



SIG300-0A05AA100

SIG300

NETWORK DEVICES

SICK
Sensor Intelligence.



Ordering information

Type	part no.
SIG300-0A05AA100	1131012

Other models and accessories → www.sick.com/SIG300



Detailed technical data

Features

Product category	IO-Link Master
Supported products	IO-Link Devices Binary switching sensors Binary actuators
Further functions	Web server integrated IIoT interface available
MTTF	29.4 years ¹⁾
MTTFd	58.8 years ¹⁾
Items supplied	SIG300, safety instruction, Blind plugs (9 x M12, 1 x USB-C)

¹⁾ The specified values are estimates. These are not exact calculations.

Mechanics/electronics

Connections		
	IO-Link	8 x M12, 5-pin female connector, A-coded
	Power	1 x M12, 5-pin male connector, L-coded 1 x M12, 5-pin female connector, L-coded
	Ethernet	2 x M12, 4-pin female connector, D-coded
	USB-C	1 x USB-C
Power voltage supply		
	Supply voltage	20 V DC ... 30 V DC ¹⁾
Current carrying capacity (PWR1, PWR2) max.		≤ 16 A, U _S ²⁾
		≤ 16 A, U _A ²⁾

¹⁾ Each for U_S and U_A, typ. supply voltage 24 V DC.

²⁾ ≤ +40 °C (see “Derating” information in operating instructions).

³⁾ Without load, sensors and outputs switched off.

⁴⁾ MS.

⁵⁾ NS.

⁶⁾ When using a SELV or PELV power supply unit.

Current consumption	≤ 200 mA ³⁾
Total current (S1 ... S8)	≤ 15.5 A ²⁾
Pin assignment for class A port (S1-S6)	
Pin 1 (L+) (Us)	2 A
Pin 2 (DI/DO)	200 mA
Pin 3 (M)	- 2.6 A
Pin 4 (C/Q DI/DO)	200 mA
Pin 5 (DI/DO) Port 5-6	200 mA
Pin assignment for class B port (S7-S8)	
Pin 1 (L+) (Us)	2 A
Pin 2 (L+) (UA)	2 A
Pin 3 (M) (Us)	- 2 A
Pin 4 (C/Q DI/DO)	200 mA
Pin 5 (M) (UA)	- 2 A
Digital inputs	
Number	16, configurable
Input characteristics	EN 61131-2 type 1
Circuit protection	Short-circuit protected
Digital outputs	
Number	16, configurable
Type	PNP
	NPN
	Push-pull
Switching frequency	≤ 50 Hz
Circuit protection	Short-circuit protected
Optical indicators	
8 LED green (IO-Link activity pin 4)	
6 LED yellow (DI/DO communication pin 2)	
2 LED yellow (DI/DO communication pin 5)	
2 LED yellow (Voltage supply U _A "On" pin 2, class B port)	
2 LED green (Ethernet bus activity)	
1 LED green (voltage supply U _S (sensors))	
1 LED green (voltage supply U _A (actuators))	
1 LED red/green ⁴⁾	
1 LED red/green ⁵⁾	
Enclosure rating	IP67 (In fastened condition)
Protection class	III ⁶⁾
Contamination rating	2
Housing material	Polyamide + steel, galvanized
Housing color	Dark gray

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Weight	460 g
Dimensions (L x W x H)	191.4 mm x 61.2 mm x 27.3 mm
UL File No.	E497722

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Communication interface

IO-Link	✓
Remark	V1.1
Number of ports	8 pieces
Port Class	A/B
Data transmission rate	COM1, COM2, COM3
Additional features	Data Storage
Ethernet	✓
Fieldbus	✓
Data transmission rate	10/100 MBit/s
Addressing	BOOTP, DHCP, static IP address
Factory setting	BOOTP
REST API	✓
Specification	JSON integration for IO-Link version (V1.0.0)
Operator interfaces	Web server integrated

Ambient data

Ambient operating temperature	−40 °C ... +55 °C ¹⁾
Ambient temperature, storage	−40 °C ... +75 °C ¹⁾
Electromagnetic compatibility (EMC)	EN 61000-6-2:2016 EN 61000-6-4:2020
Shock load	EN 60068-2-27

¹⁾ Permissible relative humidity 0% ... 95% (non-condensing).

Certificates

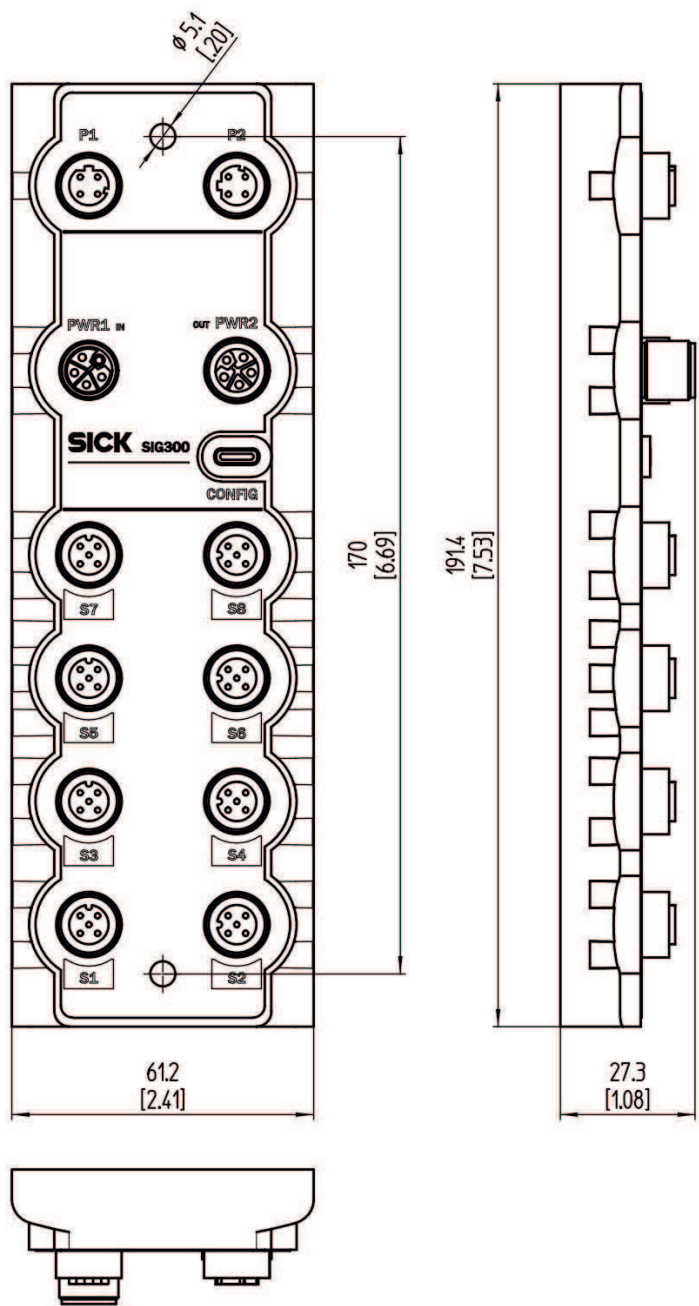
EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

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
ECLASS 11.0	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)

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:

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