



SIM2000-3P00A00

SIM2x00

EDGE COMPUTING DEVICES

SICK
Sensor Intelligence.



Ordering information

Type	part no.
SIM2000-3P00A00	1112345

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



Detailed technical data

Features

Product category	Programmable
Generation	Third 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	2 x Cortex-A72 4 x Cortex-A53 2 x Cortex-M4
Random Access Memory	4 GB DDR4
Flash memory	16 GB eMMC, of which 12 GB are available for applications
Programming software	SICK AppStudio Can be programmed within the SICK AppSpace environment
Toolkit	SICK algorithm API
Further functions	Dedicated fieldbus controller

Mechanics/electronics

Connections	Power, DIGITAL IO, output, Input A, Input B, Serial A, serial B, CAN, Ethernet, Fieldbus, USB, DISPLAY	X1, X2, X3, X4, X5, X6, X7, X8, X9-X12, X13-X14, 1 x Micro-B, spring terminal, RJ45, RJ45, (under preparation) ¹⁾
Supply voltage	24 V DC, ± 20 %	
Power consumption	Typ. 15 W, At full CPU load, no sensors connected	
Power output	100 W, total, all connections	
Output current		
	X2 switching output	100 mA (per output)
	X3 switching output	100 mA (per output)
	X2 voltage supply	≤ 700 mA (total)

¹⁾ Under preparation.

X4, X5 voltage supply	700 mA (total)
Enclosure rating	IP20
Protection class	III
Electrical safety	EN 61010
Housing material	Aluminum die cast
Housing color	Aluminum (unpainted)
Weight	1,475 g
Dimensions (L x W x H)	225.5 mm x 132.5 mm x 83 mm

¹⁾ Under preparation.

Interfaces

Ethernet	✓ (4) , TCP/IP, FTP, OPC UA, MQTT
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, (In progress), 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
DIGITAL IO	✓ (2) , USB 2.0
Remark	X2
Function	IO-Link Master
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), SOPAS ET

Data storage and retrieval	Image and data logging via optional microSD memory card, internal RAM and external FTP
Memory card(s)	Two industrial-grade microSD memory cards (flash card); supported microSD memory cards: MicroSD card 1: max. 2 TB (SDXC, SDHC, SD); FAT 12/16/32, EXT 2/3/4, MicroSD card 2: max. 32 GB (SDHC, SD); FAT 12/16/32, EXT 2/3/4
Digital inputs/outputs	DIGITAL IO 2 inputs/outputs (Configurable including IO-Link (in progress))
	Output 4 outputs (Not isolated)
	Input A/B 4 inputs each (insulated)
Control elements	1 selector switch 2 S1 and S2 switches for GND ISO/GND

Ambient data

Electromagnetic compatibility (EMC)	IEC 61000-6-2:2016 / EN IEC 61000-6-2:2019 IEC 61000-6-3:2006+AMD 1:2010 / EN 61000-6-3:2007+A1:2011 EN 61131-9:2013-09
Shock load	EN 60068-2-27:2009-05
Ambient operating temperature	0 °C ... +60 °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. In the event of overtemperature, the device protects itself by resetting and then restarting.

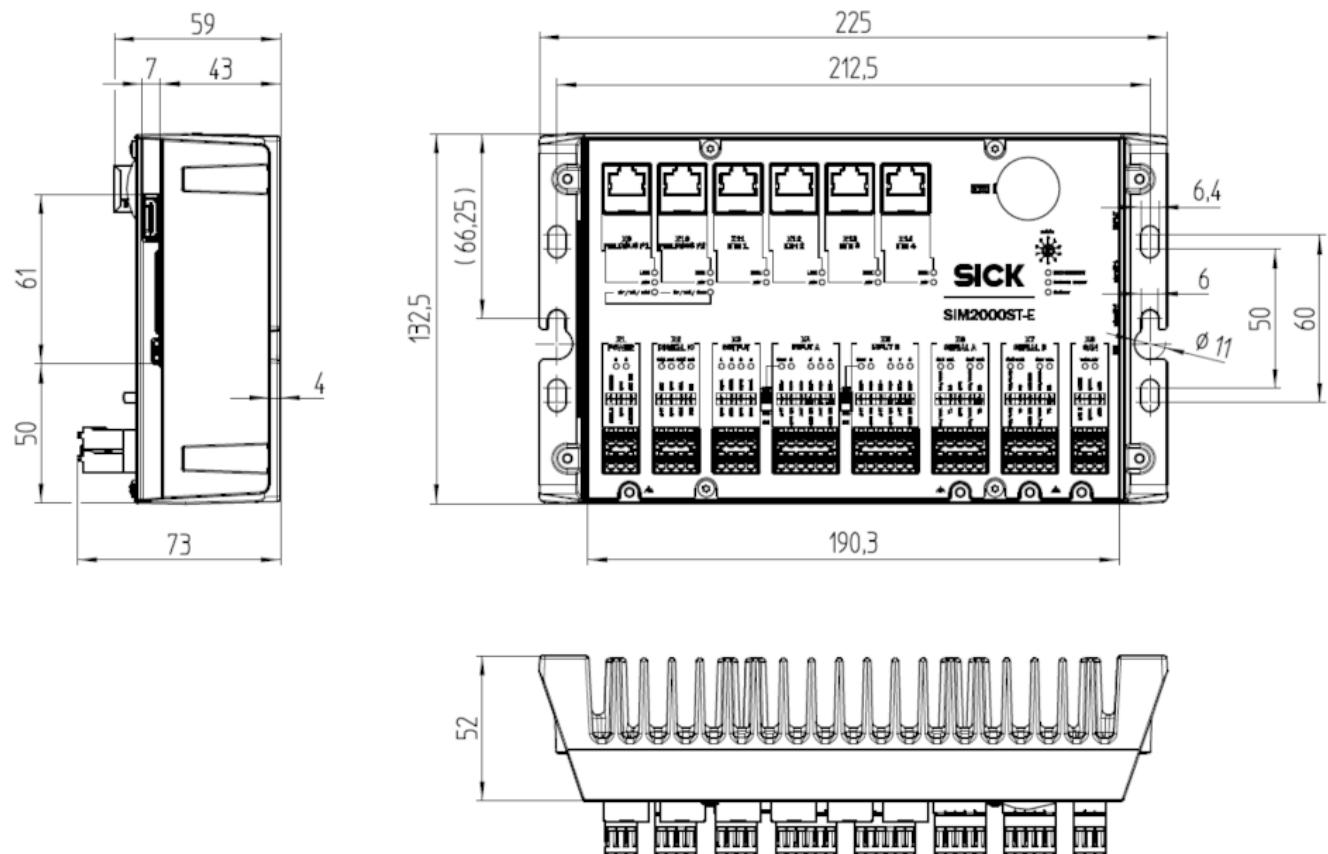
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
Profinet certificate	✓
Ethernet/IP certificate	✓

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
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