



# SIM1012-0AXG200 3D Belt Pick

SIM10xx

EDGE COMPUTING DEVICES

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
SIM1012-0AXG200 3D Belt Pick	1130785

Other models and accessories → [www.sick.com/SIM10xx](http://www.sick.com/SIM10xx)



### Detailed technical data

#### Features

<b>Product category</b>	Programmable devices
<b>Task</b>	Data recording, evaluation, and archiving
<b>Supported products</b>	Ruler3020 Ruler3060 Ruler3120
<b>SensorApp</b>	3D Belt Pick SensorApp
<b>License included</b>	3D Belt Pick Licence
<b>Processor</b>	Dual-core ARM Cortex-A9 CPU with NEON accelerator
<b>Random Access Memory</b>	1 GB
<b>Flash memory</b>	256 MB in total, 30 MB of which available for applications
<b>Application development kit</b>	SICK AppStudio Can be programmed within the SICK AppSpace environment
<b>Toolkit</b>	SICK algorithm API
<b>Further functions</b>	FPGA for I/O handling

#### Mechanics/electronics

<b>Connections</b>	
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)
<b>Supply voltage</b>	24 V DC, ± 10 % <sup>1)</sup>
<b>Operating current</b>	To be protected with 12 A
<b>Power consumption</b>	≤ 15 W, without connected sensor

<sup>1)</sup> SELV as per EN 60950-1.

<sup>2)</sup> With functional earth.

<b>Power output</b>	≤ 270 W, total, all connections
<b>Output current</b>	
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
<b>Enclosure rating</b>	IP65
<b>Protection class</b>	III <sup>2)</sup>
<b>Housing material</b>	Aluminum
<b>Housing color</b>	Light blue (RAL 5012), gray-white front film (RAL 9002)
<b>Weight</b>	876 g, including connection plugs
<b>Dimensions (L x W x H)</b>	86.5 mm x 45.8 mm x 265.5 mm

<sup>1)</sup> SELV as per EN 60950-1.

<sup>2)</sup> With functional earth.

## Interfaces

<b>Ethernet</b>	✓ , 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
<b>Incremental</b>	✓ , 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
<b>IO-Link</b>	✓ , 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
<b>Serial</b>	✓ , USB 2.0
Function	Configuration
<b>CAN</b>	✓ , USB 2.0
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server)
<b>USB</b>	✓
Function	Configuration
<b>Operator interfaces</b>	Web server (GUI), SICK AppStudio (programming), SICK AppManager (app installation, firmware update)
<b>Data storage and retrieval</b>	Image and data logging via optional microSD memory card, internal RAM and external FTP
<b>Memory card(s)</b>	Industry-grade microSD memory card (flash card), max. 16 GB
<b>Digital inputs/outputs</b>	
S1-S6	In each case 1 input, in each case 1 input/output (can be configured) (Max. frequency: 30 kHz)
<b>Optical indicators</b>	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

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

<sup>1)</sup> Permissible relative humidity: 0% ... 90% (non-condensing).

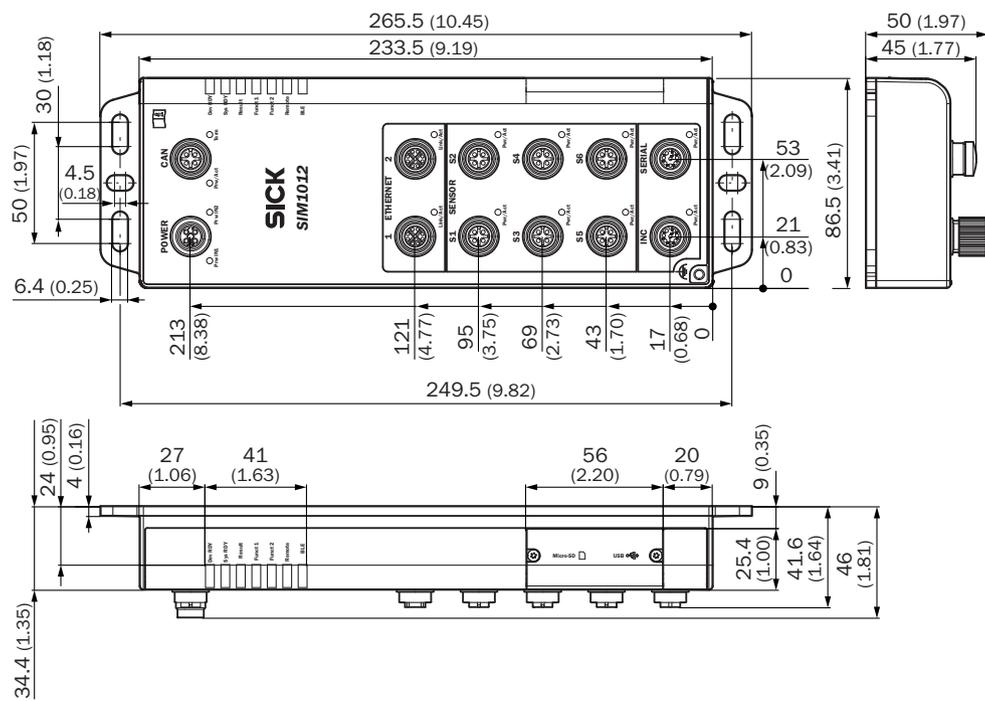
## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓

## Classifications

<b>ECLASS 5.0</b>	27242208
<b>ECLASS 5.1.4</b>	27242608
<b>ECLASS 6.0</b>	27242608
<b>ECLASS 6.2</b>	27242608
<b>ECLASS 7.0</b>	27242608
<b>ECLASS 8.0</b>	27242608
<b>ECLASS 8.1</b>	27242608
<b>ECLASS 9.0</b>	27242608
<b>ECLASS 10.0</b>	27242608
<b>ECLASS 12.0</b>	27242608
<b>ETIM 5.0</b>	EC001604
<b>ETIM 6.0</b>	EC001604
<b>ETIM 7.0</b>	EC001604
<b>ETIM 8.0</b>	EC001604
<b>UNSPSC 16.0901</b>	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](http://www.sick.com)