



MICS3-CBUZ40IZ1P01

outdoorScan3

SAFETY LASER SCANNERS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
MICS3-CBUZ40IZ1P01	1094472

The system plug is pre-assembled on the underside. It can either be mounted on the rear side or the underside.

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

Detailed technical data

Features

Model	Sensor including system plug (pre-mounted on the underside)
Application	Outdoor ¹⁾
Compressed air cleaning	Not possible
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	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_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

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		EtherNet/IP™
	Supported protocol versions	Common Industrial Protocol: The CIP Networks Library Volume 1, Edition 3.20 EtherNet/IP™: The CIP Networks Library Volume 2, Edition 1.26 CIP Safety™: The CIP Networks Library Volume 5, Edition 2.13
	Topology support	DLR (Device Level Ring)
Display elements		Graphic color display, LEDs

Electrical data

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

Mechanical data

Dimensions (W x H x D)	114.6 mm x 150.7 mm x 114.6 mm (without system plug)
Weight	1.45 kg
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

Ambient data

Enclosure rating	IP65 (IEC 60529)
Ambient light immunity	

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

	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)
	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".

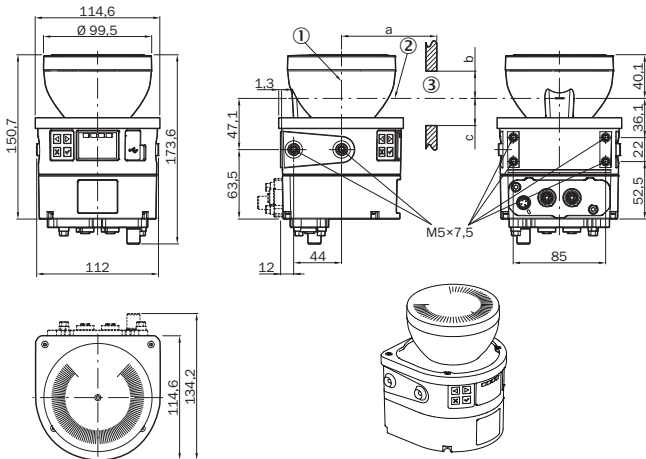
Other information

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

Classifications

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

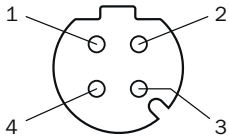
Dimensional drawing (Dimensions in mm (inch))



- 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.)

Pin assignment

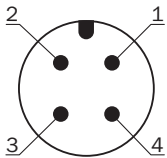
Ethernet (XF1, XF2)



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

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.
Device protection (mechanical)			
	1 piece, Splash guard, only in conjunction with mounting kit 3 (2103049)	Splash guard	2123205
	1 piece, weather hood (only in conjunction with mounting kit 3)	Weather hood	2103050
Mounting brackets and plates			
	1 piece, mounting bracket, Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	Mounting kit 1a	2073851
	1 piece, mounting bracket with protection of optics hood, Stainless steel V2A (1.4301), powder-coated IGP-DURA face 5803A	Mounting kit 1b	2074242
	1 piece, 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	Mounting kit 2a	2073852
	1 piece, 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	Mounting kit 2b	2074184
	1 piece, Alignment bracket with protection for the optics cover, alignment with cross-wise axis and depth axis possible	Mounting kit 3	2103049
Other mounting accessories			
	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
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 2 m	YG2A64-020UE1XLEAX	2108122
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 10 m	YG2A64-100UE1XLEAX	2108123
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Fieldbus, PUR, shielded, 2 m	YN2D34-020PN4MRJA4	2108116
	Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PUR, shielded, 10 m	YN2D34-100PN4MRJA4	2108141
AGV Dynamic Weather Assist			
	<ul style="list-style-type: none"> Product type: Software Items supplied: Software (Safety Designer project file with functional logic) as well as operating instructions 	SOW/DWA-FX00402010	1615375

	Brief description	Type	Part no.
Digital Services for Integration			
	<ul style="list-style-type: none"> • Application: Condition monitoring • Description: 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. • Hosting: Off-premise: smartservice.sick.com, Industrial PC, other solutions on request • Type: App • Contract type: SaaS (Software as a Service) • Contract interval: Annual • Supported products: outdoorScan3 • Vital data: Device status, operating hours, Error code, contamination, device temperature • Version: Release 1 	Monitoring Box outdoorScan3 Basic	1614150
Safety Laser Scanner Visualization			
	<ul style="list-style-type: none"> • License type: Single-place license • Description: The software visualizes diagnostic and device information from safety laser scanners in real time, helping to identify error causes faster and reduce maintenance time. • Operating system: Windows XP and higher • Supported products: All microScan3 variants (except for microScan3 Core I/O variants) outdoorScan3 Pro - EtherNet/IP 	SOW/VTL-LI007PCWIO	1116788

Recommended services

Additional services → www.sick.com/outdoorScan3

	Type	Part no.
Retrofit and upgrade services		
<ul style="list-style-type: none"> • Product area: outdoorScan3 • Range of services: Upgrading the outdoorScan3 with the airWiper, Firmware and hardware updates, Functional testing 	outdoorScan3 Upgrade airWiper	1615642

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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