SG2-AAA00011CB0000

scanGrid2

SAFETY MULTIBEAM SCANNERS

SICK
Sensor Intelligence.

SG2-AAA00011CB0000 | scanGrid2

SAFETY MULTIBEAM SCANNERS

Ordering information

Type	Part no.
SG2-AAA00011CB0000	1109414

Other models and accessories ➜ www.sick.com/scanGrid2

Detailed technical data

Features

Protective field range	1.1 m (At a resolution of 70 mm)
Warning field range	4 m (At a resolution of 70 mm and a remission of 80%)
Number of simultaneously monitored fields	≤ 2 [1]
Number of fields	16
Number of monitoring cases	8
Scanning angle	150°
Resolution (can be configured)	50 mm, 70 mm, 150 mm, 200 mm
Angular resolution	6°
Response time	≥ 63 ms
Number of multiple samplings	1 … 4
Protective field supplement	100 mm
Items supplied	Safe multibeam scanner Safety instruction Mounting instructions Operating instructions for download

[1] Protective and warning field.

Safety-related parameters

Type	Type 2 (IEC 61496-3)
Safety integrity level	SIL 1 (IEC 61508)
Category	Category 2 (ISO 13849-1)
Performance level	PL c (ISO 13849-1)
PFH$_D$ (mean probability of a dangerous failure per hour)	1.3×10^{-6}
T$_M$ (mission time)	20 years (ISO 13849-1)
Safe state in the event of a fault	The state of the safety output transmitted via CANopen Safety is OFF and the transmitted statuses of the protective fields are "Interrupted". No safety-related data are transmitted via CANopen Safety.

Functions

Restart delay	✓
Multiple sampling	✓

Monitoring case switching	✓
Switch-on delay for monitoring case switching	✓
Simultaneous monitoring	✓
Static protective field switching	✓
Integrated configuration memory	✓
Measured data output	✓, via CANopen

Interfaces

Connection type	Male connector, M12, 5-pin, A-coded
Near Field Communication (NFC)	✓
Configuration method	Via software
Configuration and diagnostic software	Safety Designer (software for configuring and diagnosing safety solutions from SICK AG) Safety Assistant (app for transferring configurations and diagnosing safety solutions from SICK AG)
Configuration and diagnostics interface	USB 2.0 type C (Safety Designer) NFC (Safety Assistant app)
Fieldbus, industrial network	CANopen
Protocol	CiA 301
Object types	PDO - Process Data Object SDO - Service Data Object
Safety protocol	CiA 304
Safety object types	SRDO - Safety Related Data Object
Display elements	LEDs

Electrical data

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (8.4 V … 30 V) [1]
Residual ripple	≤ 10 % [2]
Power consumption	≤ 3 W (DC)

[1] SELV/PELV safety/protective extra-low voltage.

[2] Within the limits of V_S.

Mechanical data

Dimensions (W x H x D)	160 mm x 43 mm x 56 mm
Weight	170 g
Housing material	Durabio (front part, black) Polycarbonate (back part, colza yellow)
Housing color	RAL 9005 (black) RAL 1021 (yellow)

Ambient data

Enclosure rating	IP65 (IEC 60529)
Ambient light immunity	≤ 10 klx
Ambient operating temperature	0 °C … +50 °C
Storage temperature	–30 °C … +70 °C
Air humidity	15 % … 95 %, Non-condensing

| Vibration resistance	IEC 60068-2-6, IEC 60068-2-64, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3
Class	5M1 (IEC 60721-3-5)
Shock resistance	IEC 60068-2-27, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3
Class	5M1 (IEC 60721-3-5)
Single shock	150 m/s², 11 ms
Continuous shock	100 m/s², 16 ms
EMC	IEC 61496-1, IEC 61000-6-2, IEC 61000-6-3

Other information

Type of light	Pulsed laser diode
Wave length	850 nm
Detectable remission factor	4% ... several 1,000%
Laser class	1

Classifications

ECLASS 5.0	27272705
ECLASS 5.1.4	27272705
ECLASS 6.0	27272705
ECLASS 6.2	27272705
ECLASS 7.0	27272705
ECLASS 8.0	27272705
ECLASS 8.1	27272705
ECLASS 9.0	27272705
ECLASS 10.0	27272705
ECLASS 11.0	27272705
ECLASS 12.0	27272705
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))
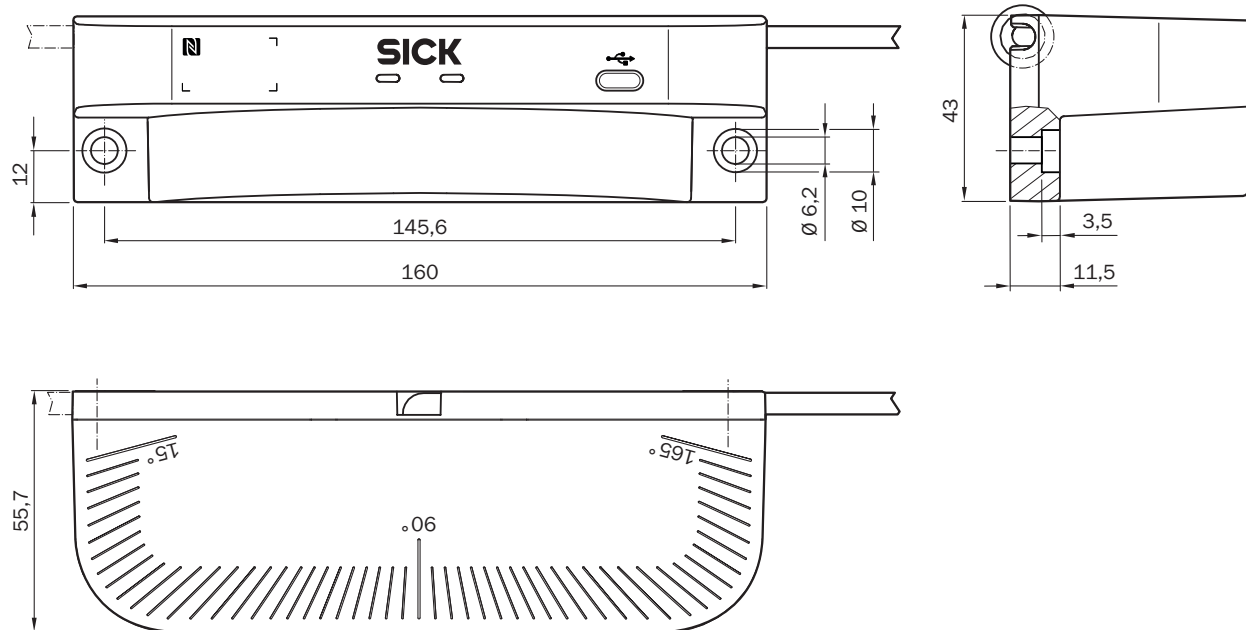
Pinouts
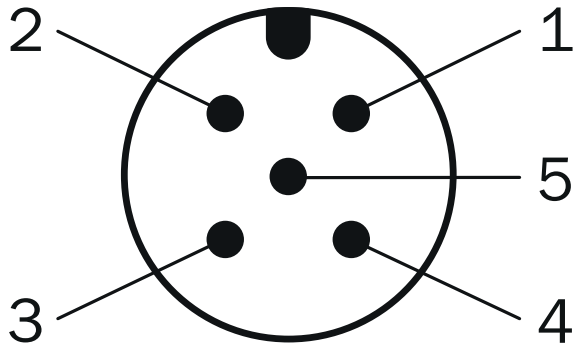
Pin	Designation	Description
1	CAN shield	Shielding
2	+24 V DC	Supply voltage +24 V DC
3	0 V DC	Supply voltage 0 V DC
4	CAN high	CAN signal
5	CAN low	CAN signal
For details see operating instructions		

Recommended accessories

Other models and accessories ➜ www.sick.com/scanGrid2

	Brief description	Type	Part no.
Plug connectors and cables			
	• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Fieldbus, CANopen, DeviceNet™ • **Cable:** 2 m, 4-wire, PUR, halogen-free • **Description:** Fieldbus, CANopen, DeviceNet™, shielded • **Application:** Drag chain operation, Zones with oils and lubricants	YF2A15-020C1BXLEAX	2106283
	• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Fieldbus, CANopen, DeviceNet™ • **Cable:** 5 m, 4-wire, PUR, halogen-free • **Description:** Fieldbus, CANopen, DeviceNet™, shielded • **Application:** Drag chain operation, Zones with oils and lubricants	YF2A15-050C1BXLEAX	2106284
	• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Fieldbus, CANopen, DeviceNet™ • **Cable:** 10 m, 4-wire, PUR, halogen-free • **Description:** Fieldbus, CANopen, DeviceNet™, shielded • **Application:** Drag chain operation, Zones with oils and lubricants	YF2A15-100C1BXLEAX	2106286
Terminal and alignment brackets			
	Alignment bracket for scanGrid2, can be aligned ± 10°	BEF-1GHAHVKU1	2116913
Others			
	• **Connection type head A:** Male connector, USB-C, 4-pin, straight • **Connection type head B:** Male connector, USB-A, 4-pin, straight • **Cable:** 2 m, PVC • **Description:** scanGrid2 configuration cable	YMUSA4-020VG5MUSC4	2119989

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."

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