



# LMS291-S05

LMS2xx

2D LIDAR SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
LMS291-S05	1018028

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

### Detailed technical data

#### Features

<b>Application</b>	Outdoor, Indoor
<b>Light source</b>	Infrared (905 nm)
<b>Laser class</b>	1, eye-safe (EN/IEC 60825-1, 21CFR 1040.10)
<b>Scanning frequency</b>	75 Hz
<b>Angular resolution</b>	Horizontal
	0.25°
	0.5°
	1°
<b>Heating</b>	Optional via external heating plate
<b>Working range</b>	0 m ... 80 m
<b>Scanning range</b>	
	At 10% remission factor
<b>Fog correction</b>	Yes

#### Mechanics/electronics

<b>Connection type</b>	2 x System plug with 9-pin D-SUB female connector (solder connection)
<b>Supply voltage</b>	≥ 24 V DC, ± 15 %
<b>Power consumption</b>	30 W
<b>Housing material</b>	Aluminum die cast
<b>Housing color</b>	Gray (RAL 7032)
<b>Enclosure rating</b>	IP65
<b>Protection class</b>	II (VDE 0106/IEC 1010-1) <sup>1)</sup>
<b>Weight</b>	+ 4.5 kg
<b>Dimensions (L x W x H)</b>	156 mm x 155 mm x 210 mm
<b>MTBF</b>	50,000 h

<sup>1)</sup> Insulated.

## 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>Digital inputs</b>	1
<b>Digital outputs</b>	3
<b>Optical indicators</b>	3 LEDs

## 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>	0 °C ... +50 °C
<b>Storage temperature</b>	-30 °C ... +70 °C, with heating plate -12 ... +50 °C

## General notes

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

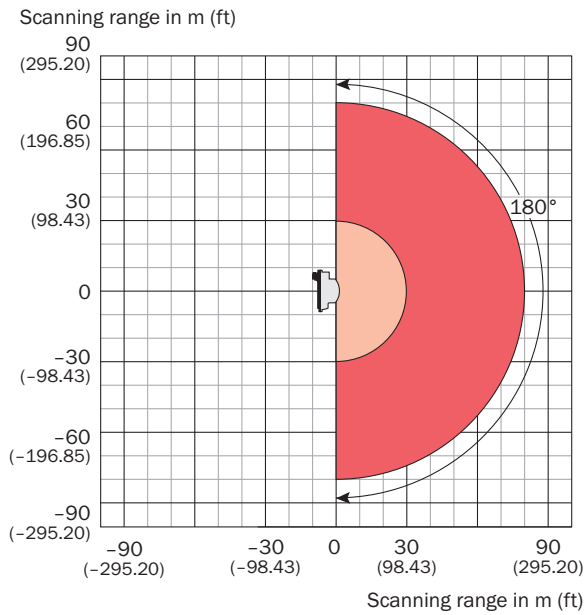
## Classifications

<b>ECLASS 5.0</b>	27270990
<b>ECLASS 5.1.4</b>	27270990
<b>ECLASS 6.0</b>	27270913
<b>ECLASS 6.2</b>	27270913
<b>ECLASS 7.0</b>	27270913
<b>ECLASS 8.0</b>	27270913
<b>ECLASS 8.1</b>	27270913
<b>ECLASS 9.0</b>	27270913
<b>ECLASS 10.0</b>	27270913
<b>ECLASS 11.0</b>	27270913
<b>ECLASS 12.0</b>	27270913
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550

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### Working range diagram



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

## 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)