LIDAR GUIDANCE SCANNER

Compact, reliable and rugged Navigation Lidar for automated guided vehicles



1

ODATALOGIC

ToF technology on infrared laser

2D Measurement data for natural or marker navigation

360° measurement for all-round scanning

Differentiation between natural objects and reflectors

Compact design for easy mechanical integration

• High precision and reliable measurement up to 50 meters

Simple and quick configuration and monitoring

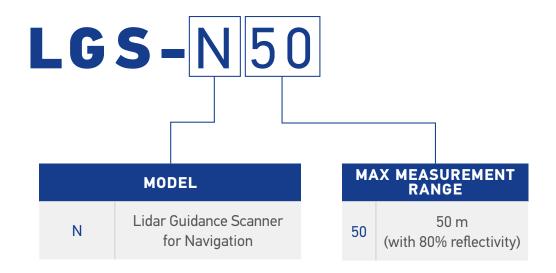
- 60,000 measured points per second
- Up to 25 Hz selectable rotation frequency
- 0.06° angle resolution
- Dimensions: 95 x 97 x 116 mm

APPLICATIONS

- Automated Guided Vehicles (AGV)
- Automated Guided Carts (AGC)
- Automated Mobile Robots (AMR)
- Automated Guided Forklifts (AGF)
- Laser Guided Vehicles (LGV)

INDUSTRIES

- Intralogistics
- Material handling
- Manufacturing



CATALOG | Safety CATALOGIC

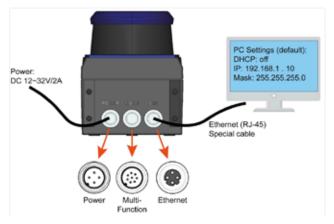
TECHNICAL DATA

2

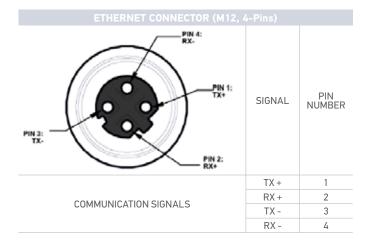
| | LGS-N50 | | |
|---|--|--|--|
| Sauning Angle | MEASUREMENT 2/0° | | |
| Scanning Angle | 360° | | |
| Magaurament Panae | 0.2 - 2 m with 1.8% reflectivity | | |
| Measurement Range | 0.2 - 15 m with 10% reflectivity | | |
| | 0.2 - 50 m with 80% reflectivity | | |
| Scanning Rate (selectable through web server) | 10/15/20/25 Hz | | |
| Measurement Rate | 60,000 points per second | | |
| | 0.06° at 10Hz | | |
| Angular Resolution | 0.09° at 15Hz | | |
| | 0.12° at 20Hz | | |
| | 0.15°at 25Hz | | |
| inear Resolution | 1 mm | | |
| Absolute Measurement Accuracy | ±30 mm with 90% reflectivity | | |
| Repeat Measurement Accuracy | < 20 mm with 90% reflectivity | | |
| Response Time | 100/66/50/40 ms | | |
| | ELECTRICAL DATA | | |
| Power Supply | 12 32 VDC | | |
| Power Consumption | 7 W (at 25°C and 15 Hz) | | |
| Output Current | 30 mA | | |
| • | MECHANICAL AND ENVIRONMENTAL | | |
| Dimentions (width, depth, height) | 95 x 97 x 116 mm | | |
| Operating Temperature | -20+50 °C | | |
| Storage Temperature | -30 70°C | | |
| Relative Humidity | -30 70 C 15 95 % (no condensation) | | |
| Mechanical Protection | 15 95 % (no condensation) | | |
| Ambient Light Limit | 80.000 Lux | | |
| Housing Material | | | |
| Window Material | Aluminum alloy and polycarbonate | | |
| | Polycarbonate | | |
| Weight | 900 g | | |
| | COMMUNICATION | | |
| Communication Interface | IEEE 802.3u 100Mbps Ethernet | | |
| Communication Protocol | TCP/IP | | |
| Data transmission Protocol | UDP/IP | | |
| | Angle of the measured point (in 0.01°) | | |
| | Distance of the measured point (in mm) | | |
| Transmitted Information | Signal intensity (065535) | | |
| | Time stamp in ms with 24-hour cycle | | |
| | Rotation rate | | |
| | Motor fault | | |
| Transmitted Diagnostic | Voltage fault | | |
| | Temperature fault | | |
| | CONFIGURATION | | |
| Configuration Software | Any web browser (configuration throuth web server) | | |
| Monitoring Software | LGS Viewer | | |
| | USER INTERFACE | | |
| Power Indicator | Green LED | | |
| Fault Indicator | Red LED | | |
| | LASER | | |
| Laser Safety Class | Class 1 (IEC 60825-1) | | |
| | | | |
| Wavelength | 905±20 nm (infrared) | | |

CONNECTIONS

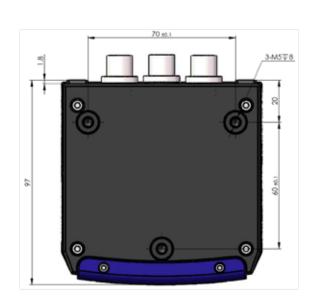
| | CHARACTERISTICS | |
|----------------|----------------------------|--|
| Power | M12 4-pins male | |
| Multi-function | M12 8-pins male | |
| Ethernet | M12 4 poles D-coded female | |



| | POWER CONNEC | | | |
|-------------------|--------------|--------------------------|-------|------------|
| PIN 1 | SIGNAL | DESCRIPTION | COLOR | PIN NUMBER |
| POWER | + VCC | 24 VDC | BROWN | 1 |
| | GND | 0 V | BLUE | 3 |
| DIAGNOSTIC OUTPUT | Q1 | Temperature out of range | BLACK | 4 |
| | Q2 | Generic failure | WHITE | 2 |



DIMENSIONS





MODEL SELECTION - ORDER INFORMATION

| MODEL | PRODUCT DESCRIPTION | ORDER NO. | |
|---------|----------------------------|-----------|--|
| LGS-N50 | Navigation LIDAR 360° 50 m | 958200001 | |

ACCESSORIES

| MAINTENANCE ACCESSORIES | | |
|--|-------------|-----------|
| DESCRIPTION | MODEL | |
| Liquid cleaner in spray bottle (1 lt) | SLS-CLEANER | 95ASE2990 |
| Cleaning cloth (22 cm x 22 cm), 100 pcs. | SLS-CLOTH | 95ASE3000 |

CABLES

| | MODEL | | | | CODE | |
|----------------------------|--|--------------|-------------------------|------|-----------|-----------|
| | CS-A1-02-U-03 | 4 pin female | 4 pin female free wires | 3 m | 95ASE1120 | |
| | CS-A1-02-U-05 | | | 5 m | 95ASE1130 | |
| POWER CABLE | CS-A1-02-U-10 | | | 10 m | 95ASE1140 | |
| | CS-A1-02-U-15 | | | 15 m | 95ASE1150 | |
| | CS-A1-02-U-25 | | | | 25 m | 95ASE1160 |
| | CAB-ETH-M01 M12-IP67 ETHERNET CAB. (1 M) | - 4 pin male | | | 1 m | 93A051346 |
| ETHERNET TO HOST CABLES | CAB-ETH-M03 M12-IP67 ETHERNET CAB. (3 M) | | RJ45 | 3 m | 93A051347 | |
| | CAB-ETH-M05 M12-IP67 ETHERNET CAB. (5 M) | | | 5 m | 93A051348 | |
| | CAB-ETH-M10 M12-IP67 ETHERNET CAB. (10 M) | | | 10 m | 93A051391 | |

| | | DESCRIPTION |
|-----|-------|--|
| PWR | GREEN | Shows the status of powered devices. OFF = no power; ON = powered |
| Q1 | RED | Blinks when the temperature is out of range. |
| Q2 | RED | Blinks when a diagnostic internal test fails. |
| ERR | RED | Shows the unavailability of the device. OFF: device available; Blinking: device not yet available; ON: Device unavailable for internal error. |



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