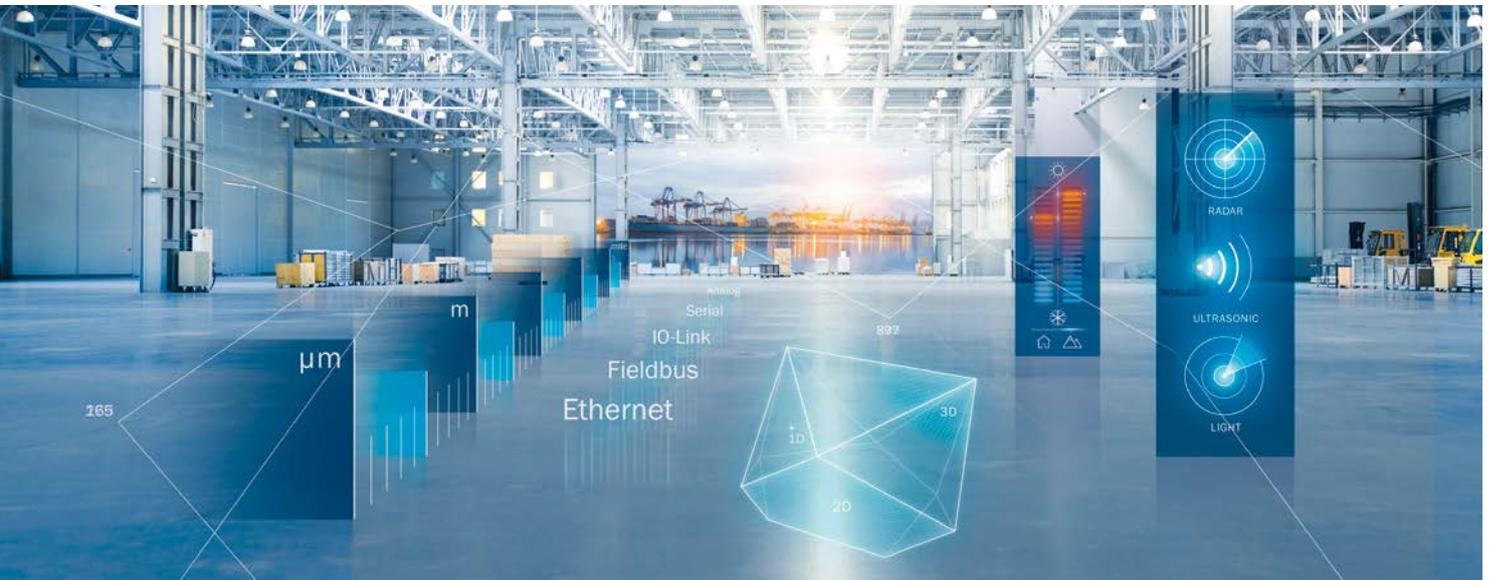# DISTANCE SENSORS
PRECISION FOR MEASURING TASKS

Displacement measurement sensors, MultiTask photoelectric sensors, mid range, long range and ultrasonic distance sensors

SICK
Sensor Intelligence.

FROM MICRON TO MILE. IN ALL DIMENSIONS.

Distance sensors and LiDAR sensors from SICK: ranging in all dimensions, precise results in all environments

Automation is forging ahead in all industries with no sign of stopping. And right at the forefront are distance sensors and detection and ranging solutions from SICK. As intelligent sources of data, they deliver precise information for nearly any application, over any distance, in many environments. Equipped with highly developed technologies and a wide range of interfaces. Discover a unique portfolio unparalleled throughout the world which unites diverse industry knowledge and extraordinary capacity for innovation in all dimensions. Comprehensive performance and boundless flexibility – combined for your success.
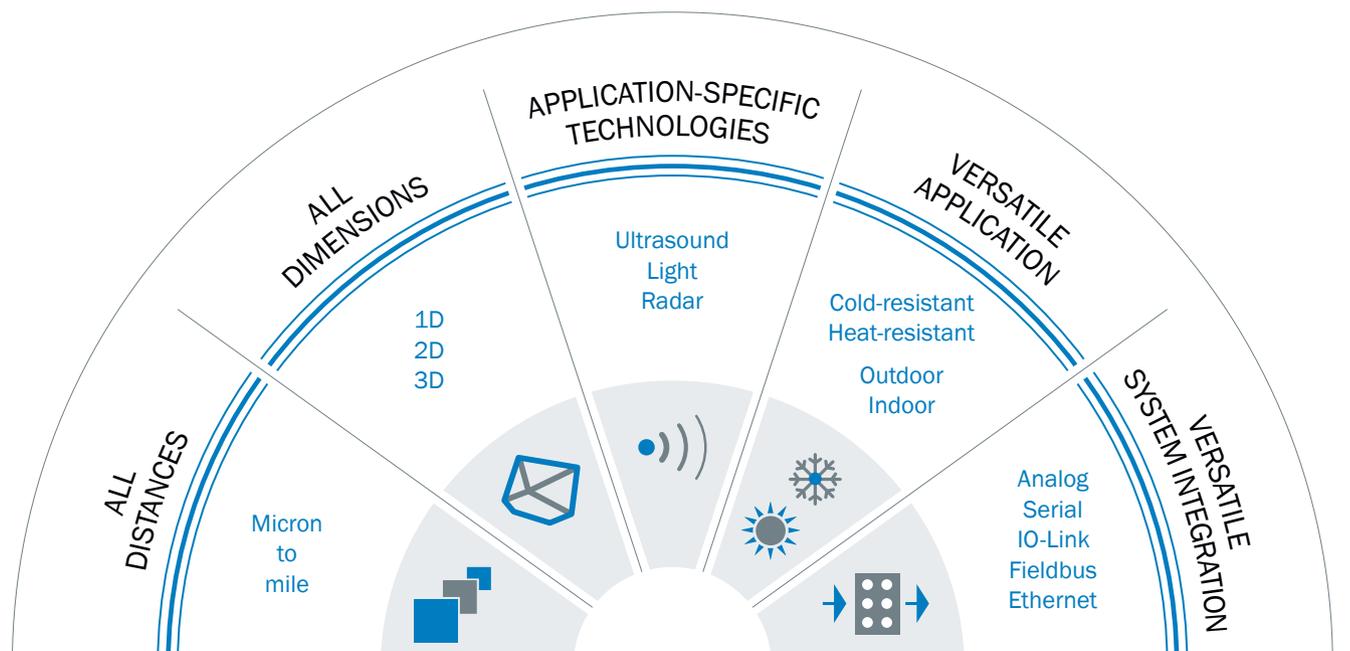
Electronics

Innovative sensor solutions save time and ensure a high quality standard in the electronics production process.

Automated guided vehicle systems

LiDAR and distance sensors enable efficient operation of automated guided vehicle systems.

Storage and conveyor

Sensors ensure precise position determination, reliable empty bay detection and exact contour measurement in storage and conveyors.

Traffic

With safety and free travel: sensors retain a synoptic view in road traffic applications.

Ports

Intelligent automation ensures high handling capacity, increased efficiency and disruption-free port operation.

Machine tools

Consistent sensor concepts help to make machine tools and plants safer, faster and more flexible.

Automotive and parts suppliers

With the increasing demand for vehicle types as well as electronic devices and individual customer requirements, sensor solutions enable highly flexible and at the same time efficient production.

Further industrial areas

Additional industrial areas of application in which automated solutions control production and processes.
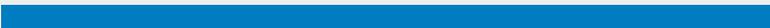www.sick.com/industries-overview
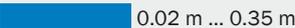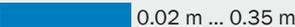
www.sick.com/micron-to-mile

Product	Triangulation	Time-of-flight	Ultrasonic	Response time	Repeatability	Digital output	Analog output	PROFINET IO	PROFIBUS DP	EtherNET/IP™	EtherCAT®	Serial	CANopen	Ethernet	IO-Link	SOPAS	Display
Displacement measurement sensors																	
DT20 Hi	■			≥ 2.5 ms	0.125 mm … 2.5 mm	■	■										■
OD Value	■			≥ 1 ms	2 µm … 100 µm	■	■					■					
OD Mini	■			≥ 2 ms	1 µm … 200 µm	■	■					■					■
OD1000	■			≥ 1.5 ms	400 µm	■	■								■	■	■
OD Precision	■			≥ 0.1 ms … ≥ 0.8 ms	0.02 µm … 10 µm	■	■					■				■	
OD5000	■			≥ 0.0125 ms	0.01 µm … 0.2 µm									■		■	
MultiTask photoelectric sensors																	
PowerProx Micro		■		Typ. 95 ms	2 mm … 5 mm	■									■	■	
PowerProx Mini Distance/Speed		■		≤ 0.5 ms … ≤ 5 ms	4.5 mm … 13 mm	■						■			■	■	
PowerProx Distance/Speed/Precision		■		≤ 0.5 ms … ≤ 16.7 ms	0.9 mm … 8 mm	■	■								■	■	
PowerProx Small		■		≤ 0.6 ms … ≤ 51.4 ms	5 mm … 80 mm	■	■								■	■	
WTT280L-2 Long Range		■		≤ 0.5 ms	–	■											
Mid range distance sensors																	
Dx35		■		2.5 ms … 192.5 ms	0.5 mm … 5 mm	■	■								■	■	
Dx50		■		10 ms … 160 ms	0.25 mm … 5 mm	■	■						■				■
Dx50-2		■		0.83 ms … 150 ms	0.5 mm … 5 mm	■	■								■	■	■
Long range distance sensors																	
Dx100		■		2 ms	0.5 mm … 2.0 mm	■		■	■	■	■	■			■	■	
Dx500		■		150 ms … 6,000 ms	1 mm	■	■					■	■				■
Dx1000		■		3 ms … 384 ms	1 mm … 15 mm	■	■	■	■	■		■		■	■	■	
Ultrasonic sensors																	
UC4			■	10 ms … 24 ms	± 0.1 mm … ± 0.375 mm	■	■								■	■	
UC12			■	30 ms	± 0.1 mm … ± 0.525 mm	■									■	■	
UC30			■	180 ms … 240 ms	± 0.525 mm … ± 12 mm	■	■								■	■	
UM12			■	24 ms … 30 ms	± 0.069 mm … ± 0.525 mm	■	■								■	■	
UM18			■	32 ms … 80 ms	± 0.069 mm … ± 1.95 mm	■	■								■	■	
UM30			■	32 ms … 240 ms	± 0.18 mm … ± 12 mm	■	■								■	■	■

Measuring ranges	Page
0.05 m … 0.1 m … 0.5 m … 1 m … 5 m … 10 m … 50 m … 100 m … 500 m … 1,500 m	

Measuring ranges	Page
0.05 m … 1 m	➜ 6
0.026 m … 0.5 m	➜ 7
0.01 m … 0.25 m	➜ 7
0.2 m … 1 m	➜ 8
0.024 m … 0.7 m	➜ 9
0.014 m … 0.19 m	➜ 9
0.05 m … 0.8 m	➜ 10
0.05 m … 1.3 m	➜ 10
0.05 m … 3.8 m	➜ 10
0.2 m … 3 m	➜ 10
0.2 m … 4 m	➜ 10
0.05 m … 35 m	➜ 12
0.2 m … 50 m	➜ 13
0.2 m … 30 m	➜ 13
0.15 m … 300 m	➜ 14
0.2 m … 70 m	➜ 15
0.2 m … 1,500 m	➜ 15
0.013 m … 0.25 m	➜ 16
0.02 m … 0.35 m	➜ 16
0.35 m … 8 m	➜ 17
0.02 m … 0.35 m	➜ 17
0.02 m … 1.3 m	➜ 18
0.03 … 8 m	➜ 18

DT20 Hi

Reliable, consistent distance measurement up to 1 m

Technical data overview

Measuring range	50 mm … 1,000 mm
Linearity	≥ ± 0.5 mm
Repeatability	≥ 0.125 mm
Response time	≥ 2.5 ms
Output time	≥ 2.5 ms
Measuring frequency	≤ 400 Hz
Digital output	1 x PNP 1 x NPN
Serial	–
IO-Link	–
PROFIBUS DP	–
Analog output	1 x 4 mA … 20 mA (≤ 300 Ω)
Light source	Laser, visible red light
Laser class	1 / 2
Ambient operating temperature	–20 °C … +55 °C

At a glance

- Reliable and consistent measurement, independent of colour and surface, increases production quality and reduces changeover time
- Advanced settings provide increased application flexibility to easily solve customer-specific applications
- Fast commissioning via button, remote or numerical teach
- Easy, precise alignment and verification based on red laser light and LC display, decreasing commissioning time
- Tough metal housing permits operation in harsh environments

Detailed information	➜ www.sick.com/DT20_Hi

	OD Value	OD Mini
	Simply accurate measurement	Compact, lightweight sensor for precise measurement
	26 mm … 500 mm	10 mm … 250 mm
	≥ ± 8 µm	≥ ± 10 µm
	≥ 2 µm	≥ 1 µm
	≥ 1 ms	≥ 2 ms
	≥ 0.5 ms	≥ 0.5 ms
	≤ 2 kHz	≤ 2 kHz
	1 x PNP 2 x PNP 1 x NPN 2 x NPN	1 x PNP/NPN, selectable
	✔ , RS-422	✔ , RS-485
	–	–
	–	✔ , optional, over evaluation unit AOD1 and Gateway WI180C-PB
	1 x 4 mA … 20 mA (≤ 300 Ω) / 1 x 0 V … 10 V (> 10 kΩ)	1 x 4 mA … 20 mA (≤ 300 Ω) / 1 x 0 V … 10 V (> 10 kΩ)
	Laser, visible red light	Laser, visible red light
	2	1 / 2
	–10 °C … +40 °C	–10 °C … +50 °C

- Reliable measurement independent of surface, minimizes machine downtime
- Extremely simple sensor teach-in makes setup faster and more costeffective
- Minimal space requirements and less wiring due to its compact, standalone design
- Many measurement ranges and output interfaces make it ideal for cost-effective integration into any production environment
- Low investment costs make consistent, regular quality inspection possible
- Non-contact measurement technology from a safe distance allows the inspection to be carried out directly during the production process
- Wear and damage-free inspection, due to non-contact measurement

- Cost-saving commissioning through simple operating concept and display
- Small installation size and low weight also allow use in highly dynamic applications
- Calculation of two sensorheads – easy possible over the external evaluation unit
- High machine throughput thanks to reliable measurement, regardless of brightness and color of surface
- The wide range of available interfaces enables simple integration into industrial networks
- Optimum performance even at high production speeds

➜ www.sick.com/OD_Value

➜ www.sick.com/OD_Mini

OD1000

The solution for precise measurement over long distances

Technical data overview	
Measuring range	200 mm ... 1,000 mm
Linearity	≥ ± 1.5 mm
Repeatability	≥ 0.4 mm
Response time	≥ 1.5 ms
Output time	≥ 0.33 ms
Measuring frequency	≤ 3 kHz
Digital output	2 x Push-pull
Serial	–
Ethernet	–
IO-Link	✔ , V1.1, V1.0
PROFIBUS DP	–
Analog output	1 x 4 mA ... 20 mA (≤ 600 Ω) / 1 x 0 V ... 10 V (> 20 kΩ)
Light source	Laser, visible red light
Laser class	1
Ambient operating temperature	–10 °C ... +50 °C

At a glance

- Optimization of the process quality due to high precision and linearity over the entire measuring range
- Quick commissioning due to variable mounting and innovative operating concept
- Simple and cost-saving integration via OLED display and IO-Link interface
- Suitable for harsh ambient condition due to rugged metal housing
- High machine availability thanks to reliable, quick, and precise measurement results on a wide range of surfaces
- Intelligent measured value filter and analysis algorithm for safe and stable measurement in every application

Detailed information	➜ www.sick.com/OD1000

OD Precision	OD5000
Measuring each dimension with high precision	The expert for high performance measurement

OD Precision	OD5000
24 mm ... 700 mm	14 mm ... 190 mm
≥ ± 1.6 µm	≥ ± 1 µm
≥ 0.02 µm	≥ 0.01 µm
≥ 0.1 ms	≥ 12.5 µs
≥ 0.1 ms	≥ 0.0125 ms
≤ 10 kHz	≤ 80 kHz
5 x PNP 5 x NPN optional, over evaluation unit AOD5	3 x PNP/NPN, selectable optional, over evaluation unit AOD1
✔ , RS-422 (RS-232 optional over evaluation unit AOD5)	–
–	✔ , TCP, UDP/IP
–	–
–	✔ , optional, over evaluation unit AOD1 and Gateway WI180C-PB
3 x 4 mA ... 20 mA (≤ 300 Ω) / 3 x –10 V ... 10 V (> 10 kΩ), optional, over evaluation unit AOD5	1 x 4 mA ... 20 mA (≤ 300 Ω), optional, over evaluation unit AOD1
Laser, visible red light	Laser, visible red light
1 / 2	1
–10 °C ... +50 °C	–10 °C ... +50 °C

- Surface-independent measurement algorithms ensure minimum machine downtime, regardless of surface gloss or color
- Reduced processing times as a result of the high measuring frequency of up to 10 kHz
- Simple, cost-effective solution for challenging measuring tasks due to a variety of sensor models
- Optional stand-alone operation via RS-422 means the OD Precision offers maximum performance at lower investment costs
- High visibility LC display on the AOD5 evaluation unit simplifies the setup and it offers several calculation functions
- Many interfaces for simple integration into an existing production environment

- High measurement performance, on fast moving or rotating objects thanks to high measuring frequency
- Simple and cost-effective solution with Ethernet interface and evaluation unit integrated in the sensor head
- Easy configuration via a web server interface
- Reliable edge detection thanks to innovative analysis algorithm
- Increase in product quality due to maximum repeatability
- Reliable detection, even of very small indentations, thanks to precise and very small light spot

➜ www.sick.com/OD_Precision

➜ www.sick.com/OD5000

	PowerProx
	The new home of sensing range

Technical data overview	
Sensing range	50 mm … 18,000 mm
Accuracy	–10 mm … 80 mm
Repeatability	0.9 mm … 80 mm
Response time	≤ 0.5 ms … ≤ 95 ms
Output time	≤ 0.5 ms … ≤ 95 ms
Switching frequency	5 Hz … 1,000 Hz
Digital output	PNP / NPN / push-pull: PNP/NPN
IO-Link	✔ , V1.1
Light source	Laser, visible red light / infrared light
Laser class	1
Analog output	4 mA … 20 mA (≤ 300 Ω) / 0 V … 10 V (≥ 10 kΩ) / -
Ambient temperature operation	–35 °C … +50 °C

At a glance

- 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

Detailed information	➜ www.sick.com/PowerProx

Dx35

Larger than life performance – flexible measurement and detection up to 35 m

Technical data overview

Measuring range	200 mm … 35,000 mm, on reflector 50 mm … 12,000 mm, 90 % remission 50 mm … 3,100 mm, 6 % remission
Repeatability	≥ 0.5 mm
Accuracy	≥ ± 10 mm
Response time	≥ 2.5 ms
Output time	≥ 1 ms
Digital output	1 x / 2 x push-pull: PNP/NPN 2 x push-pull: PNP/NPN
IO-Link	✔, V1.1 (process data, parameterization, diagnosis, data storage)
Serial	–
SSI	–
Analog output	1 x 4 mA … 20 mA (≤ 450 Ω) / 1 x 0 V … 10 V (≥ 50 kΩ) / –
Light source	Laser, visible red light / infrared light
Laser class	1 / 2
Ambient operating temperature	–30 °C … +55 °C

At a glance

- Precise and reliable measurement regardless of object color
- A small size and blind zone ensure flexible mounting
- Optimum solution thanks to flexible settings for speed, range and repeatability
- Broad interface portfolio simplifies machine integration
- Low investment costs guarantee a quick return on investment
- A wide variety of control options ensures rapid commissioning and fast batch changes

Detailed information	➜ www.sick.com/Dx35

Dx50	Dx50-2
Measuring distances – reliable, precise and versatile	The new era in distance measurement
200 mm … 50,000 mm, on reflector 200 mm … 20,000 mm, 90 % remission 200 mm … 5,000 mm, 6 % remission	200 mm … 30,000 mm, 90 % remission 200 mm … 10,000 mm, 6 % remission
≥ ± 3 mm	≥ 0.5 mm
≥ ± 3 mm	≥ ± 7 mm
≥ 10 ms	≥ 0.83 ms
≥ 2 ms	≥ 1.67 ms
1 x PNP 1 x NPN 2 x PNP 2 x NPN 2 x / 1 x PNP 2 x / 1 x NPN	1 x / 2 x complementary / 2 x push-pull: PNP/NPN
–	✔, V1.1 (process data, parameterization, diagnosis, data storage)
✔, RS-422	–
✔	–
1 x 0 V … 10 V (≥ 5 kΩ) / 1 x 4 mA … 20 mA (≤ 300 Ω)	1 x 4 mA … 20 mA (≤ 450 Ω) / 1 x 0 V … 10 V (≥ 50 kΩ) / –
Laser, visible red light	Laser, visible red light
1 / 2	1 / 2
–30 °C … +65 °C	–40 °C … +65 °C

• Wide measurement ranges up to 50 m in combination with different interfaces allow an easy and fast integration in any production environment • Precise measurement helps to increase process quality and stability • Intuitive setup via display or remote teach reduces installation time and costs • Up to 40 klx ambient light immunity – allows for use in optically challenging environments	• A wide measuring range increases the number of application possibilities • Very high throughput thanks to a high measuring frequency • Precise and reliable measurement regardless of object color improves uptime • Withstands harsh ambient conditions, a wide temperature range and ambient light immunity • Fast and easy commissioning via intuitive display menu, easy-teach option, multifunctional input, or IO-Link saves time • Full process control with IO-Link from commissioning to maintenance • Three switching modes provide a simple solution for demanding applications
➜ www.sick.com/Dx50	➜ www.sick.com/Dx50-2

Dx100

Reliable, fast, precise positioning

Technical data overview

Measuring range	0.15 m ... 300 m
Repeatability	0.5 mm ... 2.0 mm
Accuracy	± 2.0 mm ... ± 3.0 mm
Response time	2 ms
Output time	Synchronous on PLC request (SSI and RS-422)
Measurement cycle time	1 ms
Target	Reflector
Digital output	2 x push-pull: PNP/NPN
Ethernet	–
Serial	✔ , RS-422
CAN	–
SSI	✔
PROFIBUS DP	✔
PROFINET IO	✔
CANopen	✔
EtherNet/IP™	✔
EtherCAT®	✔
Analog output	–
Light source	Laser, visible red light
Laser class	2
Ambient operating temperature	–20 °C ... +55 °C –40 °C ... +55 °C, operation with heating –40 °C ... +75 °C, operation with cooling case

At a glance

- Enhanced closed-loop behavior offers high performance and productivity
- Operating temperature down to –40 °C ensures the highest reliability in cold storage warehouses and freezers (dependent on type)
- 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
- 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

Detailed information	➜ www.sick.com/Dx100

Dx500	Dx1000
Precise distance measurement for natural objects	Great performance at great distance

Dx500	Dx1000
0.2 m … 70 m, 90 % remission 0.2 m … 30 m, 6 % remission	0.2 m … 1,500 m, on "Diamond Grade" reflective tape 0.2 m … 460 m, 90 % remission 0.2 m … 155 m, 6 % remission
1 mm	≥ 1 mm
± 3 mm	≥ ± 10 mm
≥ 150 ms	≥ 3 ms
≥ 150 ms	≥ 1 ms
–	1 ms … 128 ms, adjustable
Natural objects	Reflector / natural objects
2 x PNP / NPN 2 x NPN / NPN	0 … 4 x push-pull: PNP/NPN
–	✔ , TCP/IP (parameterization, output of measurement data)
✔ , RS-422	✔ , RS-422 (parameterization, output of measurement data)
✔ , Layer 2	–
–	✔, output of measurement data
–	✔
–	✔
–	–
–	✔
–	–
1 x 0 mA … 20 mA / 1 x 4 mA … 20 mA	1 x 4 mA … 20 mA
Laser, visible red light	Laser, visible red light / infrared light
2	1
–10 °C … +45 °C –40 °C … +45 °C, operation with heating –40 °C … +75 °C, operation with cooling case	–40 °C … +55 °C –40 °C … +95 °C, operation with cooling case

Dx500

- High measuring accuracy ensures optimum process reliability, particularly in demanding applications
- Red laser and alignment brackets (optional accessory) enable fast and cost-effective installation
- Strong metal housing and heated device variants ensure a high level of reliability in harsh ambient conditions
- Integrated display with user-friendly menu navigation guarantees fast and cost-effective commissioning
- Serial interfaces, analog and digital outputs, and optional accessories, such as a weather protection housing and lens hoods, ensure flexible application integration

Dx1000

- Reliable distance measurement indoors and outdoors enables high system availability
- Multi-echo technology can suppress undesirable reflections – enabling use in a wider range of applications
- Comprehensive options for adjustments enable perfect adaptation to the individual measuring task
- Fast, safe commissioning using a graphical touch display, convenient SOPAS ET user interface and red alignment laser
- Laser class 1 and therefore eye-safe

➔ www.sick.com/Dx500

➔ www.sick.com/Dx1000

	UC4	UC12	
	Small, precise, ultrasonic	Ultrasonic technology housed in an industry-proven design	

Technical data overview

Operating range, limiting range	13 mm ... 150 mm, 250 mm	20 mm ... 250 mm, 350 mm	
Accuracy	≥ ± 0.13 mm	≥ ± 0.2 mm	
Repeatability	≥ 0.1 mm	≥ 0.1 mm	
Response time	≥ 10 ms	≥ 30 ms	
Output time	≥ 5 ms	≥ 8 ms	
Digital output	1 x PNP 1 x NPN 1 x push-pull PNP/NPN	2 x PNP, complementary 2 x NPN, complementary	
IO-Link	✔ , V1.1 (process data, parameterization, diagnosis, data storage)	✔ , V1.1 (process data, parameterization, diagnosis, data storage)	
Analog output	1 x 4 mA ... 20 mA (≤ 500 Ω) / 1 x 0 V ... 10 V (≥ 100 kΩ)	–	
Sending axis	Straight	Straight	
Ambient operating temperature	–25 °C ... +70 °C	–25 °C ... +70 °C	

At a glance

	• Mini housing allows for quick and easy integration, even in the most confined spaces • Teach-in button for fast and easy commissioning • Integrated temperature compensation ensures high measurement accuracy at all times for optimum process quality • Various operating modes provide optimal application flexibility and solutions, which increase reliability and productivity • Full mechanical compatibility to photo-electric sensors allows for the use of the suitable technology for every application without machine modification • The sensor's immunity to optically difficult environment enables it to take accurate measurements even in dirty, dusty, humid, and foggy conditions	• Proven cubic housing shape provides compatibility to other technologies • High flexibility due to IO-Link enables dynamic adaptation to changing application requirements • The complementary digital outputs signal cable breakage to prevent production errors • Integrated temperature compensation ensures high measurement accuracy at all times for optimum process quality • The sensor's immunity to external factors enables it to take reliable measurements even in dirty, dusty, humid, and foggy conditions	

| Detailed information | ➔ www.sick.com/UC4 | ➔ www.sick.com/UC12 | |

	UC30	UM12
	Rugged. Reliable. Rectangular.	Small sensor, great benefits
	350 mm ... 6,000 mm, 8,000 mm	20 mm ... 240 mm, 350 mm
	≥ ± 3.5 mm	≥ ± 0.2 mm
	≥ 0.525 mm	≥ 0.069 mm
	≥ 180 ms	≥ 24 ms
	≥ 43 ms	≥ 8 ms
	2 x PNP 2 x NPN 1 x push-pull PNP/NPN	1 x PNP 1 x NPN
	✔ , V1.1 (process data, parameterization, diagnosis, data storage)	✔ , V1.1 (process data, parameterization, diagnosis, data storage)
	1 x 4 mA ... 20 mA (≤ 500 Ω) / 1 x 0 V ... 10 V (≥ 100 kΩ)	1 x 4 mA ... 20 mA (≤ 500 Ω) / 1 x 0 V ... 10 V (≥ 100 kΩ)
	Straight	Straight
	–25 °C ... +70 °C	–25 °C ... +70 °C

UC30

- Compact cubic housing for straightforward machine integration
- Rugged, plastic housing ensures highest plant availability
- Various output signals for solving complex applications available
- IO-Link with many diagnostic options for fault-free operation and simple maintenance
- Teach-in buttons for fast and easy commissioning
- Rugged ultrasonic technology, measures reliably even in dirty, dusty, humid, and foggy conditions
- Integrated temperature compensation ensures high measurement accuracy at all times for optimum process quality

UM12

- Very compact housing dimensions for straightforward machine integration
- Proven M12 housing design ensures compatibility with other technologies
- Rugged, one-piece metal housing ensures highest plant availability
- Teach-in via cable and IO-Link prevents unintentional sensor adjustment, therefore reducing machine downtime
- Integrated temperature compensation ensures high measurement accuracy at all times for optimum process quality
- The sensor's immunity to external factors enables it to take reliable measurements even in dirty, dusty, humid, and foggy conditions

➜ www.sick.com/UC30

➜ www.sick.com/UM12

	UM18	UM30
	Simple set up, perfect detection	The universal application solver

Technical data overview

	UM18	UM30
Operating range, limiting range	20 mm ... 1,000 mm, 1,300 mm	30 mm ... 6,000 mm, 8,000 mm
Accuracy	≥ ± 0.2 mm	≥ ± 0.3 mm
Repeatability	≥ 0.069 mm	≥ 0.18 mm
Response time	≥ 32 ms	≥ 32 ms
Output time	≥ 8 ms	≥ 8 ms
Digital output	1 x PNP 2 x PNP 1 x NPN 2 x NPN 1 x push-pull PNP/NPN 2 x push-pull PNP/NPN	1 x PNP 2 x PNP 1 x NPN 2 x NPN 1 x push-pull PNP/NPN
IO-Link	✔ , V1.1 (process data, parameterization, diagnosis, data storage)	✔ , V1.1 (process data, parameterization, diagnosis, data storage)
Analog output	1 x 4 mA ... 20 mA (≤ 500 Ω) / 1 x 0 V ... 10 V (≥ 100 kΩ)	1 x 4 mA ... 20 mA (≤ 500 Ω) / 1 x 0 V ... 10 V (≥ 100 kΩ)
Sending axis	Straight / angled	Straight
Ambient operating temperature	–25 °C ... +70 °C	–25 °C ... +70 °C

At a glance

UM18	UM30
• Four sensing ranges up to a total of 1,300 mm for countless application possibilities • Easy integration due to a short M18 housing, straight or angled • Measurement filters and variants with temperature compensation for reliable measurement results and process stability • Rugged, one-piece housing ensures highest plant availability • Synchronization or multiplex mode for the simultaneous use of up to 20 sensors increases flexibility and process reliability • Various output signals for solving complex applications • Teach-in via cable prevents unintentional sensor adjustment, reducing machine downtime • Rugged, reliable ultrasound technology	• Easy system integration due to compact design • Flexible adaptation to application requirements due to numerous configuration options and adjustable sensitivity • Reliable measurement results since synchronization and multiplex mode prevents mutual interference of sensors • Inexpensive area monitoring possible due to sensor synchronization • Offline sensor configuration on display enables pre-configuration and saves time when commissioning the system • Integrated temperature compensation for high measurement accuracy • ObSB mode enables detection of any object between the sensor and a taught-in background

Detailed information	➔ www.sick.com/UM18	➔ www.sick.com/UM30

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SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 10,400 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, SICK is always close to its customers. 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.

SICK has extensive experience in various industries and understands their processes and requirements. With intelligent sensors, SICK delivers exactly what the 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 SICK a reliable supplier and development partner.

Comprehensive services round out the offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

That is "Sensor Intelligence."

Worldwide presence:

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Poland, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, USA, Vietnam.

Detailed addresses and further locations ➜ **www.sick.com**

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