



Photoelectric sensors
W4S-3 Inox Hygiene, Photoelectric proximity
sensor, Background suppression

WTB4S-3P1162H



Type > [WTB4S-3P1162H](#)
Part No. > [1051983](#)



Illustration may differ

At a glance

- Hygienic designed stainless steel housing and accessories (316L/1.4404)
- Hygienic mounting using M12-adapter thread or D12-adapter shaft
- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Resistant to a variety of common cleaning and disinfection agents
- Best background and extraneous light suppression in its class with OES3 technology and two emitter LED's
- Stainless steel teach-in pushbutton with a metal membrane
- Flexible sensing ranges and hysteresis settings
- Key lock function, remote teach, quality monitoring

Your benefits

- Smooth hygienic housing and accessories with no grooves or crevices eliminates the potential for bacteria to grow, providing a more hygienic solution.
- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- OES3 technology and special optical design ensures reliable detection of objects at an extended range which ensures less machine downtime caused by faulty switching
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy format adjustment
- Easy monitoring of sensor status
- Key lock function and parameter download prevent incorrect settings
- Simple sensor cloning



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D): | 15.25 mm x 49.2 mm x 22.15 mm |
| Housing design: | Hygiene |
| Housing design (light emission): | Rectangular, Slim |
| Sensing range max.: | 3 mm ... 500 mm ¹⁾ |
| Sensing range: | 10 mm ... 350 mm ²⁾ |
| Type of light: | Visible red light |
| Light source: | PinPoint LED ³⁾ |
| Wave length: | 650 nm |
| Teach-in: | Single teach-in button |

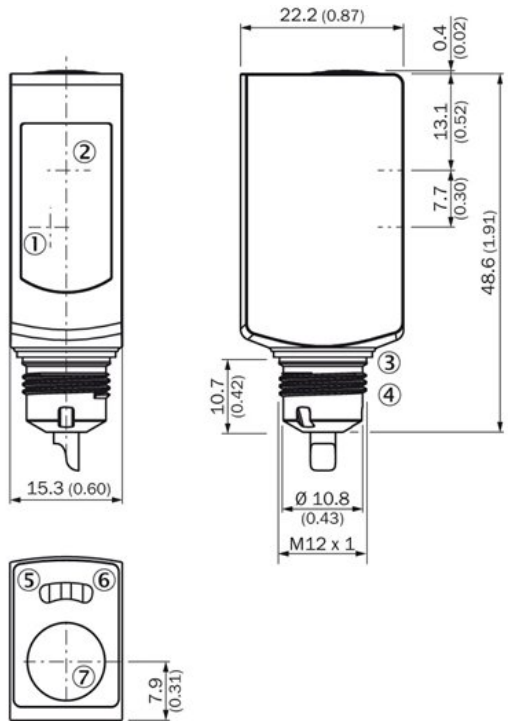
| | |
|--|-------------------|
| Adjustment: | Teach-in cable |
| Light spot size (distance): | Ø 6.5 mm (150 mm) |
| ^{1) 2)} Object with 90 % reflectance (referred to standard white DIN 5033) ³⁾ Average service life of 100,000 h at T _A = +25 °C | |

Mechanics/electronics

| | |
|------------------------------------|---|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | < 5 V _{pp} ²⁾ |
| Power consumption: | ≤ 30 mA ³⁾ |
| Output type: | PNP |
| Switching mode: | Light switching |
| Output current I _{max.} : | ≤ 100 mA |
| Response time: | < 0.5 ms ⁴⁾ |
| Switching frequency: | 1,000 Hz ⁵⁾ |
| Connection type: | Cable, 4-wire, 2 m ⁶⁾ |
| Cable material: | PVC |
| Conductor cross-section: | 0.14 mm ² |
| Circuit protection::: | A B ^{7) 8) 9)} C |
| Protection class: | III |
| Weight: | 80 g |
| Housing material: | Stainless steel, Stainless steel 316L |
| Enclosure rating: | IP 66 IP 67 IP 68 IP 69K |
| Ambient operating temperature: | -30 °C ... 60 °C, -30 °C ... 70 °C ¹⁰⁾ |
| Ambient storage temperature: | -30 °C ... 75 °C |
| UL File No.: | FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493 |

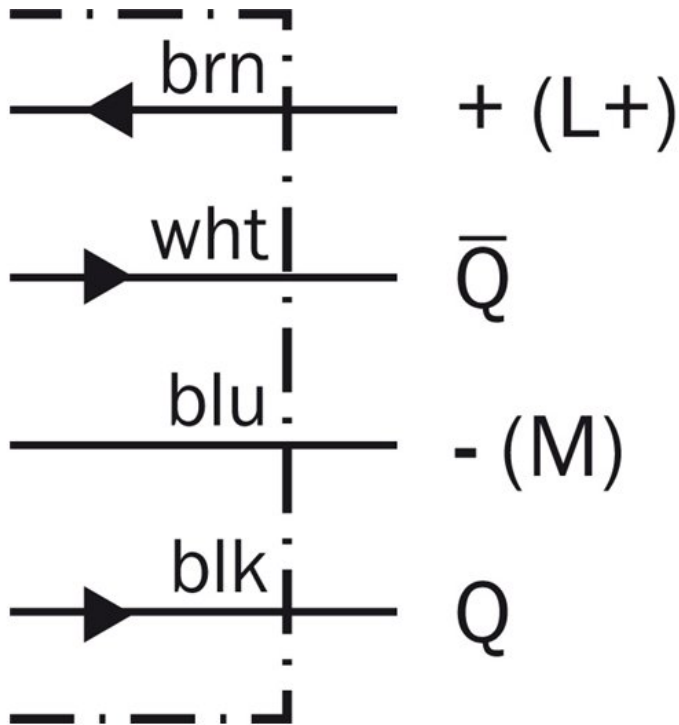
¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network, max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Without load
⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output
⁹⁾ C = interference suppression ¹⁰⁾ At UV ≤ 24 V and I_A < 30 mA

Dimensional drawing

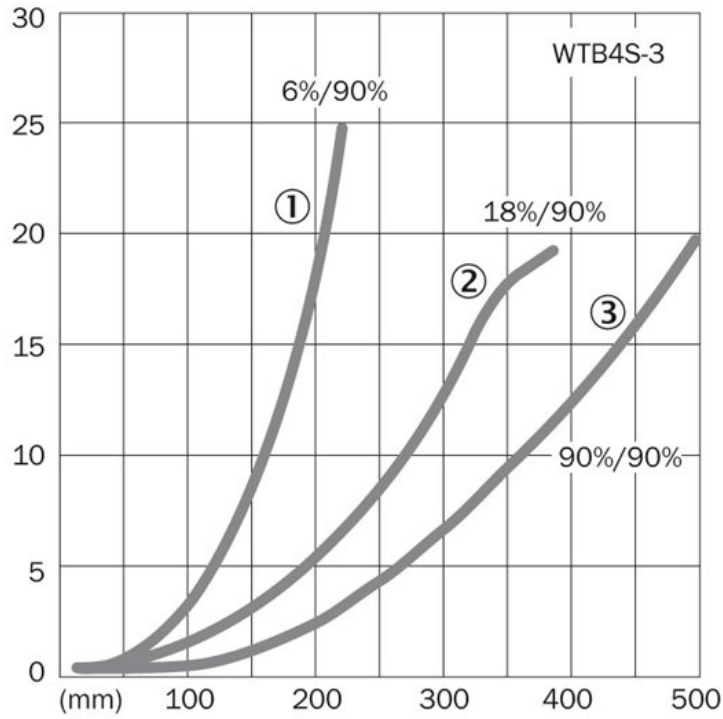


- |1| Center of optical axis, receiver
- |2| Center of optical axis, sender
- |3| gasket (tightening torque 6Nm)
- |4| Connector M12
- |5| Status indicator LED,
yellow: Status of received light beam
- |6| Status indicator LED green: power on
- |7| Teach-in button

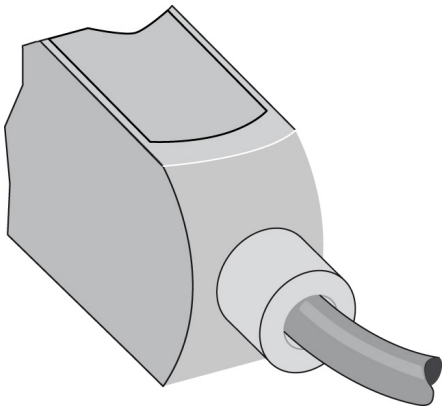
Connection diagram



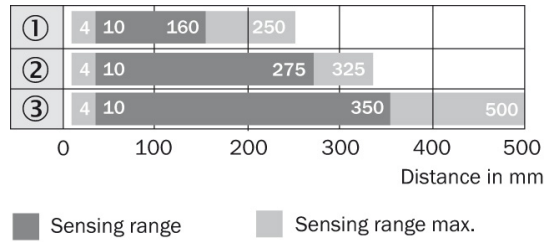
Characteristic curve



Connection type



Sensing range diagram



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