

## Velodyne LiDAR PUCK<sup>™</sup>

### **VLP-16**

Velodyne's new VLP-16 sensor is the smallest, newest, and most advanced product in Velodyne's 3D LiDAR product range. Vastly more cost-effective than similarly priced sensors, and developed with mass production in mind, it retains the key features of Velodyne's breakthroughs in LiDAR: Real-time, 360°, 3D distance and calibrated reflectivity measurements.

#### 3D - Real Time - LiDAR

The VLP-16 has a range of 100m, and the sensor's low power consumption (~8W), light weight (830 grams), compact footprint (~Ø103mm x 72mm), and dual return capability make it ideal for UAVs and other mobile applications.

Velodyne's LiDAR Puck supports 16 channels, ~300,000 points/sec, a 360° horizontal field of view and a 30° vertical field of view, with +/- 15° up and down. The Velodyne LiDAR Puck does not have visible rotating parts, making it highly resilient in challenging environments (Rated IP67).





www.jingtianrobots.com

#### DIMENSIONS

# Velodyne LiDAR PUCK<sup>™</sup>

VLP-16



	Specifications:
Sensor:	<ul> <li>Time of flight distance measurement with calibrated reflectivities</li> <li>16 channels</li> <li>Measurement range up to 100 meters</li> <li>Accuracy: +/- 3 cm (typical)</li> <li>Dual returns</li> <li>Field of view (vertical): 30° (+15° to -15°)</li> <li>Angular resolution (vertical): 2°</li> <li>Field of view (horizontal/azimuth): 360°</li> <li>Angular resolution (horizontal/azimuth): 0.1° - 0.4°</li> <li>Rotation rate: 5 - 20 Hz</li> <li>Integrated web server for easy monitoring and configuration</li> </ul>
Laser:	• Class 1 - eye safe • 905 nm wavelength
Mechanical/ Electrical/ Operational	<ul> <li>Power consumption: 8 W (typical)</li> <li>Operating voltage: 9 - 32 VDC (with interface box and regulated power supply)</li> <li>Weight: 830 grams (without cabling)</li> <li>Dimensions: 103 mm diameter x 72 mm height</li> <li>Shock: 500 m/sec<sup>2</sup> amplitude, 11 msec duration</li> <li>Vibration: 5 Hz to 2000 Hz, 3G rms</li> <li>Environmental Protection: IP67</li> <li>Operating temperature -10° to +60° C</li> <li>Storage temperature - 40° to +105° C</li> </ul>
Output:	<ul> <li>Up to 0.3 million points/second</li> <li>100 Mbps Ethernet connection</li> <li>UDP packets containing <ul> <li>Distances</li> <li>Calibrated reflectivities</li> <li>Rotation angles</li> <li>Synchronized time stamps (μs resolution)</li> </ul> </li> <li>\$GPRMC NMEA sentence from GPS receiver (GPS not included)</li> </ul>

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