



airWiper Kit outdoorScan3 Pro – PROFINET

outdoorScan3

SAFETY LASER SCANNERS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|--|----------|
| airWiper Kit outdoorScan3 Pro – PROFINET | 1128912 |

Other models and accessories → www.sick.com/outdoorScan3

Detailed technical data

Features

| | |
|--|---|
| Sub product family | outdoorScan3 Pro - PROFINET |
| Model | Sensor kit for compressed air cleaning, without system plug |
| Application | Outdoor ¹⁾ |
| Compressed air cleaning | Possible |
| Operating medium | Compressed air |
| Purity class | ISO 8573-1 [7:4:4] |
| Input pressure | Typ. 400 kPa (200 kPa ... 600 kPa, 2.0 bar ... 6.0 bar) |
| Temperature of compressed air | ≤ +50 °C |
| Protective field range | 4 m |
| Warning field range | 40 m |
| Number of simultaneously monitored fields | ≤ 8 ²⁾ |
| Number of fields | 128 |
| Number of monitoring cases | 128 |
| Scanning angle | 275° |
| Resolution (can be configured) | 50 mm 70 mm |
| Angular resolution | 0.39° |
| Response time | 115 ms |
| Protective field supplement | 65 mm |

¹⁾ The safety laser scanner is suitable for use in industrial environments (indoors and outdoors).

²⁾ Protection or warning fields.

Safety-related parameters

| | |
|---|---|
| Type | Type 3 (IEC 61496) |
| Safety integrity level | SIL 2 (IEC 61508) |
| Category | Category 3 (EN ISO 13849) |
| Performance level | PL d (EN ISO 13849) |
| Performance class SRS/SRSS | Performance class D (IEC/TS 62998) |
| PFH_D (mean probability of a dangerous failure per hour) | 8.0 x 10 ⁻⁸ |
| T_M (mission time) | 20 years (EN ISO 13849) |
| Safe state in the event of a fault | The safety outputs via the network are logic 0. |

Functions

| | |
|--|--------------|
| Restart interlock | ✓ |
| Multiple sampling | ✓ |
| Monitoring case switching | ✓ |
| Simultaneous monitoring | ✓ |
| Static protective field switching | ✓ |
| Integrated configuration memory | ✓ |
| Measured data output | Via Ethernet |

Interfaces

| | |
|--|---|
| Compressed air connections | 4 x push-pull connection for compressed air hose (Ø 4 mm), M5 male thread |
| Connection type | |
| Voltage supply | 1 x male connector, M12, 4-pin, A-coded |
| Fieldbus, industrial network | 2 x M12 female connectors, 4-pin, D-coded |
| Outputs | |
| OSSD pairs | 0 |
| Safety outputs via network | 8 |
| Configuration method | PC with Safety Designer (Configuration and Diagnostic Software) |
| Configuration and diagnostics interface | USB 2.0, Mini-USB, Ethernet |
| Fieldbus, industrial network | PROFINET |
| Protocol | PROFIsafe |
| Supported protocol versions | PROFINET specification V2.3 PROFIsafe profile in accordance with specification V2.6.1 PROFIsafe profile in accordance with specification V2.4 |
| GSDML | According to GSDML specification V2.33 |
| Cycle time | 1 ms, 2 ms, 4 ms, 8 ms, 16 ms ... |
| Conformance | Conformance Class C |
| Network management | SNMP MIB-2 LLDP in accordance with IEEE 802.1AB MRP client support |
| Net load | Net load class III in accordance with security level 1 test |
| Switch properties | 2 port real-time switch compliant with IEEE 802 |

| | | |
|--|-----------------------------|-----------------------|
| | Port properties | 100Base-TX |
| | | Auto-negotiation |
| | | Auto-crossover (MDIX) |
| | Diagnostics | Auto-polarity |
| | | I&M data sets 0 ... 5 |
| | Additional services | PROFINET alarms |
| | | PROFenergy |
| F_iPar_CRC | | |
| Acyclic read-/write services for communication via TCI | | |
| | SNTP (client and server) | |
| Display elements | Graphic color display, LEDs | |

Electronics

| | |
|--|---------------------------------|
| Protection class | III (EN 61140) |
| Supply voltage V_s | 24 V DC (16.8 V DC ... 30 V DC) |
| Power consumption typical | 7.2 W |

Mechanics

| | |
|------------------------------------|--|
| Dimensions (W x H x D) | 140.6 mm x 150.7 mm x 127.6 mm |
| Housing material | Aluminum |
| Housing color | RAL 2004 (pure orange), RAL 9005 (black) |
| Optics cover material | Polycarbonate |
| Optics cover surface finish | Outside with scratch-resistant coating |
| Material of the airWiper | Aluminum (anodised) |

Ambient data

| | | |
|--------------------------------------|-------------------|--|
| Enclosure rating | IP65 (IEC 60529) | |
| Ambient light immunity | Halogen light | 12,000 lx (IEC 61496-3) |
| | Sunlight | 40,000 lx (IEC 61496-3) |
| | | |
| Ambient operating temperature | -25 °C ... +50 °C | |
| Storage temperature | -25 °C ... +70 °C | |
| Ambient conditions | Rain | 10 mm/h ¹⁾ |
| | Snowfall | 3 mm/h SWE, Snow Water Equivalent ¹⁾ |
| | Fog | 50 m (MOR, Meteorological Optical Range) ¹⁾ |
| | | |
| Vibration resistance | | IEC 60068-2-6, IEC 60068-2-64, IEC 60721-3-5, IEC TR 60721-4-3, IEC 61496-1, IEC 61496-3 |
| | Class | 5M1 (IEC 60721-3-5) 3M4 (IEC TR 60721-4-3) |
| | | |
| Shock resistance | | IEC 60068-2-27, IEC 60721-3-5, IEC TR 60721-4-3, IEC 61496-1, IEC 61496-3 |
| | Class | 5M1 (IEC 60721-3-5) 3M4 (IEC TR 60721-4-3) |
| | | |

¹⁾ More detailed data can be found in the operating instructions, chapter "Project planning".

| | | |
|------------|------------------|---|
| | Continuous shock | 100 m/s ² , 16 ms |
| | | 150 m/s ² , 6 ms |
| EMC | | IEC 61496-1, IEC 61000-6-2, IEC 61000-6-4 |

¹⁾ More detailed data can be found in the operating instructions, chapter "Project planning".

Other information

| | |
|------------------------------------|---|
| Type of light | Pulsed laser diode |
| Wave length | 845 nm |
| Detectable remission factor | 1.8% to several 1000% |
| Laser class | 1 (21 CFR 1040.10 and 1040.11, IEC 60825-1) |

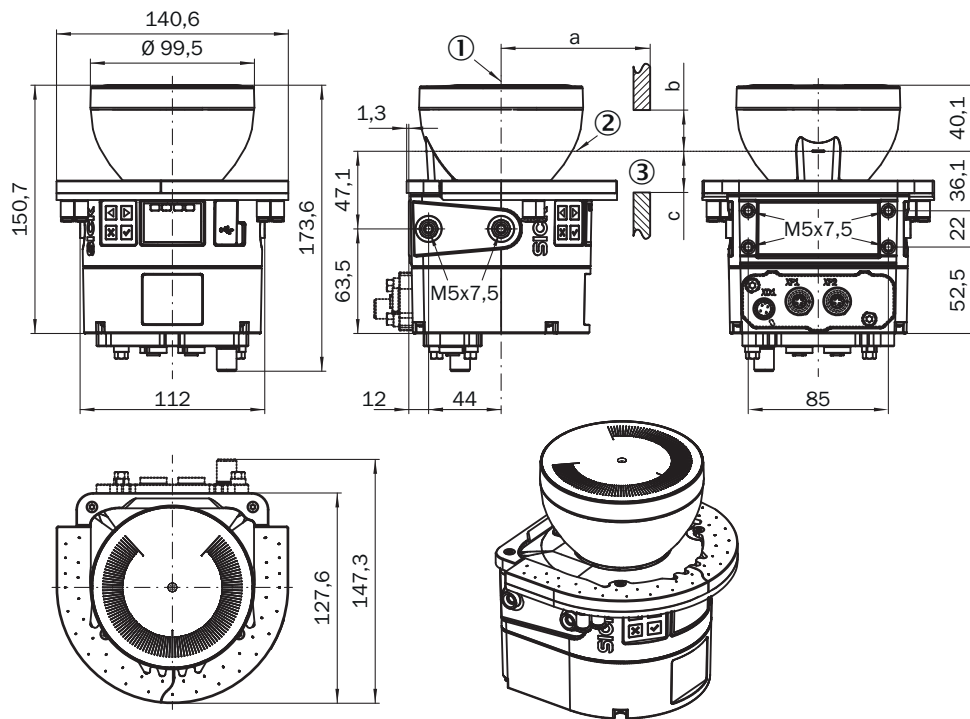
Certificates

| | |
|--|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| China-RoHS | ✓ |
| cULus certificate | ✓ |
| Profinet certificate | ✓ |
| PROFIsafe certificate | ✓ |
| EC-Type-Examination approval | ✓ |
| PROFIenergy certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

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



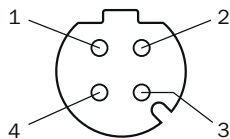
Dimensions in mm (inch)

① mirror axis of rotation

② scan plane

③ required viewing slit (a: length of the viewing slit, b: minimum height above the scan plane, c: minimum height below the scan plane. See the operating instructions for details.)

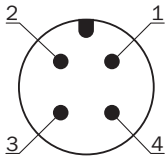
Pinouts Ethernet (XF1, XF2)



| Pin | Designation | Description |
|--------|-------------|----------------|
| 1 | TX+ | Send data + |
| 2 | RX+ | Receive data + |
| 3 | TX- | Send data - |
| 4 | RX- | Receive data - |
| Thread | SH | Shielding |

For details see operating instructions

Pinouts Voltage supply (XD1)







| Pin | Designation | Description |
|--|-------------|----------------------------|
| 1 | +24 V DC | Supply voltage +24 V DC |
| 2 | n.c. | Not connected |
| 3 | 0 V DC | Supply voltage 0 V DC |
| 4 | FE | Functional earth/shielding |
| For details see operating instructions | | |

Recommended accessories

Other models and accessories → www.sick.com/outdoorScan3

| | Brief description | Type | part no. |
|---|---|---|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none"> Description: Mounting bracket Material: Stainless steel Details: Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A Color: RAL 9005 (black) Packing unit: 1 piece | Mounting kit 1a | 2073851 |
|  | <ul style="list-style-type: none"> Description: Mounting bracket with protection of optics hood Material: Stainless steel Details: Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A Color: RAL 9005 (black) Packing unit: 1 piece | 1b mounting kit | 2074242 |
|  | <ul style="list-style-type: none"> Description: Alignment bracket, alignment with cross-wise axis and depth axis possible, distance between mounting surface and device: 22.3 mm, only in conjunction with mounting kit 1a (2073851) or 1b (2074242) Material: Stainless steel Details: Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A Color: RAL 9005 (black) Packing unit: 1 piece | Mounting kit 2a | 2073852 |
|  | <ul style="list-style-type: none"> Description: Alignment bracket, alignment with cross-wise axis and depth axis possible, distance between mounting surface and device: 52.3 mm, only in conjunction with mounting kit 1a (2073851) or 1b (2074242) Material: Stainless steel Details: Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A Color: RAL 9005 (black) Packing unit: 1 piece | Mounting kit 2b | 2074184 |
|  | <ul style="list-style-type: none"> Description: Alignment bracket with protection for the optics cover, alignment with cross-wise axis and depth axis possible Packing unit: 1 piece | Mounting kit 3 | 2103049 |
|  | <ul style="list-style-type: none"> Description: For loosening and tightening M12 plug connectors to the system plug with defined torque (0,4 Nm) | Torque screwdriver with attachment for M12 plug connector | 2081618 |
| device protection and care | | | |
|  | <ul style="list-style-type: none"> Description: Weather hood (only in conjunction with mounting kit 3) | Weather hood | 2103050 |
|  | <ul style="list-style-type: none"> Description: Splash guard, only in conjunction with mounting kit 3 (2103049) | Splash guard | 2123205 |

| | Brief description | Type | part no. |
|---|---|---------------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation, seawater resistant, cold bending resistant | YG2A64-020UE1XLEAX | 2108122 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation, seawater resistant, cold bending resistant | YG2A64-100UE1XLEAX | 2108123 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, angled, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 2 m, 4-wire, CAT5, PUR, halogen-free • Description: Ethernet, shielded, PROFINET • Application: Cold bending resistant, Outdoor, Zones with oils and lubricants, seawater resistant | YN2D34-020P-N4MRJA4 | 2108116 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, angled, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 10 m, 4-wire, CAT5, PUR, halogen-free • Description: Ethernet, shielded, PROFINET • Application: Cold bending resistant, Outdoor, Zones with oils and lubricants, seawater resistant | YN2D34-100P-N4MRJA4 | 2108141 |

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