WTT280 PowerProx

High-performance photoelectric proximity sensor for use with large sensing distances
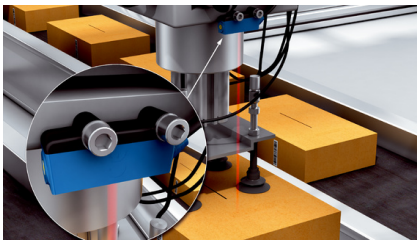
SICK
Sensor Intelligence.

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.
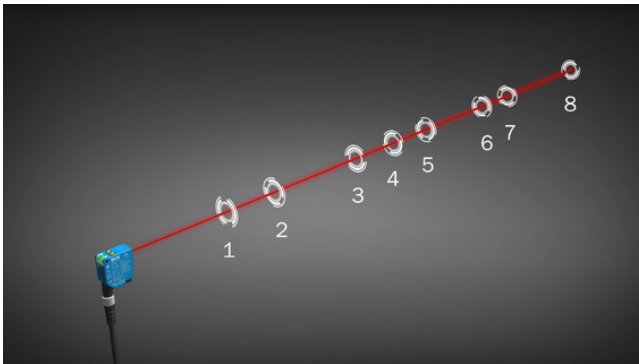

The ideal solution for space-saving use in grippers and robotic elements

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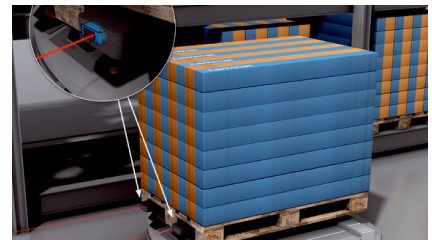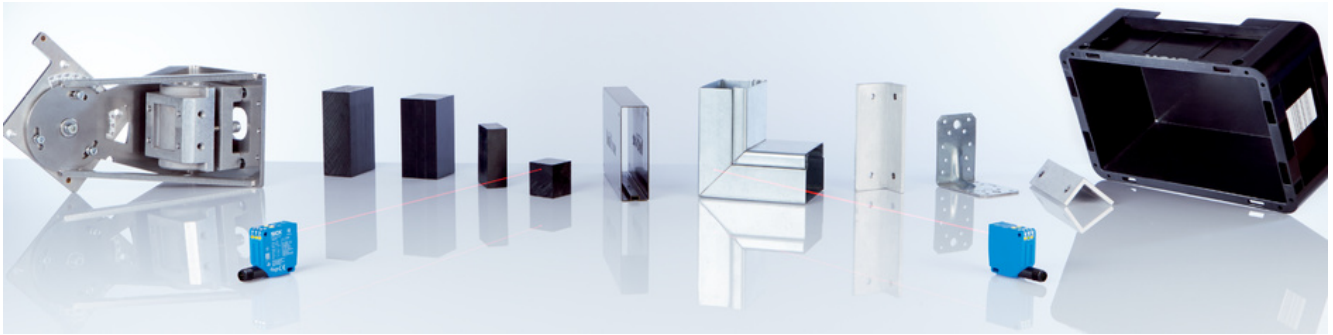

High performance even in tight spaces: Perfect for compact AGV applications

Distance values with millimeter precision and up to eight switching points are available for the automation process via IO-Link
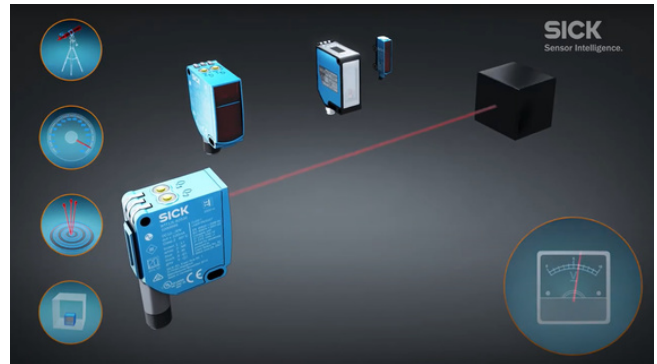
The PowerProx also delivers analog distance data for precise control in mounting technology

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 and distance measurement
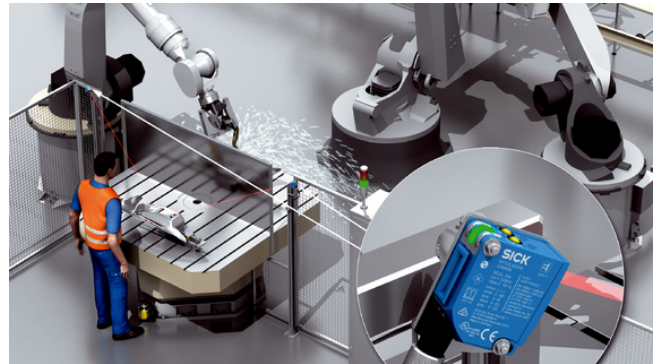
Reliable quality control thanks to high repeatability - even if the surface quality changes

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.
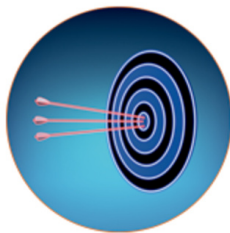
Precisely detects the smallest objects, pockets or recesses

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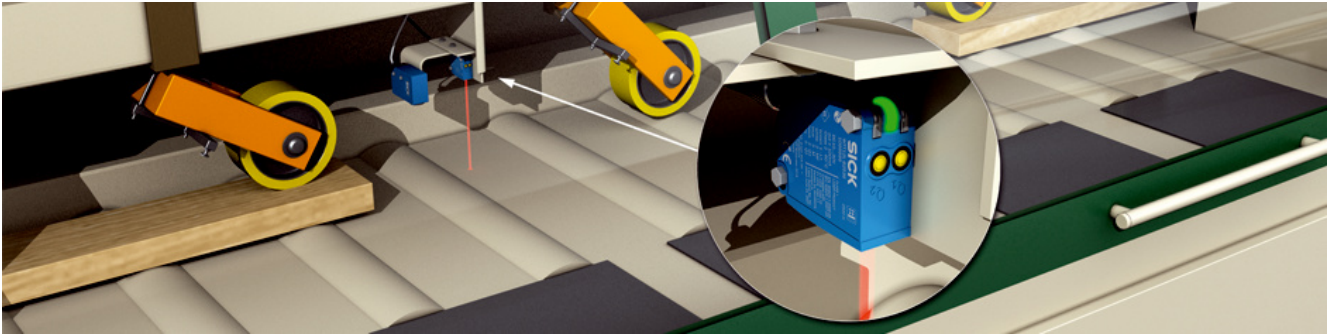
Edge detection in high speed applications due to switching frequencies of up to 1,000 Hz and the high-precision laser beam

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

WTT280 PowerProx

Technical data overview

Response time	≤ 0.5 ms 0.5 ms
Switching frequency	1,000 Hz
Enclosure rating	IP67

Product description

WTT280 PowerProx photoelectric proximity sensors are characterized by their large sensing distance of up to 4 m which can optionally be extended to 18 m. A sensor variant with 2 switching points is available on request. For easy operation, a potentiometer and indicator LED is assigned to each switching point in this variant. The quickly adjustable sensing distance and a bright status indicator ensure ease of use. The well visible, uniform light spot also helps make sensor alignment easy. The integrated protection system prevents interference caused by reflections from shiny metal surfaces, windows or safety vests. This makes it possible to also mount two sensors opposite one another.

At a glance

- Switching frequency up to 1,000 Hz, time-of-flight technology, and background suppression
- Potentiometer and well visible, uniform light spot
- Sensing distance: up to 4 m (optionally up to 18 m)
- Rotatable standard M12 connector as well as light/dark switching
- 2 sensing distances (or 2 switching points) in one device

Your benefits

- Reliable object detection even with reflections and in fast processes
- High user-friendliness through easy sensor adjustment and precise sensor alignment
- High flexibility thanks to numerous application possibilities
- High flexibility thanks to wide variety of mounting possibilities
- Cost savings

Ordering information

Other models and accessories ➜ www.sick.com/WTT280_PowerProx

- **Product version:** 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 light
- **Adjustment:** Potentiometer

Switching output	Connection type	Type	Part no.
NPN	Plug, M12, 5-pin	WTT280L-2N2531	6048063
	Cable, 5-wire, 2 m [1]	WTT280L-2N1531	6048067
PNP	Plug, M12, 5-pin	WTT280L-2P2531	6048061
	Cable, 5-wire, 2 m [1]	WTT280L-2P1531	6048065

[1] Do not bend below 0 °C.

- **Product version:** 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 light
- **Adjustment:** Potentiometer

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

[1] Einstellbar.

[2] Do not bend below 0 °C.

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**

SICK
Sensor Intelligence.