



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⁾
Current consumption	≤ 200 mA ³⁾

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⁾ When using a SELV or PELV power supply unit.

Total current (S1 ... S8)	$\leq 15.5 \text{ A}^{2)}$
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	$\leq 50 \text{ Hz}$
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 (MS) 1 LED red/green (NS)
Enclosure rating	IP67 (In fastened condition)
Protection class	III ⁴⁾
Contamination rating	2
Housing material	Polyamide + steel, galvanized
Housing color	Dark gray
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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²⁾ $\leq +40 \text{ °C}$ (see "Derating" information in operating instructions).

³⁾ Without load, sensors and outputs switched off.

⁴⁾ When using a SELV or PELV power supply unit.

Communication interface

IO-Link	✓
Remark	V1.1
Number of ports	8
Port Class	A/B
Data transmission rate	COM1, COM2, COM3
Additional features	Data Storage
Ethernet	✓
Fieldbus	✓
Number of ports	2
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

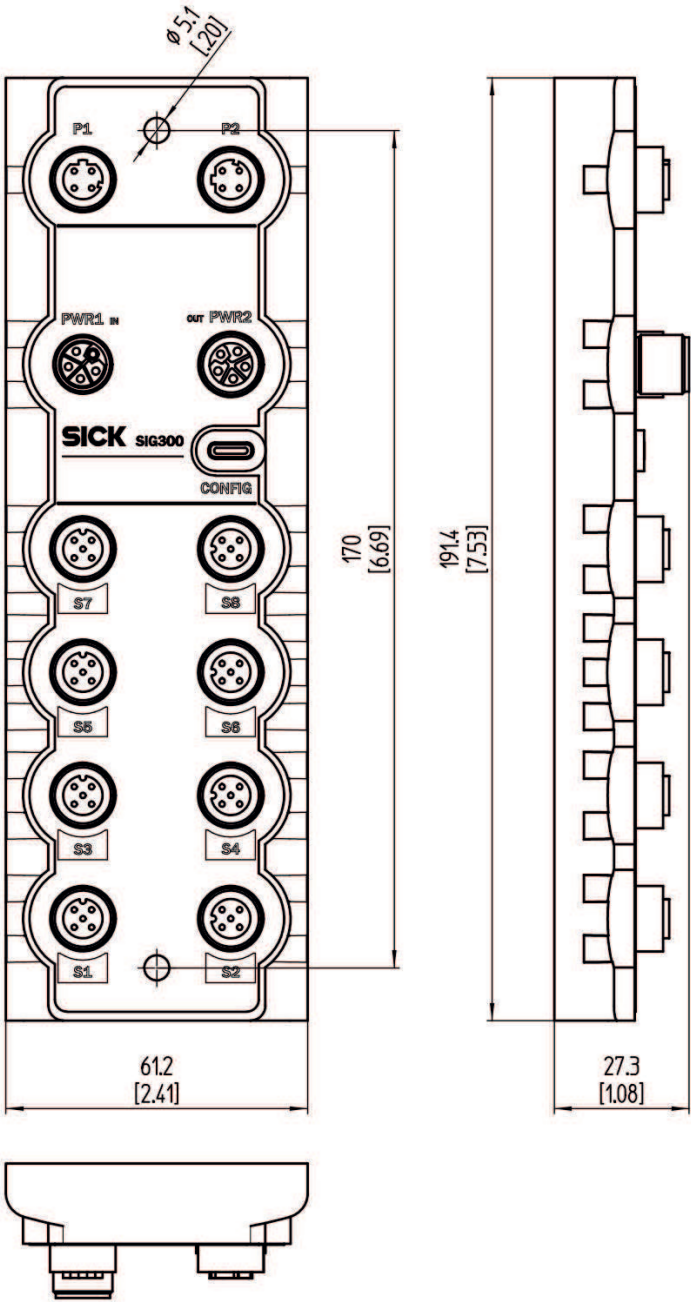
EU declaration of conformity	✓
UK declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

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)

Recommended accessories

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

	Brief description	Type	part no.
device protection and care			
	<ul style="list-style-type: none"> Product family: Protective caps and hoods Description: Protective cap for M12 socket or unused ports 	DOS-12SK	5309189
connectors and cables			
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Male connector, M12, 4-pin, straight, A-coded Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-010UB3M2A14	2095997
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Male connector, M12, 4-pin, straight, A-coded Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-050UB3M2A14	2096001
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, L-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2L15-050UH1XLEAX	2099626
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 5-pin, A-coded Connection type head B: Female connector, M12, 4-pin, A-coded Connection type head C: Female connector, M12, 4-pin, A-coded Description: Unshielded 	YM2A15-000S01FY2A4	2099600
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, EtherNet/IP™ Cable: 1 m, 4-wire, TPE Description: Ethernet, shieldedEtherNet/IP™ Application: Drag chain operation, Robot, Zones with oils and lubricants 	YM2D24-010E-F4MRJA4	2112844
	<ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, D-coded Connection type head B: Male connector, RJ45, 4-pin, straight Signal type: Ethernet, PROFINET Cable: 2 m, 4-wire, PUR, halogen-free Description: Ethernet, shieldedPROFINET Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-020P-N1MRJA4	2106182
	<ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, L-coded Connection type head B: Male connector, M12, 5-pin, straight, L-coded Signal type: Sensor/actuator cable Cable: 1 m, 5-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Untaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2L15-010UK1M2L15	2125147

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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