



## Dx80

Raise your precision to the next level

**SICK**  
Sensor Intelligence.

## Advantages



### The power of precision

In production processes, the ability to accurately measure distances is crucial for ensuring consistent product quality and reducing downtimes.



#### Higher efficiency

By achieving precise control over production processes, manual calibrations become obsolete.



#### Better quality

Excellent repeatability efficiently paves the way to fully automated motion procedures without the need of readjustments.



#### Sustainability and resource efficiency

Minimizing deviations reduces the need for redoing work and avoids using more resources than necessary.



**Don't settle for a generic distance sensor – experience the difference!**



### Seamless system integration through IO-Link

DT80 provides both an analog and a digital output signal, becoming intelligent through point-to-point communication through the IO-Link interface. Simply plug the sensor into your existing IO-Link network and you'll be up and running in no time. With

**IO-Link, you can easily and reliably transfer data between sensors, actuators and your control system, making the sensor an ideal solution for smart factories and Industry 4.0 applications.**



#### **Easy replacement of device**

Quick replacement minimizes your production interruptions and guarantees high machine availability.



#### **More options for condition monitoring**

Advanced features such as remote diagnostics enable you to troubleshoot and resolve issues in real time.



#### **Sensor visualization and configuration**

Configure sensor functions to meet your specific application needs.

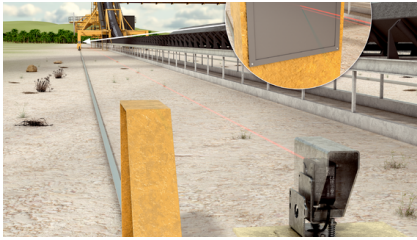


## **Connect, Control, and Communicate**



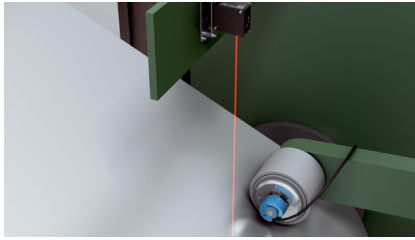
## **Countless possibilities**

**Versatile and durable, the DT80 can be used in countless applications. Its robust metal housing and high IP rating ensure the sensor's reliability in harsh environments. During significant temperature fluctuations and strong sunlight exposure, the DT80s continue to do their job .**



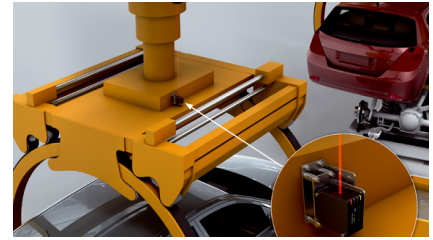
### Mobile Machines

Precision on the move – even in demanding environments



### Machines & Motion

Take control of your production processes and maximize efficiency with the DT80's precision.



### Automotive

The DT80 reliably performs positioning tasks during the production of vehicles, whether it be vehicles with a combustion motor or alternative drive technology.



**Stronger than the Challenge: Embrace the Power of Robustness**



## Technical data overview

<b>Resolution</b>	≥ 0.1 mm
<b>Repeatability</b>	≥ 0.2 mm
<b>Response time</b>	33 ms ... 68 ms <sup>1)</sup>
<b>Output time</b>	33 ms, 50 ms, 100 ms, 200 ms ... 3000 ms <sup>2)</sup>
<b>Analog output</b>	4 mA ... 20 mA, ≤ 450 Ω 0 V ... 10 V, ≥ 10,000 Ω
<b>Digital output</b>	Type Push-pull: PNP/NPN
<b>IO-Link</b>	✓, IO-Link V1.1, COM3 (230,4 kBaud)
<b>Enclosure rating</b>	IP65, IP67
<b>Ambient temperature, operation</b>	-10 °C ... +50 °C, U <sub>V</sub> ≤ 30 V

<sup>1)</sup> Dependent on remission and measuring cycle time.

<sup>2)</sup> Continuously changing data output.

## Product description

The Dx80 is a distance measurement sensor that combines long measuring ranges with outstanding precision. Our engineers have achieved this by selecting advanced materials and technology to create this cutting-edge sensor ready for the world. The Dx80 provides unparalleled accuracy of +/- 2 mm at a maximum range of 80 m. Whether you're a shop-floor architect, professional systems engineer or mobile machine enthusiast, our distance measurement sensor is the perfect tool for any project. Its minimalistic design lets you effortlessly use it in confined spaces. And tough environmental conditions can't harm it: This sensor is built to last.

### At a glance

- Accuracy of +/- 2 mm with a maximum resolution of 0.1 mm
- Measuring ranges from 0.05 m up to 80 m on white and up to 14 m on black
- IO-Link V1.1, analog and digital output
- TFT color display and user-friendly menu navigation
- Elegant metal housing in proven design
- Protection class IP 65 and IP 67
- Reusable existing accessories

### Your benefits

- Highly accurate measurements boost the quality of your processes and saves precious resources
- Long measurement range fulfills the needs of a variety of applications
- Access to extensive sensor data thanks to IO-Link for efficient control of your processes
- The icon-supported color display provides an intuitive user experience and makes commissioning straightforward
- Immunity to ambient light and temperature changes ensures maximum performance in demanding environments.
- The compact metal housing offers excellent options for integrating the sensor in confined installation situations

### Fields of application

- Metal, steel: monitoring of coiling/uncoiling
- Automotive: quality control, robot gripper positioning
- Industrial vehicles: height detection on forklifts
- Consumer goods: position monitoring of molds
- Mobile machines: telescopic arm length measurement on telehandlers
- Port: container detection/positioning

## Ordering information

Other models and accessories → [www.sick.com/Dx80](http://www.sick.com/Dx80)

- **Communication interface:** IO-Link
- **Measuring range:** 50 mm ... 80,000 mm, 90% remission factor, 50 mm ... 40,000 mm, 90% remission factor, 50 mm ... 14,000 mm, 6% remission factor
- **Laser class:** 2

Light source	Minimum response time	Digital output	Type of analog output	Type	Part no.
Laser, red <sup>1)</sup>	33 ms	1 ... 2 x push-pull: PNP/NPN	Current output / voltage output	DT80-311111	1118113

<sup>1)</sup> Wavelength: 655 nm, max. average power: < 1 mW, pulse length: > 400 ps.

## 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](http://www.sick.com)