

# SIM2x00

High-performance. Flexible. Intelligent.

**SENSOR INTEGRATION MACHINE**

**SICK**  
Sensor Intelligence.



### Product description

As part of the SICK AppSpace eco-system, the programmable SIM2x00 Sensor Integration Machines offer multiple sensor data acquisition and fusion processes, thereby providing space for new application solutions. The acquired data is processed and visualized for important information, for example quality control or process analysis. In addition, the IoT gateway functions enable connection from the edge to the cloud via the Internet in the context of Industry 4.0. The SIM2x00 products feature a powerful processor architecture and four fast Ethernet interfaces for cameras and LiDAR sensors. Other sensors can be integrated via IO-Link, for example for distance and height measuring purposes.

### At a glance

- Interfaces to the cloud and PLC as well as cameras, illumination, LiDAR scanners, (IO-Link) sensors and encoders
- 4 Ethernet ports ( $\leq 2.5$  Gb/s)
- SICK Interface & Algorithm API and HALCON image pre-processing library for sensor data and image processing (depending on type)
- Enclosure rating IP65 or IP20 (depending on type)

### Your benefits

- Easy development of customized data applications with graphical application modeling in SICK AppSpace
- Processing of sensor and camera data as well as IoT gateway functions in one device
- Configurable firewall for a high level of data security
- One-box solution: Complete hardware system for a quick project start without a complex search for SW drivers, components and cables
- Diverse image/scan processing options for all industrial fields of application
- Hardware supported by the co-processor offers real-time data processing and communication
- Variants for mounting directly on the system or in the control cabinet

### Fields of application

- Recording, presentation, processing and archiving of data, e.g. for material management, quality control, process analysis and predictive maintenance in the context of Industry 4.0
- Multi-sensor or image-based inspection, measurement, and identification of objects and devices in all areas of industrial automation

## Ordering information

Other models and accessories → [www.sick.com/SIM2x00](http://www.sick.com/SIM2x00)

- **Sub product family:** SIM2000
- **Enclosure rating:** IP65
- **Connections:** I/O, Power, SERIAL, INC, Fieldbus, CAN, SENSOR S1-S4, SENSOR S5-S6, Ethernet with PoE, USB
- **Further functions:** FPGA for I/O handling, Dedicated fieldbus controller
- **Product category:** programmable devices

Generation	Supported products	Processor	Toolkit	Type	Part no.
Second generation	2D and 3D cameras from SICK or based on the GigE machine vision standard, 2D and 3D LiDAR sensors, Image-based code readers, Bar code scanners, RFID read/write device, displacement measurement sensors, incremental and absolute encoders, Photoelectric sensors	8-core ARM Cortex-A72 CPU with NEON accelerator	SICK algorithm API	SIM2000-2P04G10	1081902

- **Sub product family:** SIM2500
- **Enclosure rating:** IP65
- **Connections:** I/O, Power, SERIAL, INC, Fieldbus, CAN, SENSOR S1-S4, SENSOR S5-S6, Ethernet with PoE, USB
- **Further functions:** FPGA for I/O handling, Dedicated fieldbus controller
- **Product category:** programmable devices

Generation	Supported products	Processor	Toolkit	Type	Part no.
Second generation	2D and 3D cameras from SICK or based on the GigE machine vision standard, 2D and 3D LiDAR sensors, Image-based code readers, Bar code scanners, RFID read/write device, displacement measurement sensors, incremental and absolute encoders, Photoelectric sensors	8-core ARM Cortex-A72 CPU with NEON accelerator, FPGA co-processor for image (pre-)processing	SICK algorithm API, HALCON (image processing library)	SIM2500-2P03G10	1092673

- **Sub product family:** SIM2000ST-E
- **Enclosure rating:** IP20
- **Connections:** Power, IO-Link Master, output, Input A, Input B, Serial A, serial B, CAN, Ethernet, Fieldbus, USB
- **Further functions:** Dedicated fieldbus controller
- **Processor:** 2 x Cortex-A72, 4 x Cortex-A53, 2 x Cortex-M4F

Product category	Supported products	Toolkit	Type	Part no.
–	2D and 3D LiDAR sensors, Image-based code readers, Bar code scanners, RFID read/write device, displacement measurement sensors, incremental and absolute encoders, Photoelectric sensors	–	SIM2000-3L10A00	1117588
Programmable devices	2D and 3D cameras from SICK or based on the GigE machine vision standard, 2D and 3D Li-	SICK algorithm API	SIM2000-3P04A00	1112345

Product category	Supported products	Toolkit	Type	Part no.
	DAR sensors, Image-based code readers, Bar code scanners, RFID read/write device, displacement measurement sensors, incremental and absolute encoders, Photoelectric sensors			

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)