

# PowerProx

The new home of sensing range

**PHOTOELECTRIC SENSORS** 



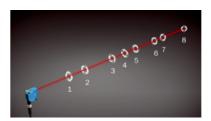
#### Advantages



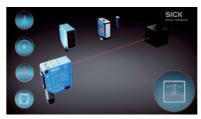
# Large sensing range in a small housing

The PowerProx detects large areas at a maximum distance of up to 4 m. The sensors are resistant to background reflections and therefore offer maximum reliability. In addition, the compact housing makes the PowerProx a space-saving detection solution for large distances.

Complete monitoring with the most advanced time-of-flight technology



ing points are available for the automation process via IO-Link



Distance values with millimeter precision and up to eight switch. The PowerProx also delivers analog distance data for precise control in mounting technology



The ideal solution for space-saving use in grippers and robotic elements



Top performance for occupied bay and clearance detection thanks to IO-Link and Perfect for compact AGV applications up to eight switching points



High performance even in tight spaces:



Safe detection: Even at large distances and with ambient light exposure, the PowerProx detects objects reliably.



#### **Exact detection results in any position**

More power isn't possible: The PowerProx achieves outstanding detection results thanks to excellent optics and beam paths. Extreme angles and changing object surfaces are also no problem. The receiver elements of the photoelectric sensor are resistant to background reflections and ambient light.





Ideal for use in mounting technology thanks to precise detection Reliable quality control thanks to high repeatability - even if the and distance measurement

surface quality changes



Very high precision: The PowerProx delivers reliable detection results even with jet-black, glossy or changing object surfaces as well as very small and flat objects



## Adapted specialists for any application

Everything under one "roof": With the PowerProx, high-precision time-of-flight technology is now available for a wide spectrum of applications for the first time. The reliable detection of very small objects, fast processes or detection over large sensing ranges is no problem for the PowerProx. Corresponding variants offer maximum detection reliability for objects with strongly reflective surfaces. And when space is tight, the very compact WTT2SL and WTT4SL variants ensure maximum performance in a miniature format.



Precisely detects the smallest objects, pockets or recesses



Quick signal processing and high switching frequency for quick processes



With an up to 4 m sensing range, the PowerProx keeps a close eye on even far-away objects



Maximum flexibility: The PowerProx has the right sensor solution for any range of applications, no matter whether very fast, accurate detection or detection at large sensing ranges is required

### Reliable detection at high speeds

Processes are getting faster and faster in countless industries. The high switching frequency and quick signal processing of the PowerProx enables powerful detection even at high tempos. In doing so, the photoelectric sensor laser beam detects even high-gloss or jet-black objects at large detection angles.



Reliable edge detection in high speed applications due to switching frequencies of up to 1,000 Hz and the high-precision laser beam



Very fast tempo: The PowerProx reliably detects objects and edges with nearly no delay, even at high process speeds in production and logistics.



#### Technical data overview

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Dimensions (W x H x D)	20 mm x 49.6 mm x 44.2 mm 17.6 mm x 46.5 mm x 34.1 mm 17.4 mm x 45.6 mm x 34.7 mm 12.2 mm x 41.8 mm x 17.3 mm 7.7 mm x 27.5 mm x 13.5 mm 23.5 mm x 76 mm x 55.8 mm
Sensing range max.	50 mm 3,800 mm <sup>1)</sup> 50 mm 2,200 mm <sup>2)</sup> 50 mm 2,200 mm <sup>3)</sup> 200 mm 4,000 mm <sup>4)</sup> 200 mm 3,000 mm <sup>5)</sup> 200 mm 18,000 mm <sup>6)</sup>
Light source	Laser
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP67
Housing material	Plastic VISTAL® Plastic ABS Plastic MABS ABS
Adjustment	Potentiometer, 4 turns 1 x Potentiometer, 4 turns 2 x Single teach-in button 1 x Single teach-in button 7 Single teach-in button 2 x Single teach-in button (2 x) IO-Link Cable SOPAS Engineering Tool Single teach-in button (4 x) Display Local user interface with display and button (2 x) Single teach-in button Single teach-in button Single teach-in button Potentiometer 1 x Potentiometer 2 x

 $<sup>^{1)}</sup>$  Object with 6 ... 90 % remission (based on standard white to DIN 5033).

#### **Product description**

PowerProx MultiTask photoelectric sensors combine powerful time-of-flight technology with compact sensor housings, giving machine designers maximum flexibility. They reliably detect objects that are traveling at high speed, small and flat objects, and jet-black or shiny objects at sensing ranges between 5 cm and 4 m, including at large detection angles. The WTT2SL, WTT4SL, WTT12L, WTT19OL and WTT28OL variants of the photoelectric sensors are designed to meet different requirements and provide the ideal solution to overcome any challenge.

 $<sup>^{2)}</sup>$  Object with 15 ... 90 % remission (based on standard white to DIN 5033).

 $<sup>^{3)}</sup>$  For distances  $\leq$  1,800 mm at object with 6 ... 90 % remission. For distances > 1,800 mm at object with 15 ... 90 % remission (based on standard white to DIN 5033).

 $<sup>^{\</sup>rm 4)}$  Object with 90 % reflectance (referred to standard white, DIN 5033).

 $<sup>^{5)}</sup>$  Objects to be sensed with 6 % reflectivity (based on black).

<sup>6)</sup> Reflector P250.

<sup>7)</sup> Teach-Offset -30 mm.

<sup>8)</sup> Teach-Offset 15 mm.

#### At a glance

- Time-of-flight technology
- · Laser class 1, red and infrared light
- Sensing range: 5 cm to 4 m
- Very small background range: 6 mm
- Switching frequencies of up to 1,000 Hz
- The option of up to three adjustable digital outputs or one IO-Link analog output: for up to eight switching points, distance value and smart sensor functionality

#### Your benefits

- · Reliable object detection over long sensing ranges and at large detection angles
- · Precise, simple adjustment using a potentiometer, teach-in button or display
- · Excellent functionality with IO-Link
- The rugged VISTAL® sensor housing ensures high availability and a long service life
- Suitable for a wide range of applications: the variants of the photoelectric sensors are designed to cover a variety of detection requirements
- · Compact sensors allow for significant flexibility in machine design

#### Fields of application

- · Empty bay and clearance detection
- · Rapid counting in the packaging industry
- · Precise edge detection in the timber industry
- · Quality control for the automotive industry and its parts suppliers
- · Handling and assembly
- Loop control
- · Protecting doors and gates
- · Suitable for use on industrial vehicles, including AGVs

#### Ordering information

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

• Sub product family: PowerProx Distance

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression

• Sensing range max.: 50 mm ... 3,800 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Poten- tiometer	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3561	1072614
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1561	1072608
						Male con- nector M12, 5-pin	WTT12L-B2561	1072611
					Teach- in button	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3562	1072640
						Cable, 5-	WTT12L-B1562	1072634
						wire, 2 m <sup>1)</sup>	WTT12L-B1562S26	1120027

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.		
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1564	1094007		
			Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2562	1072637		
					Cable, Teach- in button	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3564S18	1108354		
	Q <sub>1</sub>	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2563S17	1107086		
	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	Infrared light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2593	1091984		
				Visible	Poten-	Cable	WTT12L-B3566	1072622		
				red light	tiometer	with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT12L-B3568	1072631		
						Cable, 5-	WTT12L-B1566	1072617		
						wire, 2 m <sup>1)</sup>	WTT12L-B1568	1072625		
						Male con-	WTT12L-B2566	1072619		
									nector M12, 5-pin	WTT12L-B2568
					Teach- in button	Cable	WTT12L-B3563	1072648		
						with plug M12, 5-	WTT12LC-B3563	1090607		
						pin, 0.3 m <sup>1)</sup>	WTT12L-B3567	1072657		
						Cable, 5-	WTT12L-B1563	1072643		
						wire, 2 m 1)	WTT12L-B1567	1072651		
						Male con-	WTT12L-B2563	1072645		
						nector M12, 5-pin	WTT12L-B2567	1072654		
							WTT12L-B2567S13	1100200		
					Cable, Teach- in button	Cable, 5- wire, 2 m <sup>1)</sup>	WTT12LC-B1563	1103602		
					III DUCCOII	Male con-	WTT12LC-B2563	1072532		
						nector M12, 5-pin	WTT12LC-B2563S11	1098031		
							WTT12LC-B2563S12	1098032		
							WTT12LC-B2563S15	1103345		
							WTT12LC-B2563S21	1108976		
4 mA 20 mA / 0 V 10 V / switchable	Q <sub>1</sub>	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-A2563	1082474		

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

• Sub product family: PowerProx Speed

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 2,500 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.				
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Poten- tiometer	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3531	1072612				
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1531	1072606				
						Male con- nector M12, 5-pin	WTT12L-B2531	1072609				
					Teach- in button	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3532	1072638				
			Light Puch pulls							Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1532	1072632
						Male con- nector M12, 5-pin	WTT12L-B2532	1072635				
		Push-pull: PNP/NPN	Infrared light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2573	1091987					
				Visible	Visible Poten- red light tiometer	Cable	WTT12L-B3536	1072620				
				red light		with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT12L-B3538	1072629				
						Cable, 5-	WTT12L-B1536	1072615				
						wire, 2 m <sup>1)</sup>	WTT12L-B1538	1072623				
						Male con-	WTT12L-B2536	1072618				
						nector M12, 5-pin	WTT12L-B2538	1072626				
					Teach-	Cable	WTT12L-B3533	1072646				
					in button	with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT12L-B3537	1072655				
						Cable, 5-	WTT12L-B1533	1072641				
					wire, 2 m <sup>1)</sup>	WTT12L-B1537	1072649					
					Male con-	WTT12L-B2533	1072531					
						nector M12, 5-pin	WTT12L-B2537	1072652				
					Cable,	Male con-	WTT12LC-B2533	1072658				
					Teach- in button	nector M12, 5-pin	WTT12LC-B2533S16	1105655				

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
4 mA 20 mA / 0 V 10 V / switchable	$Q_1$	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-A2533	1082472

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

• Sub product family: PowerProx Speed

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 75 mm ... 1,300 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	Visible red light	Cable, Teach- in button	Male con- nector M12, 5-pin	WTT12LC-B2533S02	1080611

• Sub product family: PowerProx Precision

• Sensor principle: Photoelectric proximity sensor • Detection principle: Background suppression

- Sensing range max.:  $50~\text{mm} \dots 1{,}800~\text{mm}$ 

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Poten- tiometer	Cable with plug M12, 5-pin, 0.3 m 1)	WTT12L-B3541	1072613
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1541	1072607

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connection type	Туре	Part no.
						Male con- nector M12, 5-pin	WTT12L-B2541	1072610
					Teach- in button	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-B3542	1072639
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT12L-B1542	1072633
						Male con- nector M12, 5-pin	WTT12L-B2542	1072636
	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	Infrared light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2583	1091989
				Visible	Poten-	Cable	WTT12L-B3546	1072621
				red light	tiometer	with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT12L-B3548	1072630
						Cable, 5-	WTT12L-B1546	1072616
						wire, 2 m <sup>1)</sup>	WTT12L-B1548	1072624
						Male con-	WTT12L-B2546	1072530
						nector M12, 5-pin	WTT12L-B2548	1072627
					Teach-	Cable	WTT12L-B3543	1072647
					in button	with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT12L-B3547	1072656
						Cable, 5-	WTT12L-B1543	1072642
						wire, 2 m <sup>1)</sup>	WTT12L-B1547	1072650
						Male con-	WTT12L-B2543	1072644
						nector M12, 5-pin	WTT12L-B2547	1072653
					Cable,	Male con-	WTT12LC-B2543	1072659
					Teach- in button	nector M12, 5-pin	WTT12LC-B2543B01	1091309
							WTT12LC-B2543S23	1115431
4 mA 20 mA / 0 V 10 V / switchable	Q <sub>1</sub>	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT12L-A3543	1095504
						Male con-	WTT12L-A2543	1082473
						nector M12, 5-pin	WTT12L-A2543S09	1093543

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

• Sub product family: PowerProx Small

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 200 mm ... 2,500 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connection type	Туре	Part no.
-	Q <sub>1</sub>	Light/dark switching	NPN	Visible red light	Poten- tiometer	Cable, 4- wire, 2 m <sup>1)</sup>	WTT190L-N1131	6055960
						Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT190L-N3531	6055961
						Male con- nector M8, 4-pin	WTT190L-N2231	6055959
		PNP	PNP	Visible red light	Poten- tiometer	Cable, 4- wire, 2 m <sup>1)</sup>	WTT190L-P1131	6055954
					Cable with plug M12, 5-pin, 0.3 m <sup>1)</sup>	WTT190L-P3531	6055955	
						Male con- nector M8, 4-pin	WTT190L-P2231	6055953
	Q <sub>1</sub> , Q <sub>2</sub>	Light/dark switching	NPN	Visible red light	Poten- tiometer	Cable with plug M12, 5-pin, 0.3 m 1)	WTT190L-N3536	6055964
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT190L-N1536	6055963
						Male con- nector M8, 4-pin	WTT190L-N2236	6055962
		PNP	Visible red light	Poten- tiometer	Cable with plug M12, 5-pin, 0.3 m 1)	WTT190L-P3536	6055958	
						Cable, 5- wire, 2 m <sup>1)</sup>	WTT190L-P1536	6055957
						Male con- nector M8, 4-pin	WTT190L-P2236	6055956

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

#### PHOTOELECTRIC SENSORS

• Sub product family: PowerProx Small

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 200 mm ... 3,000 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.	
-	Q <sub>1</sub> , Q <sub>2</sub>	Light/dark switching	PNP, NPN	Visible red light	Teach- in button	Male con- nector M8, 4-pin	WTT190L-K2233	6062141	
			Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M8, 4-pin	WTT190LC- B2233A00	6067745	
	Q <sub>1</sub> , Q <sub>2</sub> , Q <sub>3</sub>	Light/dark switching	<b>O</b> ,	PNP, NPN	Visible red light	Teach- in button	Cable with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT190L-K3534	6062143
							Cable, 5- wire, 2 m <sup>1)</sup>	WTT190L-K1534	6062142
4 mA 20 mA / 0 V 10 V / switchable	Q <sub>1</sub>	Light/dark switching	PNP, NPN	Visible red light	Teach- in button	Cable with plug M12, 5- pin, 0.3 m <sup>1)</sup>	WTT190L-A3532	6062146	
					Cable, 5- wire, 2 m <sup>1)</sup>	WTT190L-A1532	6062145		
						Male con- nector M8, 4-pin	WTT190L-A2232	6062144	

 $<sup>^{1)}</sup>$  Do not bend below 0  $^{\circ}\text{C}.$ 

• Sub product family: PowerProx Distance Shiny

• Sensor principle: Photoelectric proximity sensor

• Detection principle: Background suppression

• Sensing range max.: 50 mm ... 2,200 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connection type	Туре	Part no.
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2502S06	1090895
	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2503S05	1088544
					Cable, Teach- in button	Male con- nector M12, 5-pin	WTT12LC-B2553S25	1117934

Sub product family: PowerProx Distance Shiny
 Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 1,800 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	Visible red light	Poten- tiometer	Male con- nector M12, 5-pin	WTT12L-B2556	1082418
					Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2553	1082415
					Cable, Teach- in button	Male con- nector M12, 5-pin	WTT12LC-B2553	1082412
4 mA 20 mA / 0 V 10 V / switchable	$Q_1$	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-A2553	1082475

Sub product family: PowerProx Speed Shiny
 Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 1,600 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q <sub>1</sub> , Q <sub>2</sub>	Light switching	Push-pull: PNP/NPN	•	Poten- tiometer	Male con- nector M12, 5-pin	WTT12L-B2516	1082420
					Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2513	1082416
					Cable, Teach- in button	Male con- nector M12, 5-pin	WTT12LC-B2513	1082413
4 mA 20 mA / 0 V 10 V / switchable	$Q_1$	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-A2513	1082476

#### PHOTOELECTRIC SENSORS

Sub product family: PowerProx Precision Shiny
 Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 1,400 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q, /Q	Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2522	1085283
	Q <sub>1</sub> , Q <sub>2</sub>	Q <sub>1</sub> , Q <sub>2</sub> Light Push-pull: switching PNP/NPN	•	Visible red light	Poten- tiometer	Male con- nector M12, 5-pin	WTT12L-B2526	1082419
				Teach- in button	Male con- nector M12, 5-pin	WTT12L-B2523	1082417	
				Cable, Teach- in button	Male con- nector M12, 5-pin	WTT12LC-B2523	1082414	
4 mA 20 mA / 0 V 10 V / switchable	$Q_1$	Light switching	Push-pull: PNP/NPN	Visible red light	Teach- in button	Male con- nector M12, 5-pin	WTT12L-A2523	1082477

Sub product family: PowerProx Mini Distance
 Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 1,300 mm

Switching mode	Switching output	Type of light	Adjustment	Connection type	Туре	Part no.
Dark/light switching	Push-pull: PNP/NPN	Visible red light	Teach-in but- ton, cable	Cable with M12 male connector, 4-pin, 1,547 mm	WTT4SLC- 3B0062B03	1118144
				Cable with M12 male connector, 4-pin, 197 mm	WTT4SLC- 3B3462A00	1111828
				Cable with M12 male connector, 4-pin, 300 mm	WTT4SLC- 3B0062B04	1118244
				Cable with M8 male connector, 4-pin, 120 mm	WTT4SLC- 3B3262A00	1097220
					WTT4SLC- 3B3262B05	1120525
				Cable with M8 male connector, 4-pin, 65 mm	WTT4SLC- 3B0062B02	1111161
				Cable, 4-wire, 2 m	WTT4SLC- 3B1162A00	1097191
				Male connector M8, 4-pin	WTT4SLC- 3B2262B01	1106949
Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach-in but- ton, cable	Male connector M8, 4-pin	WTT4SLC- 3B2262A00	1097190

Sub product family: PowerProx Mini Speed
Sensor principle: Photoelectric proximity sensor
Detection principle: Background suppression
Sensing range max.: 50 mm ... 1,000 mm

Switching mode	Switching output	Type of light	Adjustment	Connection type	Туре	Part no.
Dark/light switching	Push-pull: PNP/NPN	Visible red light	Teach-in but- ton, cable	Cable with M12 male connector, 4-pin, 197 mm	WTT4SLC- 3B3432A00	1111829
				Cable with M8 male connector, 4-pin, 120 mm	WTT4SLC- 3B3232A00	1097222
				Cable, 4-wire, 2 m	WTT4SLC- 3B1132A00	1096613
Light/dark switching	Push-pull: PNP/NPN	Visible red light	Teach-in but- ton, cable	Male connector M8, 4-pin	WTT4SLC- 3B2232A00	1095755

• Sub product family: PowerProx Micro

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression
 Sensing range max.: 50 mm ... 800 mm

Analog output	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Dark switching	PNP	Infrared light	Teach-in button	Cable with JST- connector, 350 mm <sup>1)</sup>	WTT2SL-2F3092S07	1112129
					Cable with JST- connector, 550 mm <sup>1)</sup>	WTT2SL-2F3092S08	1112130
	Light/dark switching	PNP	Infrared light	Teach-in button	Cable with M12 male connec- tor, 4-pin <sup>1)</sup>	WTT2SL-2N3492S02	1102712
					Cable, 4- wire, 2 m <sup>1)</sup>	WTT2SL-2N1192	1085601
			Infrared light	Teach-in button	Cable with JST- connector, 300 mm <sup>1)</sup>	WTT2SLC- 2P3092B03	1102568
					Cable with M12 male connector, 4-pin, 300 mm <sup>1)</sup>	WTT2SL-2P3492S01	1088393
					Cable with M8 male con-	WTT2SLC- 2P3292A00	1090486
					nector, 4-pin, 200 mm <sup>1)</sup>	WTT2SL-2P3292	1085602
					Cable with M8 male con- nector, 4- pin, 90 mm <sup>1)</sup>	WTT2SLC- 2P3292B02	1101641
					Cable, 4- wire, 2 m <sup>1)</sup>	WTT2SL-2P1192	1081626

 $<sup>^{1)}</sup>$  Do not bend below 0 °C.

Sub product family: WTT280L-2 Long Range
 Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression

• Sensing range max.: 200 mm ... 4,000 mm (Einstellbar.),, 200 mm ... 3,000 mm (Einstellbar.)

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.		
-	Q <sub>1</sub>	Light/dark switching	NPN	Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WTT280L-2N1531	6048067		
						Male con- nector M12, 5-pin	WTT280L-2N2531	6048063		
				PNP	PNP	PNP Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WTT280L-2P1531	6048065
						Male con- nector M12, 5-pin	WTT280L-2P2531	6048061		
	Q <sub>1</sub> , Q <sub>2</sub>	Q <sub>1</sub> , Q <sub>2</sub> Light/dark switching	<b>.</b>	Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WTT280L-2N1536	6048068		
						Male con- nector M12, 5-pin	WTT280L-2N2536	6048064		
			PNP	Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WTT280L-2P1536	6048066		
						Male con- nector M12, 5-pin	WTT280L-2P2536	6048062		

 $<sup>^{1)}</sup>$  Do not bend below 0  $^{\circ}\text{C}.$ 

• Sub product family: WTT280L-2 Long Range

• Sensor principle: Photoelectric proximity sensor

• Detection principle: Background suppression, Time-of-flight process

• Sensing range max.: 200 mm ... 18,000 mm (Einstellbar.),, 200 mm ... 18,000 mm

Analog output	Number of switch- ing out- puts (type)	Switch- ing mode	Switch- ing output	Type of light	Adjustment	Connec- tion type	Туре	Part no.
-	Q <sub>1</sub> , Q <sub>2</sub>	Q <sub>1</sub> , Q <sub>2</sub> Light/dark switching	6 7 1	Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WLT280L-2N1536	6048072
						Male con- nector M12, 5-pin	WLT280L-2N2536	6048070
			PNP	Visible red light	Poten- tiometer	Cable, 5- wire, 2 m <sup>1)</sup>	WLT280L-2P1536	6048071
					Male con- nector M12, 5-pin	WLT280L-2P2536	6048069	

<sup>1)</sup> Do not bend below 0 °C.

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