



# LMS221-30206

LMS2xx

2D LASER SCANNERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
LMS221-30206	1018022

Other models and accessories → [www.sick.com/LMS2xx](http://www.sick.com/LMS2xx)



### Detailed technical data

#### Features

<b>Version</b>	Mid Range
<b>Field of application</b>	Outdoor
<b>Light source</b>	Infrared (905 nm)
<b>MTBF</b>	50,000 h
<b>Laser class</b>	1, eye-safe (EN/IEC 60825-1, 21CFR 1040.10)
<b>Aperture angle</b>	180°
<b>Scanning frequency</b>	75 Hz
<b>Angular resolution</b>	0.25° 0.5° 1°
<b>Heating</b>	Yes
<b>Operating range</b>	0 m ... 80 m
<b>Max. range with 10 % reflectivity</b>	30 m
<b>Fog correction</b>	Yes

#### Performance

<b>Response time</b>	≥ 13 ms
<b>Detectable object shape</b>	Almost any
<b>Systematic error</b>	± 35 mm <sup>1)</sup>
<b>Statistical error</b>	± 10 mm <sup>1)</sup>
<b>Integrated application</b>	Field evaluation
<b>Number of field sets</b>	2 field triples (6 fields)
<b>Simultaneous evaluation cases</b>	1 (3 fields)

<sup>1)</sup> Typical value; actual value depends on environmental conditions.

#### Interfaces

<b>Serial (RS-232, RS-422)</b>	✓
Function	Host, AUX
Data transmission rate	RS-232: 9.6 / 19.2 kBd and RS-422: 9.6 / 19.2 / 38.4 / 500 kBd
<b>Switching inputs</b>	1

<b>Switching outputs</b>	3
<b>Optical indicators</b>	0

#### Mechanics/electronics

<b>Electrical connection</b>	1 x 16-pin plug
<b>Operating voltage</b>	≤ 24 V DC
<b>Power consumption</b>	30 W, + 140 W heating
<b>Housing</b>	Aluminum die-cast base plate Covering PU
<b>Housing color</b>	Gray (RAL 7032)
<b>Enclosure rating</b>	IP 67
<b>Protection class</b>	II (VDE 0106/IEC 1010-1) <sup>1)</sup>
<b>Weight</b>	9 kg
<b>Dimensions (L x W x H)</b>	241 mm x 351 mm x 265 mm

<sup>1)</sup> Insulated.

#### Ambient data

<b>Object remission</b>	1.8 % ... 10,000 %
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 / EN 61000-6-3 / A11 (2004-07)
<b>Vibration resistance</b>	IEC 68
<b>Shock resistance</b>	IEC 68
<b>Ambient operating temperature</b>	-30 °C ... +50 °C
<b>Storage temperature</b>	-30 °C ... +70 °C

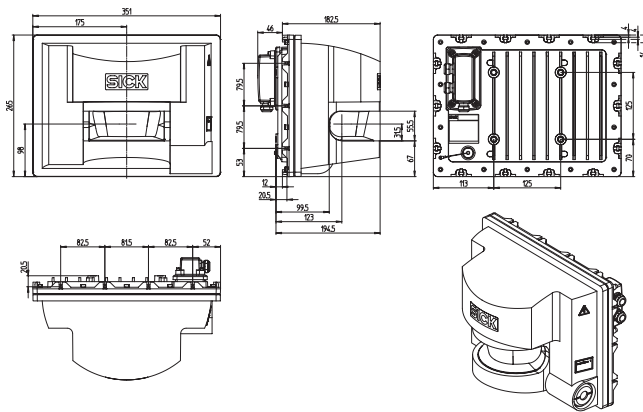
#### General notes

<b>Life cycle phase</b>	Discontinued
<b>Note on use</b>	Not suitable for personnel protection

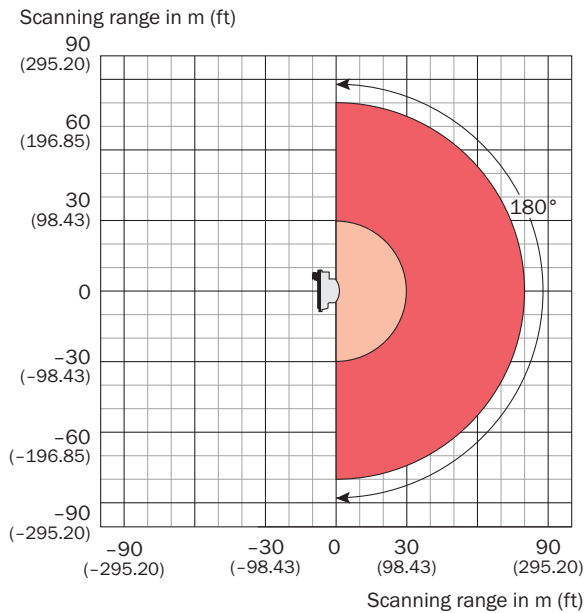
#### Classifications

<b>ECl@ss 5.0</b>	27270990
<b>ECl@ss 5.1.4</b>	27270990
<b>ECl@ss 6.0</b>	27270913
<b>ECl@ss 6.2</b>	27270913
<b>ECl@ss 7.0</b>	27270913
<b>ECl@ss 8.0</b>	27270913
<b>ECl@ss 8.1</b>	27270913
<b>ECl@ss 9.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>UNSPSC 16.0901</b>	46171620

### Dimensional drawing (Dimensions in mm (inch))



### Operating range diagram


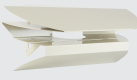








- Scanning range max. 80 m (262.47 ft)
- Scanning range for objects up to 10 % remission 30 m (98.43 ft)

### Recommended accessories

Other models and accessories → [www.sick.com/LMS2xx](http://www.sick.com/LMS2xx)

Brief description	Type	Part no.
Device protection (mechanical)		

	Brief description	Type	Part no.
	Weather protection shield for LMS221 (180°), vertical mounting	Weather hood	4034559
	Weather protection shield for LMS221 (shorter blade), horizontal mounting	Weather hood	4039833
<b>Mounting brackets and mounting plates</b>			
	Mounting kit for wall-mounting (adjustment bracket), steel, zinc coated	Mounting kit	2018303
<b>Plug connectors and cables</b>			
	Head A: female connector, 16-pin Head B: - Cable: unshielded	16-pin female connector	2018301
	Head A: 16-pin Head B: - Cable: unshielded For connection plug of the laser scanner	16-pin plug insert (female connector)	6004379
	Cable: RS-232, RS-422, unshielded, 5 m, configuration cable pre-assembled for RS-232, for the connection of PCs/power supply	Service cable	2019561
<b>Reflectors</b>			
	Reflective tape	Reflective tape	4029444
<b>Test and monitoring tools</b>			
	Scan finder, receiver to localize infrared scans	Scan-Finder LS-80L	6020756

## 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)