Data sheet

SRA3-AAC100ZEUI

safeRS3

SAFETY RADAR SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
SRA3-AAC100ZEUI	6083697

Other models and accessories → www.sick.com/safeRS3

Detailed technical data

Features

System part	control
Variant	safeRS3 Control EtherCAT® FSoE
Manufacturer designation	C201A (Model), FSK02 (Type)
Number of monitoring cases	≤ 32
Response time	≤ 100 ms
Items supplied	safeRS3 control unit Safety instruction Operating instructions for download Mounting instructions safeRS3 Designer (configuration and diagnostic software) for download safeRS3 Designer 3D (configuration and diagnostic software) for download The sensors must be ordered separately.

Safety-related parameters

Safety integrity level	SIL 2 (IEC 62061)
Category	Category 3 (EN ISO 13849)
Performance level	PL d (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	For details, see operating instructions, “Safety-related parameters” section
$MTTF_D$ (mean time to dangerous failure)	42 years (IEC 60050)
T_M (mission time)	20 years (EN ISO 13849)
Safe state in the event of a fault	At least one OSSD pair is in the OFF state.

Functions

Restart interlock	✓
Muting	✓
Manipulation protection	✓

Safe detection of a person	✓

Interfaces

Outputs	
OSSD pairs	≤ 2
Safety outputs via network	4
Universal outputs	≤ 4 [1]
Inputs	
Universal inputs	2 dual-channel [1]
Test input	1 [2]
Configuration method	PC with safeRS3 Designer (Configuration and Diagnostic software), PC with safeRS3 Designer 3D (Configuration and Diagnostic software)
Configuration and diagnostics interface	Ethernet, micro USB
Fieldbus, industrial network	EtherCAT®
Protocol	FSoE (Safety over EtherCAT®)
Display elements	LEDs

[1] Freely configurable.
[2] Prescribed as soon as at least one digital input is used.

Electronics

Supply voltage V_s	24 V DC (20 V DC ... 28 V DC)
Power consumption	≤ 1 A
Power consumption	≤ 33 W, control unit and six sensors

Mechanics

Dimensions (W x H x D)	105 mm x 103 mm x 35 mm

Ambient data

Enclosure rating	IP20 (IEC 60529)
Ambient operating temperature	–30 °C ... +60 °C
Storage temperature	–40 °C ... +80 °C

Certificates

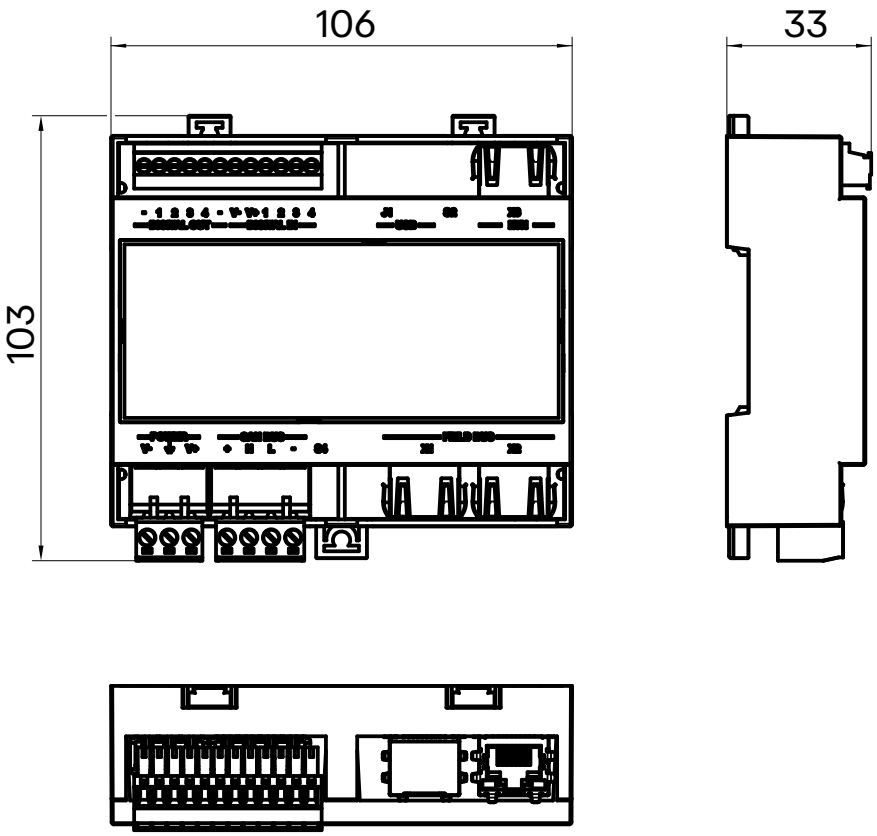
EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
cUL approval	✓
Ethercat certificate	✓
EC-Type-Examination approval	✓
FailSafe over EtherCAT certificate	✓
RoHS manufacturer declaration	✓

Classifications

ECLASS 5.0	27270890
ECLASS 5.1.4	27270890

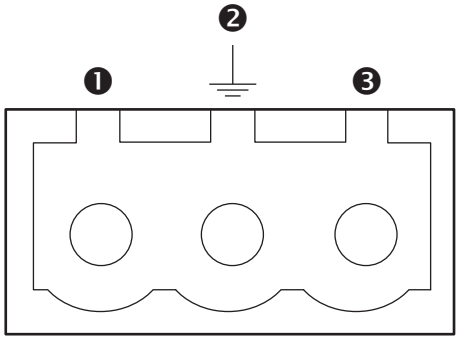
ECLASS 6.0	27280800
ECLASS 6.2	27280800
ECLASS 7.0	27280890
ECLASS 8.0	27280890
ECLASS 8.1	27280890
ECLASS 9.0	27280890
ECLASS 10.0	27280890
ECLASS 11.0	27280890
ECLASS 12.0	27280890
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825
ETIM 8.0	EC001825
UNSPSC 16.0901	39121528

Dimensional drawing



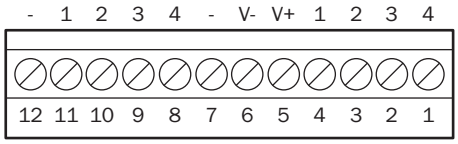
Dimensions in mm (inch)

Pinouts Voltage supply



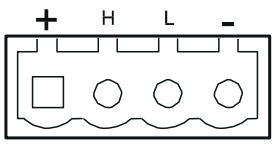
① GND
② Ground
③ +24 V DC

Pinouts Digital inputs and outputs



Pin	Description
1	Input 2, channel 2
2	Input 2, channel 1
3	Input 1, channel 2
4	Input 1, channel 1
5	V+ (SNS) for digital input diagnostics (obligatory when at least one input is used)
6	V- (SNS), mutual reference potential (obligatory when at least one input is used)
7	GND, mutual reference potential for all digital outputs
8	Output 4 (OSSD 4)
9	Output 3 (OSSD 3)
10	Output 2 (OSSD 2)
11	Output 1 (OSSD 1)
12	GND, mutual reference potential for all digital outputs
For details see operating instructions	

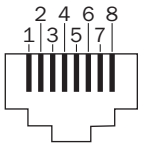
Pinouts Sensor connection



CAN BUS

Terminal	Description
+	+12 V DC
H	CAN H
L	CAN L
-	GND
For details see operating instructions	

Pinouts Ethernet



Pin	Designation	Description
1	TX+	Send data +
2	TX-	Send data -
3	RX+	Receive data +
4	-	Reserved
5	-	Reserved
6	RX-	Receive data -
7	-	Reserved
8	-	Reserved
Housing	SH	Shielding
For details see operating instructions		

Recommended accessories

Other models and accessories ➜ www.sick.com/safeRS3

	Brief description	Type	part no.
connectors and cables			
	• **Connection type head A:** Male connector, Micro-B, 4-pin, straight • **Connection type head B:** Male connector, USB-A, 4-pin, straight • **Signal type:** USB 2.0 • **Cable:** 5 m, 4-wire, PVC • **Description:** USB 2.0, shielded	YMUSA4-050VG4MUIA4	2118400
	• **Connection type head A:** Male connector, USB-A, 4-pin, straight • **Connection type head B:** Female connector, USB-A, 4-pin, straight • **Signal type:** USB • **Cable:** 10 m, 4-wire, PVC • **Description:** USB, shielded • **Note:** Used to extend the USB interface by 10 m. The cable can be extended up to 20 m by plugging in another 10 m extension.	YMUSD4-100VG6FUSE4	6069292
	• **Description:** USB 2.0, unshielded • **Connection type head A:** Male connector, Micro-B, 4-pin, straight • **Connection type head B:** Male connector, USB-A, 4-pin, straight • **Signal type:** USB 2.0 • **Cable:** 2 m, 4-wire	YMUSA4-020VG4MUIA4	6036106
	• **Connection type head A:** Male connector, M12, 5-pin, straight, A-coded • **Signal type:** CANopen, DeviceNet™ • **Description:** CANopen, DeviceNet™	YM2W15-000000XXXX	2123627
	Strich		On request
	Strich		On request
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	Strich		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