



DATA SHEET

SYS/BOT-YASP4020101MS3

Safe Robotics Area Protection
Safety systems for robots

SAFETY SYSTEMS FOR ROBOTS

SYS/BOT-
YASP4020101MS3

ORDERING INFORMATION

Type	part no.
SYS/BOT-YASP4020101MS3	1117273

Further device versions and accessories at www.sick.com/Safe_Robotics_Area_Protection



DETAILED TECHNICAL DATA

FEATURES

Variant	sBot Speed – YA
Product type	System (hardware and software)
Robot controller	Yaskawa: DX200, YRC1000, YRC1000micro
Stopping process of the robot	With speed reduction
Robot restart	Automatic
Interfaces	
Communication interface	Discrete I/Os
Safe state in the event of a fault	The safety-related semiconductor outputs are in the OFF state.
Safety laser scanners	microScan3 Core I/O
Protective field range	5.5 m
Safety task	Hazardous area protection
Ambient operating temperature	-10 °C ... +50 °C
Storage temperature	-20 °C ... +50 °C
Air humidity	90% at 50 °C (EN 61131-2)
Safety controller included	Flexi Soft (CPU0)
Safety controller type	Programmable
Voltage supply	
Voltage supply connection type	An external voltage supply is required for the system. The external voltage supply must be capable of buffering brief mains voltage failures of 20 ms as specified in IEC 60204-1. Suitable power supplies are available as accessories from SICK.
Supply voltage V _s	24 V DC (16.8 V DC ... 28.8 V DC)
Performance level	PL d (ISO 13849-1)
Items supplied	microScan3 Core I/O safety laser scanner Flexi Soft main module FX3-CPU0 FX3-MPL0 Flexi Soft system plug 2 x FX3-XTIO Flexi Soft I/O module

2 x Flexi Soft UE410-4RO4 relay modules
 Software (Safety Designer project file with functional logic, pre-configuration file for microScan3 Core I/O, Yaskawa-specific settings, operating instructions, connection diagram and SISTEMA file)

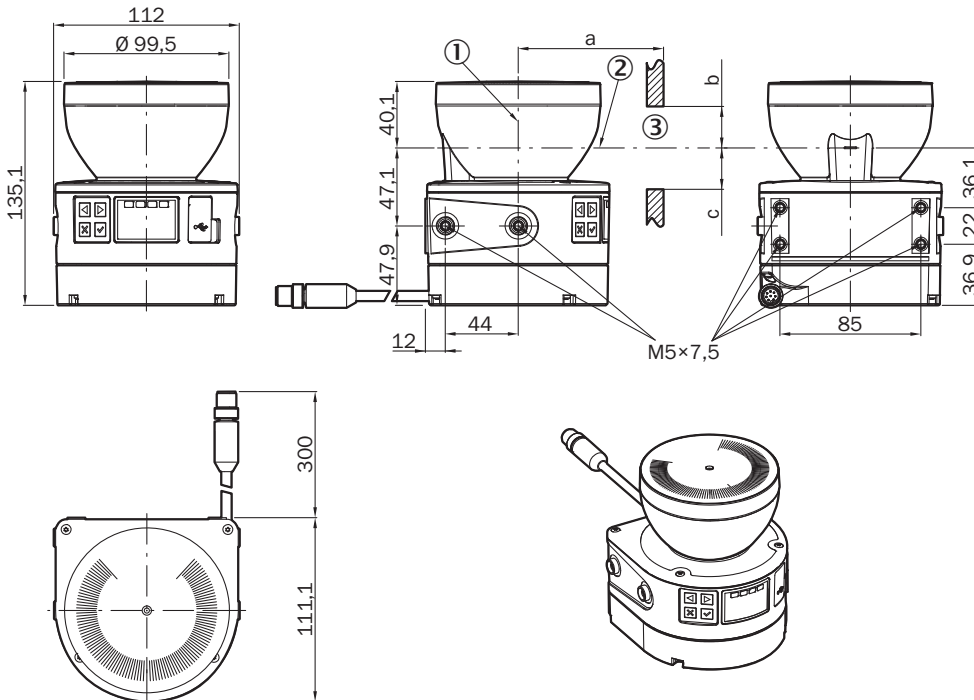
FUNCTIONS

Emergency stop	
Shut down in the event of an emergency situation	✓
Prevent unexpected restarting after an emergency stop	✓
Initiate a safety stop	
Automated reset and restart with safe sequence monitoring	✓
Safety-rated monitored speed	
Trigger safety-rated monitored speed	✓
Switch field sets	✓
Operating mode	
Operating mode selection (implemented in robot control)	✓
Enabling device - manual operating mode (implemented in robot control)	✓

CERTIFICATES

China RoHS	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING

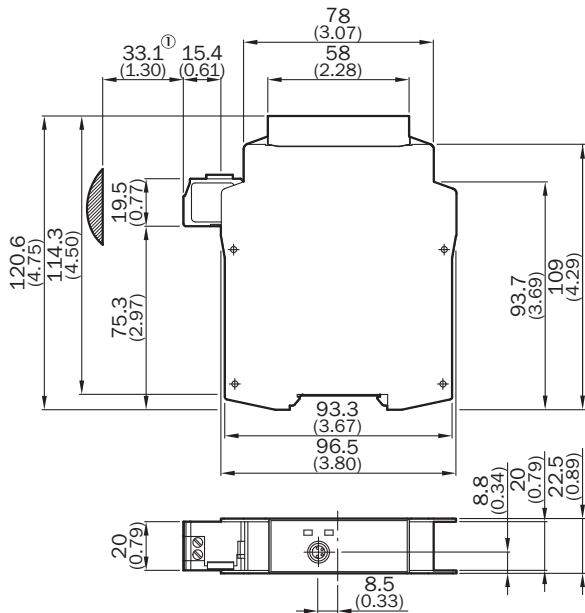


Dimensions in mm (inch)

- 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.)

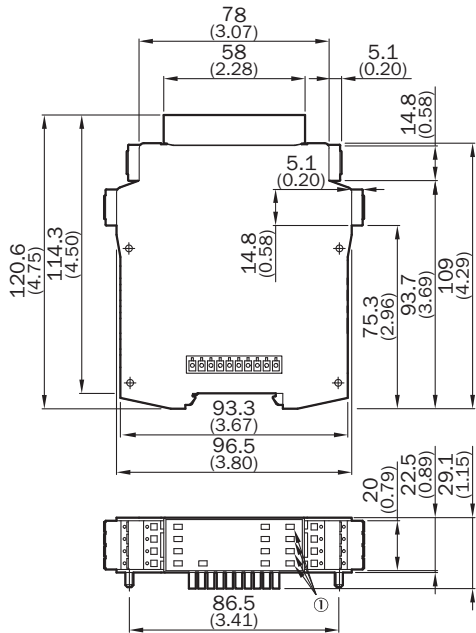
DIMENSIONAL DRAWING FX3-CPU0



Dimensions in mm (inch)

① Approximate connector range

DIMENSIONAL DRAWING FX3-XTIO, FX3-XTDI



Dimensions in mm (inch)

① Only valid for FX3-XTIO

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1117273



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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