C
Ambient storage temperature:	-10 °C ... 75 °C

1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of  $V_S$  tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) A =  $V_S$  connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected 9) Reference voltage 50 V DC

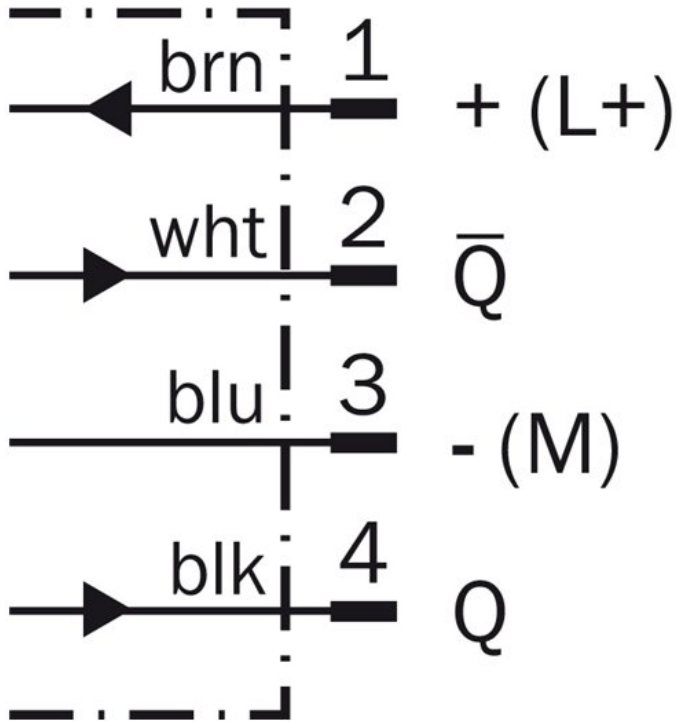
### Dimensional drawing



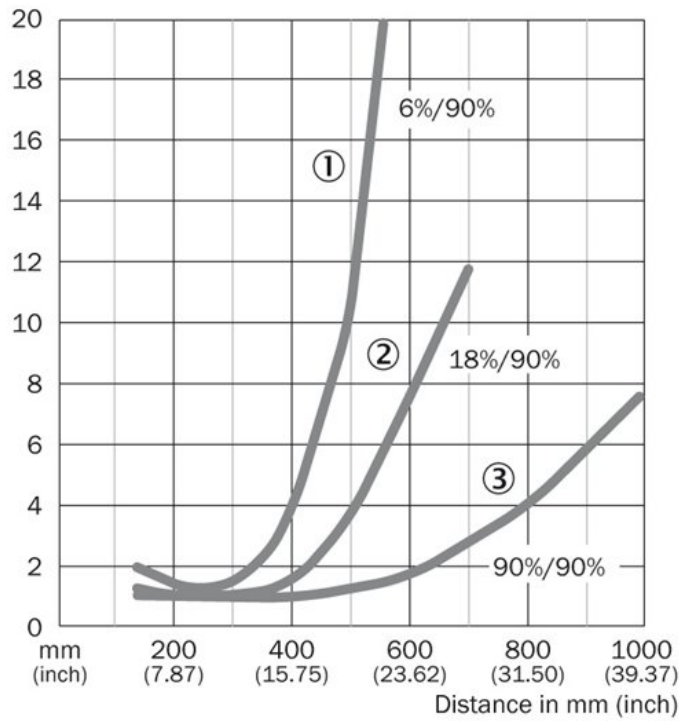
Adjustments possible



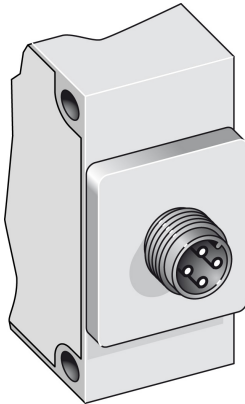
Connection diagram



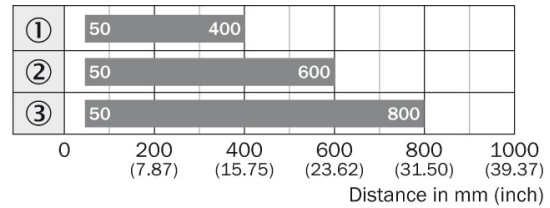
## Characteristic curve



## Connection type



## 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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