

Outstanding 7 m scanning range

- Second scanners are no longer needed for large monitored areas
- Increase the productivity of automated guided vehicles with higher speeds



Modular concept

- If the requirements change, you can adapt the functions and/or the scanning range by exchanging the I/O module and/or the sensor head



Proven and tested

- Thousands of validated S3000 units installed worldwide prove its reliability



Quick device replacement

- The configuration memory in the system plug prevents downtime when replacing the devices via plug & play

S3000 special versions



Use in cold areas

- The S3000 Cold Store is the only safety laser scanner in the world that can be used reliably at temperatures as low as $-30\text{ }^{\circ}\text{C}$



Safe integration into PROFINET PROFIsafe

- The S3000 PROFINET IO is the first safety laser scanner for direct and safe fieldbus integration without additional hardware costs



Product family overview

			
	S3000 Standard	S3000 Advanced	S3000 Professional
	Economical yet reliable	Optimize production processes safely	Flexible high-performance – the right protection for any speed

Technical specifications

Protective field range	4 m/5.5 m/7 m	4 m/5.5 m/7 m	4 m/5.5 m/7 m
Warning field range	49 m	49 m	49 m
Scanning angle	190°	190°	190°
Response time	60 ms or 120 ms	60 ms or 120 ms	60 ms or 120 ms
Object resolution ¹⁾	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm

Functions

Triple field mode ^{2)/} Dual field mode ³⁾	Triple/Dual	Triple/Dual	Triple/Dual
Number of field sets	1	4	8
Monitoring cases	1	4	16
Static inputs on the device for protective field switching	-	2	4
Dynamic inputs ⁵⁾ on the device for protective field switching	-	-	Yes
OSSDs in the device	Yes	Yes	Yes
Integrated external device monitoring (EDM)	Yes	Yes	Yes
Number of simultaneously monitored protective fields ⁶⁾	Up to 4	Up to 4	Up to 4
Integrated configuration memory in the system plug	Yes	Yes	Yes
Contour as a reference ⁷⁾	Yes	Yes	Yes

Interfaces

EFI ⁸⁾	Yes	Yes	Yes
Measured data output (RS-422)	Standard	Standard	Standard
Safe integrated bus connection (PROFINET IO)	-	-	-

Certifications

Type (EN 61496-1) / Safety integrity level (IEC 61508) / Performance Level (EN ISO 13849-1)	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d
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General information

Dimensions (W x H x D) ⁹⁾	155 mm x 185 mm x 160 mm	155 mm x 185 mm x 160 mm	155 mm x 185 mm x 160 mm
Enclosure rating (EN 60529)	IP 65	IP 65	IP 65
Operating temperature range	-10 °C ... +50 °C	-10 °C ... +50 °C	-10 °C ... +50 °C

Electrical details

Type of connection	System plug	System plug	System plug
Power consumption ¹⁰⁾	14 W	14 W	14 W

Detailed information

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¹⁾ 30/40 mm = hand detection; 50/70 mm = leg detection; 150 mm = body detection.

²⁾ 1 field set = 2 warning fields + 1 protective field.

³⁾ 1 field set = 1 warning field + 1 protective field.

⁴⁾ 16 monitoring cases with static control inputs on the device, 32 monitoring cases with dynamic inputs on the device or via EFI.

⁵⁾ For connecting incremental encoders to switch protective fields depending on the speed.

					
	S3000 Expert	S3000 Remote	S3000 PROFINET IO Advanced	S3000 PROFINET IO Professional	S3000 Cold Store
	Safety gaps have no chance – with 64 fields	The scanner for more safety	Always available – safety technology in your network	Always available – safety technology in your network	Reliable safety for tough requirements in cold storage
	4 m/5.5 m/7 m	4 m/5.5 m/7 m	4 m/5.5 m/7 m	4 m/5.5 m/7 m	7 m
	49 m	49 m	49 m	49 m	49 m
	190°	190°	190°	190°	180°
	60 ms or 120 ms	60 ms or 120 ms	60 ms or 120 ms	60 ms or 120 ms	60 ms
	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm	30 mm/40 mm/50 mm/ 70 mm/150 mm
	Triple/Dual	Triple/Dual	Dual	Dual	Triple/Dual
	21/32	21/32	4	8	4
	32 ⁴⁾	32	4	16	4
	4	-	-	-	-
	Yes	-	-	-	-
	Yes	Yes	-	-	Yes
	Yes	Yes	-	-	-
	Up to 4	Up to 4	Up to 2	Up to 2	Up to 4
	Yes	Yes	Yes	Yes	No
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	-	-	Yes
	Advanced	Standard	-	-	-
	-	-	Yes (copper or fiber-optic cable)	Yes (copper or fiber-optic cable)	-
	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d	Type 3 / SIL2 / PL d
	155 mm x 185 mm x 160 mm	155 mm x 185 mm x 160 mm	155 mm x 185 mm x 160 mm	155 mm x 185 mm x 160 mm	351 mm x 265 mm x 195 mm
	IP 65	IP 65	IP 65	IP 65	IP 67
	-10 °C ... +50 °C	-10 °C ... +50 °C	-10 °C ... +50 °C	-10 °C ... +50 °C	-30 °C ... +50 °C
	System plug	System plug	System plug	System plug	System plug
	14 W	14 W	17 W	17 W	14 W ¹¹⁾
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⁶⁾ If more than one protective field is monitored simultaneously, then the safe output signals must be routed to safe outputs of a Flexi Soft safety controller, or via a safe EFI Gateway.

⁷⁾ If the scanner is used vertically, a contour must be configured as a reference.

⁸⁾ "Enhanced Function Interface" for connecting multiple scanners simply and safely, or for connecting the scanners with the Flexi Soft safety controller.

⁹⁾ Without protruding cable glands when the system plugs are mounted.

¹⁰⁾ Without output load.

¹¹⁾ Plus power consumption from heating (24 V, 6 A).



At a glance

- Modular design
- 4 m, 5.5 m or 7 m protective field range
- Up to 21 switchable field sets (21 protective fields, 42 warning fields)
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Configuration memory integrated in the system plug
- Direct integration in PROFINET IO safe bus system
- Incremental encoder inputs for speed-dependent field switching

Your benefits

- Tailored solutions for your applications
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Largest protective field range available in the market increases the variety of application possibilities
- Variety of field sets ensures safety and productivity when protecting vehicles or moving machine parts
- Easily expandable modular system, simple cabling and additional functions using SICK safety controllers with EFI
- Quick recommissioning via configuration memory
- Decades of proven safety technology guarantee maximum reliability and productivity – even under difficult conditions

Ordering information

See www.mysick.com/products for additional accessories

S3000 variants

Variant	Field sets	Protective field range	Model name	Part no.
S3000 Standard	1	4 m	S30A-4011BA	1028934
		5.5 m	S30A-6011BA	1023546
		7 m	S30A-7011BA	1023890
S3000 Advanced	4	4 m	S30A-4011CA	1028935
		5.5 m	S30A-6011CA	1023547
		7 m	S30A-7011CA	1023891
S3000 Professional	8	4 m	S30A-4011DA	1028936
		5.5 m	S30A-6011DA	1019600
		7 m	S30A-7011DA	1023892
S3000 Expert	21/32 ¹⁾	4 m	S30A-4011GB	1052107
		5.5 m	S30A-6011GB	1052108
		7 m	S30A-7011GB	1052109
S3000 Remote	21/32 ¹⁾	4 m	S30A-4011EA	1028938
		5.5 m	S30A-6011EA	1023548
		7 m	S30A-7011EA	1023893
S3000 Cold Store	4	7 m	S31A-7011CA	1041648

¹⁾ Triple field mode/dual field mode.

Variant	Field sets	Connection type	Protective field range	Model name	Part no.
S3000 PROFINET IO Advanced	4	2 bushes for RJ45 push-pull plug for copper lines	4 m	S30A-4111CP	1045650
			5.5 m	S30A-6111CP	1045652
			7 m	S30A-7111CP	1045654
		2 bushes for SCRJ push-pull plug for fiber optic cables	4 m	S30A-4111CL	1052591
			5.5 m	S30A-6111CL	1052593
			7 m	S30A-7111CL	1052595
S3000 PROFINET IO Professional	8	2 bushes for RJ45 push-pull plug for copper lines	4 m	S30A-4111DP	1045651
			5.5 m	S30A-6111DP	1045653
			7 m	S30A-7111DP	1045655
		2 bushes for SCRJ push-pull plug for fiber optic cables	4 m	S30A-4111DL	1052592
			5.5 m	S30A-6111DL	1052594
			7 m	S30A-7111DL	1052596

Accessories required for commissioning

Description	Number								
		S3000 Standard	S3000 Advanced	S3000 Professional	S3000 Expert	S3000 Remote	S3000 PROFINET IO Advanced	S3000 PROFINET IO Professional	S3000 Cold Store
Mounting kit	1	●	●	●	●	●	●	●	-
Adjustment bracket (specially for Cold Store)	1	-	-	-	-	-	-	-	●
System plug	1 ¹⁾	●	●	●	●	●	-	-	-
Power supply plug (PROFINET IO)	1	-	-	-	-	-	●	●	-
Service cable for configuration and diagnostics	Can be used repeatedly	●	●	●	●	●	-	-	-
Service cable (configuration cable) ²⁾ (specially for Cold Store)	1	-	-	-	-	-	-	-	●
CDS (configuration and diagnostic software) ³⁾	Can be used repeatedly	●	●	●	●	●	●	●	●

¹⁾ If system plugs without cables are used, an additional connecting cable is required.





²⁾ See "Recommended accessories for S3000 Cold Store", page 37.

³⁾ Included in delivery if a device variant is ordered.

Recommended accessories S3000



See www.mysick.com/products for further accessories

Mounting bracket/plates



Figure	Description	Model name	Part no.
	Mounting bracket for direct mounting at the rear of the wall or machine. No adjustment option.	Mounting kit 1	2015623
	Bracket only in conjunction with mounting kit 1. Mounting at rear of the wall or machine. Adjustment by longitudinal and lateral axis possible.	Mounting kit 2	2015624
	Bracket only in conjunction with mounting kit 1 and 2. Mounting on the wall at the rear or at the base at the wall, floor or machine. Adjustment by longitudinal and lateral axis possible.	Mounting kit 3	2015625
	Mounting bracket, heavy version, with protective hood, steel, painted, for floor mounting, height adjustment possible.	Heavy-duty mounting bracket	7087514

Plug connectors and cables





System plugs without cables

Figure	Description	Model name	Part no.
	For S3000 Standard, Advanced, Remote, Professional and Expert (not for use with incremental encoders)	SX0A-A0000B	2023797
	For S3000 Professional and Expert (for use with incremental encoders)	SX0A-A0000D	2023310

System plugs pre-assembled


Figure	Description	Length of cable	Model name	Part no.
	For S3000 Standard and Remote	5 m	SX0A-B0905B	2027170
	For S3000 Standard and Remote, cable outlet at rear	5 m	SX0A-B0905G	2049222
	For S3000 Standard and Remote	10 m	SX0A-B0910B	2027171
	For S3000 Standard and Remote	20 m	SX0A-B0920B	2027814
	For S3000 Advanced	5 m	SX0A-B1305B	2027172
	For S3000 Advanced	10 m	SX0A-B1310B	2027173
	For S3000 Advanced	20 m	SX0A-B1320B	2027815
	For S3000 Professional and Expert (not for use with incremental encoders)	5 m	SX0A-B1705B	2027174
	For S3000 Professional and Expert (not for use with incremental encoders)	10 m	SX0A-B1710B	2027175
	For S3000 Professional and Expert (not for use with incremental encoders)	20 m	SX0A-B1720B	2027816
	For S3000 Professional and Expert (for use with incremental encoders)	5 m	SX0A-B1305D	2027176
	For S3000 Professional and Expert (for use with incremental encoders)	10 m	SX0A-B1310D	2027177

System plug (PROFINET IO)


Figure	Description	Length of cable	Model name	Part no.
	For S3000 PROFINET IO Advanced and Professional	-	SX1A-A0000L	2047286
	For S3000 PROFINET IO Advanced and Professional	1 m	SX1A-B0201L	2049575
	Power-Y distributor with power supply plug for S3000 PROFINET IO Advanced and Professional	-	SX1A-B0201M	2049857
	Adapter cable, RJ45/M12	-	Adapter cable	6044052

Additional accessories for PROFINET connection technology, e.g., **RJ-45 or SCRJ push-pull connection plug**, see www.phoenixcontact.de.


Other accessories**Spare parts set for front screen**

Figure	Description	Model name	Part no.
	Front screen with spare seal and screws	-	2027180



Recommended accessories for S3000 Cold Store**Mounting bracket/plates**

Figure	Description	Model name	Part no.
	Adjustment bracket for wall mounting, metal, weight approx. 1.6 kg (including mounting material)	Adjustment bracket	2018303

Other accessories

Figure	Description	Model name	Part no.
	With screw threads, M36 x 1.5	Drying agent cartridge	5306179

Plug connectors and cables

Figure	Description	Model name	Part no.
	16-pin connection plug, complete with housing	Connection plug	2018301
	Pre-assembled to RS-232. For inclusion in existing wiring.	Service cable	2019561

For general accessories, see page 50.



For enhanced system solutions, see page 51.