



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

WT27L-2F430A



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Model Name > WT27L-2F430A
Part No. > 1016247



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

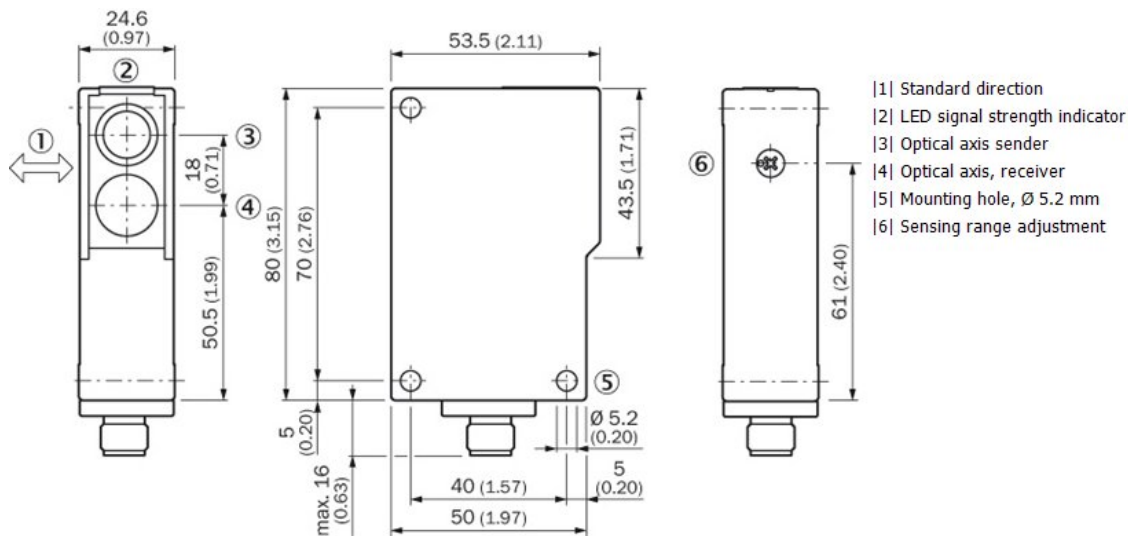
Mechanics/electronics

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

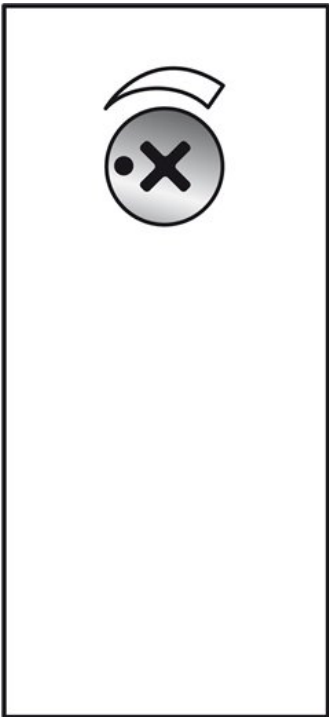
Response time:	< 500 μ s ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ⁶⁾ 7) 8)
Protection class:	II ⁹⁾
Weight:	100 g
Special device:	✓
Housing material:	ABS
Enclosure rating:	IP 67
Ambient operating temperature:	-10 °C ... 45 °C
Ambient storage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

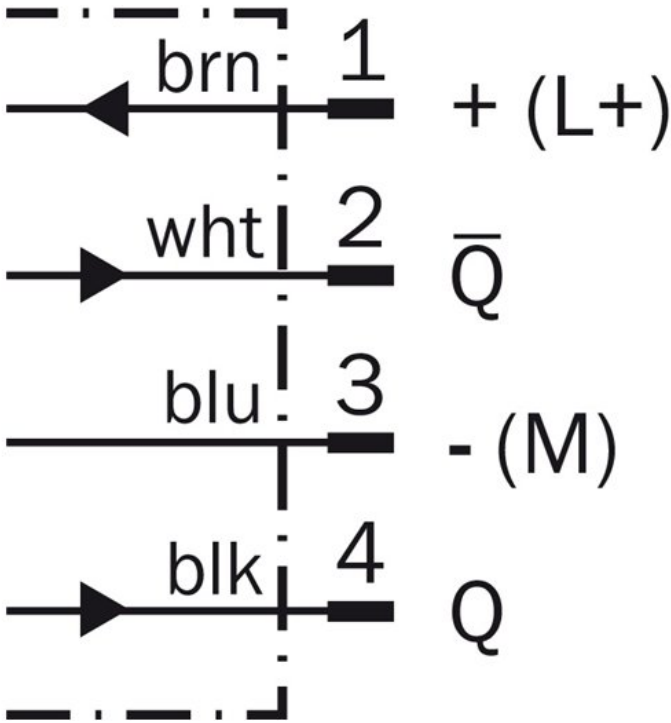
Dimensional drawing



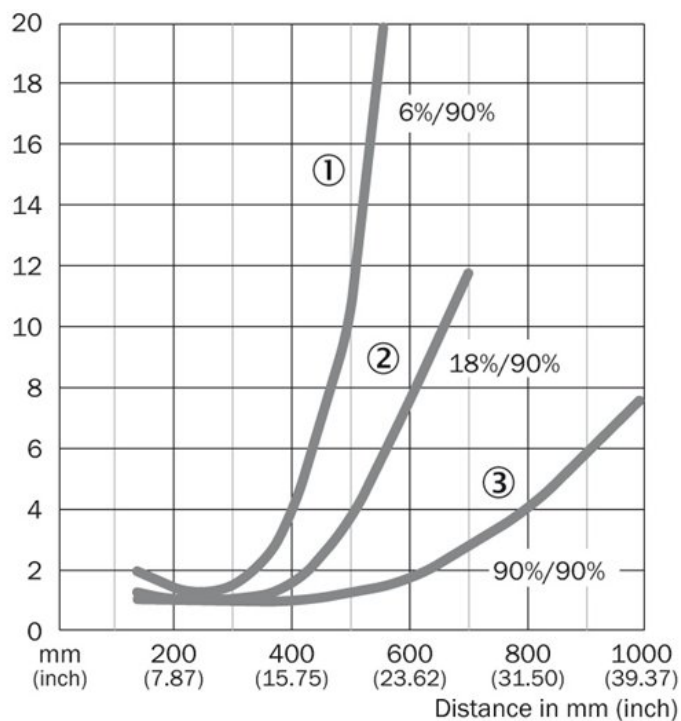
Adjustments possible



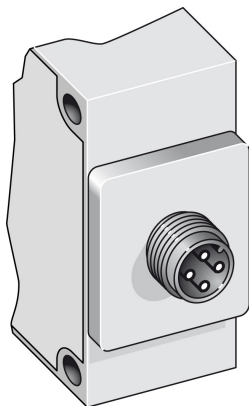
Connection diagram



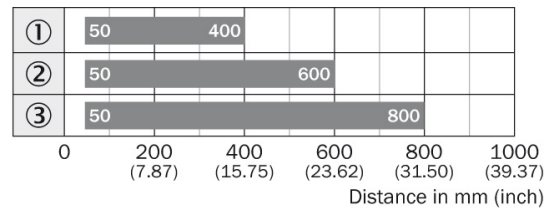
Characteristic curve



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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