## PRODUCT INFORMATION



Measurably more efficient



# LMS Fast Laser Measurement Systems open up new fields of use

Customer-specific measurement tasks are economically solved via LMS Fast Laser Measurement Systems. SICK, in joint ventures with competent engineering partners, offers complete measurement solutions consisting of the LMS Laser Measurement System, the MST200 Measurement Software Tool and application-specific software on PC.



Positioning trucks below a ship-to-shore crane

# **Typical applications**

- Distinguishing between differing material surfaces
- Measurement and determination
  of materials
- Vehicle classification
- Sorting and classification of objects
- Positioning
- Object volume determination
- Measurement of filling levels
- Measurement of bulk materials on conveyors
- Supporting navigation

Electronic vehicle classification









- Data output of relative reflectivity values (energy values received)
- Range max. 80 m
- Scanning area 90°
- Angular resolution 0.5°
- Scanning frequency 75 Hz
- Data interface RS 232/RS 422

The LMS211 and LMS291 are non-contact laser measurement systems that scan their surroundings two-dimensionally like laser radar. They operate within a wide temperature range and, as active scanning systems, require no further passive components such as reflectors or position marks. The high resolution allows to carry out tasks that up to now have been impossible or could only be achieved at great expense. The MST200 Measurement Software Tool at a glance:

- Software functions library for realising LMS measurement applications
- Function blocks for the Microsoft<sup>®</sup> programming language Visual
- C++ for implementation on Standard PC

Customer-specific measurement tasks are quickly and economically solved via the PC with the help of the MST200 Measurement Software Tool. This is achieved using software function blocks that considerably accelerate and simplify software development on a standard PC. Drivers for real-time communication with laser measurement systems are already implemented. Simple co-ordinate transformation and the definition of an application specific measurement framework allows work on solution of the application to be started on immediately.



Safety note: LMS Fast Laser Measurement Systems are not devices for personnel protection in the sense of valid safety standards for machines.

#### **Technical Data LMS Fast**

Туре	LMS211-S14	LMS291-S14
Order No.	1025487	1025329
Max. range/at 10 % reflectivity	80 m/30 m	
Scanning area	Max. 90°	
Angular resolution	0.5°	
Response time	13 ms	
Resolution	10 mm	
Systematic error	Typ. ±35 mm	
Data interface	RS 232/RS 422	
Laser protection class	1 (eye-safe)	
Enclosure rating	IP 67	IP 65
Dimensions (W x H x D) mm <sup>3</sup>	351 x 265 x 236	155 x 210 x 156
Temperature range	-30 °C to +50 °C	0 °C to +50 °C

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