

PTFE-coated photoelectric sensors withstand the harshest environments



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**Product description**

The W4-3 photoelectric sensors in a Teflon® shell coating are resistant to harsh chemicals. Both the housing and cable

are Teflon coated, making them ideal for wet, harsh environments in the food and beverage industry.

**At a glance**

- Sensor and cable have a rugged Teflon coating for use in the most aggressive environments
- Suitable for use in the food and beverage industry
- Sensing range adjustment via teach wire
- Background suppression and through-beam types available

**Your benefits**

- High cost savings since neither the sensor nor the cable requires a protective barrier
- Less machine downtime due to a long sensor life that withstands all cleaning and process agents

→ [www.mysick.com/en/W4-3\\_PTFE](http://www.mysick.com/en/W4-3_PTFE)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



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## Detailed technical data

### Features

	WT4-3 PTFE	WSE4-3 PTFE
<b>Sensor principle</b>	Photoelectric proximity sensor	Through-beam photoelectric sensor
<b>Detection principle</b>	Background suppression	–
<b>Dimensions (W x H x D)</b>	22 mm x 42 mm x 21.8 mm	
<b>Housing design (light emission)</b>	Rectangular	
<b>Sensing range max.</b>	4 mm ... 120 mm <sup>1)</sup>	0 m ... 3 m
<b>Sensing range</b>	15 mm ... 120 mm <sup>1)</sup>	0 m ... 2.5 m
<b>Type of light</b>	Visible red light	
<b>Light source <sup>2)</sup></b>	PinPoint LED	
<b>Light spot size (distance)</b>	Ø 7 mm (50 mm)	Ø 210 mm (2 m)
<b>Wave length</b>	650 nm	
<b>Adjustment</b>	Cable, Single teach-in button	–

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

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

### Mechanics/electronics

	WT4-3 PTFE	WSE4-3 PTFE
<b>Supply voltage <sup>1)</sup></b>	10 V DC ... 30 V DC	
<b>Ripple <sup>2)</sup></b>	< 5 V <sub>pp</sub>	
<b>Power consumption</b>	≤ 20 mA <sup>3)</sup>	≤ 20 mA <sup>4) 5)</sup>
<b>Output type</b>	PNP / NPN (depending on type)	
<b>Switching mode</b>	Light switching	Light switching / Dark-switching (depending on type)
<b>Output current I<sub>max.</sub></b>	≤ 100 mA	
<b>Response time <sup>6)</sup></b>	< 0.5 ms	
<b>Switching frequency <sup>7)</sup></b>	1,000 Hz	
<b>Connection type <sup>8)</sup></b>	Cable, 4-wire, 5 m, PVC/PTFE coating	
<b>Circuit protection</b>	A <sup>9)</sup> , C <sup>10)</sup> , D <sup>11)</sup>	
<b>Protection class</b>	III	
<b>Weight</b>	30 g	
<b>Housing material</b>	PTFE	
<b>Optics material</b>	PMMA	
<b>Enclosure rating</b>	IP 68 / IP 69K	
<b>Test input sender off</b>	–	“TEST” to 0 V
<b>Ambient operating temperature</b>	–40 °C ... +60 °C	
<b>Ambient storage temperature</b>	–40 °C ... +75 °C	

<sup>1)</sup> Limit values.

<sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Sender.

<sup>5)</sup> Receiver.

<sup>6)</sup> Signal transit time with resistive load.

<sup>7)</sup> With light/dark ratio 1:1.

<sup>8)</sup> Do not bend below 0 °C.

<sup>9)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>10)</sup> C = interference suppression.

<sup>11)</sup> D = outputs overcurrent and short-circuit protected.

Ordering information

Other models available at [www.mysick.com/en/W4-3\\_PTFE](http://www.mysick.com/en/W4-3_PTFE)

WT4-3 PTFE

- **Sensor principle:** photoelectric proximity sensor
- **Detection principle:** background suppression
- **Adjustment:** cable, single teach-in button
- **Connection:** cable, 4-wire, 5 m, PVC/PTFE coating

Sensing range max. <sup>1)</sup>	Output type	Switching mode	Connection diagram	Model name	Part no.
4 mm ... 120 mm	PNP	Light switching	Cd-093	WTB4T-3P1264	1028091
	NPN	Light switching	Cd-093	WTB4T-3N1264	1028092

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

WSE4-3 PTFE

- **Sensor principle:** through-beam photoelectric sensor
- **Connection:** cable, 3-wire, 5 m, PVC/PTFE coating

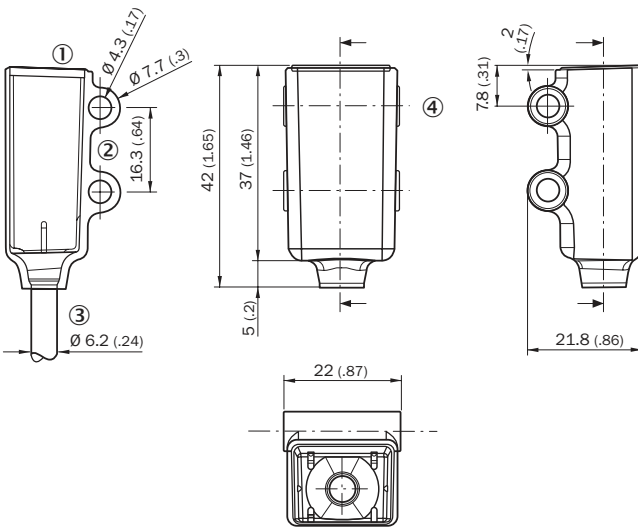
Sensing range max.	Output type	Switching mode	Connection diagram	Model name	Part no.
0 m ... 3 m	PNP	Light switching	Cd-061	WSE4T-3P1430	1029646
		Dark-switching	Cd-061	WSE4T-3F1430	1029647
	NPN	Dark-switching	Cd-061	WSE4T-3E1430	1029648

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Dimensional drawings

Dimensions in mm (inch)

WTB4T-3, PTFE

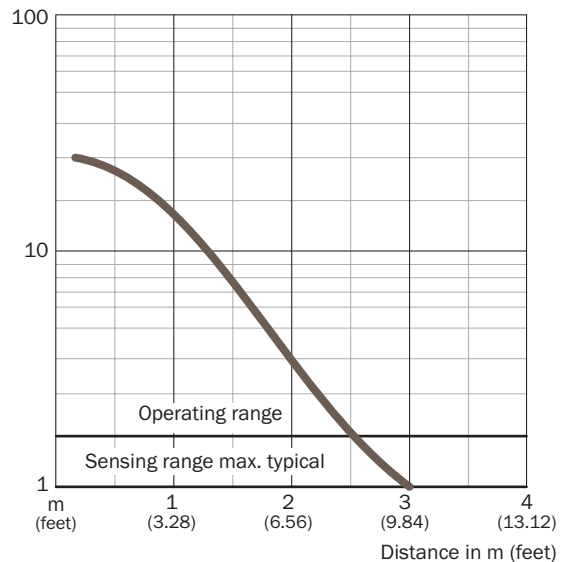


- ① LED signal
- ② Mounting hole,  $\varnothing$  4.3 mm
- ③ Cable 5 m,  $\varnothing$  3.4 mm, 2 m Teflon coated  $\varnothing$  6.2 mm
- ④ Optical axis, receiver
- ⑤ Optical axis, sender

Characteristic curves

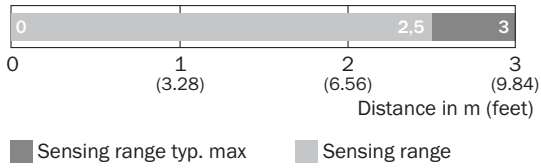
WSE4T-3 PTFE

Operating reserve



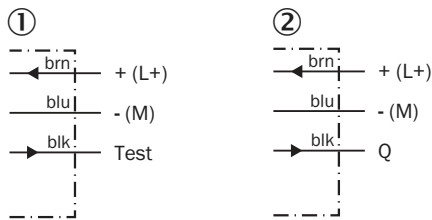
### Bar diagrams

#### WSE4T-3 PTFE



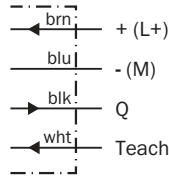
### Connection diagram

#### Cd-061



① Sender  
② Receiver

#### Cd-093



### Recommended accessories

#### Plug connectors and cables

##### Female connector (ready to assemble)

Figure	Connection type head A	Connection type head B	Connector material	Enclosure rating	Model name	Part no.
	Female connector, M8, 3-pin, straight	Screw-type terminals	PBT	IP 67	DOS-0803-G	7902077
	Female connector, M8, 3-pin, angled	Pin penetration	PBT	IP 67	DOS-0803-W	7902078
	Female connector, M8, 4-pin, straight	Screw-type terminals	PBT	IP 67	DOS-0804-G	6009974
	Female connector, M8, 4-pin, angled	Pin penetration	PBT	IP 67	DOS-0804-W	6009975

##### Male connector (ready to assemble) M8, 3-pin

Figure	Connection type head A	Connection type head B	Connector material	Enclosure rating	Model name	Part no.
	Male connector, M8, 3-pin, straight	Screw-type terminals	PBT	IP 67	STE-0803-G	6037322
	Male connector, M8, 4-pin, straight	Screw-type terminals	PBT	IP 67	STE-0804-G	6037323

→ For additional accessories, please see page L-861