



MICS3-CBAZ55IZ1P01

microScan3

SAFETY LASER SCANNERS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
MICS3-CBAZ55IZ1P01	1092543

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/microScan3

Detailed technical data

Features

Protective field range	5.5 m
Warning field range	40 m
Number of simultaneously monitored fields	≤ 8 ¹⁾
Number of fields	128
Number of monitoring cases	128
Scanning angle	275°
Resolution (can be configured)	30 mm 40 mm 50 mm 70 mm 150 mm 200 mm
Angular resolution	0.39°
Response time	≥ 95 ms
Protective field supplement	65 mm

¹⁾ Protection, warning or contour detection fields.

Safety-related parameters

Type	Type 3 (IEC 61496)
Safety integrity level	SIL2 (IEC 61508) SILCL2 (EN 62061)
Category	Category 3 (EN ISO 13849)
Performance level	PL d (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	8.0 x 10 ⁻⁸ (EN ISO 13849)

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	✓
Safe contour detection	✓
Contour as a reference	✓
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™
	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 Integration via generic profile or EDS file 10 Mb/s and 100 Mb/s in accordance with The CIP Networks Library Volume 2, Edition 1.21
	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	7 W (without output load)

Mechanical data

Dimensions (W x H x D)	112 mm x 150.8 mm x 111.1 mm (without system plug)
Weight	1.45 kg
Housing material	Aluminum
Housing color	RAL 1021 (yellow), 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	≤ 3,000 lx (IEC 61496-3)
Ambient operating temperature	-10 °C ... +50 °C
Storage temperature	-25 °C ... +70 °C
Vibration resistance	0.35 mm, 10 Hz ... 60 Hz (IEC 60068-2-6, IEC 61496-1, IEC 61496-3) 5 g, 60 Hz ... 150 Hz (IEC 60068-2-6, IEC 61496-1, IEC 61496-3)
Shock resistance	
Continuous shock	10 g, 16 ms (IEC 60068-2-27, IEC 61496-3)
EMC	IEC 61496-1 IEC 61000-6-2 IEC 61000-6-4

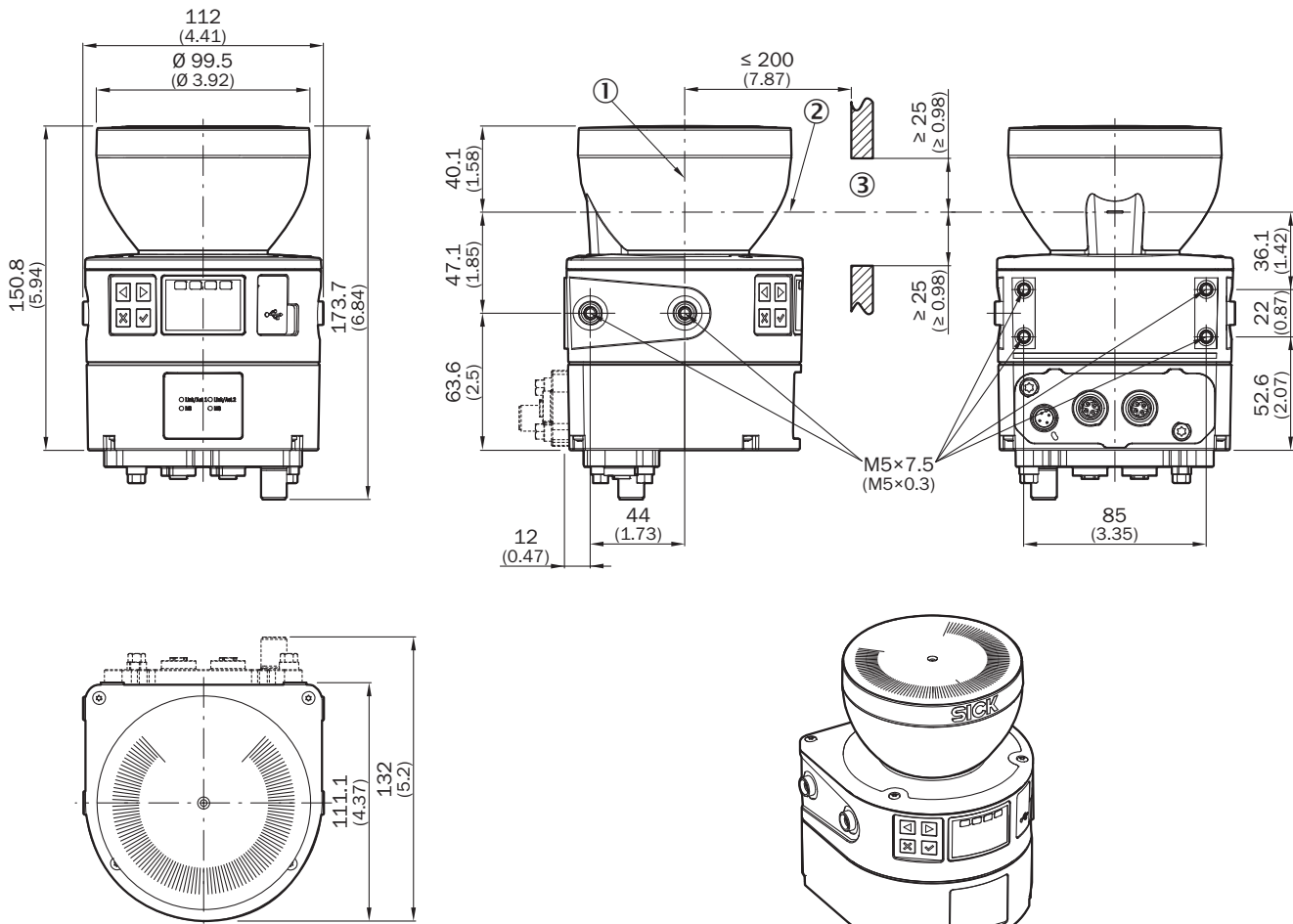
Other information

Type of light	Pulsed laser diode
Wave length	845 nm
Detectable remission	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
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
UNSPSC 16.0901	39121528




Dimensional drawing (Dimensions in mm (inch))





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

Recommended accessories

Other models and accessories → www.sick.com/microScan3

	Brief description	Type	Part no.
Mounting brackets and plates			
	1 piece, mounting bracket, heavy-duty version, with protection cover, for floor mounting, height adjustment possible from 90 ... 310 mm, scanner tilt angle: ± 5°. Additional mounting brackets are not required., steel, painted (RAL 1021)	Heavy-duty mounting kit for floor mounting	2102289
	1 piece, mounting bracket 150 mm for floor mounting of microScan3, stainless steel, Bracket and 4 x M5 screws for attaching the microScan3	Mounting bracket 150 mm for floor mounting of microScan3	2112950
	1 piece, mounting bracket 300 mm for floor mounting of microScan3, stainless steel, Bracket and 4 x M5 screws for attaching the microScan3	Mounting bracket 300 mm for floor mounting of microScan3	2112951

	Brief description	Type	Part no.	
	1 piece, mounting bracket	Mounting kit 1a	2073851	
	1 piece, mounting bracket with protection of optics hood	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)	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)	Mounting kit 2b	2074184	
Plug connectors and cables				
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	DOL-1204G02MC75KM0	2079290	
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	DOL-1204G05MC75KM0	2079291	
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	DOL-1204G10MC75KM0	2079292	
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	DOL-1204G20MC75KM0	2089703	
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	DOL-1204W02MC75KM0	2079293	
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	DOL-1204W05MC75KM0	2079294	
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	DOL-1204W10MC75KM0	2079295	
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	DOL-1204W20MC75KM0	2089704	
		Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, halogen-free, shielded, 20 m	SSL-2J04-G20ME60	6063700
		Head A: male connector, M12, 4-pin, angled, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, PUR, halogen-free, shielded, 20 m	SSL-2J04-H20ME	6063701

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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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