



# WTB26I-24161120A00

W26

COMPACT PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

Type	Part no.
WTB26I-24161120A00	1218667

Other models and accessories → [www.sick.com/W26](http://www.sick.com/W26)



### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric proximity sensor, Background suppression
<b>Dimensions (W x H x D)</b>	24.6 mm x 82.5 mm x 53.3 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	30 mm ... 2,000 mm <sup>1)</sup>
<b>Type of light</b>	Infrared light
<b>Light source</b>	LED <sup>2)</sup>
<b>Light spot size (distance)</b>	Ø 14 mm (1,000 mm)
<b>Wave length</b>	850 nm
<b>Adjustment</b>	BluePilot: Teach-Turn adjustment with sensing range indicator, IO-Link
<b>Pin 2 configuration</b>	External Input (test), Teach-in, switching signal

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

<sup>2)</sup> Average service life: 100,000 h at T<sub>J</sub> = +25 °C.

Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub>
<b>Power consumption</b>	30 mA, 50 mA <sup>2) 3)</sup>
<b>Switching output</b>	PUSH/PULL, PNP, NPN
<b>Output: Q<sub>L1</sub> / C</b>	Switching output or IO-Link mode
<b>Output function</b>	Factory setting: Pin 2 / white (MF): NPN normally open (light switching), PNP normally closed (dark switching), Pin 4 / black (QL1 / C): NPN normally closed (dark switching), PNP normally open (light switching), IO-Link
<b>Switching mode</b>	Light/dark switching
<b>Signal voltage PNP HIGH/LOW</b>	Approx. V <sub>S</sub> - 2.5 V / 0 V
<b>Signal voltage NPN HIGH/LOW</b>	Approx. V <sub>S</sub> / < 2.5 V
<b>Output current I<sub>max.</sub></b>	≤ 100 mA
<b>Response time</b>	≤ 500 μs <sup>4)</sup>
<b>Switching frequency</b>	1,000 Hz <sup>5)</sup>
<b>Connection type</b>	Male connector M12, 4-pin
<b>Circuit protection</b>	A, B, C, D <sup>6) 7) 8) 9)</sup>
<b>Protection class</b>	III
<b>Weight</b>	80 g
<b>IO-Link</b>	✓
<b>Housing material</b>	Plastic, VISTAL®
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP66 (According to EN 60529) IP67 (According to EN 60529) IP69 (According to EN 60529) <sup>10)</sup>
<b>Ambient operating temperature</b>	-40 °C ... +60 °C
<b>Ambient storage temperature</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

- <sup>1)</sup> Limit values.
- <sup>2)</sup> 16 V DC ... 30 V DC, without load.
- <sup>3)</sup> 10 V DC ... 16 V DC, without load.
- <sup>4)</sup> Signal transit time with resistive load in switching mode. Different values possible in COM2 mode.
- <sup>5)</sup> With light/dark ratio 1:1 in switching mode. Different values possible in IO-Link mode.
- <sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.
- <sup>7)</sup> B = inputs and output reverse-polarity protected.
- <sup>8)</sup> C = interference suppression.
- <sup>9)</sup> D = outputs overcurrent and short-circuit protected.
- <sup>10)</sup> Replaces IP69K with ISO 20653: 2013-03.

Safety-related parameters

<b>MTTF<sub>D</sub></b>	629 years
<b>DC<sub>avg</sub></b>	0%

Classifications

<b>ECl@ss 5.0</b>	27270904
<b>ECl@ss 5.1.4</b>	27270904

<b>ECl@ss 6.0</b>	27270904
<b>ECl@ss 6.2</b>	27270904
<b>ECl@ss 7.0</b>	27270904
<b>ECl@ss 8.0</b>	27270904
<b>ECl@ss 8.1</b>	27270904
<b>ECl@ss 9.0</b>	27270904
<b>ETIM 5.0</b>	EC002719
<b>ETIM 6.0</b>	EC002719
<b>UNSPSC 16.0901</b>	39121528

### Smart Task

<b>Smart Task name</b>	Base logics
<b>Logic function</b>	Direct AND OR Window Hysteresis
<b>Timer function</b>	Deactivated On delay Off delay ON and OFF delay Impulse (one shot)
<b>Inverter</b>	Yes
<b>Switching frequency</b>	SIO Direct: 1000 HzSIO Logic: 800 HzIOL: 650 Hz <sup>1) 2) 3)</sup>
<b>Response time</b>	SIO Direct: 500 µsSIO Logic: 600 µsIOL: 750 µs <sup>1) 2) 3)</sup>
<b>Repeatability</b>	SIO Direct: 150 µsSIO Logic: 300 µsIOL: 400 µs <sup>1) 2) 3)</sup>
<b>Switching signal Q<sub>L1</sub></b>	Switching output
<b>Switching signal Q<sub>L2</sub></b>	Switching output

<sup>1)</sup> 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").

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

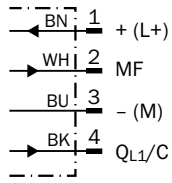
<sup>3)</sup> IOL: Sensor operation with full IO-Link communication and usage of logic, timing and Automation Function parameters.

### Communication interface

<b>Communication interface</b>	IO-Link V1.1
<b>Communication Interface detail</b>	COM2 (38,4 kBaud)
<b>Cycle time</b>	2.3 ms
<b>Process data length</b>	16 Bit
<b>Process data structure</b>	Bit 0 = switching signal Q <sub>L1</sub> Bit 1 = switching signal Q <sub>L2</sub> Bit 2 ... 15 = empty
<b>VendorID</b>	26
<b>DeviceID HEX</b>	0x800184
<b>DeviceID DEZ</b>	8388996

## Connection diagram

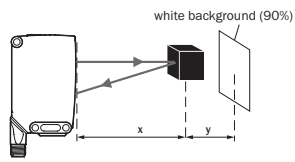
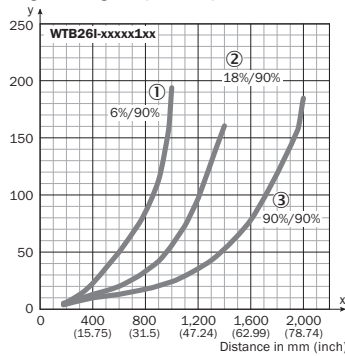
Cd-390



## Characteristic curve

WTB26I-xxxxx1xx

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

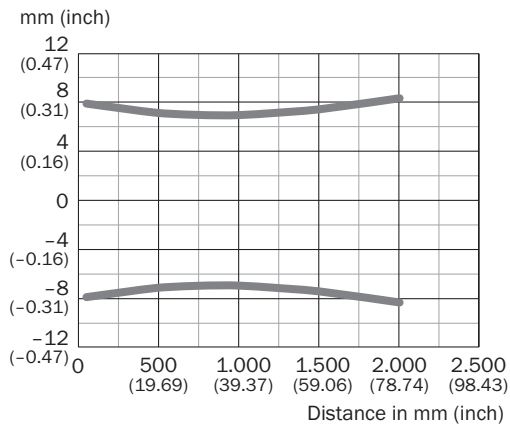


Example:  
 Sensing range on black, 6%,  
 x = 800 mm, y = 85 mm

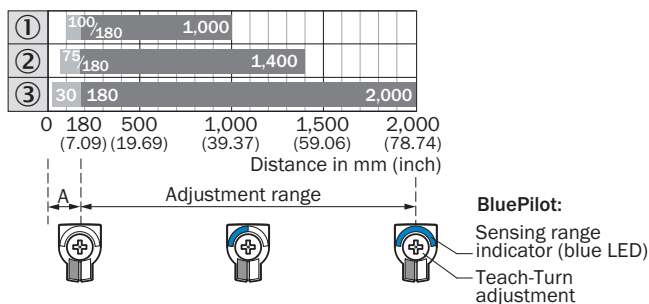
- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18% remission
- ③ Sensing range on white, 90% remission

## Light spot size

WTB26I-xxxxx1xx



**Sensing range diagram**

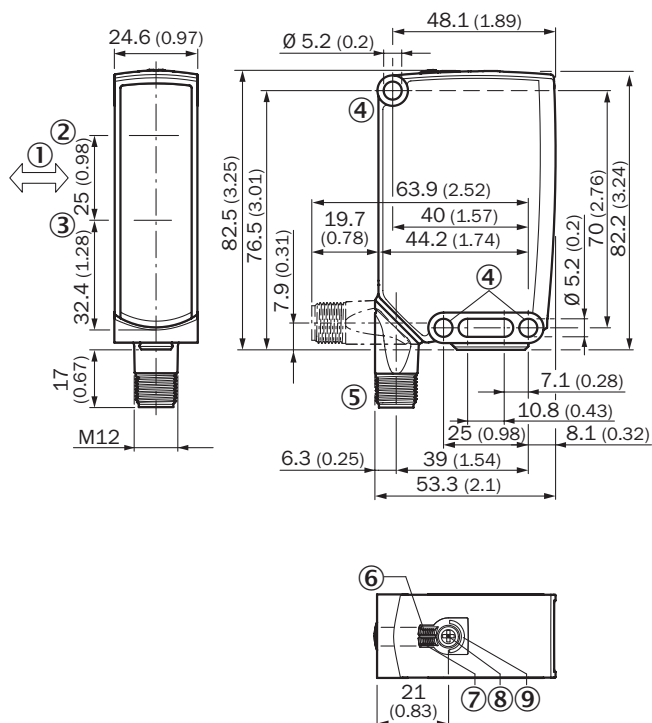


A = Detection distance (depending on object remission)

- 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, connector



- ① Standard direction of the material being detected
- ② Center of optical axis, sender
- ③ Center of optical axis, receiver
- ④ Mounting hole, Ø 5.2 mm
- ⑤ Connection
- ⑥ LED indicator green: power
- ⑦ LED indicator yellow: Status of received light beam
- ⑧ Teach-Turn adjustment of sensing range
- ⑨ BluePilot blue: sensing range indicator

**Recommended accessories**

Other models and accessories → [www.sick.com/W26](http://www.sick.com/W26)

	<b>Brief description</b>	<b>Type</b>	<b>Part no.</b>
<b>Mounting brackets and plates</b>			
	Mounting bracket with articulated arm, steel, zinc coated, mounting hardware included	BEF-WN-MULTI2	2093945
<b>Plug connectors and cables</b>			
	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: 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](http://www.sick.com)