



Safety laser scanners
S3000 PROFINET IO Professional, Sensor head
with I/O module

S30A-4111DP



Model Name > [S30A-4111DP](#)
Part No. > [1045651](#)



At a glance

- Direct integration in PROFINET IO safe bus system
- 4 m protective field range
- Eight switchable field sets (eight protective fields, eight warning fields)
- Remote diagnostics and configuration through safety controller
- Managed 2-port switch for RJ45 plug connector
- Configuration memory integrated in the system plug
- Simultaneous monitoring of two protective fields

Your benefits

- Reliable, fault-tolerant communication with PLC controller using state-of-the-art fiber-optic technology.
- Efficient, cost-effective protection - networked through direct connection to PROFINET IO networks
- Rapid diagnosis by means of remote access prevents downtimes
- Standardized integration in PLC controllers, thanks to GSDML generic station description
- Largest protective field range in the market increases the variety of application possibilities
- Quick recommissioning via configuration memory
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and availability - even under difficult conditions



Applications

Hazardous area protection (vertical):	✓
Access protection (vertical):	✓
Hazardous area protection (horizontal):	✓

Functions

Number of simultaneously monitored protective fields:	2
Static protective field switching:	-
Incremental encoder inputs:	-
External device monitoring (EDM):	-
Integrated configuration memory:	✓

Expanded measured data output (CMS, RS-422): -
Measured data output (RS-422): -
Safe device communication via EFI/SDL: -

Technical data

Laser class: 1 (21 CFR 1040.10 and 1040.11, DIN EN 60825:2001)
Enclosure rating: IP 65 (EN 60529)
Protection class: III (EN 50178)
Type: Type 3 (IEC/EN 61496-3)
Safety integrity level: SIL2 (IEC 61508), SILCL2 (EN 62061)
Category: Category 3 (EN ISO 13849)
Performance level: PL d (EN ISO 13849)
PFHd: $8.0 \cdot 10^{-8}$ (EN ISO 13849)
TM (mission time): 20 a (EN ISO 13849)
Ambient operating temperature: -10 °C ... 50 °C
Dimensions (W x H x D): 155 mm x 185 mm x 160 mm
Weight: 3.3 kg
Scan angle: 190 °
Protective field range: 4 m
Maximum warning field range: 49 m
Number of field sets: 8¹⁾
Number of monitoring cases: 16
Response time: 60 ms²⁾
Resolution: 30 mm, 40 mm, 50 mm, 70 mm, 150 mm, selectable
Distance measuring range: 49 m
Number of multiple samplings: Configurable via CDS 2 ... 16
Electrical connection: Copper conductor (2 sockets for RJ-45 push-pull plug), plug-in supply connector with screw type terminal and cable gland for cable diameter 5 mm ... 10 mm
Supply voltage: 16.8 V DC, 24 V DC, 28.8 V DC
Configuration and diagnostics interface: RS-232
Device properties: PROFINET IO device with 2-port real-time switch according to PROFINET specification V2.2
PROFIsafe profile with 6-octet input and 6-octet output according to IEC 61784-3-3 V2.4
Cycle time 4, 8, 16, 32 ms, etc.
GSDML according to GSDML specification V2.25
Switch properties: Filtering Data Base according to IEEE 802.1D
6 prioritization levels for IEEE 802.1Q - Network prioritization
64 KB SRAM memory for caching telegrams, managed in 768-byte segments
Resource prioritization for network control and RTC2/3 frames
Telegram extension based on "Cut-through"
Port status (Disabled, Blocking, Forwarding)
Support for non-real-time and real-time data transfer
Port properties: Auto-negotiation
Auto-crossover (MDIX)
Auto-polarity
100Base-TX
Conformance: Conformance Class B
Topology support: SNMP, MIB-2, LLDP nach IEEE 802.1AB
MRP client support
Diagnostics: Application-related manufacturer-specific channel diagnostics and channel diagnostics for the PROFIsafe profile, individually switchable
Report system errors
Cable diagnostics
Neighborhood alerts
Support for port statistics
I&M support from I&M0 to I&M4

Interfaces for configuration and diagnostics using CDS:

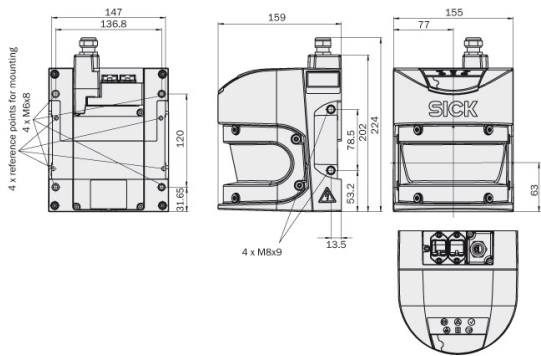
TCP port 9000 and UDP port 30718
RS-232

Functions that are not supported:

Multicast communication
Supervisor AR
MAC-pause mechanism in full duplex
Back-pressure in half duplex
Static learning
Broadcast Storm Control

- 1) One field set = one protective field and two warning fields 2) Depending on basic response time and multiple sampling

Dimensional drawing



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