

The new home of sensing range



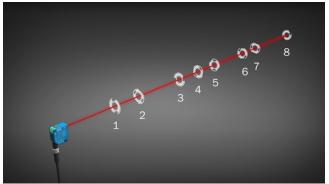
Advantages



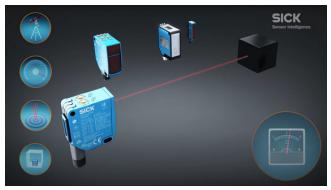
Large sensing range in a small housing

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



Distance values with millimeter precision and up to eight switch. The PowerProx also delivers analog distance data for precise ing points are available for the automation process via IO-Link



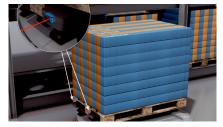
control in mounting technology



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:



Impressive 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.



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

| 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 |
|-----------------------------|--|
| Functional principle detail | Absence of reference object or reference surface Object between sensor and reference object or reference surface Background suppression Optical time-of-flight (depending on type) |
| Light source | Laser |
| Type of light | Visible red light / Infrared light (depending on type) |
| Enclosure rating | IP67 |
| Housing material | Plastic |
| Adjustment | Teach-in button Potentiometer Cable (depending on type) |

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 jetblack or shiny objects at sensing ranges between 5 cm and 4 m, including at large detection angles. The WTT2SL, WTT4SL, WT-T12L, WTT12-S, WTT190L and WTT280L variants of the photoelectric sensors are designed to meet different requirements and provide the ideal solution to overcome any challenge.

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

- · Analog output: -
- Functional principle: Photoelectric proximity sensor
- Functional principle detail: Absence of reference object or reference surface

| Switching mode | Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|-----------------|-----------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Light switching | Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12S-C2569 | 1136898 |

- Analog output: -
- Functional principle: Photoelectric proximity sensor
- Functional principle detail: Object between sensor and reference object or reference surface

| Switching mode | Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|-----------------|-----------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Light switching | Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12S-M2569 | 1136647 |

• Sub product family: PowerProx Distance

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q, /Q

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
 Sensing range max.: 50 mm ... 3,800 mm
 Switching output: push-pull: PNP/NPN

• Type of light: visible red light

| Adjustment | Connection type | Туре | Part no. |
|------------------------|---|-----------------|----------|
| Potentiometer | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3561 | 1072614 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1561 | 1072608 |
| | Male connector M12, 5-pin | WTT12L-B2561 | 1072611 |
| Teach-in button | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3562 | 1072640 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1564 | 1094007 |
| | | WTT12L-B1562 | 1072634 |
| | Male connector M12, 5-pin | WTT12L-B2562 | 1072637 |
| Cable, Teach-in button | Cable with plug M12, 5-pin, 0.3 m ¹⁾ | WTT12L-B3564S18 | 1108354 |

 $^{^{1)}}$ Do not bend below 0 °C.

• Sub product family: PowerProx Distance

• Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): $Q_1,\,Q_2$

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

Sensing range max.: 50 mm ... 3,800 mm
Switching output: push-pull: PNP/NPN

| Type of light | Adjustment | Connection type | Туре | Part no. |
|-------------------|------------------------|----------------------------------|------------------|----------|
| Infrared light | Teach-in button | Male connector M12, 5-pin | WTT12L-B2593 | 1091984 |
| Visible red light | Potentiometer | Cable with plug | WTT12L-B3566 | 1072622 |
| | | M12, 5-pin, 0.3 m ¹⁾ | WTT12L-B3568 | 1072631 |
| | | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1566 | 1072617 |
| | | | WTT12L-B1568 | 1072625 |
| | | Male connector M12, 5-pin | WTT12L-B2566 | 1072619 |
| | | | WTT12L-B2568 | 1072628 |
| | Teach-in button | Cable with plug | WTT12L-B3563 | 1072648 |
| | | M12, 5-pin, 0.3 m ¹⁾ | WTT12LC-B3563 | 1090607 |
| | | | WTT12L-B3567 | 1072657 |
| | | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1563 | 1072643 |
| | | | WTT12L-B1567 | 1072651 |
| | | Male connector M12, 5-pin | WTT12L-B2563 | 1072645 |
| | | | WTT12L-B2567S13 | 1100200 |
| | | | WTT12L-B2567 | 1072654 |
| | Cable, Teach-in button | Cable, 5-wire, 2 m ¹⁾ | WTT12LC-B1563 | 1103602 |
| | | Male connector M12, 5-pin | WTT12LC-B2563S11 | 1098031 |
| | | | WTT12LC-B2563S12 | 1098032 |
| | | | WTT12LC-B2563S15 | 1103345 |
| | | | WTT12LC-B2563S21 | 1108976 |
| | | | WTT12LC-B2563 | 1072532 |

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

• Sub product family: PowerProx Distance

• Analog output: 4 mA ... 20 mA / 0 V ... 10 V / switchable • Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

Sensing range max.: 50 mm ... 3,800 mm
 Switching output: push-pull: PNP/NPN

Type of light: visible red lightAdjustment: Teach-in button

| Connection type | Туре | Part no. |
|----------------------------------|-----------------|----------|
| Cable, 5-wire, 2 m ¹⁾ | WTT12L-A1563 | 1128481 |
| Male connector M12, 5-pin | WTT12L-A2563 | 1082474 |
| | WTT12L-A2563S29 | 1124065 |

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

• Sub product family: PowerProx Speed

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q, /Q

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
Sensing range max.: 50 mm ... 2,500 mm
Switching output: push-pull: PNP/NPN

• Type of light: visible red light

| Adjustment | Connection type | Туре | Part no. |
|-----------------|---|--------------|----------|
| Potentiometer | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3531 | 1072612 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1531 | 1072606 |
| | Male connector M12, 5-pin | WTT12L-B2531 | 1072609 |
| Teach-in button | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3532 | 1072638 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1532 | 1072632 |
| | Male connector M12, 5-pin | WTT12L-B2532 | 1072635 |

 $^{^{1)}}$ Do not bend below 0 °C.

• Sub product family: PowerProx Speed

• Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q1, Q2

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

• Switching output: push-pull: PNP/NPN

| Sensing range max. | Type of light | Adjustment | Connection type | Туре | Part no. | |
|--------------------|-------------------|------------------------|---|------------------|--------------|---------|
| 50 mm 2,500 mm | Infrared light | Teach-in button | Male connector M12, 5-pin | WTT12L-B2573 | 1091987 | |
| | Visible red light | Potentiometer | Cable with plug | WTT12L-B3536 | 1072620 | |
| | | | M12, 5-pin, 0.3 m ¹⁾ | WTT12L-B3538 | 1072629 | |
| | | | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1536 | 1072615 | |
| | | Teach-in button | Male connec- | WTT12L-B2536 | 1072618 | |
| | | | tor M12, 5-pin | WTT12L-B2538 | 1072626 | |
| | | | Cable with plug M12, 5-pin, 0.3 m ¹⁾ | WTT12L-B3537 | 1072655 | |
| | | | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1533 | 1072641 | |
| | | | | WTT12L-B1537 | 1072649 | |
| | | | | Male connec- | WTT12L-B2533 | 1072531 |
| | | | tor M12, 5-pin | WTT12L-B2537 | 1072652 | |
| | | Cable, Teach-in button | Cable with plug M12, 5-pin, 348 mm | WTT12LC-B3533 | 1124550 | |
| | | | Male connector M12, 5-pin | WTT12LC-B2533 | 1072658 | |
| 75 mm 1,300 mm | Visible red light | Cable, Teach-in button | Male connector M12, 5-pin | WTT12LC-B2533S02 | 1080611 | |

 $^{^{1)}}$ Do not bend below 0 °C.

• Sub product family: PowerProx Speed

• Analog output: 4 mA ... 20 mA / 0 V ... 10 V / switchable

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

• Sensing range max.: 50 mm ... 2,500 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-A2533 | 1082472 |

• Sub product family: PowerProx Precision

• Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q, /Q

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
Sensing range max.: 50 mm ... 1,800 mm
Switching output: push-pull: PNP/NPN

• Type of light: visible red light

| Adjustment | Connection type | Туре | Part no. |
|-----------------|---|--------------|----------|
| Potentiometer | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3541 | 1072613 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1541 | 1072607 |
| | Male connector M12, 5-pin | WTT12L-B2541 | 1072610 |
| Teach-in button | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-B3542 | 1072639 |
| | Cable, 5-wire, 2 m ¹⁾ | WTT12L-B1542 | 1072633 |
| | Male connector M12, 5-pin | WTT12L-B2542 | 1072636 |

¹⁾ Do not bend below 0 °C.

• Sub product family: PowerProx Precision

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q1, Q2

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light switching
Sensing range max.: 50 mm ... 1,800 mm
Switching output: push-pull: PNP/NPN

| Type of light | Adjustment | Connection type | Туре | Part no. |
|-------------------|------------------------|--|------------------|----------|
| Infrared light | Teach-in button | Male connector M12, 5-pin | WTT12L-B2583 | 1091989 |
| Visible red light | Potentiometer | Cable with plug | WTT12L-B3546 | 1072621 |
| | | M12, 5-pin, 0.3 m ¹⁾ | WTT12L-B3548 | 1072630 |
| | | Cable, 5-wire, 2 m 1) | WTT12L-B1546 | 1072616 |
| | | | WTT12L-B1548 | 1072624 |
| | | Male connector M12, 5-pin | WTT12L-B2546 | 1072530 |
| | | | WTT12L-B2548 | 1072627 |
| | Teach-in button | Teach-in button Cable with plug M12, 5-pin, 0.3 m ¹⁾ Cable, 5-wire, 2 m ¹⁾ | WTT12L-B3543 | 1072647 |
| | | | WTT12L-B3547 | 1072656 |
| | | | WTT12L-B1543 | 1072642 |
| | | | WTT12L-B1547 | 1072650 |
| | | Male connector M12, 5-pin | WTT12L-B2543 | 1072644 |
| | | | WTT12L-B2547 | 1072653 |
| | Cable, Teach-in button | Male connector M12, 5-pin | WTT12LC-B2543B01 | 1091309 |
| | | | WTT12LC-B2543S23 | 1115431 |
| | | | WTT12LC-B2543 | 1072659 |

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

• Sub product family: PowerProx Precision

- Analog output: 4 mA ... 20 mA / 0 V ... 10 V / switchable

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

Sensing range max.: 50 mm ... 1,800 mm
 Switching output: push-pull: PNP/NPN

Type of light: visible red lightAdjustment: Teach-in button

| Connection type | Туре | Part no. |
|---|-----------------|----------|
| Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT12L-A3543 | 1095504 |
| Male connector M12, 5-pin | WTT12L-A2543 | 1082473 |
| | WTT12L-A2543S09 | 1093543 |

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

• Sub product family: PowerProx Small

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
Sensing range max.: 200 mm ... 2,500 mm

Type of light: visible red lightAdjustment: Potentiometer

| Switching output | Connection type | Туре | Part no. |
|------------------|---|---------------|----------|
| NPN | Cable, 4-wire, 2 m ¹⁾ | WTT190L-N1131 | 6055960 |
| | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT190L-N3531 | 6055961 |
| | Male connector M8, 4-pin | WTT190L-N2231 | 6055959 |
| PNP | Cable, 4-wire, 2 m ¹⁾ | WTT190L-P1131 | 6055954 |
| | Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT190L-P3531 | 6055955 |
| | Male connector M8, 4-pin | WTT190L-P2231 | 6055953 |

¹⁾ Do not bend below 0 °C.

• Sub product family: PowerProx Small

• Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q1, Q2

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light/dark switching

• Type of light: visible red light

| Sensing range max. | Switching output | Adjustment | Connection type | Туре | Part no. |
|--------------------|--------------------|--------------------------|--|-------------------|----------|
| 200 mm 2,500 mm | NPN Potentiometer | Potentiometer | Cable with plug M12, 5-pin, 0.3 m ¹⁾ | WTT190L-N3536 | 6055964 |
| | | | Cable, 5-wire, 2 m ¹⁾ | WTT190L-N1536 | 6055963 |
| | | Male connector M8, 4-pin | WTT190L-N2236 | 6055962 | |
| | PNP | PNP Potentiometer | Cable with plug M12, 5-pin, 0.3 m ¹⁾ | WTT190L-P3536 | 6055958 |
| | | | Cable, 5-wire, 2 m ¹⁾ | WTT190L-P1536 | 6055957 |
| | | | Male connector M8, 4-pin | WTT190L-P2236 | 6055956 |
| 200 mm 3,000 mm | PNP, NPN | Teach-in button | Male connector M8, 4-pin | WTT190L-K2233 | 6062141 |
| | Push-pull: PNP/NPN | Teach-in button | Male connector M8, 4-pin | WTT190LC-B2233A00 | 6067745 |

 $^{^{1)}}$ Do not bend below 0 °C.

• Sub product family: PowerProx Small

· Analog output: -

• Functional principle: Photoelectric proximity sensor • Number of switching outputs (type): Q_1 , Q_2 , Q_3

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light/dark switching • Sensing range max.: 200 mm ... 3,000 mm

Switching output: PNP, NPN
Type of light: visible red light
Adjustment: Teach-in button

| Connection type | Туре | Part no. |
|---|---------------|----------|
| Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT190L-K3534 | 6062143 |
| Cable, 5-wire, 2 m ¹⁾ | WTT190L-K1534 | 6062142 |

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

• Sub product family: PowerProx Small

- Analog output: 4 mA ... 20 mA / 0 V ... 10 V / switchable

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
 Sensing range max.: 200 mm ... 3,000 mm

Switching output: PNP, NPN
Type of light: visible red light
Adjustment: Teach-in button

| Connection type | Туре | Part no. |
|---|---------------|----------|
| Cable with plug M12, 5-pin, 0.3 m $^{1)}$ | WTT190L-A3532 | 6062146 |
| Cable, 5-wire, 2 m ¹⁾ | WTT190L-A1532 | 6062145 |
| Male connector M8, 4-pin | WTT190L-A2232 | 6062144 |

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

• Sub product family: PowerProx Distance Shiny

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q, /Q

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light/dark switching
 Sensing range max.: 50 mm ... 2,200 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|-----------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-B2502S06 | 1090895 |

• Sub product family: PowerProx Distance Shiny

Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1 , Q_2

• Functional principle detail: Background suppression, Optical time-of-flight

Switching mode: Light switching
Switching output: push-pull: PNP/NPN

• Type of light: visible red light

• Connection type: male connector M12, 5-pin

| Sensing range max. | Adjustment | Туре | Part no. |
|--------------------|------------------------|------------------|----------|
| 50 mm 1,800 mm | Potentiometer | WTT12L-B2556 | 1082418 |
| | Teach-in button | WTT12L-B2553 | 1082415 |
| | | WTT12L-B2553S28 | 1121743 |
| | Cable, Teach-in button | WTT12LC-B2553 | 1082412 |
| 50 mm 2,200 mm | Teach-in button | WTT12L-B2503S05 | 1088544 |
| | Cable, Teach-in button | WTT12LC-B2553S25 | 1117934 |

• Sub product family: PowerProx Distance Shiny

- Analog output: 4 mA ... 20 mA / 0 V ... 10 V / switchable

• Functional principle: Photoelectric proximity sensor

Number of switching outputs (type): Q₁

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

• Sensing range max.: 50 mm ... 1,800 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-A2553 | 1082475 |

• Sub product family: PowerProx Speed Shiny

· Analog output:

• Functional principle: Photoelectric proximity sensor

Number of switching outputs (type): Q₁, Q₂

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

Sensing range max.: 50 mm ... 1,600 mm
 Switching output: push-pull: PNP/NPN

• Type of light: visible red light

• Connection type: male connector M12, 5-pin

| Adjustment | Туре | Part no. |
|------------------------|---------------|----------|
| Potentiometer | WTT12L-B2516 | 1082420 |
| Teach-in button | WTT12L-B2513 | 1082416 |
| Cable, Teach-in button | WTT12LC-B2513 | 1082413 |

• Sub product family: PowerProx Speed Shiny

• **Analog output:** 4 mA ... 20 mA / 0 V ... 10 V / switchable

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

• Sensing range max.: 50 mm ... 1,600 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-A2513 | 1082476 |

• Sub product family: PowerProx Precision Shiny

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q, /Q

• Functional principle detail: Background suppression, Optical time-of-flight

· Switching mode: Light/dark switching

• Sensing range max.: 50 mm ... 1,400 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-B2522 | 1085283 |

• Sub product family: PowerProx Precision Shiny

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1 , Q_2

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

Sensing range max.: 50 mm ... 1,400 mm
 Switching output: push-pull: PNP/NPN

• Type of light: visible red light

• Connection type: male connector M12, 5-pin

| Adjustment | Туре | Part no. |
|------------------------|---------------|----------|
| Potentiometer | WTT12L-B2526 | 1082419 |
| Teach-in button | WTT12L-B2523 | 1082417 |
| Cable, Teach-in button | WTT12LC-B2523 | 1082414 |

• Sub product family: PowerProx Precision Shiny

• Analog output: 4 mA \dots 20 mA / 0 V \dots 10 V / switchable

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light switching

• Sensing range max.: 50 mm ... 1,400 mm

| Switching output | Type of light | Adjustment | Connection type | Туре | Part no. |
|--------------------|-------------------|-----------------|---------------------------|--------------|----------|
| Push-pull: PNP/NPN | Visible red light | Teach-in button | Male connector M12, 5-pin | WTT12L-A2523 | 1082477 |

• Sub product family: PowerProx Mini Distance

• Functional principle: Photoelectric proximity sensor

• Functional principle detail: Background suppression, Optical time-of-flight

Sensing range max.: 50 mm ... 1,300 mm
 Switching output: push-pull: PNP/NPN

Type of light: visible red light
Adjustment: Teach-in button, cable

| Switching mode | Connection type | Туре | Part no. |
|----------------------|--|-------------------|----------|
| Dark/light switching | 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 | Male connector M8, 4-pin | WTT4SLC-3B2262A00 | 1097190 |

• Sub product family: PowerProx Mini Speed

• Functional principle: Photoelectric proximity sensor

• Functional principle detail: Background suppression, Optical time-of-flight

Sensing range max.: 50 mm ... 1,000 mm
 Switching output: push-pull: PNP/NPN

Type of light: visible red lightAdjustment: Teach-in button, cable

| Switching mode | Connection type | Туре | Part no. |
|----------------------|--|-------------------|----------|
| Dark/light switching | 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 | Male connector M8, 4-pin | WTT4SLC-3B2232A00 | 1095755 |
| | | WTT4SLC-3B2232B07 | 1133895 |

• Sub product family: PowerProx Micro

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Functional principle detail: Background suppression, Optical time-of-flight

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

Type of light: Infrared lightAdjustment: Teach-in button

| Switching mode | Switching output | Connection type | Туре | Part no. |
|----------------------|------------------|--|-------------------|----------|
| Dark switching | PNP | Cable with JST-con- nector, 350 mm ¹⁾ | WTT2SL-2F3092S07 | 1112129 |
| | | Cable with JST-connector, 550 mm ¹⁾ | WTT2SL-2F3092S08 | 1112130 |
| Light/dark switching | NPN | Cable with M12 male connector, 4-pin ¹⁾ | WTT2SL-2N3492S02 | 1102712 |
| | | Cable, 4-wire, 2 m ¹⁾ | WTT2SL-2N1192 | 1085601 |
| | PNP | Cable with JST-connector, 300 mm ¹⁾ | WTT2SLC-2P3092B03 | 1102568 |
| | | Cable with JST-connector, 350 mm ¹⁾ | WTT2SL-2F3092S11 | 1123713 |
| | | Cable with M12 male connector, 4-pin, 300 mm ¹⁾ | WTT2SL-2P3492S01 | 1088393 |
| | | Cable with M8 male connector, 4-pin, 200 mm ¹⁾ | WTT2SL-2P3292 | 1085602 |
| | | | WTT2SLC-2P3292A00 | 1090486 |
| | | Cable with M8 male connector, 4-pin, 90 mm ¹⁾ | WTT2SLC-2P3292B02 | 1101641 |
| | | Cable, 4-wire, 2 m ¹⁾ | WTT2SL-2P1192 | 1081626 |

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

• Sub product family: WTT280L-2 Long Range

• Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light/dark switching

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

Type of light: visible red lightAdjustment: Potentiometer

| Switching output | Connection type | Туре | Part no. |
|------------------|----------------------------------|----------------|----------|
| NPN | Cable, 5-wire, 2 m ¹⁾ | WTT280L-2N1531 | 6048067 |
| | Male connector M12, 5-pin | WTT280L-2N2531 | 6048063 |
| PNP | Cable, 5-wire, 2 m ¹⁾ | WTT280L-2P1531 | 6048065 |
| | Male connector M12, 5-pin | WTT280L-2P2531 | 6048061 |

¹⁾ Do not bend below 0 °C.

• Sub product family: WTT280L-2 Long Range

· Analog output: -

• Functional principle: Photoelectric proximity sensor

• Number of switching outputs (type): Q_1 , Q_2

• Functional principle detail: Background suppression, Optical time-of-flight

• Switching mode: Light/dark switching

Type of light: visible red lightAdjustment: Potentiometer

| Sensing range max. | Switching output | Connection type | Туре | Part no. |
|--|------------------|----------------------------------|----------------|----------|
| 200 mm 18,000 mm ¹⁾ 200 mm 18,000 mm | NPN | Cable, 5-wire, 2 m ²⁾ | WLT280L-2N1536 | 6048072 |
| | | Male connector M12, 5-pin | WLT280L-2N2536 | 6048070 |
| | PNP | Cable, 5-wire, 2 m ²⁾ | WLT280L-2P1536 | 6048071 |
| | | Male connector M12, 5-pin | WLT280L-2P2536 | 6048069 |
| 200 mm 4,000 mm ¹⁾ 200 mm 3,000 mm ¹⁾ | NPN | Cable, 5-wire, 2 m ²⁾ | WTT280L-2N1536 | 6048068 |
| | | Male connector M12, 5-pin | WTT280L-2N2536 | 6048064 |
| | PNP | Cable, 5-wire, 2 m ²⁾ | WTT280L-2P1536 | 6048066 |
| | | Male connector M12, 5-pin | WTT280L-2P2536 | 6048062 |

¹⁾ Einstellbar.

 $^{^{2)}}$ Do not bend below 0 °C.

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