



Laser scanners
LD-LRS / Outdoor / Long Range

LD-LRS5100



Model Name > [LD-LRS5100](#)
Part No. > [1029038](#)



At a glance

- Long range, even when detecting dark objects
- High angular resolution
- High ambient light immunity
- Small light spot diameter
- Up to 4 fields can be programmed

Your benefits

- Optimum installation position on diggers and cranes due to a long scanning range
- High level of reliability, even in poor environmental conditions
- Low installation costs due to large monitoring areas
- Small objects can be reliably detected at long ranges



Features

Field of application:	Outdoor
Version:	Long Range
Light source:	Infrared (905 nm)
Laser class:	1 (EN/IEC 60825-1), eye-safe
Field of view:	360 °
Scanning frequency:	5 Hz ... 10 Hz
Angular resolution:	0.062 ° 0.125 ° 0.25 ° 0.5 ° 1 ° 1.5 °
Heating:	Yes
Operating range:	2.5 m ... 250 m
Max. range with 10 % reflectivity:	80 m

Performance

Response time:	≥ 100 ms
Detectable object shape:	Almost any
Systematic error ¹⁾ :	± 38 mm
Statistical error ²⁾ :	± 30 mm
Integrated application:	Field evaluation
Number of field sets:	4 fields

Simultaneous processing cases: 4

1) 2) Typical value; actual value depends on environmental conditions.

Interfaces

Serial (RS-422):	✓
Data transmission rate (Serial (RS-422)):	4,800 Baud ... 115,200 Baud
Ethernet:	✓
Data transmission rate (Ethernet):	≤ 10 Mbit/s
Protocol (Ethernet):	TCP/IP
CAN bus:	✓
Protocol (CAN bus):	Standard 2.0.A
Data transmission rate (CAN bus):	10 kbit/s ... 1 Mbit/s
PROFIBUS DP:	-
PROFINET:	-
DeviceNet:	-
Switching outputs:	1 (digital), 2 (relays)
Optical indicators:	0

Mechanics/electronics

Electrical connection:	1 20-pin Harting plug
Operating voltage:	24 V DC± 15 %
Power consumption:	36 W, + 140 W heating
Housing:	PU (polyurethane rigid integral foam)
Housing color:	Gray (RAL 7032)
Enclosure rating:	IP 67
Protection class:	III
Weight:	9.1 kg
Dimensions:	250 mm x 350 mm x 391.1 mm

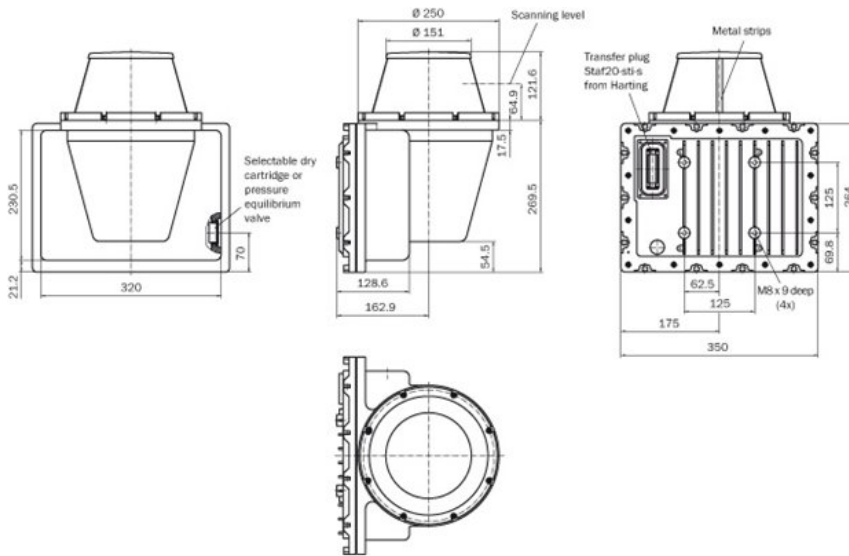
Ambient data

Ambient operating temperature:	-25 °C ... 50 °C
Storage temperature:	-25 °C ... 70 °C

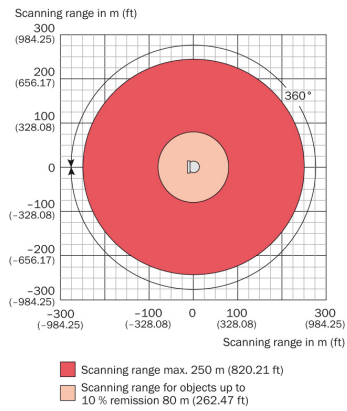
General notes

Note on use:	Not suitable for personnel protection
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Dimensional drawing



Operating range diagram



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