SIM2000-0A20A00

SIM2x00

EDGE COMPUTING DEVICES

SICK
Sensor Intelligence.

Ordering information

Type	part no.
SIM2000-0A20A00	1086073

Other models and accessories ➜ www.sick.com/SIM2x00

Detailed technical data

Features

Product category	Programmable
Generation	First generation
Supported products	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
Processor	4 Core PowerPC CPU
Random Access Memory	2 GB
Flash memory	512 MB in total, 427 MB of which available for applications
Programming software	SICK AppStudio Can be programmed within the SICK AppSpace environment
Toolkit	SICK algorithm API
Further functions	FPGA for I/O handling Dedicated fieldbus controller

Mechanics/electronics

Connections	
Power, IO-Link Master, output, Input A, Input B, Serial A, serial B, CAN, Ethernet, Fieldbus, USB	X1, X2, X3, X4, X5, X6, X7, X8, X9-X12, X13-X14, 1 x Micro-B, spring terminal, spring terminal, spring terminal, spring terminal, spring terminal, spring terminal, spring terminal, spring terminal, RJ45, RJ45
Supply voltage	24 V DC, ± 10 %
Power consumption	Typ. 20 W, without connected sensor
Power output	≤ 50 W, Input A & B, IO-Link
Output current	
X1 switching output	100 mA (per output)
X3 switching output	700 mA (total)
X1 voltage supply	≤ 700 mA (total)
X4, X5 voltage supply	700 mA
Enclosure rating	IP20
Protection class	III
Electrical safety	EN 62368-1

Housing material	Aluminum die cast
Housing color	Light blue (RAL 5012)
Weight	1,532 g
Dimensions (L x W x H)	137 mm x 196 mm x 81 mm

Interfaces

Ethernet	✓ (4) , TCP/IP, FTP, OPC UA, MQTT
Type of fieldbus integration	GigE machine vision/GenICAM
Remark	X9-X12
Function	Data output, Configuration, firmware update, image transmission
Data transmission rate	20 kbit/s … 230 kBaud, 10/100/1,000/2,500 Mbit/s
PROFINET	✓ (2) , RS-232, RS-422, RS-485
Remark	X13-X14
Function	Dual port Ethernet-based fieldbus, Can also be configured as an encoder interface, max. frequency 2 MHz, firmware update
Data transmission rate	≤ 1 Mbit/s, 10/100 MBit/s
EtherNet/IP™	✓ (2) , USB 2.0
Remark	X13-X14
Function	Dual port Ethernet-based fieldbus, diagnosis
Data transmission rate	10/100 MBit/s
EtherCAT®	✓ (2) , RS-232
Remark	X13-X14, in preparation
Function	Dual port Ethernet-based fieldbus
Data transmission rate	10/100 MBit/s
IO-Link	✓ (4) , USB 2.0
Remark	X1
Function	IO-Link Master 1.1
Data transmission rate	RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud
Serial	✓ (4)
Remark	X6-X7
Function	Serial interface
Data transmission rate	RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud
CAN	✓
Remark	X8
Function	SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) with activatable termination resistor
USB	✓
Function	For 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. 32 GB, optional
Digital inputs/outputs	
IO-Link Master	4 inputs, 4 inputs/outputs (configurable incl. IO-Link)

Output	4 outputs (insulated)	
Input A/B	4 inputs each (insulated)	
Control elements	1 selector switch (under the servicing panel) 1 functional button (under the servicing panel) 2 S1 and S2 switches for GND ISO/GND	

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2:2005-08 EN 61000-6-4:2007+A1:2011 EN 61131-9:2013-12
Shock load	EN 60068-2-27:2009-05
Ambient operating temperature	0 °C ... +50 °C [1] [2]
Ambient temperature, storage	–20 °C ... +70 °C [1]

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

[2] While taking account of the mounting requirements described, see operating instructions.

Certificates

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

Classifications

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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
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604
ETIM 8.0	EC001604
UNSPSC 16.0901	32151705

Dimensional drawing SIM2x00
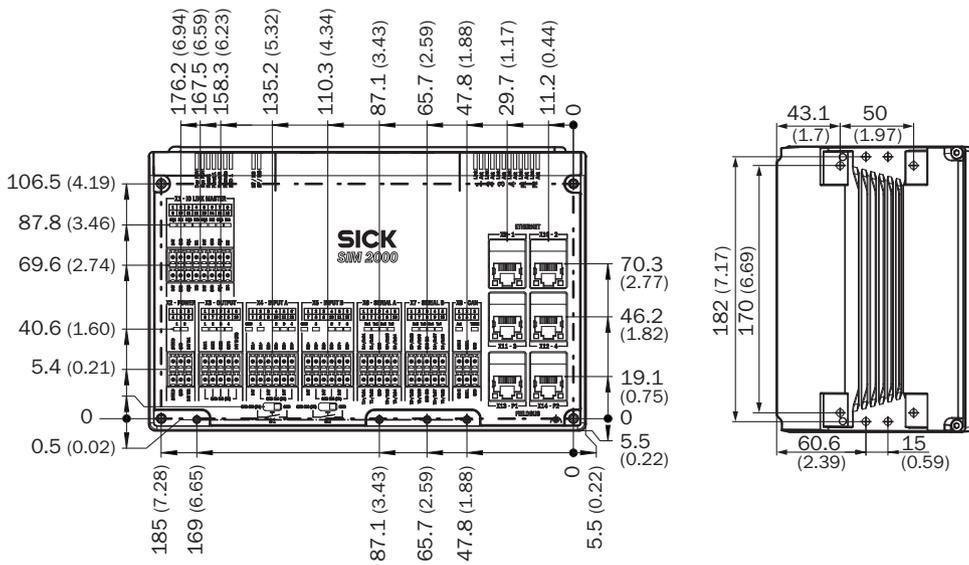
Dimensions in mm (inch)
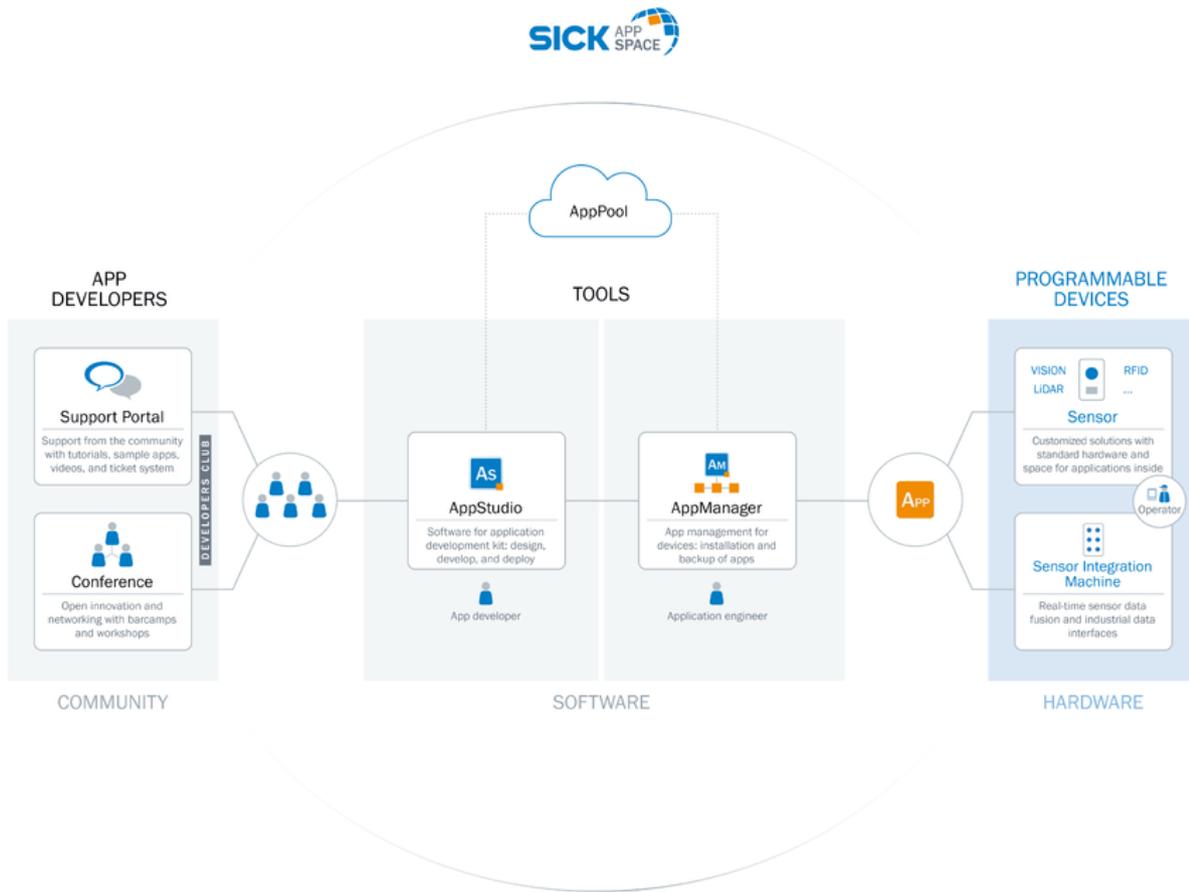dimensions in mm (inch)

Dimensional drawing SIM2x00
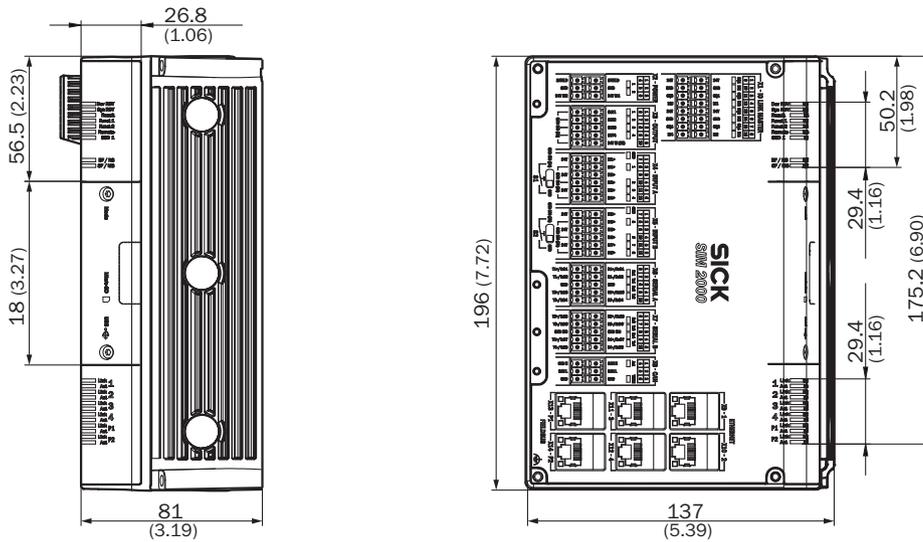
Dimensions in mm (inch)
dimensions in mm (inch)

Dimensional drawing SIM2000 with adapter plate
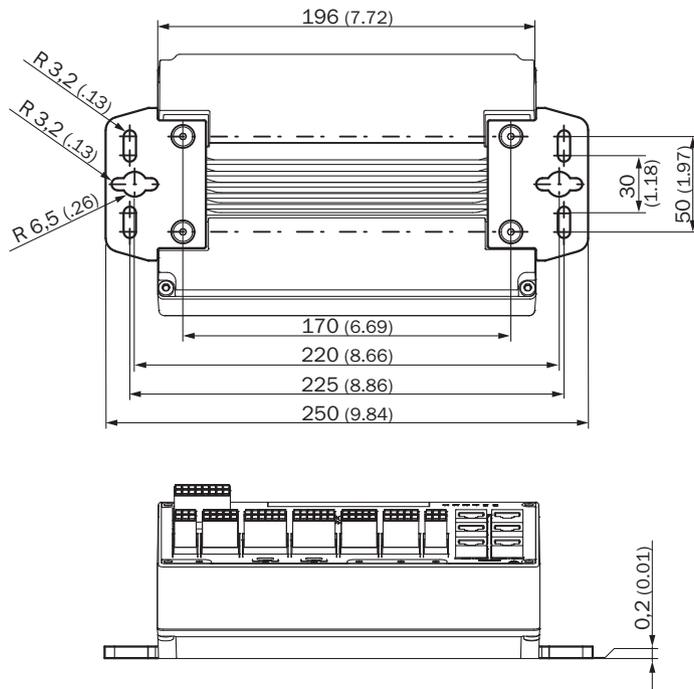
Dimensions in mm (inch)
dimensions in mm (inch)

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 AG | Waldkirch | Germany | www.sick.com

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