Lidar Guidance Scanner

958200001

LGS-N50

LIDAR GUIDANCE SCANNER

OVERVIEW

- Compact, reliable and rugged Navigation Lidar for automated guided vehicles
- 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
- Simple and quick configuration and monitoring
- High precision and reliable measurement up to 50 meters
- 60,000 measured points per second
- Up to 25 Hz selectable rotation frequency
- 0.06° angle resolution
- Dimensions: 95 x 97 x 116 mm

TECHNICAL FEATURES

Detection properties

Nominal sensing distance	≤50 m
Repeat Accuracy	< 20 mm @ 80% remissione
Resolution	1 mm

controlled height	50 m
Sensitivity adjustment	GUI
Minimum sensing distance (blind zone)	0.2 m
Scan angle	360°
Measurement range @ 1,8% targe remission	0.2 - 2m
Measurement range @ 10% targe remission	0.2 - 15m
Measurement range @ 80% targe remission	0.2 - 50m
Selectable scan frequency	10/15/20/25 Hz
Angular resolution @ 10 Hz	0.06°
Angular resolution @ 15 Hz	0.09°
Angular resolution @ 20 Hz	0.12°
Angular resolution @ 25 Hz	0.15°
Measurement frequence	60000 Punti / sec
Accuracy	+/- 30mm @ 80% remissione

Application

Function Principle	Lidar / pulsed TOF
Description	Compact scan view 360°

Functions	AGV Navigation Laser Scanner
Diagnostic fault	Motore / Temperatura / Tensione
Configuration interface	Generic web browser
Monitoring interface	LGS Viewer

Safety parameters

Type	LIDAR

Outputs

Output type	IEEE 802.3u 100Mbps Ethernet
Response time	n/a
Communication protocol	TCP/IP
Measurement data transmission protocol	UDP
Data Transmitted	angolo punto misurato - 0.01° res
Information sent 2	distanza punto misurato in mm
Information sent 3	intensità del segnale del punto misurato (0-65535)
Information sent 4	time stamp in ms in 24h/ciclo
Information sent 5	frequenza di rotazione
Ethernet connection	M12 4 pins M Key D

Electrical data

Operating Voltage	12-32 VDC
LED indicators	Power (Green) / Fault (Red)
Max output current	30 mA max
Emission	Laser IR
Interference to external light	80 Klux
Optical power class	class 1 (IEC 60825-1)
Power Consumption	7W (@25°C / 15 Hz)

Mechanical data

Dimensions	95x116x97
Weight	900 g
Connections	M12 4 pins M
Storage temperature	-30° ...+ 70°C C232
Material	Metal - Aluminium / PC
max rotation speed	25 Hz
Relative humidity	15..95% non condensante

Generical Data

Network Interface	Ethernet 100 Mbps IEEE 802.3u
Dimensions	WxDxH 95x97x116

Operating Temperature	-20° ...+50°C
Mechanical Protection	IP66

Optical Data

(laser) wavelenght	905 +/- 20 nm (IR)

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