



LASE 3000D-C3-22x

3D Laser Scanner



Short description:

The high performance laser scanners from the product range of the **LASE 3000D-C3-22x Series** are based on a 2D laser scanner and a swiveling platform. The swiveling platform is turned by a servo-drive. A high resolution encoder on the servo-drive measures the angle of rotation of the platform. By connection of the 2D laser data with the encoder data high precise 3D measurement profiles are produced. For a direct activation, the modular **LASE CEWS** application software is also available.

With this, lots of applications for a huge variety of industries can be solved by employing the **LASE 3000D-C3-22x Series**:

General features:

- Contactless long range 3D profile measuring
- Measuring range up to 240 m
- Measuring range up to 75 m on dark natural surfaces
- Scan area up to 90° x 200°
- High accuracy, high resolution
- Fast measuring rate
- Outdoor applicable by rugged construction to IP65
- Easy installation in any position

- Measurement of length, width, height, level and location of objects or environments
- Positioning of objects
- Container recognition/measurement in the port
- Support of crane open-loop controls by goods detection
- Profile measurement
- Object protection
- Bulk material in terms of profile, volume or material flow

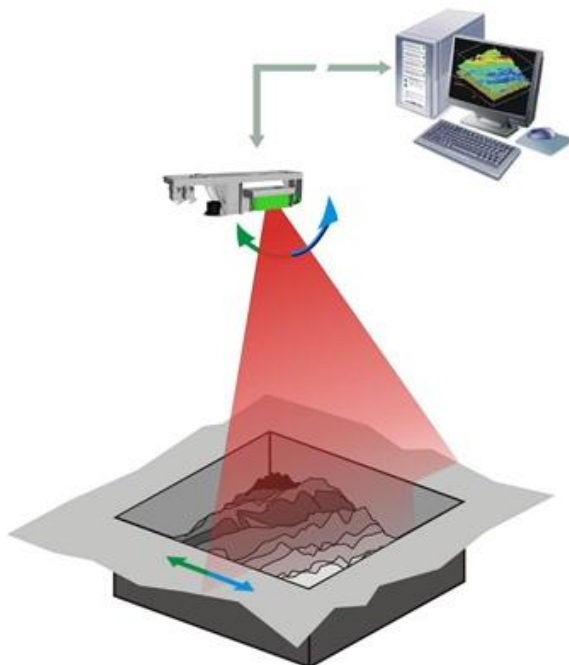


Fig. 1: Example: bunker fill level measurement



Fig. 2: Container and twistlock measurements

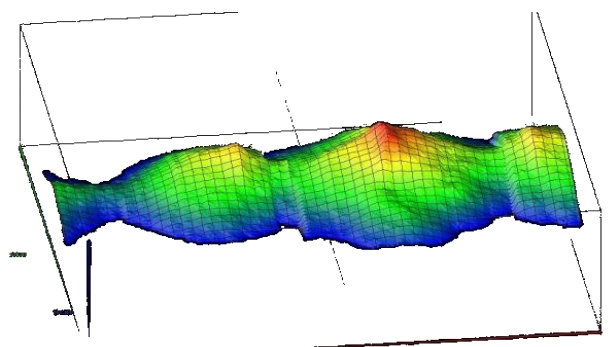


Fig. 3: Bulk material profiling at piles or bunkers

Technical data LASE 3000D-C3-22x Series

Model	LASE 3000D-C3-225	LASE 3000D-C3-226	
-------	-------------------	-------------------	--

Distance measurement

Distance Range	1 ... > 120 m	1 ... > 240 m	white, 98% reflectivity
	1 ... > 30 m	1 ... > 75 m	black, 10% reflectivity
Accuracy	14 mm	6 mm	single scan(1 sigma)
	4 mm	2 mm	average of 16 scans
Laser pulse rate	40 kHz	32 kHz	
Laser spot size	2 cm x 0,8 cm @ sensor window	2 cm x 1,2 cm @ sensor window	focused at 45 m
	1,4 cm x 2,8 cm @ in 20 m range	2,8 cm x 5,6 cm @ in 40 m range	
Divergence	1,4 mrad		vertikal
	0,7 mrad		horizontal
Resolution	1 mm		
Laser class	1		EN 60825-1; 94, 96, 01

Scan & profile measurement

Angle step: Scanner	0,0225 Grad = 0,393 mrad			minimum opt. angular step
Scan angle: Scanner	1 to 90°			adjustable
Step width (degree)	<i>normal</i>	<i>fine</i>	<i>fast</i>	angular step width in scan
	0,09	0,09	0,18	
Scan frequency(Hz)	20 / 16	20 / 16	40 / 32	
Profile frequency(Hz)	20 / 16	5 / 4	20 / 4	profile order produce externally
Rotation angle: platform	up to ± 100°			
Angular resolution platform	up to 0.002°			
Swivel speed	max. 150°/s			

Electrical & Mechanical

Power supply	DC 24 ± 2V / max. 8 A		
Protection class	Laser: IEC IP 67		to EN 60529
	Servo: IP 64 / IP 65		
Weight	Plattform: approx. 22.0 kg		
	Scanner: approx. 2.6 kg		

Interfaces

CAN-Bus	250 Kbit/s	only Servo
Ethernet	100 Mbit/s	TCP/IP

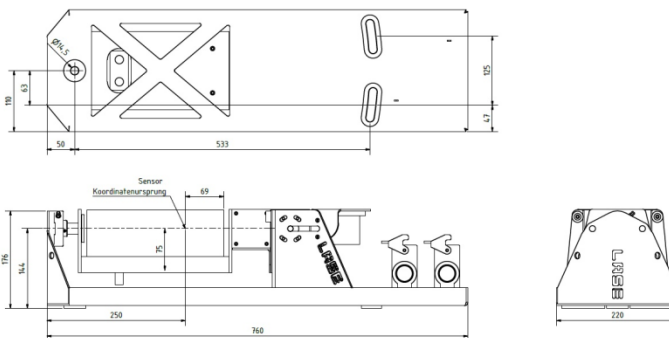
Environment resistance

Operating temperature range	5°C ... +50°C	with optional heating
Storage temperature range	-25°C ... +50°C	
Vibration resistance	IEC 68	
Shock resistance	IEC 68	

Options

Connection box	Power supply 24 VDC / 15 A Ethernet 5-port switch CAN-Ethernet-Converter Fuses, terminals + fittings	
Cable set	Required data and power lines in lengths of:	5 m, 10 m or 20 m

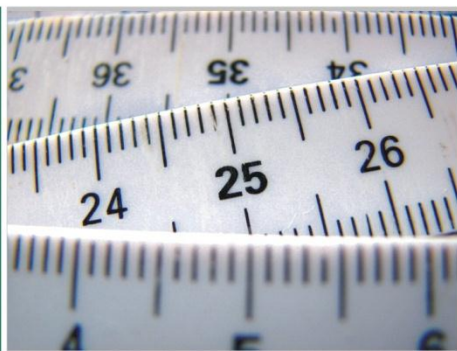
Scope of Delivery: 3D Laser scanner, Documentator



LASE

Industrielle Lasertechnik GmbH

CONTACT



LASE GmbH Industrielle Lasertechnik
 Am Schornacker 59
 D-46485 Wesel
 Tel.: 0281 / 95990-0
 Fax: 0281 / 95990-111
 E-Mail: info@lase.de
 Internet: www.lase.de

Updated:
21.06.2013