

LD-OEM 1000

Universal laser distance scanner
from the LD series

General characteristics:

- Contactless far reaching 2 D profile measuring
- Range of > 40 m off dark natural targets
- Range of > 100 m off bright natural targets
- High accuracy, high resolution and fast measuring rate
- Onboard intelligent PC for value parameter setting
- RS232/RS422; Ethernet TCP/IP, CAN BUS interfaces
- Multiple (4) switching outputs
- Self-test incorporated
- Rugged construction, IP65
- User friendly software included
- Simple installation at each installation point
- Close range interference can be blanked

Short description:

The LD-OEM 1000 Scanner is a two-dimensional contactless distance measuring system purpose built for the industrial environment

The scanner interface outputs the contour data on the recorded surroundings in the form of constant raw data incorporating distance and angle values.

The 2-D profiles of the surrounding is scanned by the multiple pulsed IR laser beams transmitted via a rotating lens head. The LD-OEM 1000 via these extremely short light pulses measures the running time of these pulses to the object and back thereby calculating the distance as well as determining the angle of the pulses sent back to produce at a max. rate of 15 times per second a profile picture of the complete environment, including all objects.

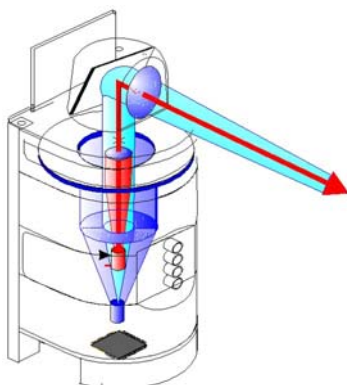
The LD-OEM 1000 has a capture range of 40m radius off dark targets, and 100m on bright targets in upto to 360° angle. With the help of an optional swiveling platform (3D-Unit) even a 3D-Profile can be represented.

With the large measuring range, the unrestricted scan angle and the high angular resolution, this scanner can be used in a most diverse range of industries:

- Measurement of length, width, height, level and situation of objects and environments
- Positioning of objects
- Better crane control as more secure profile measurement
- Object protection
- Bulk material providing form and volume

Other scanners in the LD-series include:

- **LD-LRS** Scanner with increased range
- **LD-PDS** Security Scanner with integrated field monitoring for the object-security in save areas



Technical Data LD-OEM 1000

Measurement range ¹⁾²⁾	0,5 ... 24m on 5 % black 0,5 ... 50m at 20 % Reflection 0,5 ... 100m at 90 % Reflection 0,5 ... 250m on reflectors
Useful scanning angle	360°
Angular step width	0,125°
Scanning frequency	5 ... 15 Hz ± 5 % in increments of 1Hz
Measurement resolution	3,9 mm
System error	± 38 mm with 20 to 90 % reflection
Divergence of beam	2,5 mrad (0,143°)
Laser diode	Infrared light (λ = 905 nm)
Puls repetition frequency	Max. 14,4 kHz (10,8 kHz with mean across 360°)
Laser safety class	class 1 (nach EN/IEC 60825-1), eye-safe
Visual displays	4 x LED (status indicators)
Data interface RS-232/422	serial switchable
Data transmission rate	4 800, 9 600, 19 200, 38 400, 57 600, 115 200 Baud
Data format	8 data bits, 1 stop bit, no parity, fixed output format
Data transmission rate CAN	10 Bit/s ... 1 MBit/s, max. cable length 30 m
Data interface ETHERNET	10 MBit/s, TCP/IP
Switching outputs	4 x "Highside" semi-conductor, max. output current as a result of load per 0,5 A at 24 VDC
Electrical connections	1 x 6-pin terminal strip via PG 7 cable gland for power supply and 4 switching outputs 1 x 15-pin D-Sub-HD-plug for data interfaces, power supply and 2 switching outputs
Power supply	24 V DC ± 15 % to IEC 364-4-41 (VDE 0100 Teil 410)
Supply current	When switched on: max. 1,5 A ³⁾ at 24 VDC, peak at start-up 2,1 A
Housing	Die-cast aluminium
Protection class	IP 65 (nach DIN 40 050)
Shock, Vibration	to EN 60068-2-6
Weight	ca. 2,4 kg
Operation-/Storage temperature	0 ... +45 °C/-20 ... +80 °C
Max. relative humidity	5 ... 85 %, non condensing
Attachment	8 x securing threads M6 x 12 mm

1) Condition: Laserspot completely on the object, warming up time of 30min. kept

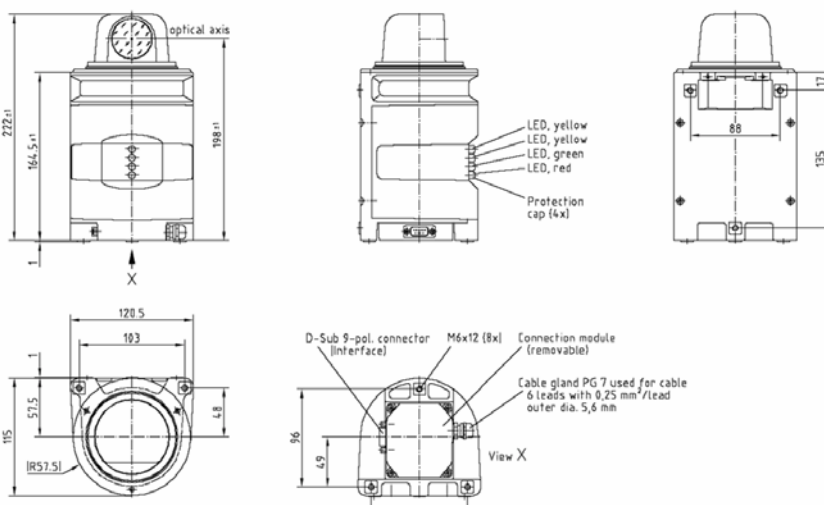
2) By using without close range blanking

3) at disconnected switching outputs

Scope of delivery LD-OEM

1000:

Sensor, operating instructions, configuration software



Vertriebsinformation
LD-Serie
Technische Änderungen vorbehalten. Alle Daten ohne
Toleranzangaben sind typische Daten.
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DB LD-OEM 1000.ppt

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