



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

WT27L-2F430A



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, 2 (EN 60825-1), low power. Eyes normally protected by averting reaction and eyelid closing reflex |
| Wave length: | 650 nm |
| Adjustment: | Potentiometer |
| Light spot size (distance): | Ø 2 mm (400 mm) |

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

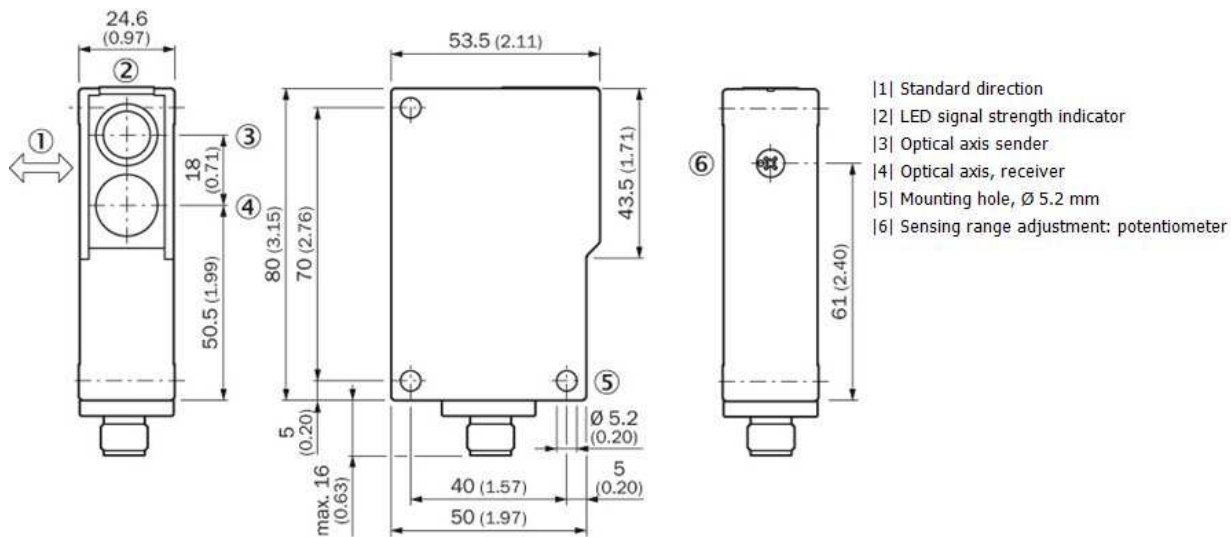
Mechanics/electronics

| | |
|----------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | ≤ 5 % ²⁾ |
| Current consumption: | ≤ 35 mA ³⁾ |
| Output type: | PNP |
| Output function: | Complementary |
| Switching mode: | Light/dark switching |

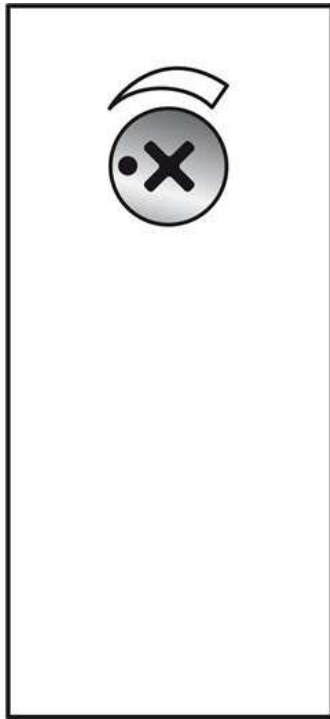
| | |
|-------------------------------------|-----------------------------|
| Output current I _{max} ..: | ≤ 100 mA |
| Response time: | < 500 μs ⁴⁾ |
| Switching frequency: | 1,000 Hz ⁵⁾ |
| Connection type: | Connector M12, 4-pin |
| Circuit protection::: | A, C, D ^{6) 7) 8)} |
| Protection class: | II ⁹⁾ |
| Weight: | 100 g |
| Special device: | ✓ |
| Enclosure rating: | IP 67 |
| Ambient operating temperature: | -10 °C ... +45 °C |
| Ambient storage temperature: | -10 °C ... +75 °C |
| Housing material: | ABS, Plastic |

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

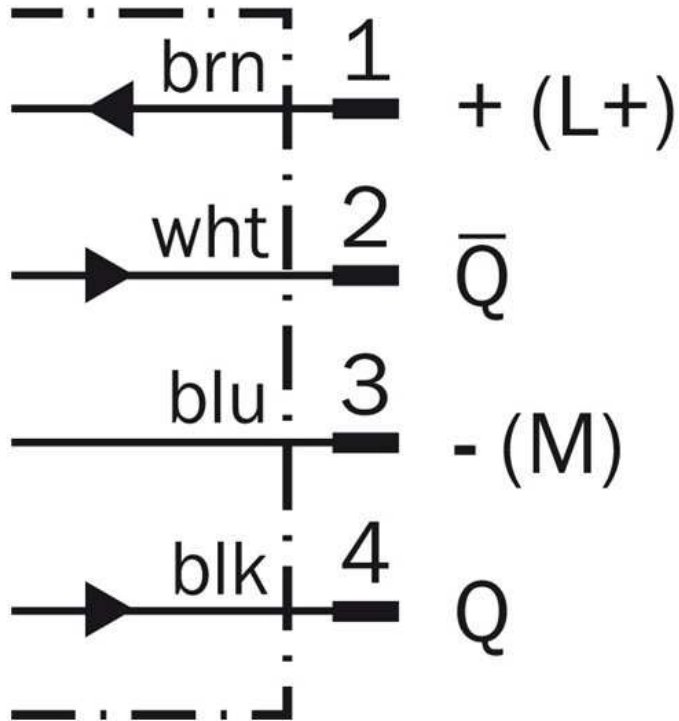
Dimensional drawing



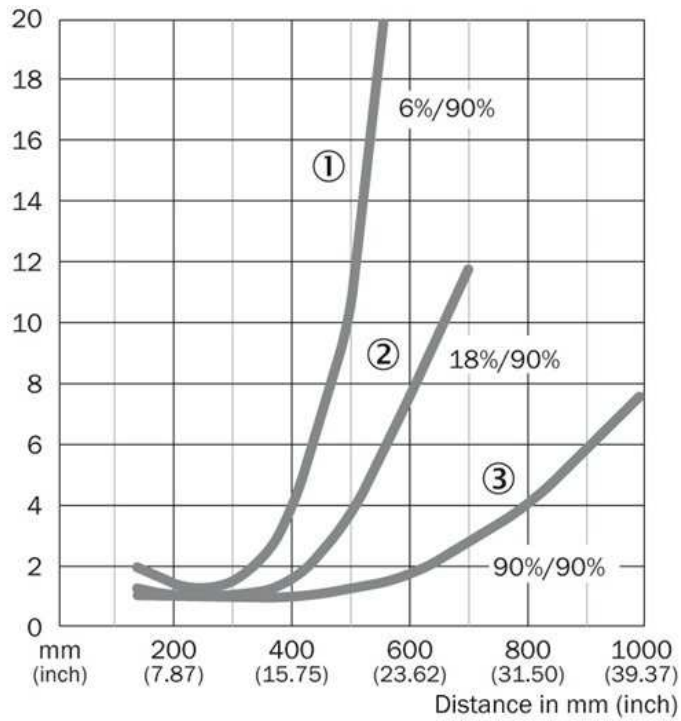
Adjustments possible



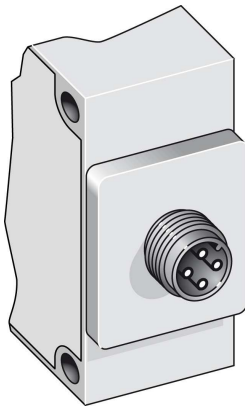
Connection diagram



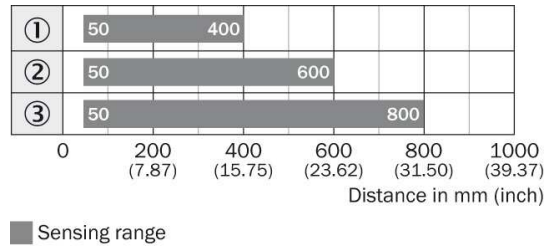
Characteristic curve



Connection type



Sensing range diagram



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