



## HW198x

Industry-grade area-imaging scanner with huge reading distance

MOBILE HANDHELD SCANNERS

**SICK**  
Sensor Intelligence.

### Advantages

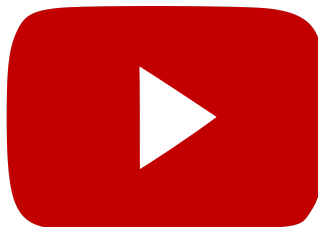


### Integration into industrial networks

Using modular connection technology, the mobile handheld scanners from SICK can be integrated into numerous fieldbus technologies such as PROFIBUS DP, PROFINET IO/RT, Ethernet TCP/IP, or EtherCAT®. When used in systems such as fixed 1D and 2D cameras or RFID read/write devices, the AUX loop-in is an economical solution.



Especially when it comes to stationary track and trace systems, manual mobile code reading is often required as a back-up. This can be done economically with AUX loop-in.



This video tutorial gives an example of the materials and steps required for integration in a fieldbus network.



Simple PROFIBUS integration into large track and trace systems is possible using the Connection Device Fieldbus fieldbus module.



**Simple integration into numerous fieldbus technologies and AUX loop-in for identification systems using modular connectivity**



## Industrial-grade mobile handheld scanners with large reading distance and area imaging

The HW198x 2D mobile hand-held scanner uses area-imaging technology to read 1D and 2D codes from a reading distance of 15 cm up to an impressive 16 m. Whether you're dealing with 7.5 mil codes, printed to a poor standard of quality, or reflective 100 mil codes under a warehouse roof, the HW198x ensures high throughput rates and optimum productivity even under extreme conditions. Easy integration into industrial fieldbuses such as PROFIBUS or Ethernet TCP/IP using SICK connection modules enables use in more complex systems. The combination of reliable code reading, rugged design, and SICK connectivity facilitates use in an extremely wide range of industrial applications.



Increase in productivity for manned forklift truck applications: No more time is wasted while the driver repeatedly gets in and out of the vehicle.



Universal code reading in the field of logistics automation: The large reading distance enables the detection of codes from a wide range of distances.



The large reading distance makes it possible to read bar codes on pallets in high-bay warehouses or on stacked containers in marshaling yards.

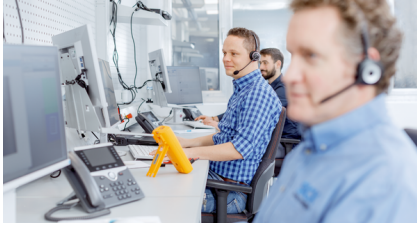


**Compact, extremely rugged and shock resistant - for convenient 2D code reading at distances of up to 16 m**

## SICK LifeTime Services

SICK's services increase machine and plant productivity, enhance the safety of people all over the world, provide a solid foundation for a sustainable business operation, and protect investment goods. In addition to its usual consulting services, SICK provides direct on-site support during the conceptual design and commissioning phases as well as during operation.

The range of services not only covers aspects like maintenance and inspection, but also includes performance checks as well as upgrades and retrofits. Modular or customized service contracts extend the service life of plants and therefore increase their availability. If faults occur or limit values are exceeded, these are detected at all times by the corresponding sensors and systems.



### **Consulting and design**

Application-specific advice on the product, its integration and the application itself.



### **commissioning and maintenance**

Application-optimized and sustainable — thanks to professional commissioning and maintenance by a trained SICK service technician.



### **service contracts**

Extended warranty, SICK Remote Service, 24-hour helpdesk, maintenance, availability guarantees and other modular components can be individually combined on request.



### Technical data overview

<b>Application</b>	Industrial application
<b>Readable code structures</b>	1D codes, 2D codes, Stacked
<b>Code resolution</b>	$\geq 0.05 \text{ mm}^{1)}$ $\geq 2 \text{ mm}^{2)}$
<b>Reading distance</b>	150 mm ... 16,000 mm
<b>Sensor</b>	1,280 px x 800 px
<b>Ambient operating temperature</b>	-30 °C ... +50 °C (depending on type)
<b>Enclosure rating</b>	IP65 / IP51 / IP65 (depending on type)
<b>Shock resistance</b>	50 drop tests onto concrete from a height of 2 m at -30 °C
<b>Ethernet</b>	✓, TCP/IP, optional over external fieldbus module / ✓, TCP/IP, Optional, over external connection module (depending on type)
<b>PROFINET</b>	✓, optional over external fieldbus module
<b>EtherCAT</b>	✓, optional over external fieldbus module
<b>Serial</b>	✓, RS-232 TTL
<b>PROFIBUS DP</b>	✓, optional over external fieldbus module
<b>USB</b>	✓
<b>PS/2</b>	✓
<b>Bluetooth</b>	✓

<sup>1)</sup> Close range.

<sup>2)</sup> Distance range.

### Product description

The HW198x 2D mobile hand-held scanner uses area-imaging technology to read 1D and 2D codes from an outstanding reading distance – from 15 cm up to an incredible 16 m. Whether you're dealing with 7.5 mil codes on paper, printed to a poor standard of quality, or reflective 100 mil codes directly under a warehouse roof, the HW198x ensures high throughput rates and optimum productivity even under extreme conditions. Easy integration into industrial fieldbuses such as PROFIBUS or Ethernet TCP/IP using SICK connection modules enables use in more complex systems. The combination of reliable code reading, rugged design, and fieldbus connectivity from SICK facilitates use in an extremely wide range of industrial applications.

### At a glance

- 1D and 2D code reading with only one device over a huge reading distance range of 15 cm to 16 m
- Wired and Bluetooth versions available (up to 100 m distance)
- Fieldbus connection modules for PROFIBUS, PROFINET, Ethernet TCP/IP, EtherCAT®

### Your benefits

- Improved productivity: Pallets that are far away can be scanned from a sitting position in a manned forklift truck, for example, saving time
- Unrivalled service life, for example in cold-storage warehouses: Enclosure rating IP65, withstands 50 falls on concrete from a height of 2 m and 5,000 impacts (centrifuge test with 1 m bobbin), even at temperatures as low as -30 °C.
- Intuitive operation: Laser target beam, reading independent of direction, and focused reading in the scanning field center for precise operation over a wide scanning area
- Universal device reduces variants: Suitable for all tasks in a distribution center or warehouse

### Fields of application

- Manned forklift truck applications: Reading of bar codes from a distance, on pallets in high-bay warehouses or on stacked containers in marshaling yards or ports
- Universal device for all tasks in a distribution center or warehouse

### Ordering information

Other models and accessories → [www.sick.com/HW198x](http://www.sick.com/HW198x)

- **Codes/data cards:** 1D codes, 2D codes, Stacked
- **Reading distance:** 150 mm ... 16,000 mm
- **Code resolution:** ≥ 0.05 mm (Close range.), ≥ 2 mm (Distance range.)
- **Application:** Industrial application
- **Note:** Additional accessories may be necessary for some communication interfaces (details available online)

Scanner design	Items supplied	Communication interface	Ambient operating temperature	Type	Part no.
Cable connection variant	Kit	Ethernet, PROFINET, EtherCAT®, Serial, PROFIBUS DP	-30 °C ... +50 °C	HW1980IFR-3SER KIT	6059466
		Serial, USB, PS/2	-30 °C ... +50 °C	HW1980IFR-3USB KIT	6059465
	Single scanner	Ethernet, PROFINET, EtherCAT®, Serial, PROFIBUS DP, USB, PS/2	-30 °C ... +50 °C	HW1980IFR-3	6067057
Wireless variant	Kit	Ethernet, PROFINET, EtherCAT®, Serial, PROFIBUS DP, Bluetooth	-20 °C ... +50 °C	HW1981IFR-3SER-5 KIT	6059463
		Serial, USB, PS/2, Bluetooth	-20 °C ... +50 °C	HW1981IFR-3USB-5 KIT	6059464
	Single scanner	Ethernet, PROFINET, EtherCAT®, Serial, PROFIBUS DP, USB, PS/2, Bluetooth	-20 °C ... +50 °C	HW1981IFR-3	6067058



## 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)