

## Leddar™ Sight

Robust, Reliable 16-Segment 2D  
LiDAR Sensor



Autonomous  
delivery vehicles



Commercial  
vehicles



Autonomous  
shuttles



Industrial  
vehicles



ITS



### Overview

The Leddar™ Sight sensor is a robust, cost-effective 2D solid-state LiDAR housed in a weatherproof enclosure that uses flash illumination and combines 16 independent active detection elements to deliver rapid, continuous and accurate detection and range—including lateral discrimination—in the entire wide beam, without any moving parts.

### Unmatched Robustness for the Most Demanding Environments

Based on the field-proven reliability of our Leddar M16 LiDAR module family, the Leddar Sight leverages a 100% solid-state design and is built without any moving parts for ultimate robustness. Tested for shock and vibration to meet the requirements of the most demanding commercial and industrial mobility applications, Leddar Sight features a weatherproof casing (IP69) that resists dust ingress and pressurized water streams.

### Key Features

- 100% solid-state
- High MTBF
- Meets stringent shock and vibration standards
- IP69 rated, impact-resistant enclosure
- High EMC standards
- Wide operating temperature range

### Accelerated Path to Commercial Deployment

Leddar Sight can be easily integrated to add sensing intelligence into almost any mobility application such as autonomous navigation, obstacle detection, collision avoidance, precision maneuvering, ITS and more. Ready for field deployment with its robust enclosure and M12 connector, the sensor can be integrated immediately into prototypes, used to collect field data for software and application development and be rapidly leveraged in commercial product offerings. Leddar Sight comes with various beam options for optimized FoV.

### Primary Applications

- Object detection
- Blind spot coverage
- Collision avoidance
- ITS

## Configurations and Specifications

Part Number	HFoV x VFoV (°)	Dimensions <sup>1</sup> (mm)	Weight (g)	Range <sup>2</sup> (m)		
				80% Reflectivity <sup>3</sup>	50% Reflectivity <sup>3</sup>	10% Reflectivity <sup>3</sup>
SIGHT-16-19-A1	19 x 0.3	87 x 92 x 112	493	57	49	25
SIGHT-16-19-B1	19 x 3.0	87 x 92 x 112	493	28	24	15
SIGHT-16-36-A1	36 x 0.2	91 x 92 x 112	413	38	33	17
SIGHT-16-48-A1	48 x 5.1	79 x 92 x 112	400	19	17	11
SIGHT-16-48-B1	48 x 0.3	79 x 92 x 112	400	31	28	15
SIGHT-16-48-C1	48 x 3.0	79 x 92 x 112	400	21	20	13
SIGHT-16-48-D1	48 x 5.5	79 x 92 x 112	400	20	18	12
SIGHT-16-99-A1	99 x 0.3	77 x 92 x 112	420	15	12	9
SIGHT-16-99-B1	99 x 3.0	77 x 92 x 112	420	11	9	6

<sup>1</sup> Depth x height x length.

<sup>2</sup> Typical specification at 6.25 Hz for central segment.

<sup>3</sup> Target dimensions: 50 cm x 50 cm.

Specifications	
Wavelength (nm)	905
Power supply (VDC)	12 to 30
Number of segments	16
Interfaces	USB, RS-485, CAN

System Performance	
Accuracy <sup>4</sup> (cm)	±5
Data refresh rate (Hz)	Up to 100
Distance precision (mm)	±6
Distance resolution (mm)	±10
Power consumption (W)	4
Mean time between failures <sup>5</sup> (MTBF) (h)	Up to 400,000

<sup>4</sup> For oversampling of 4 and more.

<sup>5</sup> As per Telcordia SR-332, Issue 3, Method 1, Case 3 prediction method.

Regulatory Compliance	
Eye safety	IEC 60825-1:2014 Class 1
Shock	IEC 60068-2-29:2008 (up to 50 G)
Vibration	IEC 60068-2-64:2008 (up to 6 Grms)
Ingress protection rating	IP69 IEC 60529
CE	Compliant
EMC	IEC/EN 61000-3-2, 3 IEC/EN 61000-4-2, 3, 4, 5, 6, 8, 11 IEC/EN 61000-6-3
RoHS	2011/65/EU amended 2015/863

Environmental Performance	
Operating temperature range (°C)	-40 to +65
Operation, transport and storage relative humidity (%)	5 to 95

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