



NAV200-1132

NAV3xx

2D LIDAR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
NAV200-1132	1023666

Other models and accessories → www.sick.com/NAV3xx



Detailed technical data

Features

Task	Localizing, navigating and guiding - Localizing Determining position - 2D position determination
Application	Outdoor
Light source	Infrared (855 nm)
Laser class	1, eye-safe
Aperture angle	Horizontal 360°
Scanning frequency	8 Hz
Working range	1.2 m ... 28.5 m (28.5 m on reflectors)
Scanning range	At 10% remission factor 28.5 m

Mechanics/electronics

Connection type	1, 1 x Flange plug, round 8 pin for DC 24 V power supply, Flange plug, round 14 pin for RS-232 data interface
Supply voltage	≥ 24 V DC, ± 25 %
Power consumption	24 W
Housing	Aluminum die cast
Housing color	Light blue (RAL 5012)
Enclosure rating	IP65 (EN 60529)
Protection class	I
Weight	+ 3.3 kg
Dimensions (L x W x H)	176 mm x 178 mm x 115 mm ¹⁾
MTBF	> 100 years

¹⁾ Without plug.

Safety-related parameters

MTTF_D	> 100 years
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Performance

Detectable object shape	Reflector
Temperature drift	Typ. 0.1 mm/K
Reflector memory	Max. 5,120 (in 160 layers)
Positioning accuracy	± 4 mm
Integrated application	Navigation

Interfaces

Optical indicators	4 LEDs (status displays)
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Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 / EN 61000-6-4
Vibration resistance	IEC 68-2-6
Shock resistance	IEC 68-2-29
Ambient operating temperature	0 °C ... +50 °C
Storage temperature	-20 °C ... +70 °C
Permissible relative humidity	± 90 %, Non-condensing
Reflector marks (recommended)	Stripes: Width > 100 mm; height > 500 mm, cylindrical: diameter > 80 mm; height > 500 mm

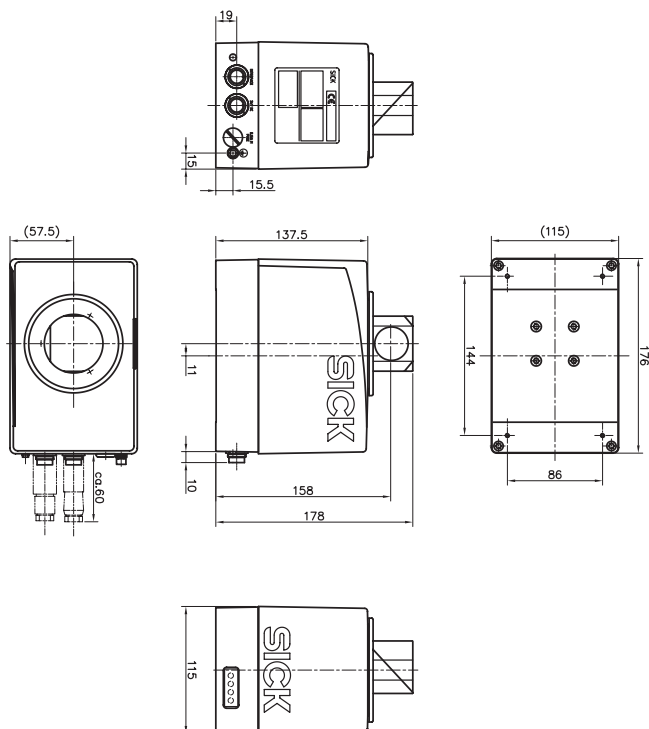
General notes

Life cycle phase	Discontinued
Note on use	The sensor does not constitute a safety component as defined by relevant legislation on machine safety.

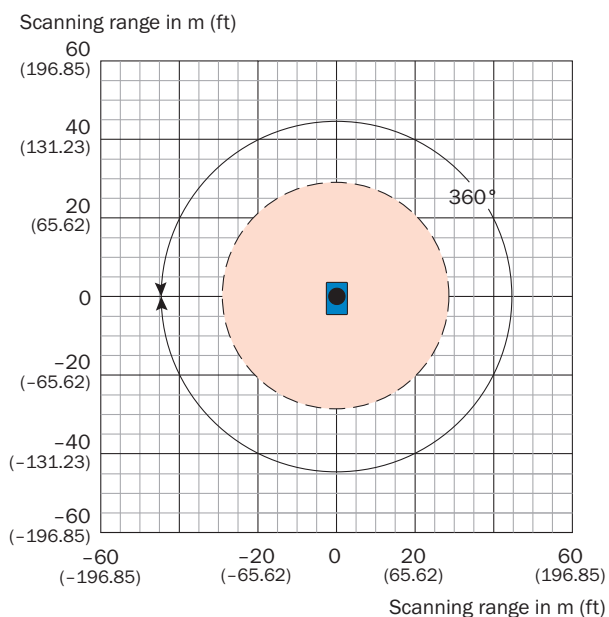
Classifications

ECLASS 5.0	27270990
ECLASS 5.1.4	27270990
ECLASS 6.0	27270913
ECLASS 6.2	27270913
ECLASS 7.0	27270913
ECLASS 8.0	27270913
ECLASS 8.1	27270913
ECLASS 9.0	27270913
ECLASS 10.0	27270913
ECLASS 11.0	27270913
ECLASS 12.0	27270913
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002550
ETIM 8.0	EC002550
UNSPSC 16.0901	41111615

Dimensional drawing (Dimensions in mm (inch))










Working range diagram



■ Scanning range on reflector 28.50 m (93.50 ft)

Recommended accessories

Other models and accessories → www.sick.com/NAV3xx

	Brief description	Type	Part no.
Mounting brackets and plates			
	1 piece, mounting bracket for rear mounting on wall or machine	Mounting kit 1a	2034324
	1 piece, mounting bracket for rear mounting on wall or machine with protection of optics hood	Mounting kit 1b	2034325
	1 piece, mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)	Mounting kit 2	2039302
	1 piece, mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)	Mounting kit 3	2039303
Plug connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Ethernet, PROFINET, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-050PN1MRJA4	2106184
Others			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, round plug, 8-pin, straight • Description: Shielded • Items supplied: Contained in the scope of delivery of the system 	Female connector	6024722
	<ul style="list-style-type: none"> • Connection type head A: Female connector, D-Sub, 9-pin, straight • Connection type head B: Female connector, straight • Signal type: RS-232 • Cable: 5 m • Description: RS-232, shielded • Note: For connecting NAV system and a vehicle • Items supplied: Not contained in the scope of delivery of the system 	Connection cable	6024723

Recommended services

Additional services → www.sick.com/NAV3xx

	Type	Part no.
Commissioning		
<ul style="list-style-type: none"> • Product area: 2D LiDAR sensors, 3D LiDAR sensors • Range of services: Inspection of connection, fine adjustment, configuration of monitored areas, configuration and optimization of parameters as well as tests, Setup of previously defined functions of basic settings, parameters of field application, filters for raw data output and product-specific configuration • Duration: Additional work will be invoiced separately 	Commissioning LiDAR sensors	1680672

	Type	Part no.
Maintenance		
<ul style="list-style-type: none"> • Product area: 2D LiDAR sensors, 3D LiDAR sensors • Range of services: Inspection, analysis and restoring of defined functions, Inspection and adaptation of basic settings, parameters of field application, filters for raw data output, and product-specific configuration • Duration: Additional work will be invoiced separately 	Maintenance of LiDAR sensors	1682593
Extended warranty		
<ul style="list-style-type: none"> • Product area: Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors • Range of services: The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • Duration: Five-year warranty from delivery date. 	Extended warranty for a total of five years from delivery date	1680671

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