



## NAV2xx

Position determination and navigation – even in highly demanding conditions

2D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Application</b>	Indoor / Outdoor (depending on type)	
<b>Aperture angle</b>	Horizontal	270°
<b>Angular resolution</b>	0.25°, on raw / contour data 0.001°, on reflectors	
<b>Working range</b>	0.5 m ... 50 m, 30 m on reflectors (depending on type)	
<b>Scanning range</b>	At 10% remission	18 m
	At 90% remission	50 m
<b>Scanning frequency</b>	≥ 25 Hz	
<b>Ambient operating temperature</b>	-30 °C ... +50 °C	
<b>Ethernet</b>	✓	
<b>Serial</b>	✓	
<b>Weight</b>	1.1 kg	

### Product description

The NAV2xx 2D LiDAR sensors also work with precision and reliability in small and medium-sized vehicles. Thanks to its integrated heating, excellent vibration resistance, and enclosure rating up to IP 67, the NAV2xx even satisfies requirements for use outdoors or in cold storage. Priced to ensure outstanding value for money, the 2D LiDAR sensors support scanning ranges of up to 30 m on reflectors and up to 50 m on spatial contours. When combined with raw data collection, the technology even allows guided track-controlled vehicles to travel in areas where it is not possible to apply reflector marks (automated truck loading or block storage areas, for example). Integrated evaluation of measurement data reduces computing load in the vehicle computer – ensuring reliable position determination in real time.

### At a glance

- Integrated data evaluation for determining reflector positions
- Large working range on reflector (30 m), 10% remission (18 m), spatial contours (50 m)
- Large detection angle
- High scanning frequency with low angular resolution on reflectors
- High resistance to temperature thanks to integrated heating and IP 65 / IP 67

### Your benefits

- Reliable position determination and navigation even in highly demanding ambient condition, thanks to the enclosure rating up to IP 67, integrated heating, and vibration resistance
- Compact size – suitable even for use in small vehicles
- Precise, fast collection of spatial contour data and/or simultaneous determination of reflector data in real time
- Integrated evaluation of measured data reduces computing load in the vehicle computer
- Excellent flexibility, as guided-track control is possible even in areas without reflector marks

### Fields of application

- Small and medium-sized AGVs
- Shuttle vehicles and automated forklift trucks
- Goods transportation systems
- Cleaning robots
- Automatic truck loading
- Small and medium-sized AGVs

## Ordering information

Other models and accessories → [www.sick.com/NAV2xx](http://www.sick.com/NAV2xx)

- **Color:** Light blue (RAL 5012)
- **Scanning frequency:**  $\geq 25$  Hz

Working range	Enclosure rating	Connection type	Type	Part no.
0.5 m ... 50 m	IP65	2 x M12 male connector/female connector	NAV210-10100	1103318
0.5 m ... 50 m, 30 m on reflectors	IP65	2 x M12 male connector/female connector	NAV245-10100S01	1090559
	IP67	4 x M12 male connector/female connector	NAV245-10100	1074308

## 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)