Data sheet

SIM1012-0P0G200

SIM10xx

EDGE COMPUTING DEVICES

SICK
Sensor Intelligence.

Ordering information

Type	part no.
SIM1012-0P0G200	1098146

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)
Ethernet	2 (M12, 8-pin female connector, X-coded)
Supply voltage	24 V DC, ± 10 % [1]

[1] SELV as per EN 60950-1.
[2] With functional earth.

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
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
Remark	Can also be configured as an RS-422 interface, max. frequency 2 MHz
Function	Data output, Configuration, firmware update
Data transmission rate	20 kbit/s ... 230 kBaud, 2 x 10/100/1.000 Mbit/s
Incremental	✓ , IO-Link V1.1, RS-422, RS-485
Remark	Can also be configured as an encoder interface, max. frequency 2 MHz
Function	IO-Link Master, termination resistor can be controlled using app, firmware update
Data transmission rate	≤ 1 Mbit/s, RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud
IO-Link	✓ , RS-232
Remark	Can also be configured as an encoder interface, max. frequency 2 MHz
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server), diagnosis
Data transmission rate	≤ 230 kBaud, RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud
Serial	✓ , USB 2.0
Function	Configuration
CAN	✓ , USB 2.0
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server)
USB	✓
Function	Configuration
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 humidity: 0% ... 90% (non-condensing).

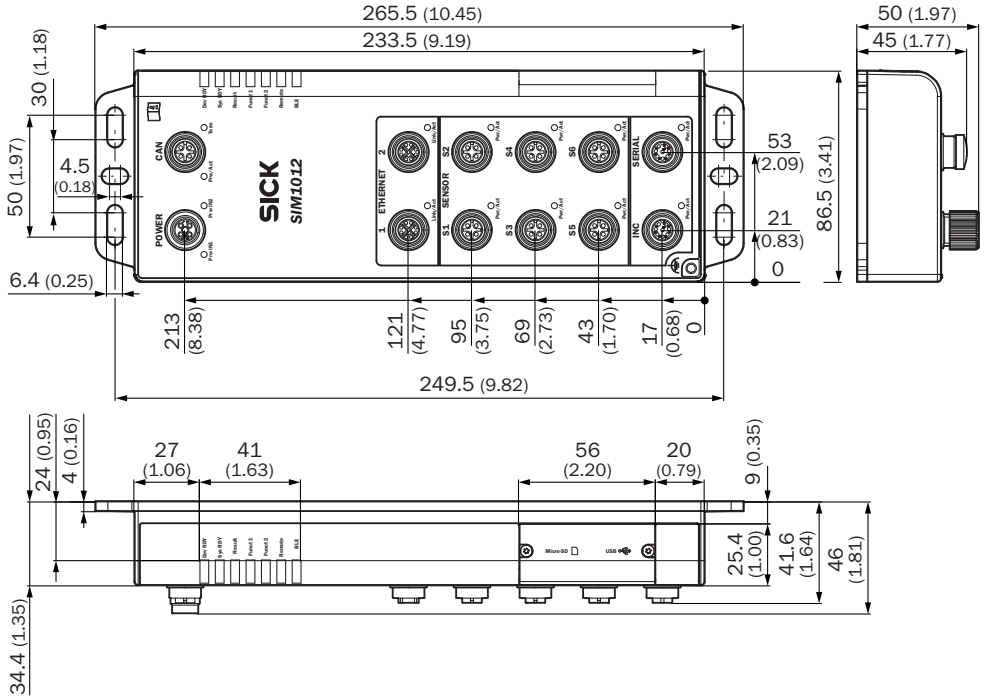
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓

Classifications

ECLASS 5.0	27242208
ECLASS 5.1.4	27242608
ECLASS 6.0	27242608
ECLASS 6.2	27242608
ECLASS 7.0	27242608
ECLASS 8.0	27242608
ECLASS 8.1	27242608
ECLASS 9.0	27242608
ECLASS 10.0	27242608
ECLASS 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

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

SICK
Sensor Intelligence.