



WTB26I-34161120A00

W26

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|--------------------|----------|
| WTB26I-34161120A00 | 1218827 |

Other models and accessories → www.sick.com/W26

Illustration may differ



Detailed technical data

Features

| | |
|--|--|
| Sensor/ detection principle | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D) | 24.6 mm x 82.5 mm x 53.3 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 10 mm ... 2,000 mm ¹⁾ |
| Type of light | Infrared light |
| Light source | LED ²⁾ |
| Light spot size (distance) | Ø 14 mm (1,000 mm) |
| Wave length | 850 nm |
| Adjustment | BluePilot: Teach-Turn adjustment with sensing range indicator IO-Link |
| Pin 2 configuration | External Input (test), Teach-in, switching signal |

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

| | |
|--|---|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | $\leq 5 V_{pp}$ |
| Power consumption | $\leq 30 \text{ mA}$ ²⁾ $< 50 \text{ mA}$ ³⁾ |
| Switching output | PUSH/PULL PNP NPN |
| Output function | Factory setting: Pin 2 (MF): NPN normally open (light switching), PNP normally closed (dark switching), Pin 4 (QL1/C): NPN normally closed (dark switching), PNP normally open (light switching), IO-Link |
| Switching mode | Light/dark switching |
| Signal voltage PNP HIGH/LOW | Approx. $V_S - 2.5 \text{ V} / 0 \text{ V}$ |
| Signal voltage NPN HIGH/LOW | Approx. $V_S / < 2.5 \text{ V}$ |
| Output current I_{max} | $\leq 100 \text{ mA}$ |
| Response time | $\leq 500 \mu\text{s}$ ⁴⁾ |
| Switching frequency | 1,000 Hz ⁵⁾ |
| Connection type | Cable with M12 male connector, 4-pin, 270 mm ⁶⁾ |
| Cable material | PVC |
| Circuit protection | A ⁷⁾ B ⁸⁾ C ⁹⁾ D ¹⁰⁾ |
| Protection class | III |
| Weight | 100 g |
| IO-Link | ✓ |
| Housing material | Plastic, VISTAL® |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP66 IP67 |
| Ambient operating temperature | -40 °C ... +60 °C |
| Ambient storage temperature | -40 °C ... +75 °C |
| UL File No. | NRKH.E181493 & NRKH7.E181493 |

¹⁾ Limit values.

²⁾ 16 V DC ... 30 V DC, without load.

³⁾ 10 V DC ... 16 V DC, without load.

⁴⁾ Signal transit time with resistive load in switching mode. Different values possible in COM2 mode.

⁵⁾ With light/dark ratio 1:1 in switching mode. Different values possible in IO-Link mode.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ C = interference suppression.

¹⁰⁾ D = outputs overcurrent and short-circuit protected.

Classifications

| | |
|---------------------|----------|
| ECI@ss 5.0 | 27270904 |
| ECI@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 |

Smart Task

| | |
|--|---|
| Smart Task name | Base logics |
| Logic function | Direct AND OR Window Hysteresis |
| Timer function | Deactivated On delay Off delay ON and OFF delay Impulse (one shot) |
| Inverter | Yes |
| Switching frequency | SIO Direct: 1000 Hz ¹⁾ SIO Logic: 800 Hz ²⁾ IOL: 650 Hz ³⁾ |
| Response time | SIO Direct: 500 µs ¹⁾ SIO Logic: 600 µs ²⁾ IOL: 750 µs ³⁾ |
| Repeatability | SIO Direct: 150 µs ¹⁾ SIO Logic: 300 µs ²⁾ IOL: 400 µs ³⁾ |
| Switching signal Q_{L1} | Switching output |
| Switching signal Q_{L2} | Switching output |

¹⁾ SIO Direct: sensor operation in standard I/O mode without IO-Link communication and without using internal sensor logic or time parameters (set to "direct"/"deactivated").

²⁾ SIO Logic: Sensor operation in standard I/O mode without IO-Link communication. Sensor-internal logic or timing parameters plus Automation Functions used.

³⁾ IOL: Sensor operation with full IO-Link communication and usage of logic, timing and Automation Function parameters.

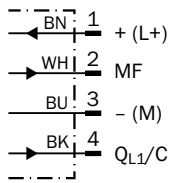
Communication interface

| | |
|---------------------------------------|--|
| Communication interface | IO-Link V1.1 |
| Communication Interface detail | COM2 (38,4 kBaud) |
| Cycle time | 2.3 ms |
| Process data length | 16 Bit |
| Process data structure | Bit 0 = switching signal Q _{L1} Bit 1 = switching signal Q _{L2} Bit 2 ... 15 = empty |
| VendorID | 26 |
| DeviceID HEX | 0x800184 |

| | |
|--------------|---------|
| DeviceID DEZ | 8388996 |
|--------------|---------|

Connection diagram

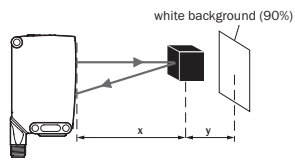
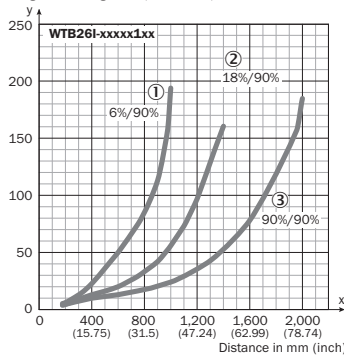
cd-390



Characteristic curve

WTB26I-xxxxx1xx

Minimum distance in mm (y) between the set sensing range and background (white, 90%)

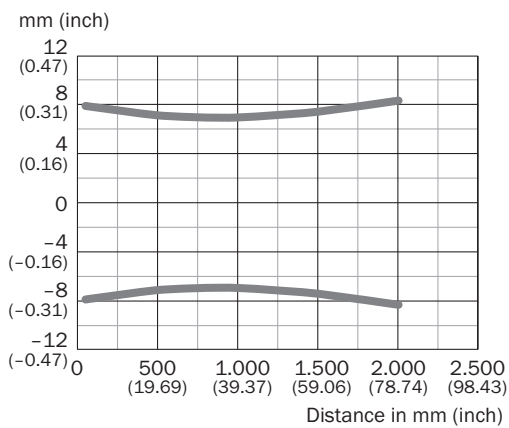


Example:
Sensing range on black, 6%,
x = 800 mm, y = 85 mm

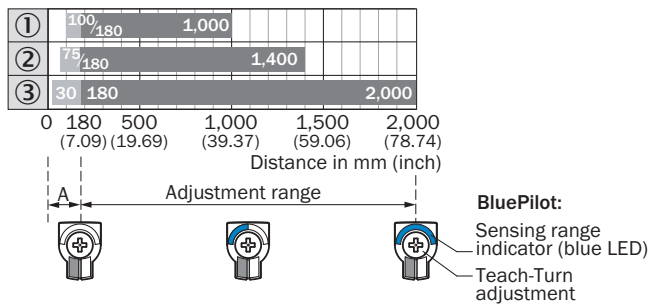
- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18% remission
- ③ Sensing range on white, 90% remission

Light spot size

WTB26I-xxxxx1xx



Sensing range diagram

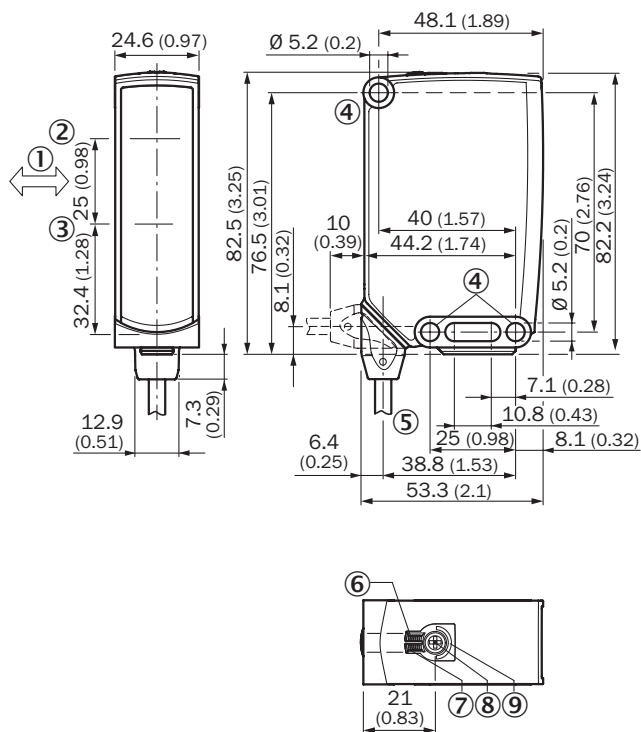


A = Detection distance (depending on object remission)

- 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))

WTB26, WTL26, cable



Recommended accessories

Other models and accessories → www.sick.com/W26

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Universal bar clamp systems | | | |
|  | Bar clamp for bar diameter of 12 mm (fixing the mounting rod), Aluminum, 2 screws M6 x 30, 2 spring discs | BEF-RMC-D12 | 5321878 |
| Plug connectors and cables | | | |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m | YF2A14-020UB3XLEAX | 2095607 |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF2A14-020VB3XLEAX | 2096234 |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m | YF2A14-050UB3XLEAX | 2095608 |
|  | Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF2A14-050VB3XLEAX | 2096235 |
|  | Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG2A14-020VB3XLEAX | 2095895 |
|  | Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YG2A14-050VB3XLEAX | 2095897 |
|  | Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded | DOS-1204-G | 6007302 |
|  | | DOS-1204-GQU6 | 6042088 |
|  | Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded | DOS-1204-W | 6007303 |
|  | Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded | STE-1204-G | 6009932 |

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com