SIM1012-0P0G200

SIM10xx

SENSOR INTEGRATION MACHINE

SIM1012-0P0G200 | SIM10xx

SENSOR INTEGRATION MACHINE

Ordering information

Type	Part no.
SIM1012-0P0G200	1098146

You can find additional information on the device and firmware releases in the <a href=""https://supportpor-tal.sick.com/products/integration-products/sensor-integration-machine/sim4x00/">SICK Support Portal. A complete overview of the connecting cables for SIMxxxx is also available in the Support Portal. You must register before logging in.

Other models and accessories ➜ www.sick.com/SIM10xx

Detailed technical data

Features

Product category	Programmable devices
Task	Data recording, evaluation, and archiving
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
Random Access Memory	1 GB
Flash memory	256 MB in total, 30 MB of which available for applications
Application development kit	SICK AppStudio Can be programmed within the SICK AppSpace environment
Toolkit	SICK algorithm API
Further functions	FPGA for I/O handling

Mechanics/electronics

Connections	
Power	1 (M12, 4-pin male connector, T-coded)
Incremental	1 (M12, 8-pin female connector, A-coded)
Serial	1 (M12, 8-pin female connector, A-coded)
CAN	1 (M12, 5-pin female connector, A-coded)
S1-S6, IO-Link Master	6 (M12, 5-pin female connector, A-coded)

[1] SELV as per EN 60950-1.

[2] With functional earth.

Ethernet	2 (M12, 8-pin female connector, X-coded)
Supply voltage	24 V DC, ± 10 % [1]
Operating current	To be protected with 12 A
Power consumption	≤ 15 W, without connected sensor
Power output	≤ 270 W, total, all connections
Output current	
Serial voltage supply	≤ 1 A
Incremental voltage supply	≤ 0.5 A
CAN voltage supply	≤ 3.2 A
S1-S6	≤ 100 mA
S1-S6 voltage supply	≤ 1 A
Enclosure rating	IP65 as per EN 60529:1991-10 + A1:2000-02 + A2:2013-10 (blind plugs must be inserted into unused connections)
Protection class	III [2]
Housing material	Aluminum
Housing color	Light blue (RAL 5012), gray-white front film (RAL 9002)
Weight	876 g, including connection plugs
Dimensions (L x W x H)	86.5 mm x 45.8 mm x 265.5 mm

[1] SELV as per EN 60950-1.

[2] With functional earth.

Interfaces

Ethernet	✓, TCP/IP, FTP, OPC UA, MQTT
Function	Data output, Configuration, firmware update
Data transmission rate	2 x 10/100/1.000 Mbit/s
Incremental	✓
Remark	Can also be configured as an RS-422 interface, max. frequency 2 MHz
IO-Link	✓, IO-Link V1.1
Function	IO-Link Master
Data transmission rate	≤ 230 kBaud
Serial	✓, RS-232, RS-422, RS-485
Remark	Can also be configured as an encoder interface, max. frequency 2 MHz
Data transmission rate	RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud
CAN	✓
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server), termination resistor can be controlled using app
Data transmission rate	20 kbit/s ... 1 Mbit/s
USB	✓, USB 2.0
Function	Configuration, diagnosis, firmware update
Operator interfaces	Web server (GUI), SICK AppStudio (programming), SICK AppManager (app installation, firmware update)
Data storage and retrieval	Image and data logging via optional microSD memory card, internal RAM and external FTP
Memory card(s)	Industry-grade microSD memory card (flash card), max. 16 GB
Digital inputs/outputs	

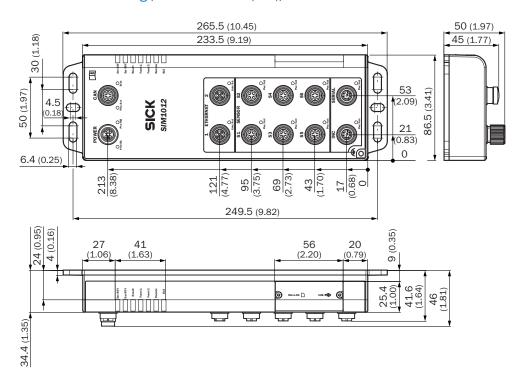|	S1-S6	In each case 1 input, in each case 1 input/output (can be configured) (Max. frequency: 30 kHz)
Optical indicators		7 red/green (status displays) 2 Green (Link displays) 11 red/green (status displays for power, CAN, sensor, incremental, serial) 1 blue (CAN)

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2:2005-08 EN 61000-6-4:2007+A1:2011
Shock load	EN 60068-2-27:2009-05
Vibration resistance	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +50 °C [1]
Ambient temperature, storage	–20 °C ... +70 °C [1]

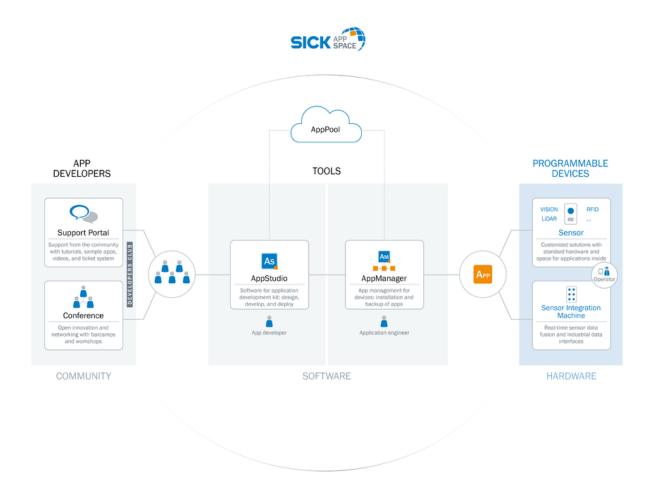[1] Permissible relative air humidity: 0 % ... 90 % (non-condensing).

Classifications

eCl@ss 5.0	27242208
eCl@ss 5.1.4	27242608
eCl@ss 6.0	27242608
eCl@ss 6.2	27242608
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608
eCl@ss 8.1	27242608
eCl@ss 9.0	27242608
eCl@ss 10.0	27242608
eCl@ss 12.0	27242608
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604
ETIM 8.0	EC001604
UNSPSC 16.0901	32151705

Dimensional drawing (Dimensions in mm (inch))

Overview

SICK AppSpace

Recommended services

Additional services ➜ www.sick.com/SIM10xx

	Type	Part no.
Function Block Factory		
• **Description:** The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&R. More information on the FBF can be found here. • **Note:** You can configure your function block at Function Block Factory. As a login please use your SICK ID.	Function Block Factory	On request

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."

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