



WTB4SL-3P2262V

W4SL-3V

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|----------------|----------|
| WTB4SL-3P2262V | 1058251 |

Other models and accessories → www.sick.com/W4SL-3V

Detailed technical data

Features

| | |
|--|---|
| Sensor/ detection principle | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D) | 15.3 mm x 55.4 mm x 22.2 mm |
| Housing design | Washdown ¹⁾ |
| Housing design (light emission) | Rectangular |
| Mounting hole | M3 |
| Sensing range max. | 25 mm ... 300 mm ²⁾ |
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| Type of light | Visible red light |
| Light source | Laser ³⁾ |
| Light spot size (distance) | Ø 1 mm (170 mm) |
| Wave length | 650 nm |
| Laser class | 1 (EN 60825-1:2014, IEC 60825-1:2014 / CDRH 21 CFR 1040.10 & 1040.11) |
| Adjustment | Single teach-in button |

¹⁾ Difference between standard/washdown and hygiene: The essential difference between a standard/washdown product and a hygiene product is that where the process and contact with the medium (activity in the vicinity of the food) are concerned, a hygiene product is designed in accordance with the latest standards and hygiene design guidelines, and materials are selected accordingly.

²⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

³⁾ Average service life: 50,000 h at T_U = +25 °C.

Mechanics/electronics

| | |
|---|--|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | < 5 V _{pp} ²⁾ |
| Power consumption | ≤ 30 mA ³⁾ |
| Switching output | PNP ⁴⁾ |
| Output function | Complementary |
| Switching mode | Light/dark switching ⁴⁾ |
| Output current I_{max.} | ≤ 100 mA |
| Response time | ≤ 0.5 ms ⁵⁾ |
| Switching frequency | 1,000 Hz ⁶⁾ |
| Connection type | Connector M8, 4-pin ⁷⁾ |
| Circuit protection | A ⁸⁾ B ⁹⁾ C ¹⁰⁾ |
| Protection class | III |
| Weight | 40 g |
| Housing material | Stainless steel, Stainless steel V4A (1.4404, 316L) |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP66 IP67 IP68 IP69K ¹¹⁾ |
| Ambient operating temperature | -10 °C ... +50 °C |
| Ambient operating temperature extended | -30 °C ... +55 °C ^{12) 13)} |
| Ambient storage temperature | -30 °C ... +70 °C |

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ Q = light switching.

⁵⁾ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

⁷⁾ Max. tightening torque: 0.6 Nm.

⁸⁾ A = V_S connections reverse-polarity protected.

⁹⁾ B = inputs and output reverse-polarity protected.

¹⁰⁾ C = interference suppression.

¹¹⁾ Only in case of correctly mounted IP69K connecting cable.

¹²⁾ As of T_a = 50 °C, a max. supply voltage V_{max.} = 24 V and a max. load current I_{max.} = 50 mA is permitted.

¹³⁾ Operation below T_u -10 °C is possible if the sensor is already switched on at T_u > -10 °C, then cools down, and the supply voltage is subsequently not switched off. Switching on below T_u -10 °C is not permissible.

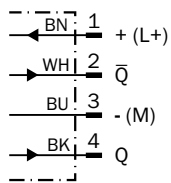
Classifications

| | |
|---------------------|----------|
| ECl@ss 5.0 | 27270904 |
| ECl@ss 5.1.4 | 27270904 |
| ECl@ss 6.0 | 27270904 |
| ECl@ss 6.2 | 27270904 |
| ECl@ss 7.0 | 27270904 |

| | |
|-----------------------|----------|
| ECl@ss 8.0 | 27270904 |
| ECl@ss 8.1 | 27270904 |
| ECl@ss 9.0 | 27270904 |
| ETIM 5.0 | EC002719 |
| ETIM 6.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |

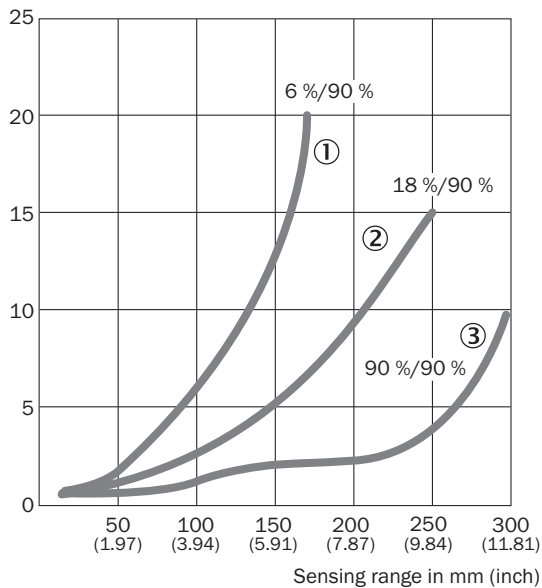
Connection diagram

Cd-083



Characteristic curve

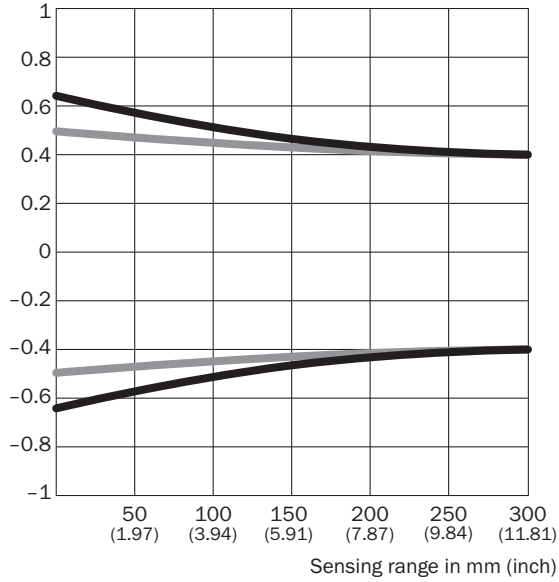
% of sensing range



- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

Light spot size

Radius in mm (inch)

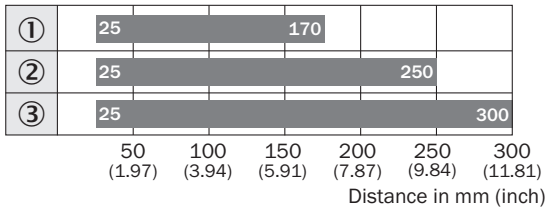


Dimensions in mm (inch)

| Sensing range | Vertical | Horizontal |
|---------------------------------|---------------|---------------|
| 50 mm (1.97) | 1.2 (0.05) | 1.0 (0.04) |
| 100 mm (3.94) | 1.1 (0.04) | 1.0 (0.04) |
| 200 mm (7.87) | 0.9 (0.04) | 0.9 (0.04) |
| 300 mm (11.81) | 0.8 (0.03) | 0.8 (0.03) |

— Vertical
 — Horizontal

Sensing range diagram

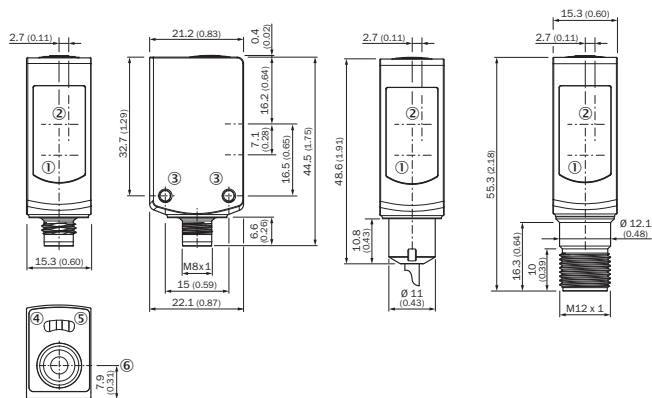


■ Sensing range typ. max.

- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18% remission
- ③ Sensing range on white, 90% remission

Dimensional drawing (Dimensions in mm (inch))


WTB4SL-3, plug



- ① Center of optical axis, sender
- ② Center of optical axis, receiver
- ③ Threaded mounting hole M3
- ④ LED indicator yellow: Status of received light beam
- ⑤ LED indicator green: Supply voltage active
- ⑥ Single teach-in button

Recommended accessories

Other models and accessories → www.sick.com/W4SL-3V

| | Brief description | Type | Part no. |
|---|--|--------------|----------|
| Universal bar clamp systems | | | |
|  | Plate NO2N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322626), mounting hardware | BEF-KHS-NO2N | 2051618 |

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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