



# SYS/BOT-YASP4020101NS3

Safe Robotics Area Protection

SAFETY SYSTEMS FOR ROBOTS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
SYS/BOT-YASP4020101NS3	1117274

**Included in delivery:** FX3-CPU000000 (1), FX3-MPL000001 (1), FX3-XTIO84002 (2), UE410-4R04 (2), NANS3-AAAZ30AN1 (1), SAPPB2D-08XS006 (1)

Other models and accessories → [www.sick.com/Safe\\_Robotics\\_Area\\_Protection](http://www.sick.com/Safe_Robotics_Area_Protection)

### Detailed technical data

#### Features

<b>Variant</b>	sBot Speed – YA
<b>Product type</b>	System (hardware and software)
<b>Robot controller</b>	Yaskawa: DX200, YRC1000, YRC1000micro
<b>Stopping process of the robot</b>	With speed reduction
<b>Robot restart</b>	Automatic
<b>Interfaces</b>	
Communication interface	Discrete I/Os
<b>Safe state in the event of a fault</b>	The safety-related semiconductor outputs are in the OFF state.
<b>Safety laser scanners</b>	nanoScan3 Core I/O
Protective field range	3 m
<b>Safety task</b>	Hazardous area protection
<b>Ambient operating temperature</b>	-10 °C ... +50 °C
<b>Storage temperature</b>	-20 °C ... +50 °C
<b>Air humidity</b>	90% at 50 °C (EN 61131-2)
<b>Safety controller included</b>	Flexi Soft (CPU0)
Safety controller type	Programmable
<b>Voltage supply</b>	
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)
<b>Performance level</b>	PL d (ISO 13849-1)
<b>Items supplied</b>	Sicherheitslaserscanner nanoScan3 Core I/O Flexi Soft main module FX3-CPU0 FX3-MPLO Flexi Soft system plug 2 x FX3-XTIO Flexi Soft I/O module 2 x Flexi Soft UE410-4R04 relay modules Software (Flexi Soft Designer project file with functional logic, pre-configuration file for nanoScan3, Yaskawa-specific settings, operating instructions, connection diagram and SISTEMA file)

#### Functions

<b>Emergency stop</b>	
Shut down in the event of an emergency situation	✓

Prevent unexpected restarting after an emergency stop	✓
<b>Initiate a safety stop</b>	
Automated reset	✓
<b>Safety-rated monitored speed</b>	
Trigger safety-rated monitored speed	✓
Switch field sets	✓
<b>Operating mode</b>	
Operating mode selection (implemented in robot control)	✓
Enabling device - manual operating mode (implemented in robot control)	✓

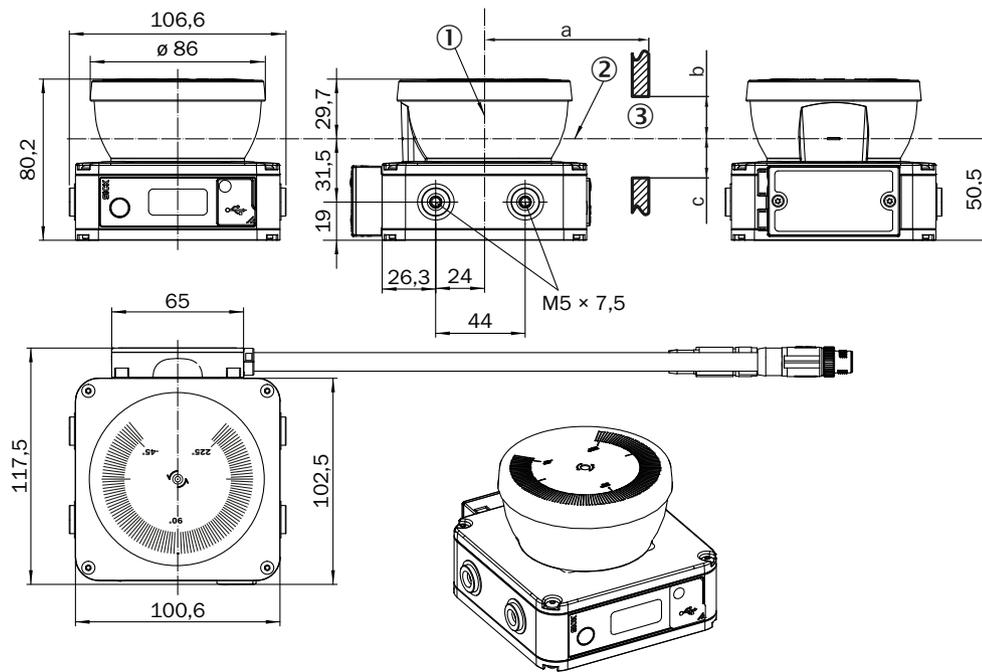
Classifications

<b>ECLASS 5.0</b>	27279090
<b>ECLASS 5.1.4</b>	27279090
<b>ECLASS 6.0</b>	27279090
<b>ECLASS 6.2</b>	27279090
<b>ECLASS 7.0</b>	27279090
<b>ECLASS 8.0</b>	27279090
<b>ECLASS 8.1</b>	27279090
<b>ECLASS 9.0</b>	27279090
<b>ECLASS 10.0</b>	27279090
<b>ECLASS 11.0</b>	27279090
<b>ECLASS 12.0</b>	27279090
<b>ETIM 5.0</b>	EC001449
<b>ETIM 6.0</b>	EC001449
<b>ETIM 7.0</b>	EC001449
<b>ETIM 8.0</b>	EC001449
<b>UNSPSC 16.0901</b>	32151705

Certificates

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

### Dimensional drawing



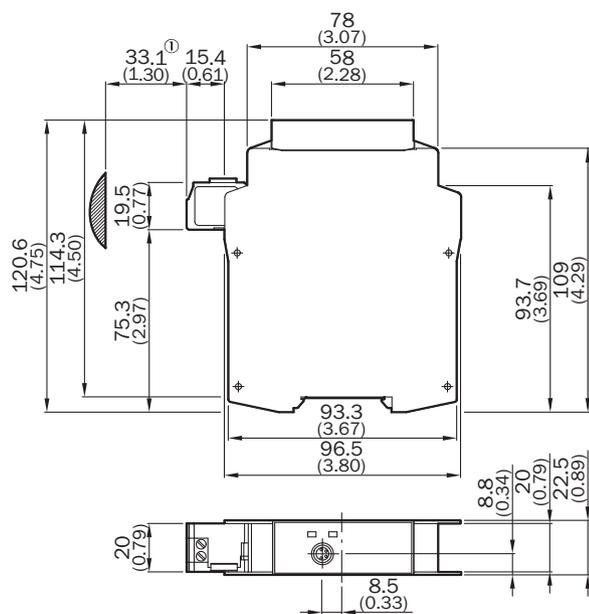
Dimensions in mm (inch)

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.)

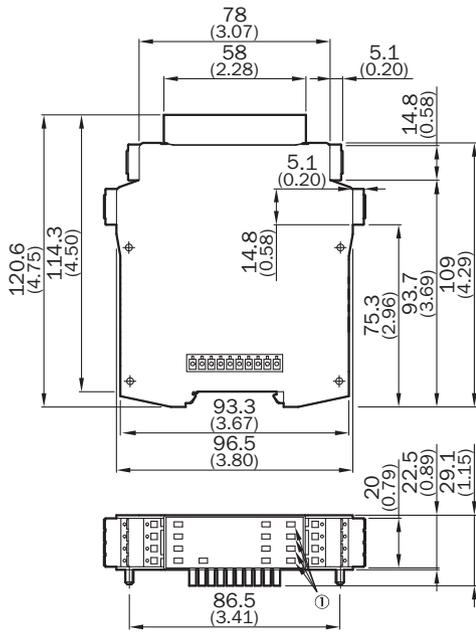
### Dimensional drawing FX3-CPU0



Dimensions in mm (inch)

① Approximate connector range

Dimensional drawing FX3-XTIO, FX3-XTDI



Dimensions in mm (inch)

① Only valid for FX3-XTIO

## 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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)