



# outdoorScan3

THE SAFETY LASER SCANNER FOR  
OUTDOOR AUTOMATION

Safety laser scanners

**SICK**  
Sensor Intelligence.



### Certified for outdoors



The outdoorScan3 is designed to allow man and machine to work safely side by side. It is certified for use in industrial production and logistics areas both inside and outside of buildings. This certification is based on the ISO 13849-1 and IEC 62998 standards, among others.

**+** Increase your productivity outdoors with safe human-machine cooperation

### Outdoor safeHDDM® scanning technology



The outdoorScan3 is exceptionally well-suited for protecting both stationary and mobile outdoor applications. The patented safeHDDM® technology from SICK used in the safety laser scanner has been specifically enhanced for outdoor applications through the addition of special algorithms. It reliably detects people without the need for additional protective devices.

**+** You will be impressed with its high availability, even in unfavorable weather conditions

# MOVING BEYOND LIMITS

The world's first IEC 62998-certified safety laser scanner for indoor and outdoor use opens up a whole new world of safe and easy automation.

With the outdoorScan3, people and machines can now work outside together safely. This leads to higher AGV (Automated Guided Vehicles) speeds and a continuous material flow between several production halls. Quite simply, the outdoorScan3 enables you to increase your productivity both indoors and outdoors.



**Additional information:**

→ [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)

## Intelligent functions



The outdoorScan3 can be adapted to suit a whole host of different applications using the intuitive Safety Designer configuration software. With 128 individually adjustable fields, 8 simultaneous protective fields, and simple measurement data output via Ethernet, the laser scanner is very versatile. Various diagnostic options via display, pushbutton or network enable quick troubleshooting and increase the availability of your machine.

**+** Take advantage of the high flexibility for your individual automation processes

## Functional design

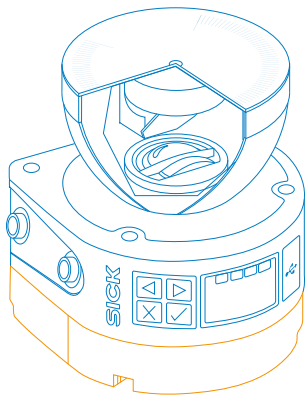


With its rugged design and the special shape of the optics cover, the outdoorScan3 is very well suited for outdoor use. The accessories, which can be adapted to your application requirements thanks to their modular structure, also provide protection against the elements and ensure high performance. The vibration-resistant and shockproof mounting system gives the outdoorScan3 a firm mounting. This contributes to a quick and easy commissioning, especially in combination with the standard M12 cabling.

**+** Benefit from the user-friendly design optimized for outdoor use

## A NEW DIMENSION OF AUTOMATION

Many logistics specialists, engineers, and safety officers have been eagerly awaiting the safe automation of industrial processes in outdoor areas. Human-machine cooperation outside of buildings opens up virtually limitless opportunities for present and future fields of application. The outdoorScan3 enables much more efficient and productive implementation of applications and also ensures maximum personal safety. It even features tried-and-tested technology that has been certified and optimized for outdoor use.



### Tested by the “Outdoor Technology Center”

In the Outdoor Technology Center, the availability and reliability of the outdoorScan3 in harsh working environments are tested and advanced on a daily basis. Sensor solutions for automation in outdoor areas are tested here in seven test areas. A mobile test vehicle is in use, as are stationary applications for product and solution development.

### Facing challenging weather conditions

The outdoorScan3 works safely and reliably, even under challenging weather conditions. No matter if there's sun, rain, fog, or snow, the outdoorScan3 takes personal safety and productivity to a new level – regardless of potentially disruptive factors.

**You are well-prepared even for changing weather conditions with reliable safety technology from SICK.**



Sunlight



Rain



Snow



Fog







Application-oriented development: The outdoorScan3 is tested under real ambient conditions at the SICK Outdoor Technology Center.



### Sophisticated accessories

The accessory components of the outdoorScan3 safety laser scanner were specially developed for outdoor use and can be combined to fit your application requirements.

The accessories reliably reduce influences caused by weather and ensure the availability of the safety laser scanner. The sophisticated components also allow the outdoorScan3 to be quickly and easily integrated into your automation solution.

**Additional information on accessories:**

→ [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)

## outdoorScan3 – FOR DIVERSE FIELDS OF APPLICATION

### Productivity increase with AGV Dynamic Weather Assist



82 % fewer rain-related  
switch-offs\*



97 % fewer snow-related  
switch-offs\*



### Greater availability of AGVs due to weather- dependent speed adjustment

The safety requirements for mobile applications in outdoor areas are demanding: Personal safety must be ensured in unfavorable weather conditions, even if the laser scanner gets dirty. At the same time, unplanned machine stops should be reduced.

The AGV Dynamic Weather Assist function block of the Flexi Soft safety controller makes it possible to adapt protective fields to changing weather conditions. This enables the outdoorScan3 to dynamically adjust the speed of the AGV, thereby smoothly linking production sequences and logistics processes both indoors and outdoors.

\*The efficiency of the AGV Dynamic Weather Assist was examined in a long-term stationary test over a period of 12 months at the Outdoor Technology Center. The evaluation showed a significant increase in availability of the outdoorScan3 when used with the AGV Dynamic Weather Assist.

For more information on the AGV Dynamic Weather Assist, visit  
→ [www.sick.com/AGV\\_Dynamic\\_Weather\\_Assist](http://www.sick.com/AGV_Dynamic_Weather_Assist)

### Hazardous area protection for stationary applications

From basic safety mat replacement and presence detection through to protecting multiple hazardous areas at the same time, the outdoorScan3 is the right choice. Suitable horizontal protective fields can be set up and monitored to protect against the dangers posed by hazardous machines, plants or open spaces. As we move towards the Smart Factory, we find humans, machines and autonomous systems working ever closer together. Safety for humans is always a primary focus, without ever losing sight of productivity.





### Constant condition monitoring

The Monitoring Box from SICK is a browser application that lets you administer the sensor and machine data and visualize it in a dashboard. Status changes can be easily monitored and quickly diagnosed.

If necessary, an alert can be sent in the event of any significant change in the device status. This enables operators to intervene in a timely manner. This ensures the availability and productivity of your systems.

#### Additional information on the Monitoring Box

→ [www.sick.com/Monitoring\\_Box](http://www.sick.com/Monitoring_Box)



## YOUR PARTNER FOR PRODUCTIVE OUTDOOR SAFETY SOLUTIONS

Once the foundations have been laid and the legal framework has been defined, you then have various options available when it comes to safely automating processes in outdoor areas. SICK can help you protect your individual applications.

### Normative requirements

Machine safety is a crucial consideration for the outdoorScan3. In this context, the ISO 13849-1 safety standard defines the range of application for the laser scanner.

The systematic approach via IEC62998 allows for the intended use of the outdoorScan3 in outdoor areas.

### Application requirements

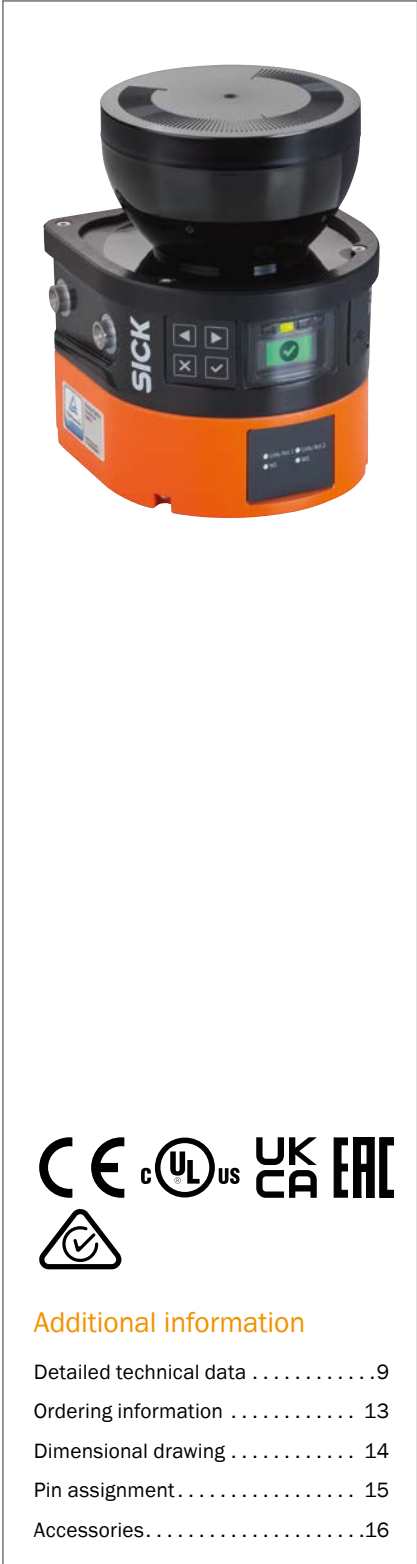
For outdoor areas, a holistic view of the interplay between sensor performance, accessory components, machine integration and organizational measures is the key to success.

### Applications

- Industrial production and logistics areas
- Non-public areas: Access for authorized personnel only
- Moderate ambient conditions (similar to the temperate climates defined in IEC 60721-2-1, for example)

CREATING  
SAFE  
PRODUCTIVITY

# THE SAFETY LASER SCANNER FOR OUTDOOR AUTOMATION



## Product description

The outdoorScan3 safety laser scanner protects people outdoors in a wide range of mobile and stationary applications. Thanks to intelligent algorithms and the outdoor safeHDDM® scanning technology, the sensor achieves high productivity even in unfavorable weather conditions. The outdoorScan3 stands

out thanks to the rugged housing, smart connection technology and advanced diagnostic functions. Modular accessories are also available to meet your application requirements. The Safety Designer configuration software from SICK enables intuitive operation.

## At a glance

- Certified in accordance with ISO 13849 and IEC 62998 for protecting people indoors and outdoors
- Outdoor safeHDDM® scanning technology
- Modular accessories for high performance
- Up to 128 freely configurable fields
- Diagnosis with Safety Designer and monitoring app
- Speed adjustment with the AGV Dynamic Weather Assist

## Your benefits

- High productivity due to safe human-machine cooperation in outdoor areas
- Outstanding availability even under unfavorable weather conditions
- User-friendly and suitable for outdoor use
- Easily adaptable protective fields for safe automation processes
- Fast troubleshooting thanks to easy access to diagnostic data
- Continuous and reliable material flow both in- and outdoors – even in changing weather conditions

## Additional information

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→ [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)

For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.





## Detailed technical data

More detailed data can be found in the operating instructions. Download → [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)

## Features

	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
Application	Outdoor <sup>1)</sup>		
Protective field range	4 m		
Warning field range	40 m		
Number of simultaneously monitored fields	≤ 4 <sup>2) 3)</sup>	≤ 8 <sup>2)</sup>	
Number of fields	8 <sup>4)</sup>	128	
Number of monitoring cases	2	128	
Scanning angle	275°		
Resolution (can be configured)	50 mm, 70 mm		
Angular resolution	0.39°		
Response time	≥ 90 ms	≥ 115 ms	
Protective field supplement	65 mm		

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

<sup>2)</sup> Protection or warning fields.

<sup>3)</sup> Please note the number of available OSSD pairs.

<sup>4)</sup> Please note the number of available inputs and OSSD pairs.

## Safety-related parameters

	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
Type	Type 3 (IEC 61496)		
Safety integrity level	SIL2 (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 <sub>D</sub> (mean probability of a dangerous failure per hour)	8.0 x 10 <sup>-8</sup> (EN ISO 13849)		
T <sub>M</sub> (mission time)	20 years (EN ISO 13849)		
Safe state in the event of a fault	In each OSSD pair, at least one OSSD is in the OFF state.	The safety outputs via the network are logic 0.	

## Functions

	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
Restart interlock	✓		
External device monitoring (EDM)	✓	–	
Multiple sampling	✓		
Monitoring case switching	✓		
Simultaneous monitoring	✓		
Static protective field switching	✓		
Integrated configuration memory	✓		
Measured data output	None	Via Ethernet	

## Interfaces

### outdoorScan3 Core I/O

<b>Connection type</b>	Male connector, M12, 8 pin, A-coded (common male connector for power supply and inputs and outputs)
<b>Universal I/Os</b>	3
<b>Outputs</b>	
OSSD pairs	1
<b>Configuration method</b>	PC with Safety Designer (Configuration and Diagnostic Software)
<b>Configuration and diagnostics interface</b>	USB 2.0, Mini-USB
<b>Display elements</b>	Graphic color display, LEDs

### outdoorScan3 Pro – EtherNet/IP™

<b>Connection type</b>	
Voltage supply	1 x male connector, M12, 4-pin, A-coded
Fieldbus, industrial network	2 x M12 female connectors, 4-pin, D-coded
<b>Outputs</b>	
OSSD pairs	0
Safety outputs via network	8
<b>Configuration method</b>	PC with Safety Designer (Configuration and Diagnostic Software)
<b>Configuration and diagnostics interface</b>	USB 2.0, Mini-USB, Ethernet
<b>Fieldbus, industrial network</b>	EtherNet/IP™
Protocol	CIP Safety™
Device properties	Common Industrial Protocol: The CIP Networks Library Volume 1, Edition 3.20 EtherNet/IP™: The CIP Networks Library Volume 2, Edition 1.21 CIP Safety™: The CIP Networks Library Volume 5, Edition 2.13
Topology support	DLR (Device Level Ring)
<b>Display elements</b>	Graphic color display, LEDs

## outdoorScan3 Pro – PROFINET

<b>Connection type</b>		
	Voltage supply	1 x male connector, M12, 4-pin, A-coded
	Fieldbus, industrial network	2 x M12 female connectors, 4-pin, D-coded
<b>Outputs</b>		
	OSSD pairs	0
	Safety outputs via network	8
<b>Configuration method</b>		PC with Safety Designer (Configuration and Diagnostic Software)
<b>Configuration and diagnostics interface</b>		USB 2.0, Mini-USB, Ethernet
<b>Fieldbus, industrial network</b>		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) Auto-polarity
	Diagnostics	I&M data sets 0 ... 5 PROFINET alarms
	Additional services	PROFenergy F_iPar_CRC Acyclic read-/write services for communication via TCI SNTP (client and server)
<b>Display elements</b>		Graphic color display, LEDs

## Electrical data

<b>Protection class</b>	III (EN 61140)
<b>Supply voltage <math>V_s</math></b>	24 V DC (16.8 V DC ... 30 V DC)
<b>Power consumption</b>	7 W (without output load)

## Mechanical data

	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
<b>Dimensions (W x H x D)</b>	See dimensional drawings		
<b>Weight</b>	1.15 kg / 1.3 kg (depending on type)	1.45 kg / 1.6 kg (depending on type)	
<b>Housing material</b>	Aluminum		
<b>Housing color</b>	RAL 2004 (pure orange), RAL 9005 (black)		
<b>Optics cover material</b>	Polycarbonate		
<b>Optics cover surface finish</b>	Outside with scratch-resistant coating		



### Ambient data

<b>Enclosure rating</b>	IP65 (IEC 60529)
<b>Ambient light immunity</b>	
Halogen light	≤ 12,000 lx (IEC 61496-3)
Sunlight	≤ 40,000 lx (IEC 61496-3)
<b>Ambient operating temperature</b>	-25 °C ... +50 °C
<b>Storage temperature</b>	-25 °C ... +70 °C
<b>Ambient conditions</b>	
Rain	10 mm/h <sup>1)</sup>
Snowfall	3 mm/h SWE, Snow Water Equivalent <sup>1)</sup>
Fog	≥ 50 m (MOR, Meteorological Optical Range) <sup>1)</sup>
<b>Vibration resistance</b>	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)
<b>Shock resistance</b>	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)
Continuous shock	100 m/s <sup>2</sup> , 16 ms 150 m/s <sup>2</sup> , 6 ms
<b>EMC</b>	IEC 61496-1, IEC 61000-6-2, IEC 61000-6-4

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

### Additional features airWiper kits

<b>Compressed air cleaning</b>	Possible
<b>Operating medium</b>	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
<b>Compressed air connections</b>	4 x push-pull connection for compressed air hose (Ø 4 mm), M5 male thread
<b>Material of the airWiper</b>	Aluminum (anodised)

### Other information

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

## Ordering information

Items supplied outdoorScan3:

- Safety laser scanner including system plug or sensor kit for compressed air cleaning, including system plug
- Cover plate (for EtherNet/IP™ and PROFINET)
- Safety instruction
- Mounting instructions
- Operating instructions for download → [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)
- Safety Designer (configuration and diagnostic software) for download → [www.sick.com/safety\\_designer](http://www.sick.com/safety_designer)

Variant	Integration in the control system	Protective field range	Compressed air cleaning	Type	Part no.
outdoorScan3 Core I/O	Local inputs and outputs (I/O)	4 m	Not possible	MICS3-AAUZ40AZ1P01	1094452
			Possible	airWiper Kit outdoorScan3 Core I/O	1124784
outdoorScan3 Pro – EtherNet/IP™	CIP Safety™ over EtherNet/IP™	4 m	Not possible	MICS3-CBUZ40IZ1P01	1094472
			Possible	airWiper Kit outdoorScan3 Pro – EtherNet/IP™	1124781
outdoorScan3 Pro – PROFINET	PROFINET PROFIsafe	4 m	Not possible	MICS3-CBUZ40PZ1P01	1094474
			Possible	airWiper Kit outdoorScan3 Pro – PROFINET	1128913

Function block of AGV Dynamic Weather Assist:

System requirements:

- The function block requires (at least) one outdoorScan3 safety laser scanner and one Flexi Soft CPU0 safety controller.

Scope of delivery:

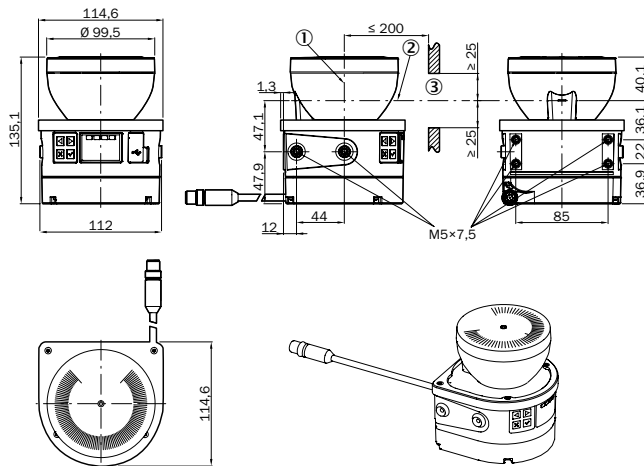
- Software (Safety Designer project file with control logic) as well as operating instructions

Variant	Product type	Configuration software	Safety controller	Type	Part no.
AGV Dynamic Weather Assist	Software	Safety Designer	Flexi Soft	SOW/DWA-FX00402010	1615375

For more information, visit → [www.sick.com/AGV\\_Dynamic\\_Weather\\_Assist](http://www.sick.com/AGV_Dynamic_Weather_Assist)

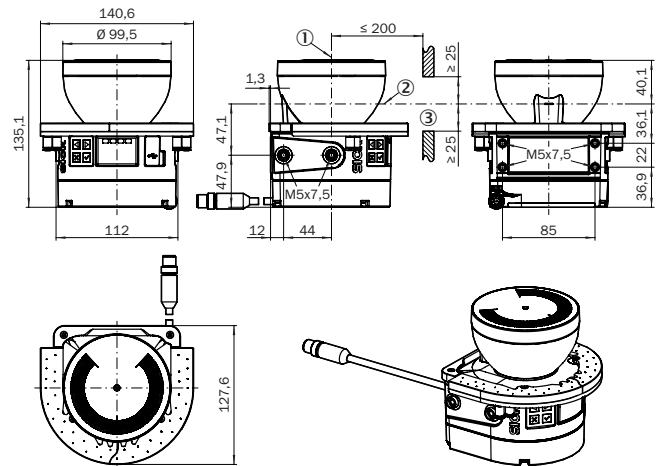
Dimensional drawing

outdoorScan3 Core I/O,  
sensor including system plug



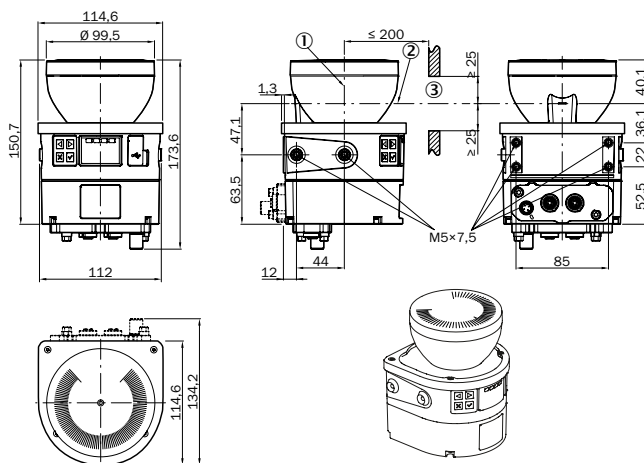
- ① Mirror axis of rotation
- ② Scan plane
- ③ Required viewing slit

outdoorScan3 Core I/O,  
sensor kit for compressed air cleaning, including system plug



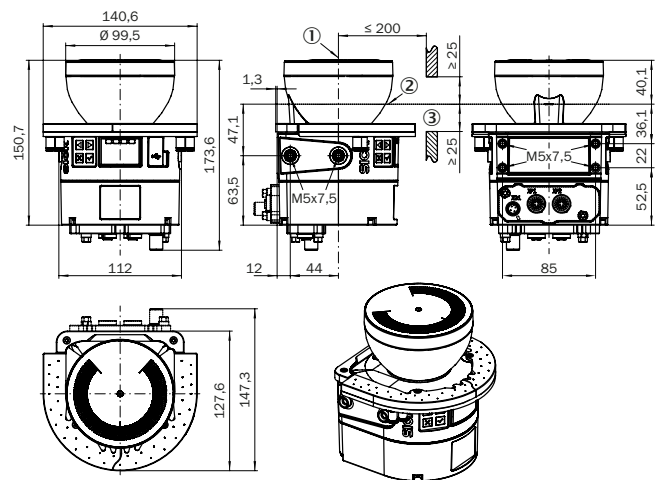
- ① Mirror axis of rotation
- ② Scan plane
- ③ Required viewing slit

outdoorScan3 Pro – EtherNet/IP™,  
outdoorScan3 Pro – PROFINET,  
sensor including system plug



- ① Mirror axis of rotation
- ② Scan plane
- ③ Required viewing slit

outdoorScan3 Pro – EtherNet/IP™,  
outdoorScan3 Pro – PROFINET,  
sensor kit for compressed air cleaning, including system plug

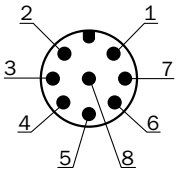


- ① Mirror axis of rotation
- ② Scan plane
- ③ Required viewing slit



## Pin assignment

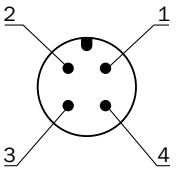
## outdoorScan3 Core I/O



PIN	Designation	Function
1	+24 V DC	+24 V DC supply voltage
2	OSSD 1.A	OSSD pair 1, OSSD A
3	0 V DC	Supply voltage 0 V DC
4	OSSD 1.B	OSSD pair 1, OSSD B
5	Uni I/O 1	Universal I/O 1, configurable
6	Uni I/O 2	Universal I/O 2, configurable
7	Uni I/O 3	Universal I/O 3, configurable
8	FE	Functional earth/shield

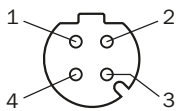
 outdoorScan3 Pro – EtherNet/IP™  
 outdoorScan3 Pro – PROFINET

## Voltage supply



PIN	Designation	Function
1	+24 V DC	+24 V DC supply voltage
2	NC	Not connected
3	0 V DC	Supply voltage 0 V DC
4	FE	Functional earth/shield

## EtherNet/IP™ (2 x)



PIN	Designation	Function
1	TX+	Send data +
2	RX+	Receive data +
3	TX-	Send data -
4	RX-	Receive data -
Thread	SH	Shielding

### Accessories required for commissioning

Description	Quantity	Scope of delivery	Additional information	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
Mounting kit	1	-	→ Mounting brackets and plates	●	●	●
I/O connecting cable	1	-	→ Plug connectors and cables	●	-	-
Connecting cable for EtherNet/IP™	1	-	→ Plug connectors and cables	-	●	●
M12-RJ45 connection cable for EtherNet/IP™	1	-	→ Plug connectors and cables	-	●	●
Connection cable for configuration and diagnostics	1	-	→ Plug connectors and cables	●	-	-
Safety Designer (configuration and diagnostic software)	1	-	→ <a href="http://www.sick.com/safety_designer">www.sick.com/safety_designer</a>	●	●	●
Operating instructions	1	-	→ <a href="http://www.sick.com/outdoorScan3">www.sick.com/outdoorScan3</a>	●	●	●






The compressed air supply, controller, valves, etc. are not part of the airWiper. These are also required.

### Accessories




All accessories are also suitable for the respective airWiper variant.

#### Mounting systems


##### Mounting brackets and plates

	Description	Packing unit	Type	Part no.	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
	Mounting bracket, Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	1 piece	Mounting kit 1a	2073851	●	●	●
	Mounting bracket with protection of optics hood, Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	1 piece	Mounting kit 1b	2074242	●	●	●
	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), Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	1 piece	Mounting kit 2a	2073852	●	●	●
	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), Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	1 piece	Mounting kit 2b	2074184	●	●	●
	Alignment bracket with protection for the optics cover, alignment with cross-wise axis and depth axis possible	1 piece	Mounting kit 3	2103049	●	●	●





## Device protection (mechanical)

	Description	Packing unit	Type	Part no.	outdoorScan3 Core / O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
	Splash guard, only in conjunction with mounting kit 3 (2103049)	1 piece	Splash guard	2123205	●	●	●
	Spare part for splash guard (2123205)	1 piece	Splash guard inlay	2123662	●	●	●
	Weather hood (only in conjunction with mounting kit 3)	1 piece	Weather hood	2103050	●	●	●

## Mounting tools

	Description	Type	Part no.			
	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	-	●	●

## Test and monitoring tools

	Description	Items supplied	Type	Part no.			
	Alignment aid for detecting the infrared light (wavelength 780 nm to 1050 nm) of SICK sensors	Alignment aid, pedestal, display aid, mounting instructions	Alignment aid	2101720	●	●	●
	50 mm diameter, 500 mm length	-	Test rod 50 mm	2095105	●	●	●
	70 mm diameter, 500 mm length	-	Test rod 70 mm	2095139	●	●	●
	Test rod holder for test rods with 50 mm and 70 mm diameter	-	Test rod holder	4096204	●	●	●







## Plug connectors and cables


### Connecting cables

Image	Connection type		Model	Conductor cross-section	Length of cable	Type	Part no.	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
	Female connector, M12, 8-pin, straight	Flying leads	PUR, shielded	0,155 mm <sup>2</sup>	2 m	YF2A68-020UA7XLEAX	2108120	●	-	-
					20 m	YF2A68-200UA7XLEAX	2108133	●	-	-
	Female connector, M12, 4-pin, angled	Flying leads	PUR, halogen-free, shielded	0,75 mm <sup>2</sup>	2 m	YG2A64-020UE1XLEAX	2108122	-	●	●
					10 m	YG2A64-100UE1XLEAX	2108123	-	●	●


### Connection cables

Image	Connection type		Model	Conductor cross-section	Length of cable	Type	Part no.			
	Male connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	PUR, halogen-free, shielded	2 x 2 x 0.14 mm <sup>2</sup>	5 m	SSL-1204-G05ME90	6045277	-	●	●
					10 m	SSL-1204-G10ME90	6045279	-	●	●
					20 m	SSL-1204-G20ME90	6063693	-	●	●
	Male connector, M12, 4-pin, straight	Male connector, M12, 4-pin, straight	PUR, halogen-free, shielded	2 x 2 x 0.14 mm <sup>2</sup>	20 m	SSL-1204-H20ME90	6063694	-	●	●
	Male connector, M12, 4-pin, angled	Male connector, M12, 4-pin, angled	PUR, halogen-free, shielded	0.14 mm <sup>2</sup>	5 m	SSL-1204-W05ME	6050633	-	●	●
					10 m	SSL-1204-W10ME	6050634	-	●	●
	Male connector, M12, 4-pin, angled	Male connector, RJ45, 4-pin, straight	PUR, shielded	2 x 2 x 0.34 mm <sup>2</sup>	2 m	YN2D34-020PN4MRJA4	2108116	-	●	●
					10 m	YN2D34-100PN4MRJA4	2108141	-	●	●


- **Description:** For connecting the configuration connection to the USB interface of the PC

Figure	Connection type		Type	Length of cable	Type	Part no.			
	Male connector, USB-A, straight	Male connector, mini USB, straight	Shielded	3 m	Connection cable	6042517	●	●	●
				5 m	Connection cable	6053566	●	●	●

- **Description:** 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.



Figure	Connection type		Type	Length of cable	Type	Part no.			
	Male connector, USB-A, straight	Female connector, USB-A, straight	Unshielded	10 m	USB extension cable, repeater	6069292	●	●	●

## Power supply units and power supply cables


	Input voltage	Output voltage	Output current	Type	Part no.	outdoorScan3 Core I/O	outdoorScan3 Pro - EtherNet/IP™	outdoorScan3 Pro - PROFINET
	100 V AC ... 120 V AC 220 V AC ... 240 V AC	24 V DC	≤ 2.1 A	PS50WE24V	7028789	●	●	●
			≤ 3.9 A	PS95WE24V	7028790	●	●	●

## Apps


## Monitoring Box

	Brief description	Type	Part no.			
	<ul style="list-style-type: none"> <li><b>Target application:</b> Condition monitoring</li> <li><b>Description:</b> The Monitoring Box Basic is a scalable digital service for monitoring service and process data. The outdoorScan3 is used to monitor object detections and the health status of the sensor. This provides an effective means of reducing downtimes.</li> <li><b>Contractual basis:</b> SICK SaaS T&amp;Cs</li> <li><b>Contract interval:</b> Annual</li> <li><b>Data export (CSV):</b> no</li> <li><b>Data integration into foreign systems (API):</b> no</li> <li><b>Application view (if available):</b> no</li> </ul>	Monitoring Box outdoorScan3 Basic	1614150	-	●	●
	<ul style="list-style-type: none"> <li><b>Target application:</b> Condition monitoring, Data Analytics, Predictive maintenance</li> <li><b>Description:</b> The Monitoring Box Premium is a scalable digital service for monitoring, analyzing and predicting service and process data. The outdoorScan3 is used to monitor object detections and the health status of the sensor. Through additional analyses of the object detections, opportunities for increasing output can be identified.</li> <li><b>Contractual basis:</b> SICK SaaS T&amp;Cs</li> <li><b>Contract interval:</b> Annual</li> <li><b>Data export (CSV):</b> yes</li> <li><b>Data integration into foreign systems (API):</b> yes</li> <li><b>Application view (if available):</b> yes</li> </ul>	Monitoring Box outdoorScan3 Premium	1615508	-	●	●

## AGV Dynamic Weather Assist

	Brief description	Type	Part no.			
	<ul style="list-style-type: none"> <li><b>Product type:</b> Software</li> <li><b>Items supplied:</b> Software (Safety Designer project file with functional logic) as well as operating instructions</li> </ul>	SOW/DWA-FX00402010	1615375	-	●	-

Safety Laser Scanner Visualization


	Brief description	Type	Part no.	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Company license</li> <li>• <b>Supported products:</b> All microScan3 variants (except for microScan3 Core I/O variants)outdoorScan3 Pro – EtherNet/IP™</li> <li>• <b>Operating system:</b> Windows XP and higher, The software can also be started via a Windows-based virtual machine.</li> </ul>	SOW/VTL-LI004PCWIO	1116786	-	●	-
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Single-place license</li> <li>• <b>Supported products:</b> All microScan3 variants (except for microScan3 Core I/O variants)outdoorScan3 Pro – EtherNet/IP™</li> <li>• <b>Operating system:</b> Windows XP and higher, The software can also be started via a Windows-based virtual machine.</li> </ul>	SOW/VTL-LI007PCWIO	1116788	-	●	-
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Factory license</li> <li>• <b>Supported products:</b> All microScan3 variants (except for microScan3 Core I/O variants)outdoorScan3 Pro – EtherNet/IP™</li> <li>• <b>Operating system:</b> Windows XP and higher, The software can also be started via a Windows-based virtual machine.</li> </ul>	SOW/VTL-LI009PCWIO	1116787	-	●	-

Cleaning agent







	Description	Type	Part no.			
	Plastic cleaner and care product, anti-static, 0.5 liter	Plastic cleaner	5600006	●	●	●
	Cloth for cleaning optical surfaces	Lens cloth	4003353	●	●	●





## Spare parts

	Description	Type	Part no.	outdoorScan3 Core I/O	outdoorScan3 Pro – EtherNet/IP™	outdoorScan3 Pro – PROFINET
	Cover plate (91.8 mm x 31.3 mm) with screws for closing the unused opening for the system plug	outdoorScan3 cover plate spare part set	2101643	-	●	●

## Sensors without system plug

	Integration in the control system	Spare part for	Type	Part no.			
	Local inputs and outputs (I/O)	1094452	MICS3-AAUZ40AZ1	1094451	●	-	-
		1124784	airWiper Kit outdoorScan3 Core I/O	1124785	●	-	-
	CIP Safety™ over EtherNet/IP™	1094472	MICS3-CBUZ40IZ1	1094471	-	●	-
		1124781	airWiper Kit outdoorScan3 Pro – EtherNet/IP™	1124782	-	●	-
	PROFINET PROFI-safe	1094474	MICS3-CBUZ40PZ1	1094473	-	-	●
		1128913	airWiper Kit outdoorScan3 Pro – PROFINET	1128912	-	-	●

## System plugs

	Description	Model	Type	Part no.			
	System connection; cable 250 mm with M12 male connector, 8-pin	Integrated configuration memory	MICSX-UBIZZZZ1	2101638	●	-	-
	System connection; voltage supply: 1 x M12 male connector, 4-pin, A-coded, Ethernet: 2 x M12 female connector, 4-pin, D-coded	Integrated configuration memory	MICSX-RANNZZZ1	2102812	-	●	●

You can find additional accessories online → [www.sick.com/outdoorScan3](http://www.sick.com/outdoorScan3)



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