



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

WTB4S-3P3234HS04



Type > [WTB4S-3P3234HS04](#)  
Part No. > [1076135](#)



*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):	15.3 mm x 48.5 mm x 22.3 mm
Housing design:	Hygiene
Housing design (light emission):	Rectangular
Sensing range max.:	4 mm ... 120 mm <sup>1)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>2)</sup>
Wave length:	650 nm
Special features:	Deactivation delay, 32 ms
Adjustment:	Single teach-in button, Cable
Light spot size (distance):	X 2.5 mm (50 mm)

1) Object with 90 % reflectance (referred to standard white, DIN 5033) 2) Average service life: 100,000 h at  $T_U = +25\text{ °C}$

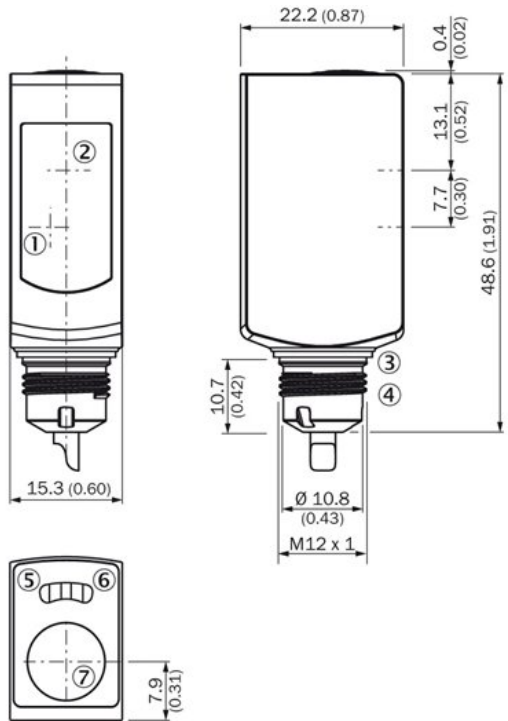
## Mechanics/electronics

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Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	5 Vpp <sup>2)</sup>
Power consumption:	$\leq 30\text{ mA}$ <sup>3)</sup>
Output type:	PNP
Switching mode:	Light switching
Output current I <sub>max.</sub> :	$\leq 100\text{ mA}$
Response time:	$< 0.5\text{ ms}$ <sup>4)</sup>
Switching frequency:	1,000 Hz <sup>5)</sup>
Connection type::	Cable with M8 male connector, 4-pin, 150 mm <sup>6) 7)</sup>
Cable material:	PVC
Circuit protection:::	A B <sup>8) 9) 10)</sup> C
Protection class:	III
Weight:	40 g
Special device:	-
Enclosure rating:	IP 66 IP 67 IP 69K
Ambient operating temperature:	$-30\text{ °C} \dots +60\text{ °C}$ , $-30\text{ °C} \dots +70\text{ °C}$ <sup>11)</sup>
Ambient storage temperature:	$-30\text{ °C} \dots +75\text{ °C}$
UL File No.:	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493
Mechanical connection:	M12 adapter thread
Housing material:	Stainless steel, Stainless steel 316L

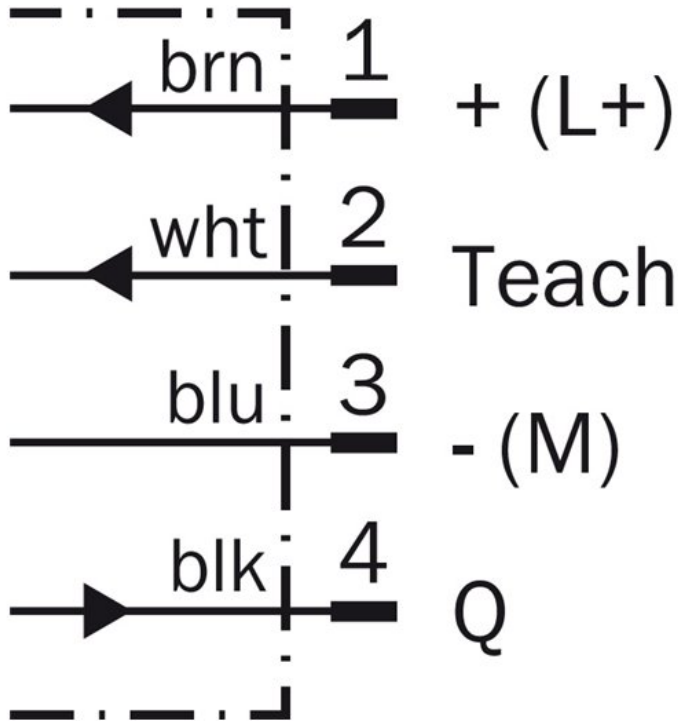
<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A <sup>2)</sup> May not exceed or fall below  $U$  tolerances <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> Tightening torque, max.: 0.6 Nm <sup>7)</sup> Do not bend below 0 °C <sup>8)</sup>  $A = V_S$  connections reverse-polarity protected <sup>9)</sup> B = inputs and output reverse-polarity protected <sup>10)</sup> C = interference suppression <sup>11)</sup> At  $UV \leq 24\text{ V}$  and  $IA < 30\text{ mA}$

**Dimensional drawing**

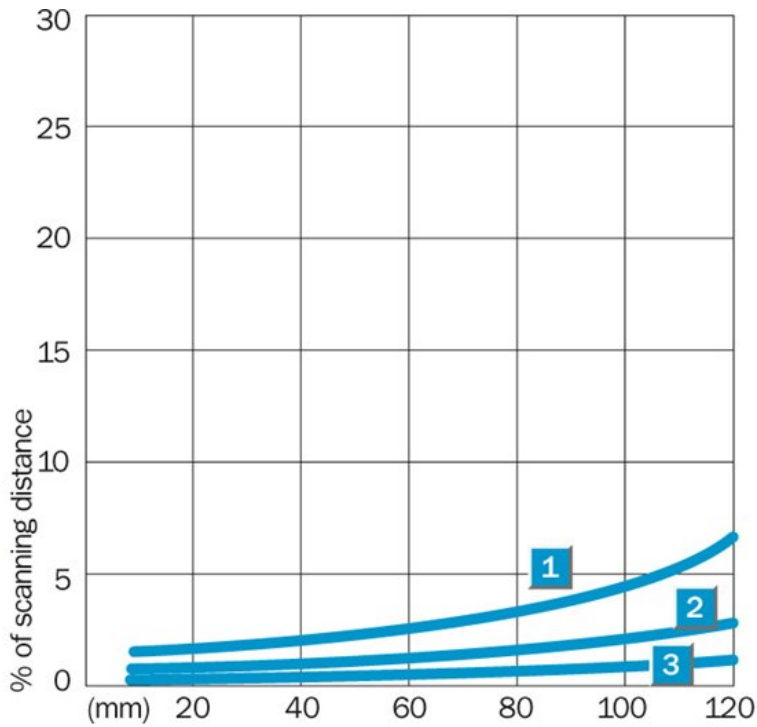


- |1| Center of optical axis, receiver
- |2| Center of optical axis, sender
- |3| gasket (tightening torque 6Nm)
- |4| Connector M12
- |5| Status indicator LED,  
yellow: Status of received light beam
- |6| Status indicator LED green: supply voltage on
- |7| Teach-in button

**Connection diagram**

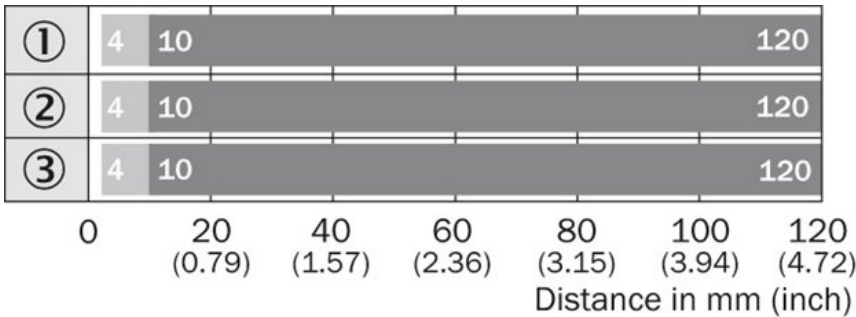


**Characteristic curve**



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

**Sensing range diagram**



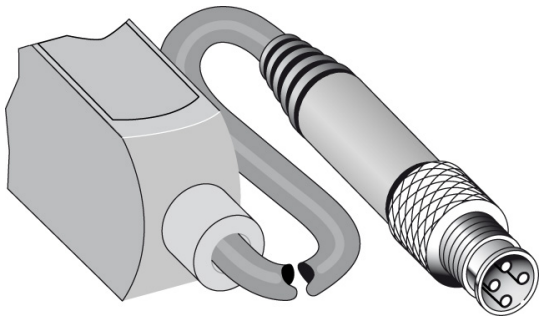
- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

■ Operating distance    ■ Sensing distance max. typ.

- ① Sensing distance on black, 6 % remission
- ② Sensing distance on grey, 18 % remission
- ③ Sensing distance on white, 90 % remission

**Connection type**

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