Product family overview

SIM10xx

Compact. Flexible. Intelligent.

SICK
Sensor Intelligence.

Technical data overview

Supported products	2D and 3D LiDAR sensors Devices with FW2.x.x.: pico- and midiCam2 series, GigE-Vision compatible cameras (from 2022) Devices with FW1.x.x.: picoCam1 and midiCam1 series Incremental and absolute encoders Image-based code readers Fixed mount barcode scanners RFID read/write device Displacement measurement sensors Photoelectric sensors pico- und midiCam series Flexi Soft main module
Development environment	SICK AppStudio, Can be programmed within the SICK AppSpace environment
Ethernet	✓
Incremental	✓
IO-Link	✓
Serial	✓
CAN	✓
USB	✓
FI	✓
Digital inputs/outputs	
S1-S6	In each case 1 input, in each case 1 input/output (can be configured) (Max. frequency: 30 kHz) Digital input (Max. frequency: 30 kHz) Digital inputs/outputs (can be configured) (Max. frequency: 30 kHz)
Enclosure rating	IP65 as per EN 60529:1991-10 + A1:2000-02 + A2:2013-10 (blind plugs must be inserted into unused connections) IP20 as per EN 60529:1991-10 + A1:2000-02 + A2:2013-10

Product description

As part of the SICK AppSpace eco-system, the programmable SIM10xx 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 SIM10xx products feature a powerful processor and Ethernet interfaces for cameras and LiDAR sensors. Other sensors can be integrated via IO-Link, for instance for distance and height measuring purposes.

At a glance

- Interfaces for the cloud and cameras, illumination, LIDAR scanners, (IO-Link) sensors and encoders
- Up to 4 Ethernet ports
- SICK Interface & Algorithm API for image and sensor data processing
- Enclosure rating IP65 or IP20 (depending on type)
- Design without fans
- Flexible in use, e.g., with the Flexi Soft safety controller

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
- Flexible and compact housing concept 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/SIM10xx

- **Sub product family:** SIM1012
- **Enclosure rating:** IP65
- **Connections:** Power, Incremental, serial, CAN, S1-S6, IO-Link Master, Ethernet
- **Further functions:** FPGA for I/O handling
- **Product category:** programmable devices
- **Supported products:** 2D and 3D LiDAR sensors, Devices with FW2.x.x.: pico- and midiCam2 series, GigE-Vision compatible cameras (from 2022)
  Devices with FW1.x.x.: picoCam1 and midiCam1 series, incremental and absolute encoders, Image-based code readers, Fixed mount barcode scanners, RFID read/write device, displacement measurement sensors, Photoelectric sensors
- **Processor:** dual-core ARM Cortex-A9 CPU with NEON accelerator
- **Toolkit:** SICK algorithm API

Type	Part no.
SIM1012-0AXG200 3D Belt Pick	1130785
SIM1012-0P0G200	1098146

- **Sub product family:** SIM1000 FX
- **Enclosure rating:** IP20
- **Further functions:** FPGA for I/O handling
- **Product category:** programmable devices
- **Processor:** dual-core ARM Cortex-A9 CPU with NEON accelerator
- **Toolkit:** SICK algorithm API

Connections	Supported products	Type	Part no.
Terminal block 1-4, Ethernet	2D and 3D LiDAR sensors, pico- und midiCam series, incremental and absolute encoders, Image-based code readers, Fixed mount barcode scanners, RFID read/write device, displacement measurement sensors, Photoelectric sensors	SIM1000-0P0B100	1097816
Terminal block 1-4, Ethernet, FLEXBUS+	2D and 3D LiDAR sensors, pico- und midiCam series, incremental and absolute encoders, Image-based code readers, Fixed mount barcode scanners, RFID read/write device, displacement measurement sensors, Photoelectric sensors, Flexi Soft main module	SIM1000-0P0B110	1097817

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