Product data sheet

SIM2500-2P03G10

SIM2x00

SENSOR INTEGRATION MACHINE

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
SIM2500-2P03G10	1092673

You can find additional information on the device and firmware releases in the <a href=""https://supportportal.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/SIM2x00

Detailed technical data

Features

Product category	Programmable
Generation	Second generation
Supported products	2D and 3D cameras from SICK or based on the GigE machine vision standard 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	8-core ARM Cortex-A72 CPU with NEON accelerator
Random Access Memory	4 GB DDR4
Flash memory	7 GB eMMC, of which 5 GB are available for applications
Programming software	SICK AppStudio
Toolkit	SICK algorithm API
Further functions	FPGA for I/O handling

Mechanics/electronics

Connections	
I/O	1 x M12, 8-pin female connector, A-coded
Power	1 x M12, 4-pin male connector, T-coded
SERIAL	1 x M12, 8-pin female connector, A-coded
INC	1 x M12, 8-pin female connector, A-coded
Fieldbus	2 x M12, 4-pin female connector, D-coded
CAN	1 x M12, 5-pin female connector, A-coded
SENSOR S1-S4	4 x M12, 5-pin female connector, A-coded
SENSOR S5-S6	2 x M12, 5-pin female connector, A-coded
Ethernet with PoE	4 x M12, 8-pin female connector, X-coded

USB	1 x Micro-B, Under the servicing panel
Supply voltage	24 V DC, ± 10 %
Power consumption	Typ. 45 W, without connected sensor
Power output	140 W, total, all connections
Output current	
SENSOR S1-S4	≤ 1 A (on power supply pin)
SENSOR S5-S6	≤ 2.5 A (on power supply pin)
SENSOR S5-S6	≤ 10 kHz, rise time/fall time/delay < 10µs when power gate-API used
CAN	≤ 3.2 A (on power supply pin)
SERIAL	≤ 1 A (on power supply pin)
INC	≤ 0.5 A (on power supply pin)
I/O	≤ 500 mA (on power supply pin)
Enclosure rating	IP65
Protection class	III
Electrical safety	EN 61010
Housing material	Aluminum die cast
Housing color	Light blue (RAL 5012)
Weight	1,995 g
Dimensions (L x W x H)	176 mm x 83 mm x 196 mm

Interfaces

Ethernet	✓ (4), TCP/IP, FTP, OPC UA, MQTT, RS-232, RS-422, RS-485, RS-422, USB 2.0
Remark	GigE machine vision/GenICAM
Function	Data output, Configuration, firmware update, image transmission Dual port Ethernet-based fieldbus Dual port Ethernet-based fieldbus Dual port Ethernet-based fieldbus IO-Link Master 1.1 Can also be configured as an encoder interface, max. frequency 2 MHz Interface for encoder, Also configurable as RS-422 SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) with activatable termination resistor For configuration, diagnosis, firmware update
Data transmission rate	10/100/1,000/2,500 Mbit/s 10/100 MBit/s 10/100 MBit/s 10/100 MBit/s ≤ 230 kBaud RS-232: 115,2 kBaud, RS-422/RS-485: 2 MBaud Max. frequency 2 MHz; RS-422: 2 MBaud 20 kbit/s ... 1 Mbit/s
Operator interfaces	Web server (GUI)
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	
I/O	2 opto-decoupled inputs (Max. frequency: 30 kHz)
I/O	2 inputs/outputs (can be configured) (Max. frequency: 30 kHz)
SENSOR S1-S4	1 input each (Max. frequency: 30 kHz)
SENSOR S1-S4	1 input/output each (can be configured) (Max. frequency: 30 kHz)

SENSOR S5-S6	1 input each (Max. frequency: 10 kHz)
SENSOR S5-S6	2 inputs/outputs each (can be configured) (Max. frequency: 30 kHz)
Control elements	1 selector switch (under the servicing panel)

Ambient data

Electromagnetic compatibility (EMC)	IEC 61000-6-2:2016, EN IEC 61000-6-2:2019, IEC 61000-6-3:2020
Shock load	IEC 60068-2-27:2008
Ambient operating temperature	0 °C ... +50 °C [1) 2)]
Ambient temperature, storage	–20 °C ... +70 °C [1)]

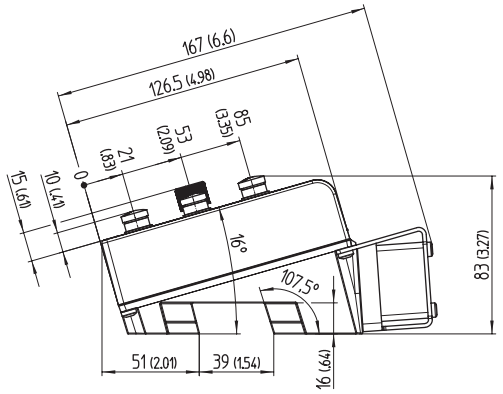
[1)] Permissible relative air humidity: 0 % ... 90 % (non-condensing).

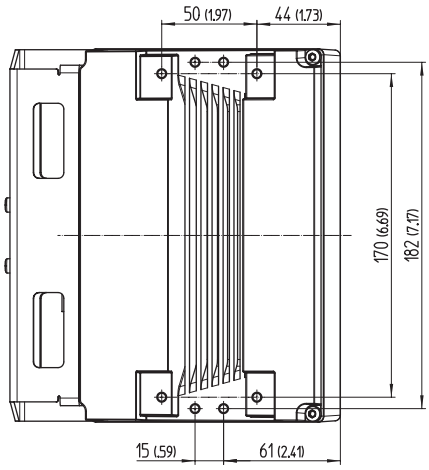
[2)] While taking account of the mounting requirements described, see operating instructions. In the event of overtemperature, the device protects itself by resetting and then restarting.

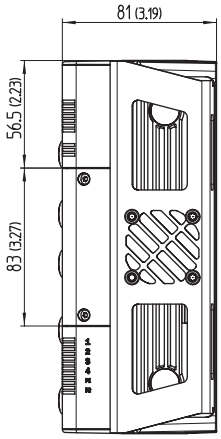
Classifications

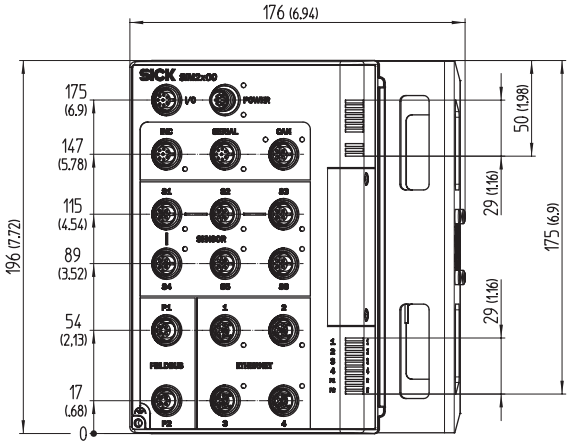
ECLASS 5.0	27242208
ECLASS 5.1.4	27242608
ECLASS 6.0	27242608
ECLASS 6.2	27242608
ECLASS 7.0	27242608
ECLASS 8.0	27242608
ECLASS 8.1	27242608
ECLASS 9.0	27242608
ECLASS 10.0	27242608
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604
ETIM 8.0	EC001604
UNSPSC 16.0901	32151705

Dimensional drawing (Dimensions in mm (inch))









Overview

SICK AppSpace

Recommended services

Additional services ➜ www.sick.com/SIM2x00

	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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com