Velodyne LiDAR®

Puck LITE™

LIGHT WEIGHT REAL-TIME 3D LiDAR SENSOR

UAV | Robotics | Automotive | Security | Industrial | Mapping

Puck LITE

Our Lightest Sensor Ever

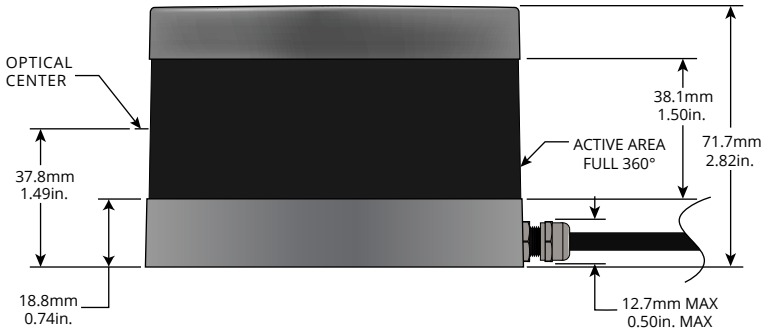
Velodyne LiDAR's Puck LITE is a lighter version of the VLP-16 Puck for applications that demand a lower weight to meet their requirements. Aside from the weight, the Puck LITE has identical performance to the VLP-16. The sensor retains Velodyne's patented 360° surround view to capture real-time 3D LiDAR data that includes distance and calibrated reflectivity measurements.

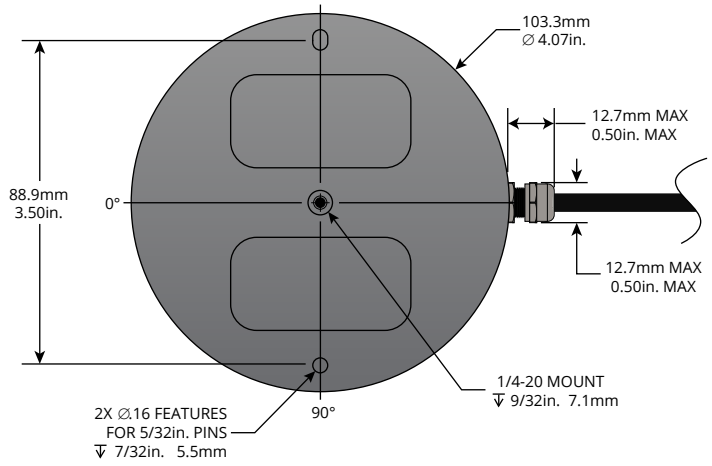
Unprecedented Field of View and Point Density

The Puck LITE has a range of 100 m with dual return mode to capture greater detail in the 3D image with a low power consumption. A compact footprint and an industry leading weight for a LiDAR sensor with high resolution makes it ideal for UAV/drone and mobile applications in the areas of 3D mapping/imaging, inspection and navigation.

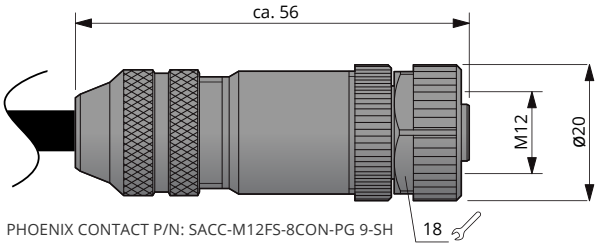
The Puck LITE supports 16 channels and generates approximately 300,000 points/second from a 360° horizontal field of view and a 30° vertical field of view (±15° from the horizon) The Puck LITE has no visible rotating parts and is encapsulated in a package that allows it to operate over a wide temperature range and environmental conditions.

DIMENSIONS *(Subject to change)*





M12 CONNECTOR OPTION



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Light Weight Real-Time 3D LiDAR Sensor

The Puck LITE provides high definition 3-dimensional information about the surrounding environment.

	Specifications:
Sensor:	• 16 Channels • Measurement Range: 100 m • Range Accuracy: Up to ±3 cm (Typical)[1] • Field of View (Vertical): +15.0° to -15.0° (30°) • Angular Resolution (Vertical): 2.0° • Field of View (Horizontal): 360° • Angular Resolution (Horizontal/Azimuth): 0.1° – 0.4° • Rotation Rate: 5 Hz – 20 Hz • Integrated Web Server for Easy Monitoring and Configuration
Laser:	• Laser Product Classification: Class 1 Eye-safe per IEC 60825-1:2007 & 2014 • Wavelength: 903 nm
Mechanical/ Electrical/ Operational	• Power Consumption: 8 W (Typical)[2] • Operating Voltage: 9 V – 18 V (with Interface Box and Regulated Power Supply) • Weight: ~590 g (without Cabling and Interface Box) • Dimensions: See diagram on previous page • Environmental Protection: IP67 • Operating Temperature: -10°C to +60°C[3] • Storage Temperature: -40°C to +105°C
Output:	• 3D LiDAR Data Points Generated: - Single Return Mode: ~300,000 points per second - Dual Return Mode: ~600,000 points per second • 100 Mbps Ethernet Connection • UDP Packets Contain: - Time of Flight Distance Measurement - Calibrated Reflectivity Measurement - Rotation Angles - Synchronized Time Stamps (µs resolution) • GPS: $GPRMC and $GPGGA NMEA Sentences from GPS Receiver (GPS not included)

63-9286 Rev-H

1. Typical accuracy refers to ambient wall test performance across most channels and may vary based on factors including but not limited to range, temperature and target reflectivity.
2. Operating power may be affected by factors including but not limited to range, reflectivity and environmental conditions.
3. Operating temperature may be affected by factors including but not limited to air flow and sun load.

CLASS 1 LASER PRODUCT

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