

# LASE 3000D-C3-245 SERIES

With its large measuring range, scan angle and high angular resolution the LASE 3000D-C3-245 Series is suitable for a huge variety of industries and applications such as:

- » Measurement of dimensions, profiles or levels of objects and environments
- » Object positioning
- » Container recognition/measurement in ports
- » Object protection
- » Bulk material measurement at heaps, piles, bunkers or trucks

## THE SENSOR

The laser scanners out of the LASE 3000D-C3-245 Series are three-dimensional measurement devices which are especially built for measurements in harsh industrial environments and for numerous outdoor purposes.

The high performance 3D laser scanners from the product range of the LASE 3000D Series are based on the components of a 2D laser scanner out of the LASE 2000D-245 Series and a swiveling platform which is powered by a servo-drive. A high resolution encoder on the servo-drive measures the angle of rotation of the platform and by connection of the 2D laser data with the encoder data, high precision 3D profile measurements are produced. Optionally LASE can provide sophisticated software either to control and collect data from the laser scanner or for complete measurement solutions.



## SCOPE OF DELIVERY

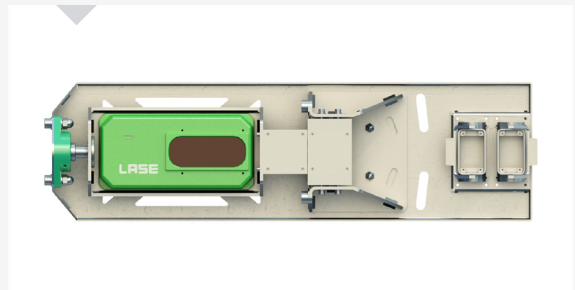
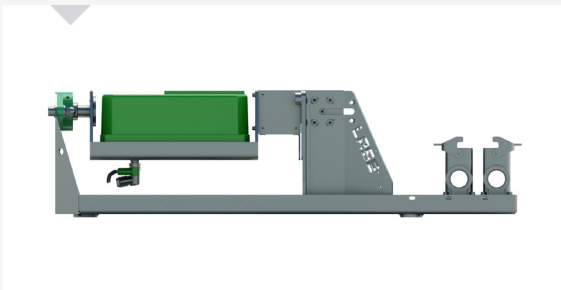
- » 3D laser scanner
- » Operating instruction

## THE FEATURES

- ✓ Contactless long range 3D profile measurement
- ✓ Range of up to 160 m on dark natural surfaces
- ✓ Range of up to 500 m on natural surfaces
- ✓ Scan area up to 120° x 180°
- ✓ Interfaces: Ethernet TCP/IP, RS-232, CAN-Bus
- ✓ Rugged construction type to IP 67

## THE BENEFITS

- ✓ High accuracy, high resolution and fast measuring rate
- ✓ Unique stable object detection
- ✓ Self-test incorporated
- ✓ User friendly software
- ✓ Simple installation
- ✓ Outdoor applicable due to integrated heating



# TECHNICAL DATA: LASE 3000D-C3-245 SERIES

LASE 3000D-C3		-245		INFO	
DISTANCE MEASUREMENT					
Distance Range	1.8 ... 500 m		White, 100% reflectivity		
	1.8 ... 160 m		10% target reflectivity		
Accuracy	≤ 5 mm		Repeatability 1 σ at strong signal		
	≤ 20 mm		Repeatability 1 σ at weak signal		
	≤ 5 mm		Systematic error		
Laser spot size	12 x 18 mm		at Sensor window	Focused at 45 m	
	15 x 24 mm		at 40 m range		
Divergence	0.5 mrad		Vertical		
	0.7 mrad		Horizontal		
Resolution	1 mm				
Laser pulse rate	Up to 100 kHz				
Laser class	1		EN/IEC 60825-1:2014		
INTERFACES					
Ethernet	TCP/UDP 100 Mbits/s		Real time data output		
RS232	115 kBaud, 8n1		Configuration and FW updates		
ELECTRICAL & MECHANICAL					
Voltage	24 VDC or PoE		PoE with Injector		
Voltage - direct	DC Input 24 V ±5 V				
Power consumption	12 W (heater off), 36 W (heater on)				
Startup time	< 30 s				
Protection class	IP 67				
Enclosure	Aluminium		seawater resistant		
Dimension	247 mm x 121 mm x 109 mm				
Weight	2.8 kg				
ENVIRONMENT DATA					
Operating temperature range	-30°C ... +50°C		Temperatures > 50°C on request		
Storage temperature range	-30°C ... +70°C				
SCAN & PROFILE MEASUREMENT					
Scan angle	1 to 120°		Adjustable		
Step Width	0.18°		Fast-Mode		
	0.09°		Normal-Mode		
	0.045°		Fine-Mode		
	0.0225°		Interlaced-Mode		
Measuring points (per scan)	666		Fast-Mode (at 120°)		
	1333		Normal-Mode (at 120°)		
	2666		Fine-Mode (at 120°)		
	5332		Interlaced-Mode (at 120°)		
Scan Rate	25 / 50 / 100 Hz				