



Dx100 Long Range Distance Sensors

Leading in versatility and flexibility

SICK
Sensor Intelligence.

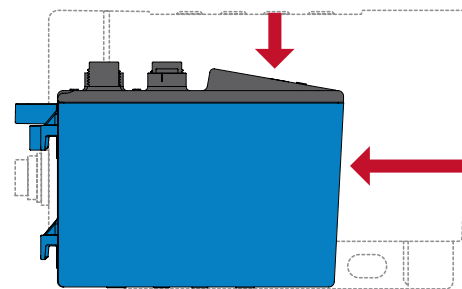


When positioning cranes and in automated storage and retrieval systems, accuracy, speed and minimal downtimes are the key to success. The product family Dx100 has been adapted to increasing drive speeds and now analyzes the signals in the control circuit even faster than before. The sensors feature preventive maintenance functions and send information to the control station if, for example, maintenance is required because of a contaminated working environment. Additional interfaces, bus capability and an innovative mounting concept improve the top performance of this product family even further.

Significantly smaller than comparable distance sensors

The housing dimensions of the Dx100 product family are 119.9 mm x 82.5 mm x 69.4 mm making them the smallest sensors in their performance class.

- ⊕ New application possibilities.
- ⊕ Low weight.
- ⊕ Easy to mount.



One housing, flexible content

The modular concept of the Dx100 platform means: one housing version with flexible content for different fields of application.

Because of this, performance can be tailored to, and selected on the basis of the application in question.

- ⊕ Only the required interfaces.
- ⊕ Only the required resolution.
- ⊕ Only the required accuracy.
- That means: only the costs for the required performance.

Innovative mounting system

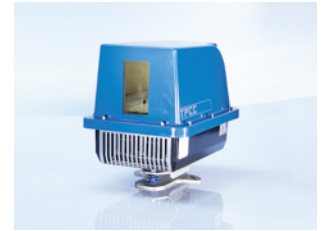
Because the housing of all Dx100 versions is identical, the mechanical interfaces and accessories are the same for all versions.

- ⊕ Reduced logistic and storage costs.
- ⊕ Fast mounting and simple replacement of equipment.
- ⊕ Easy mounting:
 - 1 Mount the device in the precisely fitting plate.
 - 2 Tighten it using the black adjustment screw.
 - 3 Perform fine adjustment using 3 spring-loaded screws.



→ Increased performance and lower operating costs make the sensors of the Dx100 product family the optimal choice for your application.

Thermo Protection Cooling Case (TPCC) – keeps the sensor cool and inside the temperature operating range



The Thermo Protection Cooling Case (TPCC) from SICK cools and protects laser-based sensors. By extending the sensor service life, it also contributes to protecting your investment.

With a maintenance-free Peltier cooler (24 V/15 A), the TPCC offers efficient protection at ambient temperatures from $-20\text{ }^{\circ}\text{C}$ to $+75\text{ }^{\circ}\text{C}$. The internal temperature is thermostat-controlled. If the temperature becomes too high, the TPCC shuts itself down automatically.

High temperature ranges, harsh environmental conditions

The use of the TPCC is particularly appropriate in locations with high ambient temperatures due to the process environment.

The TPCC is perfect for use:

- in the steel industry
- in the paper industry
- in glass manufacturing
- on overhead cranes under the ceiling of industrial buildings
- in countries and locations where high ambient temperatures can be expected

The rugged fibre glass housing with protective front screen offers additional protection against mechanical damage and remains dimensionally stable up to $+140\text{ }^{\circ}\text{C}$. This temperature is beyond the maximum value specified for the TPCC.

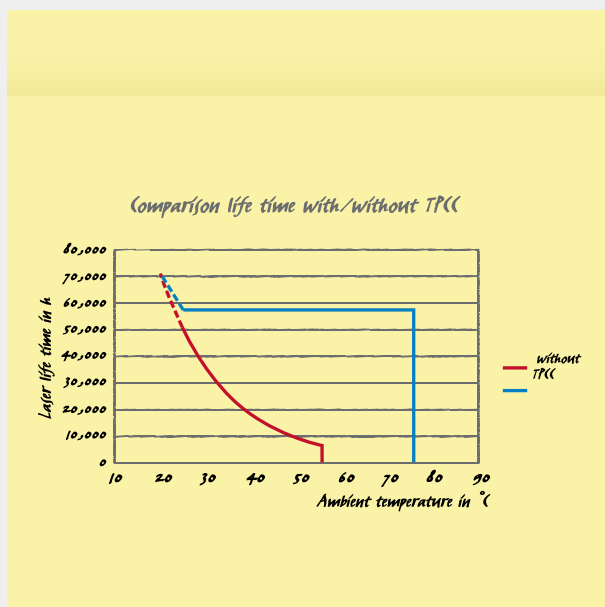
Increased sensor availability, extended service life

Due to physics of laser diodes, the service life of the laser halves for each $10\text{ }^{\circ}\text{C}$ increase in temperature (cf. diagram). By using the TPCC, the sensor is actively cooled by means of the Peltier effect. This extends the service life of the laser – and thus of your sensor: at $25\text{ }^{\circ}\text{C}$ it will already be extended by 15 %, at $45\text{ }^{\circ}\text{C}$ by 400 %.

In addition:

The low internal temperature of the TPCC also offers economic advantages. The constant conditions within the TPCC ensure that the measured values are more accurate. Sensor availability increases, and unexpected failures and system downtime can be avoided.

Benefit: replacement costs are reduced and productivity increases.



The amortization period for the TPCC is dependent on the purchase price of the sensor, the daily operating time of the sensor, and the prevailing ambient temperatures.

One will quickly discover that this is a worthwhile investment which saves a lot of money down the line.

DME to Dx100 upgrade kit: Straightforward sensor replacement to ensure the availability of your system



Upgrade kits from SICK often provide a cost-effective alternative to purchasing a brand new drive and control system. These solutions enable quick and easy integration of the latest technology, in order to increase the productivity of existing systems.

In the event of upcoming modernization of systems, preventative replacement of DME distance sensors after years of use: SICK DME-Dx100 upgrade kits are designed for carrying out the conversion of the tried and tested DME distance sensors to the current Dx100 with the least possible cost and effort.

We will also be happy to assist you with conversion at your site. Contact us!

Tailor-made, easy to use

The DME-Dx100 upgrade kit is characterized by a range of special features:

- ⊕ Upgrade kit specifically tailored to the application
- ⊕ All accessories required at the site are included ¹⁾
- ⊕ The enclosed upgrade instructions describe the detailed steps involved
- ⊕ The Dx100 is mechanically mounted on DME hole pattern using an adapter plate
- ⊕ Electrical connections are established with preassembled adapter cables

¹⁾ The Dx100 distance sensor is not included in the upgrade kit and must be selected and ordered separately.

Early conversion, clear advantages

Decide to upgrade soon using the tailor-made DME-Dx100 upgrade kit – and you will enjoy all the economic benefits:











- ⊕ Boost the productivity of your system by using the latest technology
- ⊕ Maximum system availability combined with minimum downtime during conversion
- ⊕ Avoid costly and unscheduled outage times by taking the precautionary step of converting your system to Dx100
- ⊕ Convert your existing system cost-effectively in just a few steps



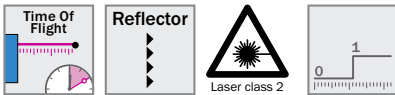
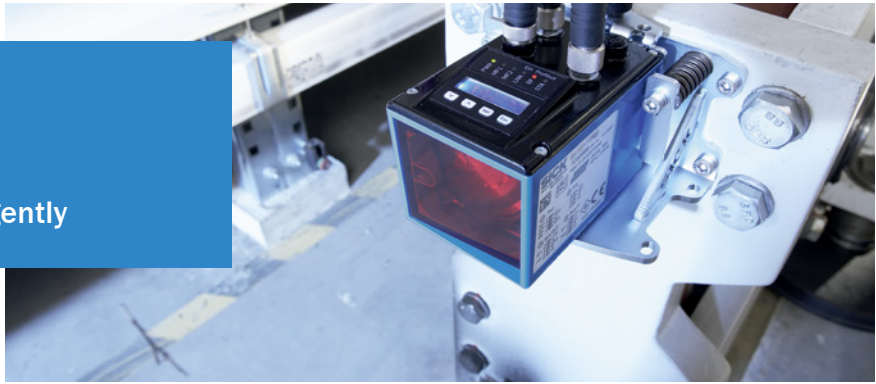
DME to Dx100 upgrade kit ordering information

| Previously available in the system | Data interface | Model name Dx100 | Upgrade kit model name | Upgrade kit part no. |
|------------------------------------|----------------|------------------|-------------------------|----------------------|
| DME3000 | SSI | Dx100-xxxxxx01 | DME3-Dx100 SSI/RS-422 | 2065223 |
| | PROFIBUS | Dx100-xxxxxx02 | DME3-Dx100 PROFIBUS | 2065222 |
| | RS-422 | Dx100-xxxxxx03 | DME3-Dx100 SSI/RS-422 | 2065223 |
| DME4000/ DME5000 | SSI | Dx100-xxxxxx01 | DME4/5-Dx100 SSI/RS-422 | 2065221 |
| | PROFIBUS | Dx100-xxxxxx02 | DME4/5-Dx100 PROFIBUS | 2065220 |
| | RS-422 | Dx100-xxxxxx03 | DME4/5-Dx100 SSI/RS-422 | 2065221 |

Product family overview

| | | |
|--------------------------------|---|---|
| |  <p>DL100</p> |  <p>DL100 Hi</p> |
| | Solve positioning tasks intelligently | Reliable, fast, precise positioning |
| Technical data overview | | |
| Measuring range | 0.15 m ... 60 m 0.15 m ... 130 m 0.15 m ... 220 m | 0.15 m ... 100 m 0.15 m ... 200 m 0.15 m ... 300 m |
| Repeatability | 1.5 mm (at dead time 10 ms), 0.75 mm (at dead time 30 ms) 2 mm (at dead time 10 ms), 1 mm (at dead time 30 ms) 2.5 mm (at dead time 10 ms), 1.25 mm (at dead time 30 ms) | 0.5 mm 1 mm 2 mm |
| Accuracy | ± 3 mm ± 4 mm ± 5 mm | ± 2 mm ± 2.5 mm ± 3 mm |
| Interfaces overview | SSI PROFIBUS RS-422 PROFINET CANopen | SSI PROFIBUS RS-422 PROFINET CANopen |
| Ambient temperature | Operation: -20 °C ... +55 °C Operation with cooling case: -20 °C ... +75 °C Operation with heating: -40 °C ... +55 °C Operation with cooling case: -40 °C ... +75 °C Storage: -40 °C ... +75 °C | Operation: -20 °C ... +55 °C Operation with cooling case: -20 °C ... +75 °C Operation with heating: -40 °C ... +55 °C Operation with cooling case: -40 °C ... +75 °C Storage: -40 °C ... +75 °C |
| Output rate | Synchronous to PLC request | Synchronous to PLC request |
| Light source | Laser, red | Laser, red |
| At a glance | | |
| |     |     |
| | <ul style="list-style-type: none"> • Measuring range up to 220 m • Numerous fieldbus interfaces • Pre-failure notification and diagnostic data available • Display with intuitive menu structure and clearly visible status LEDs • Small, rugged metal housing • 3-axis alignment bracket with quick-lock system • Elongated holes for zero point adjustment during device replacement | <ul style="list-style-type: none"> • Measuring range up to 300 m • Numerous fieldbus interfaces • Pre-failure notification and diagnostic data available • Display with intuitive menu and easy to see status LEDs • Small and rugged metal housing • 3-axis alignment bracket with quick lock system • Elongated holes for precise adjustment of sensor offset • SPEEDCON™ and standard M12 electrical connections |
| Detailed information | → 9 | → 16 |

Solve positioning tasks intelligently



Product description

The distance sensors in the DL100 product family focus on what really matters – a sound, reliable solution for standard positioning tasks – and combine leading-edge technology with an innovative design. The phase-shift laser measurement process ensures a high level of accuracy, even at sensing ranges of up to 220 m. Additionally, this equipment affords optimum handling thanks to the

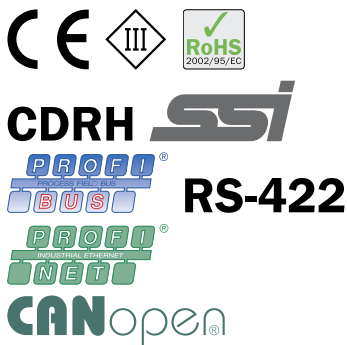
alignment bracket, a housing that is the smallest in this sensor class, plus its sophisticated connection design uses quick lock cables. The DL100 product family is based on a concept that is designed to achieve a low total cost of ownership, making it an attractive choice. It offers the right solution to accommodate any need.

At a glance

- Measuring range up to 220 m
- Numerous fieldbus interfaces
- Pre-failure notification and diagnostic data available
- Display with intuitive menu structure and clearly visible status LEDs
- Small, rugged metal housing
- 3-axis alignment bracket with quick-lock system
- Elongated holes for zero point adjustment during device replacement

Your benefits

- 100,000 hours of laser service life ensures that the sensor will have a long, useful life with maximum reliability
- Versions with integrated heating enable reliable use at ambient temperatures at up to -40 °C. The TPCC cooling housing, available as an option, enables use at up to +75 °C
- The numerous interfaces offer a high degree of flexibility as well as rapid communication for maximum productivity
- Pre-failure notification and diagnostic data for maximum plant availability
- Small, rugged metal housing with SpeedCon™ compatible connectors ensures smooth handling – even in confined spaces
- Alignment bracket with quick lock system ensures fast alignment and easy device replacement, reducing maintenance and mounting costs



Additional information

Detailed technical data. 10

Ordering information. 11

Dimensional drawing 12

Adjustments 13

Connection type and diagram 13

Recommended accessories 14

→ www.mysick.com/en/DL100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Detailed technical data

Performance

| | |
|--|---------------------------------------|
| Resolution | 0.1 mm, 0.125 mm, 1 mm, 10 mm, 100 mm |
| Output rate | Synchronous to PLC request |
| Light source ¹⁾ | Laser, red |
| Laser protection class | 2 (EN 60825-1 / CDRH) |
| Typ. light spot size (distance) | 5 mm (+ 2 mm x distance in m) |
| Max. movement speed | 10 m/s |
| Internal measurement cycle | 1 ms |

¹⁾ Average service life of 100,000 h at $T_A = +25 \text{ }^\circ\text{C}$.

Interfaces

| | |
|--|-------------------------|
| Switching output ¹⁾ | B (push/pull), MF1, MF2 |
| Multifunctional input ²⁾ | 1 x MF1 |

¹⁾ HIGH > $V_S - 3 \text{ V}$ / LOW < 2 V.

²⁾ HIGH > 12 V / LOW < 3 V.

Mechanics/electronics

| | |
|--|--|
| Supply voltage V_S | DC 18 V ... 30 V, limit values |
| Ripple ¹⁾ | 5 V_{pp} |
| Initialization time ²⁾ | Typ. 1.5 s |
| Housing material | Aluminum/zinc die-cast |
| Connection type | Connector M12, SPEEDCON™ compatible |
| Indication | 6 digit 5 x 7 dot matrix display, LEDs |
| Weight ³⁾ | Approx. 800 g ... 1,600 g |
| Output current I_A ⁴⁾ | ≤ 100 mA |

¹⁾ May not fall short of or exceed V_S tolerances.

²⁾ After loss of reflector < 40 ms.

³⁾ Without mounting bracket: approx. 800 g, with mounting bracket: approx. 1,600 g.

⁴⁾ Short circuit/overload protected. Max. 100 nF / 20 mH.

Ambient data

| | |
|--|---|
| Enclosure rating | IP 65 |
| Protection class | III |
| Electromagnetic compatibility (EMC) ¹⁾ | EN 61000-6-2, EN 61000-6-4 |
| Effect of air pressure | 0.3 ppm/hPa |
| Effect of air temperature | 1 ppm/K |
| Temperature drift | Typ. 0.1 mm/K |
| Mechanical load | Shock: EN 600 68-2-27 Sine: EN 600 68-2-6 Noise: EN 600 68-2-64 |

¹⁾ This is a Class A device. This device can cause radio interference in living quarters.

Ordering information

| Ambient temperature | Power consumption | Measuring range ²⁾ | Accuracy | Repeatability ³⁾ | Interface | Model name | Part no. |
|---|--------------------------|--|----------|--|-----------|----------------|----------|
| Operation -20 °C ... +55 °C ¹⁾ Operation with cooling case -20 °C ... +75 °C Storage -40 °C ... +75 °C | At 24 V DC < 250 mA | 0.15 m ... 60 m | ± 3 mm | 1.5 mm (at dead time 10 ms), 0.75 mm (at dead time 30 ms) | SSI | DL100-11AA2101 | 1059957 |
| | | | | | PROFIBUS | DL100-11AA2102 | 1059959 |
| | | | | | RS-422 | DL100-11AA2103 | 1059961 |
| | | | | | PROFINET | DL100-11AA2112 | 1060045 |
| | | 0.15 m ... 130 m | ± 4 mm | 2 mm (at dead time 10 ms), 1 mm (at dead time 30 ms) | CANopen | DL100-11AA2109 | 1060392 |
| | | | | | SSI | DL100-12AA2101 | 1059963 |
| | | | | | PROFIBUS | DL100-12AA2102 | 1059965 |
| | | | | | RS-422 | DL100-12AA2103 | 1059967 |
| | | 0.15 m ... 220 m | ± 5 mm | 2.5 mm (at dead time 10 ms), 1.25 mm (at dead time 30 ms) | PROFINET | DL100-12AA2112 | 1060047 |
| | | | | | CANopen | DL100-12AA2109 | 1060394 |
| | | | | | SSI | DL100-13AA2101 | 1059969 |
| | | | | | PROFIBUS | DL100-13AA2102 | 1059971 |
| Operation with heating -40 °C ... +55 °C ¹⁾ Operation with cooling case -40 °C ... +75 °C Storage -40 °C ... +75 °C | At 24 V DC < 1,000 mA | 0.15 m ... 60 m | ± 3 mm | 1.5 mm (at dead time 10 ms), 0.75 mm (at dead time 30 ms) | RS-422 | DL100-13AA2103 | 1059973 |
| | | | | | PROFINET | DL100-13AA2112 | 1060049 |
| | | | | | CANopen | DL100-13AA2109 | 1060396 |
| | | | | | SSI | DL100-11HA2101 | 1059958 |
| | | 0.15 m ... 130 m | ± 4 mm | 2 mm (at dead time 10 ms), 1 mm (at dead time 30 ms) | PROFIBUS | DL100-11HA2102 | 1059960 |
| | | | | | RS-422 | DL100-11HA2103 | 1059962 |
| | | | | | PROFINET | DL100-11HA2112 | 1060046 |
| | | | | | CANopen | DL100-11HA2109 | 1060393 |
| | | 0.15 m ... 220 m | ± 5 mm | 2.5 mm (at dead time 10 ms), 1.25 mm (at dead time 30 ms) | SSI | DL100-12HA2101 | 1059964 |
| | | | | | PROFIBUS | DL100-12HA2102 | 1059966 |
| | | | | | RS-422 | DL100-12HA2103 | 1059968 |
| | | | | | PROFINET | DL100-12HA2112 | 1060048 |
| 0.15 m ... 220 m | ± 5 mm | 2.5 mm (at dead time 10 ms), 1.25 mm (at dead time 30 ms) | CANopen | DL100-12HA2109 | 1060395 | | |
| | | | SSI | DL100-13HA2101 | 1059970 | | |
| | | | PROFIBUS | DL100-13HA2102 | 1059972 | | |
| | | | RS-422 | DL100-13HA2103 | 1059974 | | |
| 0.15 m ... 220 m | ± 5 mm | 2.5 mm (at dead time 10 ms), 1.25 mm (at dead time 30 ms) | PROFINET | DL100-13HA2112 | 1060050 | | |
| | | | CANopen | DL100-13HA2109 | 1060397 | | |

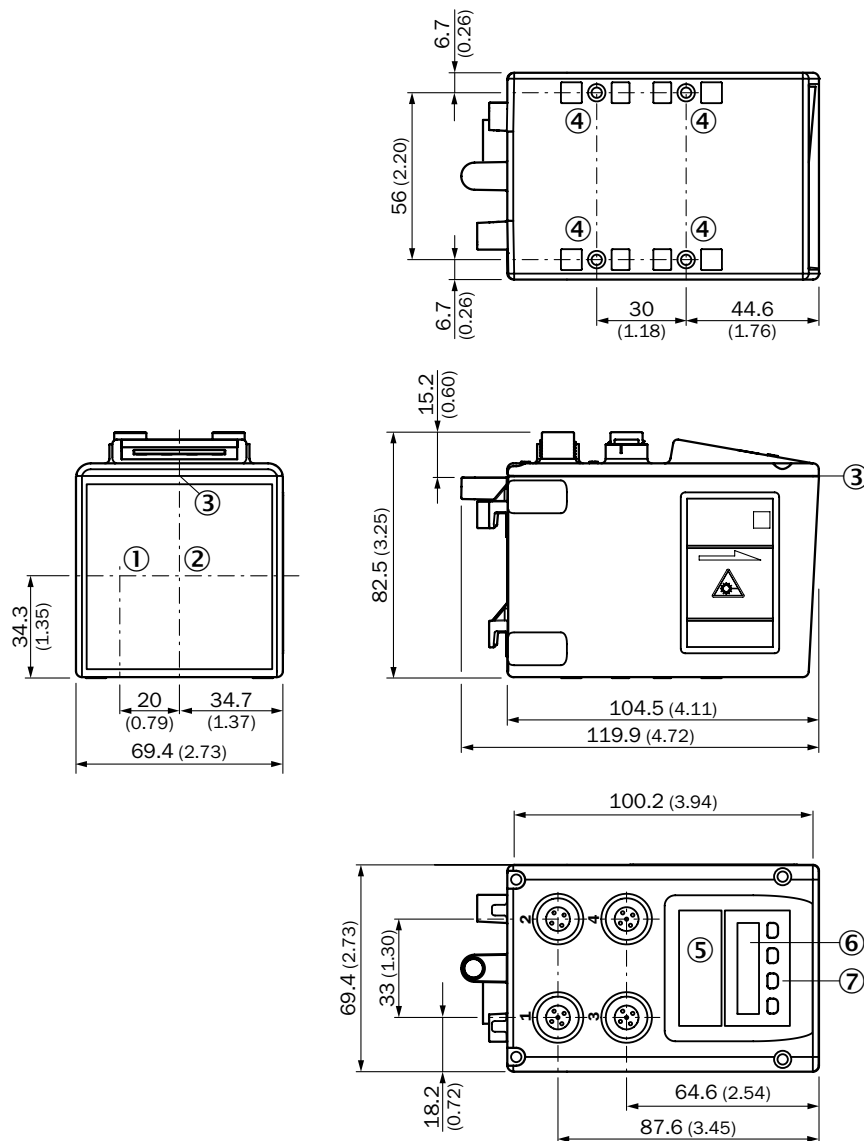
¹⁾ Temperatures < -10 °C require warm-up time of typ. 7 minutes.

²⁾ On reflective tape "Diamond Grade".

³⁾ Statistical error 1 σ , environmental conditions constant, depending on operating mode.

Dimensional drawing

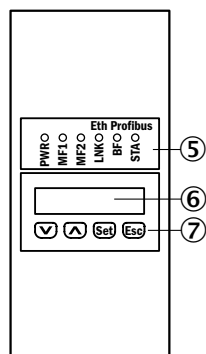
dimensions in mm



- ① Optical axis, sender
- ② Optical axis, receiver
- ③ Zero level
- ④ Threaded mounting hole M5
- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

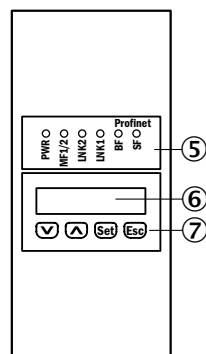
Adjustments

DL100-xxXXxx02



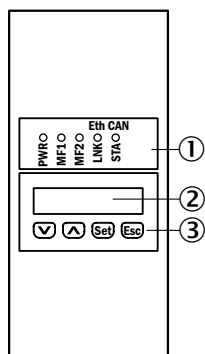
- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

DL100-xxXXxx12



- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

DL100-xxXXxx09

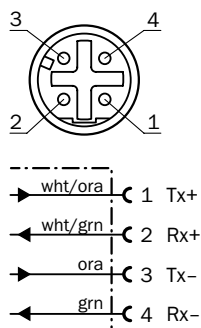


- ① Status LED [status]
- ② Display
- ③ Control elements

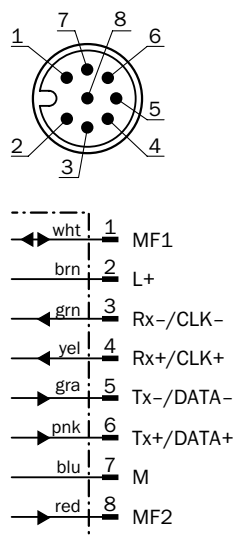
Connection type and diagram

Please note: Since wire color on 8-pin connection cables are not normed, always check for a correct pin to wire color assignment when using connection cables other than specified here.

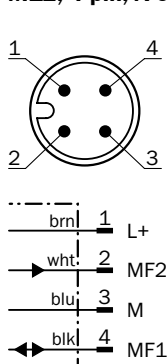
Dx100 Ethernet Socket M12, 4-pin, D-coded



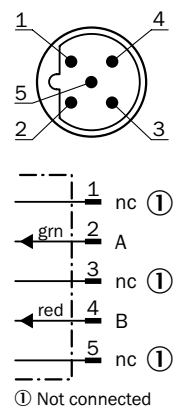
Dx100 SSI, RS-422 Connector M12, 8-pin, A-coded

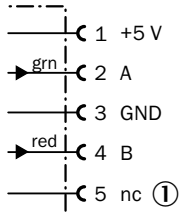
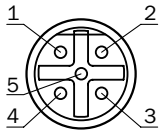


Dx100 PROFIBUS/PROFINET/CANopen Connector M12, 4-pin, A-coded

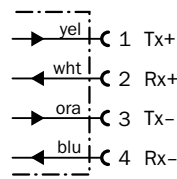
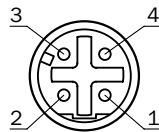
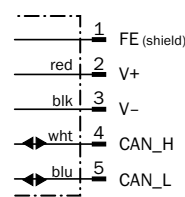
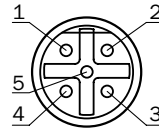
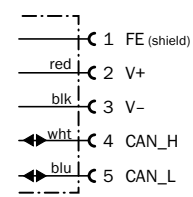
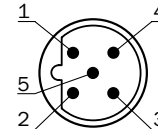


Dx100 PROFIBUS IN Connector M12, 5-pin B-coded



**Dx100 PROFIBUS OUT
Connector
M12, 5-pin, B-coded**


① Not connected


**Dx100 PROFINET, Port 1/
Port 2
Socket
M12, 4-pin, D-coded**

**Dx100 CANopen
Socket
M12, 5-pin, CANout**

**Dx100 CANopen
Socket
M12, 5-pin, CANin**


Recommended accessories


Plug connectors and cables

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|--------------------------------|---|------------------|----------|-----------|----------------|--------------|----------------|---------------|
| <p>Illustration may differ</p> | Female connector, M12, 4-pin, straight, 2 m, PVC | DOL-1204-G02M | 6009382 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 5 m, PVC | DOL-1204-G05M | 6009866 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 10 m, PVC | DOL-1204-G10M | 6010543 | - | ● | - | ● | ● |
| | Female connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | DOL-1205-G05MQ | 6026006 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | DOL-1205-G10MQ | 6026008 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | DOL-1205-G15MQ | 6032637 | - | ● | - | - | - |
| | Female connector, M12, 8-pin., straight, 2 m, PUR halogen free, shielded | DOL-1208-G02MAH1 | 6032448 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 5 m, PUR halogen free, shielded | DOL-1208-G05MAH1 | 6032449 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 10 m, PUR halogen free, shielded | DOL-1208-G10MAH1 | 6032450 | ● | - | ● | - | - |
| | Male connector, M12, 4-pin, straight, PROFIBUS, terminal resistor | PR-STE-END | 6021156 | - | ● | - | - | - |
| | Connection cable, Ethernet patch cable, 2 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G02ME | 6034414 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 5 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G05ME | 6035389 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 10 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G10ME | 6030928 | ● | ● | ● | - | ● |
| | Connecting cable, M12 male connector, straight, to open end, 2 m | SSL-1204-G02MZ90 | 6048247 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 5 m | STL-1204-G05MZ90 | 6048248 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 10 m | STL-1204-G10MZ90 | 6048249 | - | - | - | ● | - |
| | Male connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | STL-1205-G05MQ | 6026005 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | STL-1205-G10MQ | 6026007 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | STL-1205-G15MQ | 6036898 | - | ● | - | - | - |

Reflectors

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Reflector plate, DG tape 665 mm x 665 mm, material: base plate aluminum, screw connection | PL560DG | 1016806 | ● | ● | ● | ● | ● |

Terminal and alignment brackets

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|--------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Alignment unit for Dx100, steel, zinc coated, incl. mounting material | BEF-AH-DX100 | 2058653 | ● | ● | ● | ● | ● |

For additional accessories, please see page 23.

Reliable, fast, precise positioning



Time Of Flight

Reflector

Performance

Laser class 2

CDRH SSI

PROFI[®]

BUS[®] **RS-422**

PROFI[®]

NET[®]

CANopen[®]

Additional information

Detailed technical data..... 17

Ordering information..... 18

Dimensional drawing 19

Adjustments 20

Connection type and diagram 20

Recommended accessories..... 21

Product description

The DL100 Hi family combines leading edge technology with innovative design. The product's phase-shift measurement technology ensures the highest performance, which, in co-operation with drives manufacturers, has been optimized for perfect integration into closed control

loops. Our innovative 3-axis bracket, the smallest housing in its sensor class, as well as the intelligent quick lock system with fast connectors, offers optimized handling and reduced costs of ownership.

At a glance

- Measuring range up to 300 m
- Numerous fieldbus interfaces
- Pre-failure notification and diagnostic data available
- Display with intuitive menu and easy to see status LEDs
- Small and rugged metal housing
- 3-axis alignment bracket with quick lock system
- Elongated holes for precise adjustment of sensor offset
- SPEEDCON™ and standard M12 electrical connections

Your benefits

- Enhanced closed-loop behavior offers highest performance and productivity
- Operating temperature down to -40 °C ensures the highest reliability in cold storage warehouses and freezers
- Numerous fieldbus and Ethernet-based interfaces offer the highest flexibility and fast communication for maximum efficiency
- Pre-failure and extensive diagnostic data allow for preventive maintenance, ensuring the highest machine uptime
- Small, rugged metal housing and SpeedCon™ compatible connectors ensure hassle-free installation – even in confined spaces
- 3-axis alignment bracket ensures fast alignment and easy exchange, reducing maintenance and setup costs
- Numerous accessories allow flexible use and guarantee high operation functionality

→ www.mysick.com/en/DL100_Hi

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Detailed technical data

Performance

| | |
|--|---------------------------------------|
| Resolution | 0.1 mm, 0.125 mm, 1 mm, 10 mm, 100 mm |
| Dead time | 2 ms |
| Output rate | Synchronous to PLC request |
| Light source ¹⁾ | Laser, red |
| Laser protection class | 2 (EN 60825-1 / CDRH) |
| Typ. light spot size (distance) | 5 mm (+ 2 mm x distance in m) |
| Max. movement speed | 10 m/s |
| Acceleration (max.) | ≤ 15 m/s ² |
| Internal measurement cycle | 1 ms |

¹⁾ Average service life of 100,000 h at $T_A = +25 \text{ }^\circ\text{C}$.

Interfaces

| | |
|--|-------------------------|
| Switching output ¹⁾ | B (push/pull), MF1, MF2 |
| Multifunctional input ²⁾ | 1 x MF1 |

¹⁾ HIGH > $V_S - 3 \text{ V}$ / LOW < 2 V.

²⁾ HIGH > 12 V / LOW < 3 V.

Mechanics/electronics

| | |
|--|--|
| Supply voltage V_S | DC 18 V ... 30 V, limit values |
| Ripple ¹⁾ | 5 V _{pp} |
| Initialization time ²⁾ | Typ. 1.5 s |
| Housing material | Aluminum/zinc die-cast |
| Connection type | Connector M12, SPEEDCON™ compatible |
| Indication | 6 digit 5 x 7 dot matrix display, LEDs |
| Weight ³⁾ | Approx. 800 g ... 1,600 g |
| Output current I_A ⁴⁾ | ≤ 100 mA |

¹⁾ May not fall short of or exceed V_S tolerances.

²⁾ After loss of reflector < 40 ms.

³⁾ Without mounting bracket: approx. 800 g, with mounting bracket: approx. 1,600 g.

⁴⁾ Short circuit/overload protected. Max. 100 nF / 20 mH.

Ambient data

| | |
|--|---|
| Enclosure rating | IP 65 |
| Protection class | III |
| Electromagnetic compatibility (EMC) ¹⁾ | EN 61000-6-2, EN 61000-6-4 |
| Effect of air pressure | 0.3 ppm/hPa |
| Effect of air temperature | 1 ppm/K |
| Temperature drift | Typ. 0.1 mm/K |
| Mechanical load | Shock: EN 600 68-2-27 Sine: EN 600 68-2-6 Noise: EN 600 68-2-64 |

¹⁾ This is a Class A device. This device can cause radio interference in living quarters.

Ordering information

| Ambient temperature | Power consumption | Measuring range ²⁾ | Accuracy | Repeatability ³⁾ | Interface | Model name | Part no. |
|--|--------------------------|-------------------------------|----------|-----------------------------|-----------|----------------|----------|
| Operation -20 °C ... +55 °C ¹⁾ Operation with cooling case -20 °C ... +75 °C Storage -40 °C ... +75 °C | At 24 V DC < 250 mA | 0.15 m ... 100 m | ± 2 mm | 0.5 mm | SSI | DL100-21AA2101 | 1052684 |
| | | | | | PROFIBUS | DL100-21AA2102 | 1052686 |
| | | | | | RS-422 | DL100-21AA2103 | 1052688 |
| | | | | | PROFINET | DL100-21AA2112 | 1058164 |
| | | 0.15 m ... 200 m | ± 2.5 mm | 1 mm | CANopen | DL100-21AA2109 | 1060386 |
| | | | | | SSI | DL100-22AA2101 | 1052690 |
| | | | | | PROFIBUS | DL100-22AA2102 | 1052692 |
| | | | | | RS-422 | DL100-22AA2103 | 1052694 |
| | | 0.15 m ... 300 m | ± 3 mm | 2 mm | PROFINET | DL100-22AA2112 | 1058166 |
| | | | | | CANopen | DL100-22AA2109 | 1060388 |
| | | | | | SSI | DL100-23AA2101 | 1052696 |
| | | | | | PROFIBUS | DL100-23AA2102 | 1052698 |
| Operation with heating -40 °C ... +55 °C Operation with cooling case -40 °C ... +75 °C Storage -40 °C ... +75 °C | At 24 V DC < 1,000 mA | 0.15 m ... 100 m | ± 2 mm | 0.5 mm | RS-422 | DL100-23AA2103 | 1052700 |
| | | | | | PROFINET | DL100-23AA2112 | 1058168 |
| | | | | | CANopen | DL100-23AA2109 | 1060390 |
| | | | | | SSI | DL100-21HA2101 | 1052685 |
| | | 0.15 m ... 200 m | ± 2.5 mm | 1 mm | PROFIBUS | DL100-21HA2102 | 1052687 |
| | | | | | RS-422 | DL100-21HA2103 | 1052689 |
| | | | | | PROFINET | DL100-21HA2112 | 1058165 |
| | | | | | CANopen | DL100-21HA2109 | 1060387 |
| | | 0.15 m ... 300 m | ± 3 mm | 2 mm | SSI | DL100-22HA2101 | 1052691 |
| | | | | | PROFIBUS | DL100-22HA2102 | 1052693 |
| | | | | | RS-422 | DL100-22HA2103 | 1052695 |
| | | | | | PROFINET | DL100-22HA2112 | 1058167 |
| 0.15 m ... 300 m | ± 3 mm | 2 mm | CANopen | DL100-22HA2109 | 1060389 | | |
| | | | SSI | DL100-23HA2101 | 1052697 | | |
| | | | PROFIBUS | DL100-23HA2102 | 1052699 | | |
| | | | RS-422 | DL100-23HA2103 | 1052701 | | |
| 0.15 m ... 300 m | ± 3 mm | 2 mm | PROFINET | DL100-23HA2112 | 1058169 | | |
| | | | CANopen | DL100-23HA2109 | 1060391 | | |

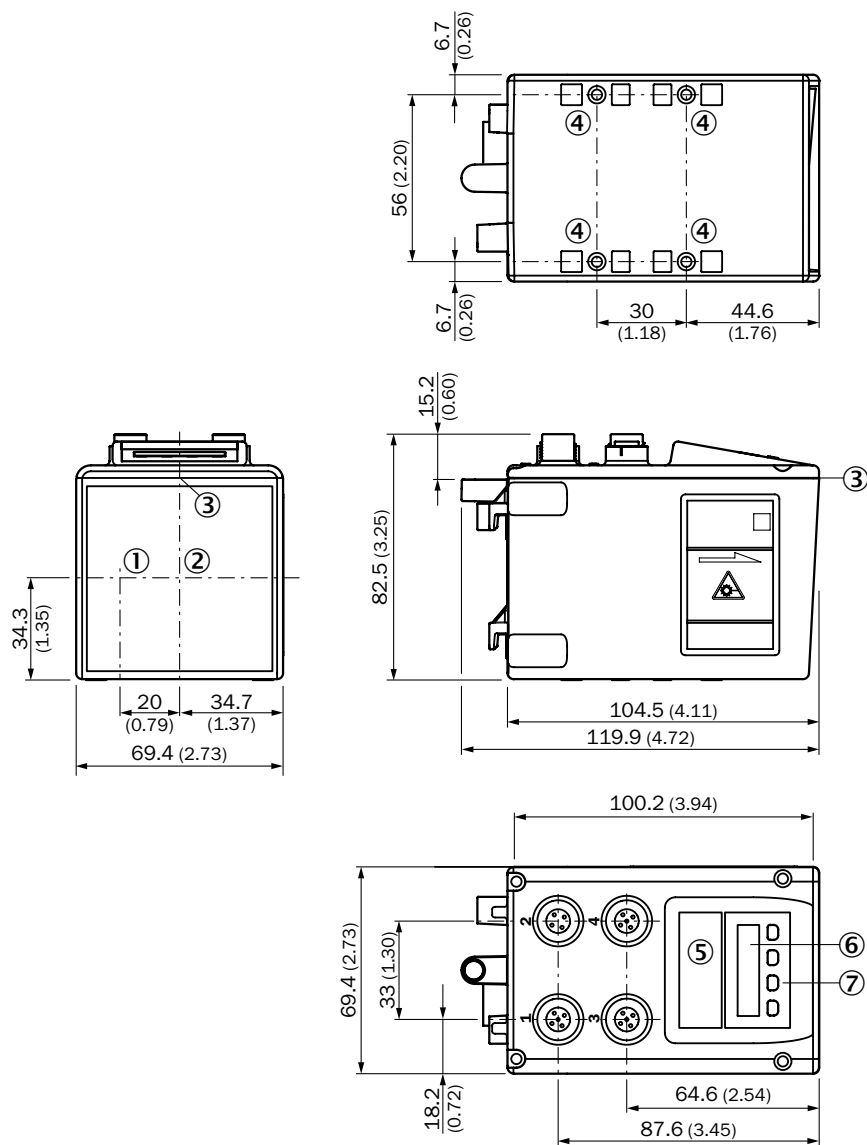
¹⁾ Temperatures < -10 °C require warm-up time of typ. 7 minutes.

²⁾ On reflective tape "Diamond Grade".

³⁾ Statistical error 1 σ , environmental conditions constant, min. warm-up time 10 min.

Dimensional drawing

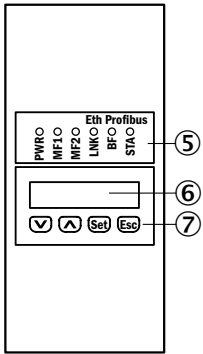
dimensions in mm



- ① Optical axis, sender
- ② Optical axis, receiver
- ③ Zero level
- ④ Threaded mounting hole M5
- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

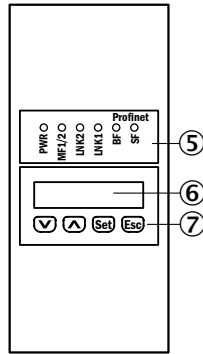
Adjustments

DL100-xxXXxx02



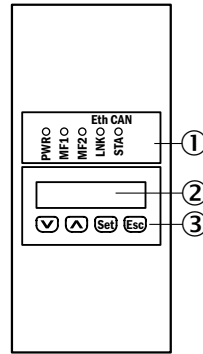
- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

DL100-xxXXxx12



- ⑤ Status LED [status]
- ⑥ Display
- ⑦ Control elements

DL100-xxXXxx09

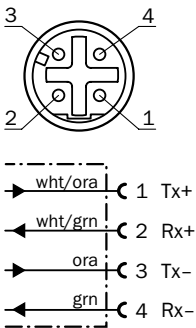


- ① Status LED [status]
- ② Display
- ③ Control elements

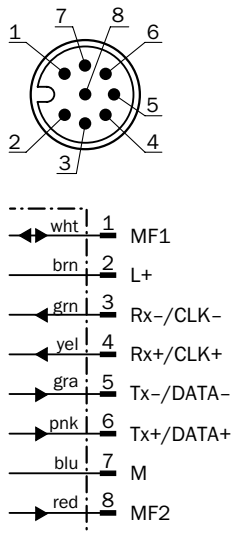
Connection type and diagram

Please note: Since wire color on 8-pin connection cables are not normed, always check for a correct pin to wire color assignment when using connection cables other than specified here.

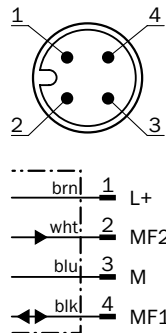
Dx100 Ethernet Socket M12, 4-pin, D-coded



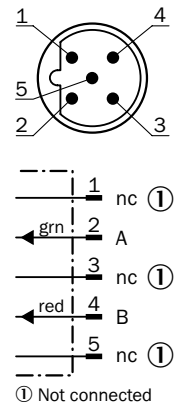
Dx100 SSI, RS-422 Connector M12, 8-pin, A-coded



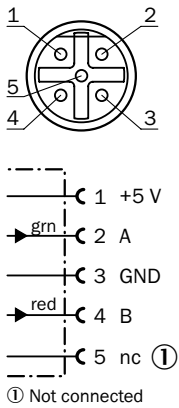
Dx100 PROFIBUS/PROFINET/CANopen Connector M12, 4-pin, A-coded



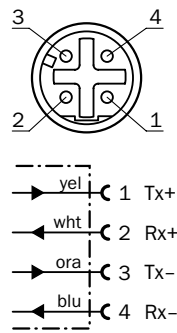
Dx100 PROFIBUS IN Connector M12, 5-pin B-coded



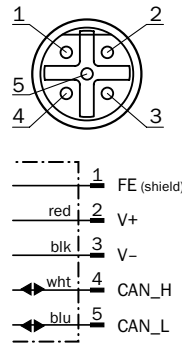
Dx100 PROFIBUS OUT Connector
M12, 5-pin, B-coded



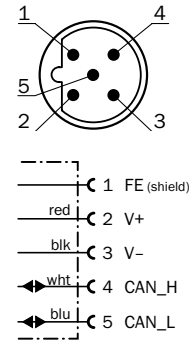
Dx100 PROFINET, Port 1/ Port 2 Socket
M12, 4-pin, D-coded



Dx100 CANopen Socket
M12, 5-pin, CANout



Dx100 CANopen Socket
M12, 5-pin, CANin




Recommended accessories


Plug connectors and cables

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|-------------------------|---|------------------|----------|-----------|----------------|--------------|----------------|---------------|
| Illustration may differ | Female connector, M12, 4-pin, straight, 2 m, PVC | DOL-1204-G02M | 6009382 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 5 m, PVC | DOL-1204-G05M | 6009866 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 10 m, PVC | DOL-1204-G10M | 6010543 | - | ● | - | ● | ● |
| Illustration may differ | Female connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | DOL-1205-G05MQ | 6026006 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | DOL-1205-G10MQ | 6026008 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | DOL-1205-G15MQ | 6032637 | - | ● | - | - | - |
| Illustration may differ | Female connector, M12, 8-pin., straight, 2 m, PUR halogen free, shielded | DOL-1208-G02MAH1 | 6032448 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 5 m, PUR halogen free, shielded | DOL-1208-G05MAH1 | 6032449 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 10 m, PUR halogen free, shielded | DOL-1208-G10MAH1 | 6032450 | ● | - | ● | - | - |
| Illustration may differ | Male connector, M12, 4-pin, straight, PROFIBUS, terminal resistor | PR-STE-END | 6021156 | - | ● | - | - | - |
| Illustration may differ | Connection cable, Ethernet patch cable, 2 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G02ME | 6034414 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 5 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G05ME | 6035389 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 10 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G10ME | 6030928 | ● | ● | ● | - | ● |
| Illustration may differ | Connecting cable, M12 male connector, straight, to open end, 2 m | SSL-1204-G02MZ90 | 6048247 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 5 m | STL-1204-G05MZ90 | 6048248 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 10 m | STL-1204-G10MZ90 | 6048249 | - | - | - | ● | - |
| Illustration may differ | Male connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | STL-1205-G05MQ | 6026005 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | STL-1205-G10MQ | 6026007 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | STL-1205-G15MQ | 6036898 | - | ● | - | - | - |

Reflectors

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Reflector plate, DG tape 665 mm x 665 mm, material: base plate aluminum, screw connection | PL560DG | 1016806 | ● | ● | ● | ● | ● |


Terminal and alignment brackets

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|--------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Alignment unit for Dx100, steel, zinc coated, incl. mounting material | BEF-AH-DX100 | 2058653 | ● | ● | ● | ● | ● |


For additional accessories, please see page 23.

Accessories


Adapters/distributors

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Signal converter from SSI to analog signal (0 mA ... 20 mA / 4 mA ... 20 mA / 0 V ... 10 V) | HN.SK20.2 | 6021449 | ● | - | - | - | - |











Device protection (mechanical)











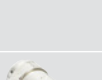


| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|--|-------------------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Thermo protection cooling case DS/DT500, peltier cooling unit, fiber glass housing | TPCC Cooling Case Dx100 | 6048328 | ● | ● | ● | ● | ● |




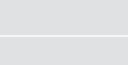




Mounting brackets/plates



| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|--|-----------------|----------|-----------|----------------|--------------|----------------|---------------|
| | Adapter plate for DME3000 to Dx100 | BEF-AP3-Dx100 | 2064250 | ● | ● | ● | ● | ● |
|  | Adapter plate for DME4000 / DME5000 to Dx100 | BEF-AP4/5-Dx100 | 2062704 | ● | ● | ● | ● | ● |

Plug connectors and cables

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|--|---|------------------------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Data cable for Ethernet with 4-pin M12 plug, angled, 8-pin RJ45 plug, 5 m | Connection cable (plug-plug) | 6039488 | ● | ● | ● | - | ● |
|  Illustration may differ | Female connector, M12, 4-pin, straight, 2 m, PVC | DOL-1204-G02M | 6009382 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 5 m, PVC | DOL-1204-G05M | 6009866 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 10 m, PVC | DOL-1204-G10M | 6010543 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 15 m, PVC | DOL-1204-G15M | 6010753 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 20 m, PVC | DOL-1204-G20M | 6034401 | - | ● | - | ● | ● |
|  | Female connector, M12, 4-pin, straight, 5 m, PVC, shielded | DOL-1204-G05MA | 6042100 | - | ● | - | ● | ● |
|  Illustration may differ | Female connector, M12, 4-pin, straight, 2 m, PUR halogen free | DOL-1204-G02MC | 6025900 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 5 m, PUR halogen free | DOL-1204-G05MC | 6025901 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 10 m, PUR halogen free | DOL-1204-G10MC | 6025902 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 15 m, PUR halogen free | DOL-1204-G15MC | 6034749 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 20 m, PUR halogen free | DOL-1204-G20MC | 6034750 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, straight, 25 m, PUR halogen free | DOL-1204-G25MC | 6034751 | - | ● | - | ● | ● |
|  | Female connector, M12, 4-pin, straight, 5 m, PUR halogen free, shielded | DOL-1204-G05MAC | 6038621 | - | ● | - | ● | ● |
|  | Female connector, M12, 4-pin, straight, 10 m, PUR halogen free, shielded | DOL-1204-G10MA | 6041797 | - | ● | - | ● | ● |
|  Illustration may differ | Female connector, M12, 4-pin, angled, 2 m, PVC | DOL-1204-W02M | 6009383 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 5 m, PVC | DOL-1204-W05M | 6009867 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 10 m, PVC | DOL-1204-W10M | 6010541 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 15 m, PVC | DOL-1204-W15M | 6036474 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 20 m, PVC | DOL-1204-W20M | 6033559 | - | ● | - | ● | ● |
|  Illustration may differ | Female connector, M12, 4-pin, angled, 2 m, PUR halogen free | DOL-1204-W02MC | 6025903 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 5 m, PUR halogen free | DOL-1204-W05MC | 6025904 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 10 m, PUR halogen free | DOL-1204-W10MC | 6025905 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 15 m, PUR halogen free | DOL-1204-W15MC | 6034752 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 20 m, PUR halogen free | DOL-1204-W20MC | 6034753 | - | ● | - | ● | ● |
| | Female connector, M12, 4-pin, angled, 25 m, PUR halogen free | DOL-1204-W25MC | 6034754 | - | ● | - | ● | ● |
|  | Female connector, M12, 4-pin, angled, 5 m, PVC, shielded | DOL-1204-W05MA | 6042098 | - | ● | - | ● | ● |
|  Illustration may differ | Female connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | DOL-1205-G05MQ | 6026006 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | DOL-1205-G10MQ | 6026008 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 12 m, PROFIBUS, shielded | DOL-1205-G12MQ | 6032636 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | DOL-1205-G15MQ | 6032637 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 20 m, PROFIBUS, shielded | DOL-1205-G20MQ | 6032638 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 30 m, PROFIBUS, shielded | DOL-1205-G30MQ | 6032639 | - | ● | - | - | - |
| | Female connector, M12, 5-pin, straight, 50 m, PROFIBUS, shielded | DOL-1205-G50MQ | 6032861 | - | ● | - | - | - |

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|--|-------------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Female connector, M12, 5-pin, straight, 5 m, CAN/CANopen, shielded on pin 1 | DOL-1205-G05M_Can | 6021166 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, straight, 10 m, CAN/CANopen, shielded on pin 1 | DOL-1205-G10M_Can | 6021175 | - | - | - | - | ● |
|  | Female connector, M12, 5-pin, straight, 6 m, DeviceNet/CANopen, dropcable shielded | DOL-1205-G06MK | 6028326 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, angled, 10 m, PROFIBUS, shielded | DOL-1205-W10MQ | 6041425 | - | ● | - | - | - |
|  | Female connector, M12, 8-pin., straight, 2 m, PUR halogen free, shielded | DOL-1208-G02MAH1 | 6032448 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 5 m, PUR halogen free, shielded | DOL-1208-G05MAH1 | 6032449 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin., straight, 10 m, PUR halogen free, shielded | DOL-1208-G10MAH1 | 6032450 | ● | - | ● | - | - |
| | Female connector, M12, 8-pin, straight, 20 m, PUR halogen free, shielded, | DOL-1208-G20MAH1 | 6032451 | ● | - | ● | - | - |
|  | Profibus adapter cable DME4000 / DME5000 to DL100 Hi | DSC-1608-1204 | 2062595 | - | ● | - | - | - |
|  | SSI / RS-422 adapter cable DME4000 / DME5000 to DL100 Hi | DSC-1608-1208 | 2062563 | ● | - | ● | - | - |
| | SSI / RS-422 adapter cable DME3000 to DL100 Hi | DSC-1612-1208 | 2061596 | ● | - | ● | - | - |
|  | Connection cable, M12, 5-pin, connector straight/socket straight, 2 m, CAN/CANopen, shielded | DSL-1205-G02MK | 6028903 | - | - | - | - | ● |
| | Connection cable, M12, 5-pin, connector straight/socket straight, 3 m, CAN/CANopen, shielded | DSL-1205-G03MK | 6021165 | - | - | - | - | ● |
| | Connection cable, M12, 5-pin, connector straight/socket straight, 5 m, CAN/CANopen, shielded | DSL-1205-G05MK | 6021168 | - | - | - | - | ● |
| | Connection cable, M12, 5-pin, connector straight/socket straight, 6 m, CAN/CANopen, shielded | DSL-1205-G06MK | 6028327 | - | - | - | - | ● |
|  | Connection cable, M12, 5-pin, connector straight/socket straight, 10 m, PROFIBUS, shielded | DSL-1205-G10MQ | 6032640 | - | ● | - | - | - |
|  | Connection cable, M12, 5-pin, connector straight/socket straight, 1 m, CAN/CANopen, shielded | DSL1205-G01MK | 6021164 | - | - | - | - | ● |
|  | Female connector, M12, 5-pin, 2 m, PVC | DeviceNet cable | 6030920 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, 3 m, PVC | DeviceNet cable | 6030739 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, 4 m, PVC | DeviceNet cable | 6030740 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, 5 m, PVC | DeviceNet cable | 6030741 | - | - | - | - | ● |
| | Female connector, M12, 5-pin, 6 m, PVC | DeviceNet cable | 6030742 | - | - | - | - | ● |
|  | Cable, by the meter, PROFIBUS, shielded | LTG-2102-MW | 6021355 | - | ● | - | - | - |
|  | Cable, by the meter, 8-pin, PUR halogen free, shielded, twinned wires | LTG-3108-MW | 6032456 | ● | - | ● | - | - |
|  | Male connector, M12, 5-pin, straight, PROFIBUS, shielded | PR-STE-1205-G | 6021354 | - | ● | - | - | - |
|  | Male connector, M12, 4-pin, straight, PROFIBUS, terminal resistor | PR-STE-END | 6021156 | - | ● | - | - | - |






| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|--|---|------------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Connecting cable, M12 male connector, D-coded, angled, to M12 male connector, straight, 2 m | SSL-1204-F02MZ90 | 6048250 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, angled, to M12 male connector, straight, 5 m | SSL-1204-F05MZ90 | 6048251 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, angled, to M12 male connector, straight, 10 m | SSL-1204-F10MZ90 | 6048252 | - | - | - | ● | - |
|  | Connecting cable, M12 male connector D-coded straight to M12 male connector straight, 2 m | SSL-1204-G02MZ90 | 6048241 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, straight, to M12 male connector, straight, 5 m | SSL-1204-G05MZ90 | 6048242 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, straight, to M12 male connector, straight, 10 m | SSL-1204-G10MZ90 | 6048243 | - | - | - | ● | - |
|  | Connecting cable, M12 male connector, D-coded, angled, to RJ45, straight, 2 m | SSL-2J04-F02MZ | 6048253 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, angled, to RJ45, straight, 5 m | SSL-2J04-F05MZ | 6048254 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, angled, to RJ45, straight, 10 m | SSL-2J04-F10MZ | 6048255 | - | - | - | ● | - |
|  Illustration may differ | Connection cable, Ethernet patch cable, 2 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G02ME | 6034414 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 3 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G03ME | 6029630 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 5 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G05ME | 6035389 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 10 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G10ME | 6030928 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 20 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G20ME | 6036158 | ● | ● | ● | - | ● |
| | Connection cable, Ethernet patch cable, 25 m, straight, connector M12, 4-pin to connector RJ-45 | SSL-2J04-G25ME | 6033555 | ● | ● | ● | - | ● |
|  | Connecting cable, M12 male connector, D-coded, straight, to RJ45, straight, 2 m | SSL-1204-G02MZ60 | 6048244 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, straight, to RJ45, straight, 5 m | SSL-1204-G05MZ60 | 6048245 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, D-coded, straight, to RJ45, straight, 10 m | SSL-1204-G10MZ60 | 6048246 | - | - | - | ● | - |
|  | Ethernet cable, M12, 4-pin, angled/RJ45, CAT5, 2 m | SSL-2J04-H02ME60 | 6047911 | ● | ● | ● | - | ● |
| | Ethernet cable, M12, 4-pin, angled/RJ45, CAT5, 5 m | SSL-2J04-H05ME60 | 6045287 | ● | ● | ● | - | ● |
| | Ethernet cable, M12, 4-pin, angled/RJ45, CAT5, 10 m | SSL-2J04-H10ME60 | 6045288 | ● | ● | ● | - | ● |
|  | Male connector, M12, 5-pin, straight, terminal resistor, DeviceNet and CANopen | STE-1205-GKEND | 6037193 | - | - | - | - | ● |
|  | Connecting cable, M12 male connector, straight, to open end, 2 m | STL-1204-G02MZ90 | 6048247 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 5 m | STL-1204-G05MZ90 | 6048248 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, straight, to open end, 10 m | STL-1204-G10MZ90 | 6048249 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, angled, to open end, 2 m | STL-1204-W02MZ90 | 6048256 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, angled, to open end, 5 m | STL-1204-W05MZ90 | 6048257 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, angled, to open end, 10 m | STL-1204-W10MZ90 | 6048258 | - | - | - | ● | - |
| | Connecting cable, M12 male connector, angled, to open end, 25 m | STL-1204-W25MZ90 | 6048259 | - | - | - | ● | - |

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|--|-------------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Male connector, M12, 5-pin, straight, 5 m, PROFIBUS, shielded | STL-1205-G05MQ | 6026005 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 10 m, PROFIBUS, shielded | STL-1205-G10MQ | 6026007 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 12 m, PROFIBUS, shielded | STL-1205-G12MQ | 6032635 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, straight, 15 m, PROFIBUS, shielded | STL-1205-G15MQ | 6036898 | - | ● | - | - | - |
| | Connection cable, DeviceNet drop cable, 10 m, straight, connector M12, 5-pin to open end, drag-chain compliant | STL-1205-G10M_CAN | 6021293 | - | - | - | - | ● |
|  | Male connector, M12, 5-pin, angled, 5 m, PROFIBUS, shielded | STL-1205-W05MQ | 6041426 | - | ● | - | - | - |
| | Male connector, M12, 5-pin, angled, 10 m, PROFIBUS, shielded | STL-1205-W10MQ | 6041427 | - | ● | - | - | - |





Power supply units/ power cord connectors

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|--|--|-------------------|----------|-----------|----------------|--------------|----------------|---------------|
| | Power supply unit, DC 24 V / 10 A, 110 ... 120, 210 ... 240 VAC, 24 VDC, 10 A, for cap rail mounting and TPCC supply | Power supply unit | 6020875 | ● | ● | ● | ● | ● |


Reflectors

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|------------|----------|-----------|----------------|--------------|----------------|---------------|
| | Reflector plate, DG tape 1,200 mm x 1,200 mm, material: base plate aluminum, screw connection | PL1200DG | 1051679 | ● | ● | ● | ● | ● |
|  | Reflector plate, DG tape 330 mm x 330 mm, material: base plate aluminum, screw connection | PL240DG | 1017910 | ● | ● | ● | ● | ● |
| | Reflector plate, DG tape 330 mm x 330 mm, material: base plate aluminum, screw connection, heated | PL240DG-H | 1022926 | ● | ● | ● | ● | ● |
|  | Reflector plate, DG tape 665 mm x 665 mm, material: base plate aluminum, screw connection | PL560DG | 1016806 | ● | ● | ● | ● | ● |
|  | Reflector plate, DG tape 665 mm x 665 mm, material: base plate aluminum, screw connection, heated | PL560DG-H | 1023888 | ● | ● | ● | ● | ● |
|  | Reflector plate, DG tape 1,000 mm x 1,000 mm, material: base plate aluminum, screw connection | PL880DG | 1018975 | ● | ● | ● | ● | ● |
|  | Diamond Grade reflective tape, sheet, 749 mm x 914 mm, self-adhesive | REF-DG | 5320565 | ● | ● | ● | ● | ● |
| | Diamond Grade reflective tape, customizable by sheet, self-adhesive | REF-DG-K | 4019634 | ● | ● | ● | ● | ● |

Sets

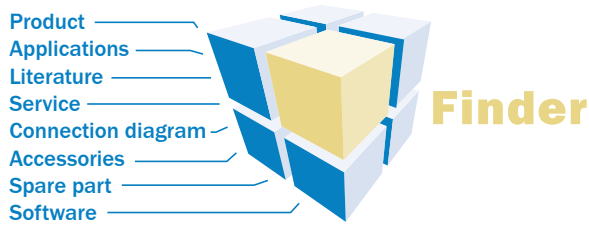
| | | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|--|----------|-----------|----------------|--------------|----------------|---------------|
|  | Accessory kit for retrofit from DME3000 PROFIBUS to Dx100 PROFIBUS | DME3000 Dx100 PROFIBUS retrofit kit | 2065222 | - | ● | - | - | - |
|  | Accessory kit for retrofit from DME3000 SSI/RS-422 to Dx100 SSI/RS-422 | DME3000 Dx100 SSI/RS-422 retrofit kit | 2065223 | ● | - | ● | - | - |
|  | Accessory kit for retrofit from DME4000/5000 PROFIBUS to Dx100 PROFIBUS | DME4000/5000 Dx100 PROFIBUS retrofit kit | 2065220 | - | ● | - | - | - |
|  | Accessory kit for retrofit from DME4000/5000 SSI/RS-422 to Dx100 SSI/RS-422 | DME4000/5000 Dx100 SSI/RS-422 retrofit kit | 2065221 | ● | - | ● | - | - |

Terminal and alignment brackets

| | Brief description | Model name | Part no. | Dx100 SSI | Dx100 PROFIBUS | Dx100 RS-422 | Dx100 PROFINET | Dx100 CANopen |
|---|---|--------------|----------|-----------|----------------|--------------|----------------|---------------|
|  | Alignment unit for Dx100, steel, zinc coated, incl. mounting material | BEF-AH-DX100 | 2058653 | ● | ● | ● | ● | ● |

www.mysick.com – search online and order

Search online quickly and safely – with the SICK “Finders”



Product Finder: We can help you to quickly target the product that best matches your application.

Applications Finder: Select the application description on the basis of the challenge posed, industrial sector, or product group.

Literature Finder: Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

Efficiency – with the e-commerce tools from SICK



Find out prices and availability: Determine the price and possible delivery date of your desired product simply and quickly at any time.

Request or view a quote: You can have a quote generated online here. Every quote is confirmed to you via e-mail.

Order online: You can go through the ordering process in just a few steps.

For safety and productivity: SICK LifeTime Services

SICK LifeTime Services is a comprehensive set of high-quality services provided to support the entire life cycle of products and applications from system design all the way to upgrades. These services increase the safety of people, boost the productivity of machines and serve as the basis for our customers’ sustainable business success.



Consulting & Design

Globally available experts for cost-effective solutions



Product & System Support

Fast and reliable, by telephone or on location



Verification & Optimization

Checks and recommendations for increased availability



Upgrade & Retrofits

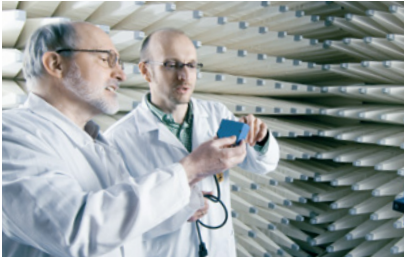
Uncovers new potential for machines and systems



Training & Education

Employee qualification for increased competitiveness

SICK at a glance



Leading technologies

With a staff of more than 6,000 and over 40 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



Unique product range

- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



Comprehensive services

- SICK LifeTime Services – for safety and productivity
- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal www.mysick.com – price and availability of products, requests for quotation and online orders

Worldwide presence with subsidiaries in the following countries:

Australia
Belgium/Luxembourg
Brasil
Česká Republika
Canada
China
Danmark
Deutschland
España
France
Great Britain
India
Israel
Italia
Japan

México
Nederland
Norge
Österreich
Polska
România
Russia
Schweiz
Singapore
Slovenija
South Africa
South Korea
Suomi
Sverige
Taiwan
Türkiye
United Arab Emirates
USA

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com