



# Vision

A NEW DIMENSION IN VISION

2D vision, 3D vision, Sensor Integration Machine

**SICK**  
Sensor Intelligence.

## MORE THAN A VISION

In industrial environments, providing an effective solution to capture reality requires more than just a vision. With SICK you have the choice. Multiple dimensions, one philosophy: customer needs come first. Even in the face of the most challenging requirements, SICK supports you to realize your vision. Our broad 2D and pioneering 3D vision portfolio based on decades of innovation leadership helps customers worldwide. Positioning, inspection, measuring and reading – all at the same time, if needed. Our global technology experts are specialists in your industry and are located in your corner of the world. SICK’s vision sensors see your world as it truly is.



**There is never only one answer to intelligent questions.  
The best technology depends on the task at hand.**

For every application, the same question is asked: Which technology is best? The best possible solution is always tailored to the individual technical and economic conditions of the application.

SICK offers a broad portfolio of vision products ranging from easy-to-use configurable sensors and programmable flexible cameras to high-speed streaming cameras to meet the toughest of requirements. To minimize complexity, cost, and risks during the implementation of programmable vision solutions, you can access sophisticated SICK-developed functions and the comprehensive HALCON machine vision library via SICK AppSpace. The Sensor Integration Machine prepares vertical integration for Industry 4.0. As a result, established modules give rise to perfectly tailored, new solutions that are suitable for Industry 4.0 tasks, like quality control, track and trace, object data collection and predictive maintenance events.

### Configurable sensors



Configurable vision sensors make it quick and easy to set up parameters. Thanks to integrated image processing, the vision sensor works independently and provides results as an output.

### Programmable cameras



Programmable cameras facilitate high flexibility, and work independently without a PC. They have integrated image processing, and deliver results as output.

### Streaming cameras



Streaming cameras provide continuous data acquisition for external image processing on a PC. With a variety of data generation options, including 2D and 3D images, they offer maximum flexibility.



### 2D vision

SICK offers a powerful vision sensor portfolio designed to manage challenges in all industries where a standard sensor would not work. These vision sensors provide a full toolset for positioning, inspection, measurement and reading, depending on the variant. A flexible optical design fulfills the needs of almost all applications. Simplicity is ensured by automatic setup, intelligent algorithms and a common, intuitive user interface.



### 3D vision


















SICK's 3D vision series offers a wide range of powerful and flexible products designed for reliable operation in harsh industrial environments. They range from versatile high-speed cameras that deliver high quality 3D and contrast images to smart and configurable stand-alone sensors that facilitate rapid development and easy integration. Their scalability ensures a perfect fit with your 3D vision application.



### Sensor Integration Machine (SIM)

The Sensor Integration Machine (SIM) product family – part of the SICK AppSpace eco-system – is opening up new possibilities for application solutions. Data from SICK sensors and cameras can be merged, evaluated, archived, and transmitted. The portfolio features a scaled range of processing power levels and sensor connection numbers. As a result, the SIM family has the right solution to suit any application requirement.

# OVERVIEW OF VISION SENSORS

Product	Product group			Main tasks				Color inspection	
	Configurable	Programmable	Streaming	Positioning	Inspection	Measuring	Reading		
<b>2D vision</b>									
 Inspector	■			■	■	■			
 Lector62x	■						■		
 Lector63x	■						■		
 Lector64x	■						■		
 Lector65x	■						■		
 InspectorP63x		■		■	■	■	■		
 InspectorP64x		■		■	■	■	■		
 InspectorP65x		■		■	■	■	■		
 picoCam			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	
 midiCam			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>	
<b>3D vision</b>									
 TriSpector1000	■			■	■	■			
 IVC-3D		■		■	■	■	■		
 Ranger			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>		■ <sup>1)</sup>	
 Ruler			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>			
 ScanningRuler			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>			
 Visionary-T			■	■ <sup>1)</sup>	■ <sup>1)</sup>	■ <sup>1)</sup>			
<b>Sensor Integration Machine</b>									
 SIM4000		■		■	■	■	■	■	

<sup>1)</sup> In combination with a processing unit (e.g. SIM4000).



Technology					SICK AppSpace	Communication interfaces			Sensor resolution	Page
2D matrix	3D laser triangulation	3D time-of-flight (TOF)	Snapshot			Serial	Ethernet	Fieldbuses		
■			■				■	■	< 1 Mpixel	→ 6
■			■			■	■	■	< 1 Mpixel	→ 6
■			■			■	■	■	1.3 ... 1.9 Mpixel	→ 7
■			■			■	■	■	1.7 Mpixel	→ 7
■			■			■	■	■	2.1 ... 4.2 Mpixel	→ 7
■			■	■	■	■	■	■	1.3 ... 1.9 Mpixel	→ 8
■			■	■	■	■	■	■	1.7 Mpixel	→ 8
■			■	■	■	■	■	■	2.1 ... 4.2 Mpixel	→ 9
■			■				■		1.3 ... 4.2 Mpixel	→ 9
■			■				■		1.3 ... 1.9 Mpixel	→ 9
	■					■	■	■	790 px	→ 10
	■					■	■	■	1,536 px	→ 10
	■					■	■		512 ... 1,536 px	→ 10
	■					■	■		1,024 ... 1,536 px	→ 11
	■		■			■	■		756 px	→ 11
		■	■				■		176 px x 144 px	→ 11
					■	■	■	■		→ 12

	 <p style="text-align: center;"><b>Inspector</b></p>	 <p style="text-align: center;"><b>Lector62x</b></p>	
	<p>An intelligent vision solution in an easy-to-use sensor package.</p>	<p>Clever. Simple. Industrial.</p>	

**Technical data overview**

<b>Task</b>	Positioning, inspection, measuring	Reading
<b>Sensor</b>	CMOS matrix sensor, grayscale values	CMOS matrix sensor, grayscale values
<b>Optical format</b>	1/3"	1/3"
<b>Sensor resolution</b>	384 px x 384 px 640 px x 480 px	752 px x 480 px (WVGA)
<b>Light source</b>	White / White dome light / UV / Infrared	Red / Blue / Infrared
<b>Focus</b>	Adjustable focus (manually)	Adjustable focus (electrically) Teach auto focus
<b>Lens</b>	Integrated Replaceable (M12-mount)	Integrated
<b>Operator interfaces</b>	Inspector Viewer, Web server	Web server
<b>Operating elements</b>	-	2 buttons (choose and start/stop functions)
<b>Configuration software</b>	SOPAS ET	SOPAS ET
<b>Serial (RS-232, RS-422)</b>	-	✓
<b>USB</b>	-	✓, USB 2.0
<b>Ethernet</b>	✓, 100 MBit/s TCP/IP, EtherNet/IP, EtherCAT	✓, 10/100 MBit/s TCP/IP, FTP (image transmission), PROFINET, EtherNet/IP, EtherCAT® (optional over external fieldbus module CDF600)
<b>CAN bus</b>	-	✓, CANopen, CSN (SICK CAN Sensor Network)
<b>PROFIBUS DP</b>	-	✓, optional over external fieldbus module (CDF600-2)
<b>Dimensions</b>	100 mm x 53 mm x 38 mm	71 mm x 43 mm x 35.6 mm

**At a glance**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• High-speed positioning, inspection and measuring</li> <li>• Powerful “object locator” tool, independent of position, rotation and scale</li> <li>• Unique, interchangeable housing design supporting dome and various optical accessories</li> <li>• Simple step-by-step configuration in PC including emulator</li> <li>• Easy-to-use operator interfaces</li> <li>• Flexible machine and HMI design interfaces</li> </ul>  | <ul style="list-style-type: none"> <li>• Decoding of all common 1D, 2D, and stacked codes, as well as optical character recognition (depending on type)</li> <li>• Flexible interfaces: serial interface, USB, and Ethernet</li> <li>• Function buttons, aiming laser, focus adjustment, auto-setup, and green feedback LED</li> <li>• Industrial, compact housing with swivel connector</li> <li>• MicroSD memory card for storing images and backup copies of parameters</li> </ul>  |
|--|---|

Detailed information

→ [www.sick.com/Inspector](http://www.sick.com/Inspector)

→ [www.sick.com/Lector62x](http://www.sick.com/Lector62x)



**Lector63x**

Intelligent. Flexible. Intuitive.



**Lector64x**

High efficiency for code reading applications



**Lector65x**

Nonstop code reading flexibility

Reading	Reading	Reading
CMOS matrix sensor, grayscale values	CMOS matrix sensor, grayscale values	CMOS matrix sensor, grayscale values
1/1.8"	2/3"	1"
1,280 px x 1,024 px 1,600 px x 1,200 px	1,600 px x 1,088 px	2,048 px x 1,088 px 2,048 px x 2,048 px
White / Blue	White / Blue / Red	White / Blue / Red
Adjustable focus (manually)	Adjustable focus (manually)	Adjustable focus (manually) Dynamic focus control
C-mount or S-mount, replaceable, integrated for pre-assembled devices	C-mount, replaceable	C-mount, replaceable, dynamic focus with integrated optics and illumination
Web server	Web server	Web server
2 buttons (choose and start/stop functions) SOPAS ET	2 buttons (choose and start/stop functions) SOPAS ET	2 buttons (choose and start/stop functions) SOPAS ET
✓	✓	✓
✓, USB 2.0	✓, USB 2.0	✓, USB 2.0
✓, 10/100/1,000 MBit/s TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET (optional over external fieldbus module CDF600-2)	✓, 10/100/1,000 MBit/s TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET	✓, 10/100/1,000 MBit/s TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET
✓, CSN (SICK CAN Sensor Network)	✓, CSN (SICK CAN Sensor Network)	✓, CSN (SICK CAN Sensor Network)
✓, optional over external fieldbus module (CDF600-2)	✓, optional over external fieldbus module (CDF600-2)	✓, optional over external fieldbus module (CDF600-2)
108 mm x 63.1 mm x 45.8 mm (only housing without lens and protective hood)	142 mm x 89 mm x 46 mm (only housing without lens and protective hood)	142 mm x 89 mm x 46 mm (only housing without lens and protective hood)

- Code reader with 2 megapixel sensor
- Flexible optics and filter design
- Integrated, changeable high-power lighting
- Intuitive user interface, including flexible result string with code analytics options
- Function buttons, aiming laser, beeper and feedback indicator
- MicroSD card



→ [www.sick.com/Lector63x](http://www.sick.com/Lector63x)

- 1,7 megapixel resolution; high frame repetition rate of 40 Hz
- Integrated high-power LED illumination
- Function buttons, aiming laser, optical and audible feedback signal
- Intelligent, rapid decoding algorithms



→ [www.sick.com/Lector64x](http://www.sick.com/Lector64x)



- 2/4 megapixel resolution; high frame repetition rate of 40 up to 70 Hz
- Dynamic focus adjustment from object to object
- Integrated high-power LED illumination
- Function buttons, aiming laser, optical and acoustic feedback signal
- Intelligent, rapid decoding algorithms



→ [www.sick.com/Lector65x](http://www.sick.com/Lector65x)



Technical data overview			
<b>Task</b>	Positioning, inspection, measuring, reading	Positioning, inspection, measuring, reading	
<b>Sensor</b>	CMOS matrix sensor, grayscale values	CMOS matrix sensor, grayscale values	
<b>Optical format</b>	1/1.8"	2/3"	
<b>Sensor resolution</b>	1,280 px x 1,024 px (1.3 Mpixel) 1,600 px x 1,200 px (1.9 Mpixel)	1,600 px x 1,088 px (1.7 Mpixel)	
<b>Light source</b>	White / Blue	White / Blue / Red	
<b>Focus</b>	Adjustable focus	Adjustable focus	
<b>Lens</b>	C-mount or S-mount, replaceable, integrated for pre-assembled devices	C-mount, replaceable	
<b>Operator interfaces</b>	Web server	Web server	
<b>Operating elements</b>	2 buttons	2 buttons	
<b>Configuration software</b>	SICK AppStudio	SICK AppStudio	
<b>Serial (RS-232)</b>	✓ (2)	✓ (2)	
<b>Ethernet</b>	✓ , 10/100/1,000 MBit/s TCP/IP, FTP, HTTP	✓ , 10/100/1,000 MBit/s TCP/IP, FTP, HTTP	
<b>CAN bus</b>	✓ , CSN (SICK CAN Sensor Network)	✓ , CSN (SICK CAN Sensor Network)	
<b>Dimensions</b>	108 mm x 63 mm x 46 mm (only housing without lens and protective hood)	142 mm x 89 mm x 46 mm (only housing without lens and protective hood)	

At a glance		
	<ul style="list-style-type: none"> <li>• 1.3 and 1.9 MP programmable 2D cameras</li> <li>• Flexible S- and C-mount lenses and integrated illumination</li> <li>• 4Dpro interfaces</li> <li>• Aiming laser, beeper and feedback spot</li> <li>• Powered by HALCON library</li> <li>• Scripted in SICK AppStudio</li> <li>• Web operator interface</li> </ul>	<ul style="list-style-type: none"> <li>• 1.7 MP programmable 2D cameras</li> <li>• Flexible C-mount lens and integrated illumination</li> <li>• 4Dpro interfaces</li> <li>• Aiming laser, beeper and feedback spot</li> <li>• Powered by HALCON library</li> <li>• Scripted in SICK AppStudio</li> <li>• Web operator interface</li> </ul>
		

Detailed information	→ <a href="http://www.sick.com/InspectorP63x">www.sick.com/InspectorP63x</a>	→ <a href="http://www.sick.com/InspectorP64x">www.sick.com/InspectorP64x</a>
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**InspectorP65x**

Programmable. Top performer. Long-range.



**picoCam**

Ultra-compact, industrial streaming cameras with GigE interface



**midiCam**

Rugged, industry-grade streaming cameras with GigE interface

Positioning, inspection, measuring, reading

CMOS matrix sensor, grayscale values

1"

2,048 px x 1,088 px (2.1 Mpixel)  
2,048 px x 2,048 px (4.2 Mpixel)

White / Blue / Red

Adjustable focus

Dynamic focus control

C-mount, replaceable,  
dynamic focus with integrated optics and  
illumination

Web server

2 buttons

SICK AppStudio

✓ (2)

✓ , 10/100/1,000 MBit/s  
TCP/IP, FTP, HTTP

✓ , CSN (SICK CAN Sensor Network)

142 mm x 89 mm x 46 mm (only housing  
without lens and protective hood)

Positioning, inspection, measuring, reading

CMOS Mono / CMOS Color

1/1.8"

1/1.2"

1"

1,280 px x 1,024 px (1.31 Mpixel, 5:4, SXGA)  
1,600 px x 1,200 px (1.92 Mpixel, 4:3, UXGA)  
1,936 px x 1,216 px (2.35 Mpixel, 16:10,  
2 MP)  
2,048 px x 2,048 px (4.19 Mpixel, 1:1, 4 MP)

-

-

C-mount

-

-

I2D Software Suite

-

✓ , 1,000 MBit/s  
UDP

-

40.5 mm x 29 mm x 29 mm

Positioning, inspection, measuring, reading

CMOS Mono / CMOS Color

1/1.8"

1,280 px x 1,024 px (1.31 Mpixel, 5:4, SXGA)  
1,600 px x 1,200 px (1.92 Mpixel, 4:3, UXGA)

-

-

C-mount

-

-

I2D Software Suite

-

✓ , 1,000 MBit/s  
UDP

-

44.7 mm x 53 mm x 41 mm

- 2.1 and 4.2 MP programmable 2D cameras
- Flexible C-mount lens and integrated illumination
- 4Dpro interfaces
- Aiming laser, beeper and feedback spot
- Powered by HALCON library
- Scripted in SICK AppStudio
- Web operator interface



→ [www.sick.com/InspectorP65x](http://www.sick.com/InspectorP65x)

- Ultra-compact housing
- Power over Ethernet (PoE)
- Wide-range voltage supply 12 V DC ... 24 V DC
- Screw-fit RJ45 GigE interface
- Screw-fit Hirose plug connector for the voltage supply and digital inputs and outputs
- Color, monochrome, and NIR variants
- Connection for C-mount lenses






→ [www.sick.com/picoCam](http://www.sick.com/picoCam)

- Rugged housing with IP 67 enclosure rating
- Power over Ethernet (PoE)
- Wide-range voltage supply 12 V DC ... 24 V DC
- M12 plug connector for the GigE interface
- M12 plug connector for the voltage supply and digital inputs and outputs
- Color, monochrome, and NIR variants
- Connection for C-mount lenses






→ [www.sick.com/midiCam](http://www.sick.com/midiCam)




			
	<b>TriSpector1000</b>	<b>IVC-3D</b>	<b>Ranger</b>
	Intuitive 3D inspection	Advanced 3D vision made easy	Fast 3D measurement and MultiScan for advanced industrial solutions

Technical data overview			
<b>Task</b>	Positioning, inspection, measuring	Positioning, inspection, measuring, reading	Positioning, inspection, measuring
<b>Technology</b>	3D, LineScan, image analysis	3D, LineScan, image analysis	3D, LineScan, MultiScan, color
<b>Scan / frame rate</b>	2,000 3D profiles/s	5,000 3D profiles/s	35,000 3D profiles/s
<b>Grayscale measurements</b>	✓	-	✓ / -
<b>Color measurements</b>	-	-	Red / Green / Blue / monochrome (without IR content) / near infrared (approx. 750 nm ... 950 nm)
<b>Light source</b>	Visible red light (laser, 660 nm)	Visible red light (laser, 658 nm, ± 15 nm)	-
<b>Scatter measurement</b>	-	-	✓ / -
<b>Factory calibrated</b>	✓	✓	-
<b>Enclosure rating</b>	IP 67	IP 65 / IP 67	IP 20
<b>Configuration software</b>	SOPAS ET	IVC Studio	Ranger Studio, iCon API (C / C++)

### At a glance

<ul style="list-style-type: none"> <li>• 3D inspection of moving parts</li> <li>• Intuitive user interface</li> <li>• Embedded image analysis</li> <li>• Easy replacement concept</li> <li>• High resolution 3D image with intensity overlay</li> <li>• Factory calibrated 3D data, true mm values in all dimensions</li> <li>• Rugged IP 67 metal housing</li> </ul> 	<ul style="list-style-type: none"> <li>• Easy 3D measurement – provides information about object height, shape and volume</li> <li>• Independent of object contrast and color</li> <li>• Easy-to-use graphical user interface for fast application development</li> <li>• Simple connection of PLCs, robots, and other control systems, e.g., those using Ethernet/IP or OPC</li> <li>• Scans up to 5,000 profiles per second</li> <li>• Industrial, rugged metal housing</li> </ul> 	<ul style="list-style-type: none"> <li>• Fast 3D measurement at high speed and quality</li> <li>• MultiScan function for simultaneously measuring the 3D shape, contrast, color, and scatter</li> <li>• Sensor resolutions of up to 1,536 pixels in 3D and 3,072 pixels in grayscale and color</li> <li>• High levels of flexibility in configuration, working distance, and field of view</li> <li>• In-machine 3D calibration</li> <li>• Gigabit Ethernet interface</li> </ul> 
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Detailed information	→ <a href="http://www.sick.com/TriSpector1000">www.sick.com/TriSpector1000</a>	→ <a href="http://www.sick.com/IVC-3D">www.sick.com/IVC-3D</a>	→ <a href="http://www.sick.com/Ranger">www.sick.com/Ranger</a>
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 <p><b>Ruler</b></p>	 <p><b>ScanningRuler</b></p>	 <p><b>Visionary-T</b></p>
<p>Gigabit 3D vision for tough environments</p>	<p>Reliable and precise 3D snapshot for large field of view</p>	<p>3D snapshot – for versatile use indoors</p>

<p>Positioning, inspection, measuring</p>	<p>Positioning, inspection, measuring</p>	<p>Positioning, inspection, measuring</p>
<p>3D, LineScan 10,000 3D profiles/s ✓ -</p>	<p>3D snapshot 2.5 s per 3D image ✓ -</p>	<p>3D snapshot, image analysis 0.03 s per 3D image (30 fps) ✓ -</p>
<p>Visible red light (laser, 660 nm, ± 15 nm) ✓ / - ✓</p>	<p>Visible red light (laser, 660 nm, ± 15 nm) - ✓</p>	<p>Invisible infrared light (LED, 850 nm) - ✓</p>
<p>IP 65 Ranger Studio, iCon API (C / C++)</p>	<p>IP 65 Ranger Studio, iCon API (C / C++)</p>	<p>IP 67 SOPAS, API (Java, Matlab), Webserver, Telegram listing (universal use, e.g. Python, C++, C#), visualization also possible via ROS</p>

- Factory-calibrated 3D measurements in millimeters at full production speed
- Highly accurate 3D measurements for widths from 100 mm up to 1.5 m
- Capture 3D, grayscale, and scatter simultaneously
- Easy to integrate without the need for external illumination
- Rugged housing for harsh environments and temperatures as low as -30 °C
- Remote operation over long cabling distances with Gigabit Ethernet



→ [www.sick.com/Ruler](http://www.sick.com/Ruler)

- 3D imaging of stationary objects
- Large field of view for scanning U.S. and Euro pallets
- Accurate and reliable acquisition of factory-calibrated 3D data in millimeters
- High immunity to ambient light and contrast variation
- Rugged housing with built-in laser light source
- Point cloud 3D data with grayscale information



→ [www.sick.com/ScanningRuler](http://www.sick.com/ScanningRuler)

- Record up to 30 3D images per second
- Distance values: 144 x 176 pixels per snapshot
- Output 3D data via a Gigabit Ethernet interface
- Depth reproducibility of 3 mm and 30 mm at 1 m and 7 m distances respectively
- Temperature range: 0 °C to 50 °C or up to 45 °C (depending on the housing), enclosure rating: IP 67; light sensitivity: 0 klx ... 50 klx



→ [www.sick.com/Visionary-T](http://www.sick.com/Visionary-T)



**SIM4000**

Flexible. Intelligent. Communicative.

**Technical data overview**

<b>Supported products</b>	Vision sensors Encoder Identification solutions Detection and ranging solutions Trigger sources
<b>Serial (RS-232, RS-422)</b>	✓ (2) , also configurable as an encoder port. RS-232, RS-422 configurable via termination resistor which can be activated.
<b>Ethernet</b>	✓ (8), TCP/IP, FTP (image transmission), GigE, GenICam
<b>Encoder</b>	✓ (2) , max. 2 MHz
<b>Fieldbus</b>	✓ (2) , Ethernet-based, PROFINET, EtherNet/IP, EtherCAT
<b>CAN</b>	✓ (2), CSN (SICK CAN Sensor Network)
<b>IO-Link</b>	✓ (4), IO-Link Master 1.1
<b>USB</b>	✓
<b>Inputs/outputs</b>	
<b>I/O</b>	4 opto-decoupled inputs, 7 inputs/outputs (configurable)
<b>S1-S4</b>	In each case 1 input, in each case 1 input/output (configurable)
<b>S5-S8</b>	In each case 1 input, in each case 2 inputs/outputs (configurable)
<b>Enclosure rating</b>	IP 65

**At a glance**

- Wide range of connections with 25 interfaces for Ethernet-based fieldbuses, cameras, illumination, sensors, encoders, and more besides
- 10-gigabit Ethernet interfaces for rapid image transmission
- Precise synchronization of input and output signals
- Illumination control and supply
- IO-Link master connections
- Enclosure rating IP 65



Detailed information

→ [www.sick.com/SIM4000](http://www.sick.com/SIM4000)



## EASY INTEGRATION INTO YOUR AUTOMATION WORLD

Sensor integration with SICK is easy and fast for you: Our intelligent sensor solutions and safety controllers provide different integration technologies which allow easy access – from HMI, PLC, and engineering tools – to data from our sensors. In this way, we support you towards solving your application rapidly and easily and increase machine reliability with a continuous diagnostic concept.

### PLC and engineering tool integration

Function Blocks	
<b>IO-Link devices</b> Level sensors Pressure sensors Presence detection sensors Distance sensors	<b>Bar code scanners, Image-based code readers</b> 1D und 2D
<b>Vision sensors</b> Inspector	<b>RFID</b> RFH6xx RFU62x, RFU63x
<b>Absolute encoders</b> AFS60/AFM60	<b>Laser volume flowmeter</b> Bulkscan® LMS511

#### Function blocks

The SICK function blocks quickly allow you to establish acyclic communication to our sensors within your PLC program. Additionally, complex and variable process data can be parsed into their individual information contents without programmer effort.

#### DTM (Device Type Manager)

FDT/DTM is a cross-manufacturer concept, with which configuration and diagnosis of devices from different manufacturers can be done with just one engineering tool.

#### TCI (Tool Calling Interface)

The Tool Calling Interface (TCI) makes it possible to call up a tool used to carry out parameterization and diagnosis of a field device via the existing communication infrastructure.

### HMI integration

#### OPC server

OPC technology is used to exchange data between field devices and Windows-based applications. The SOPAS OPC server from SICK follows the OPC DA specification and thus can be used on Windows operating systems.



#### Web server

The SOPAS web server from SICK can be used everywhere, where a web browser is available. The web server is distinguished by its ability to both carry out pure data exchange and also to provide visualizations for the devices, which is a big advantage, particularly for vision sensors.

### Fieldbus Communication Interface

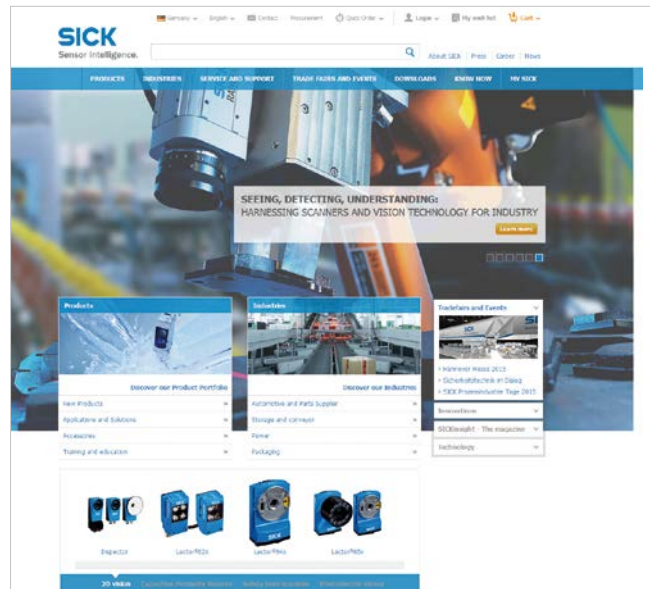


Our fieldbus and network solutions allow SICK sensors and safety controllers to be connected to all conventional automation systems. This guarantees an easy and fast access to the available data.

→ [www.sick.com/industrial-communication](http://www.sick.com/industrial-communication)

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- ✔ View the status of quotations and orders at any time. Receive e-mail notifications of status changes.
- ✔ Easily repeat previous orders.
- ✔ Conveniently export quotations and orders to work with your systems.



## SERVICES FOR MACHINES AND SYSTEMS: SICK LifeTime Services

Our comprehensive and versatile LifeTime Services are the perfect addition to the comprehensive range of products from SICK. The services range from product-independent consulting to traditional product services.



- 
**Consulting and design**  
 Safe and professional
- 
**Product and system support**  
 Reliable, fast and on-site
- 
**Verification and optimization**  
 Safe and regularly inspected
- 
**Upgrade and retrofits**  
 Easy, safe and economical
- 
**Training and education**  
 Practical, focused and professional

## SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 7,400 employees and over 50 subsidiaries and equity investments as well as numerous agencies worldwide, we are always close to our 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.

We have extensive experience in various 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 round out 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:**

Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, 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](http://www.sick.com)