

# Velodyne Lidar® Puck LITE™

LIGHT WEIGHT REAL-TIME LIDAR SENSOR



## Puck LITE



Velodyne Lidar's Puck LITE is our lightest sensor - specially designed for applications that require a lower weight. Aside from the weight, the Puck LITE has identical performance to the Puck. It has a range of 100 m and generates up to ~600,000 points/second, across a 360° horizontal field of view and a 30° vertical field of view.

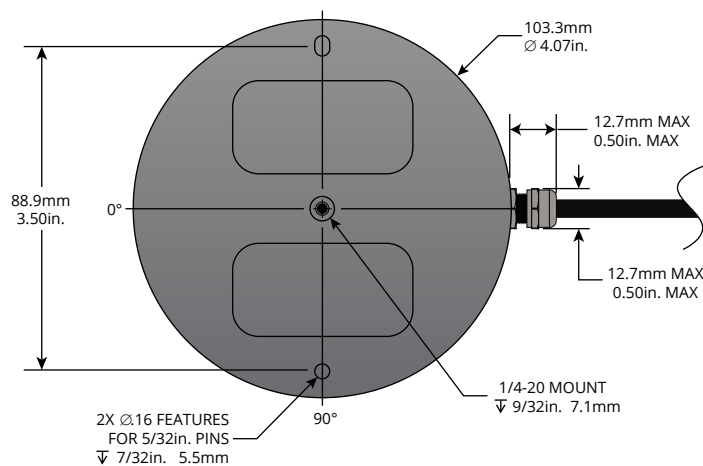
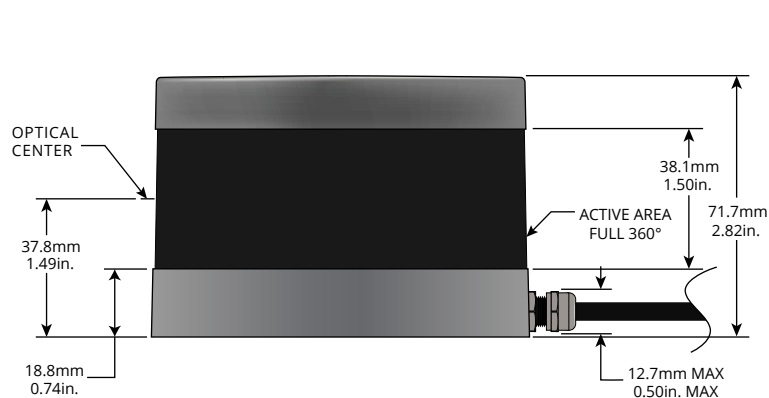
A compact footprint and an industry leading weight for a lidar sensor with high resolution makes the Puck LITE ideal for UAV/drone and mobile applications in the areas of 3D mapping/imaging, inspection and navigation. The Puck LITE has best-in-class power, which enables operation over a wide temperature range. It's use of off-the-shelf components enables enhanced scalability and attractive volume pricing. Like other Velodyne sensors, the Puck has world-class technical support available across North America, Europe & Asia from the world's leading lidar company.



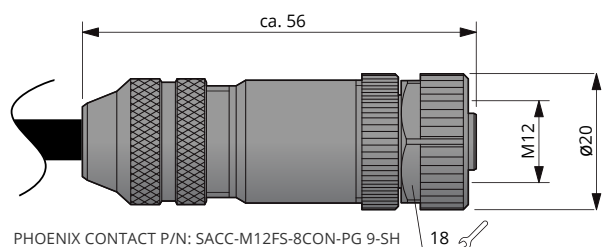
## Puck LITE at a glance

- 100 m range with compact form factor
- Lightest performance-optimized sensor
- Proven, Class 1 eye-safe 905 nm technology
- Top-of-the-line field-of-view
- Best-in-class accuracy and calibrated intensity
- Best-in-class power & temperature range
- Sensor-to-sensor interference mitigation feature
- Versatile, with attractive volume pricing

## DIMENSIONS *(Subject to change)*



## M12 CONNECTOR OPTION



For other connector options contact  
**Velodyne Sales (sales@velodyne.com)**



## Light Weight Real-Time 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  $\pm 3$  cm (Typical)<sup>1</sup>
- Field of View (Vertical):  $+15.0^\circ$  to  $-15.0^\circ$  ( $30^\circ$ )
- Angular Resolution (Vertical):  $2.0^\circ$
- Field of View (Horizontal):  $360^\circ$
- Angular Resolution (Horizontal/Azimuth):  $0.1^\circ - 0.4^\circ$
- 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)<sup>2</sup>
- 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:  $-10^\circ\text{C}$  to  $+60^\circ\text{C}$ <sup>3</sup>
- Storage Temperature:  $-40^\circ\text{C}$  to  $+105^\circ\text{C}$

#### 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 ( $\mu\text{s}$  resolution)
- GPS: \$GPRMC and \$GPGGA NMEA Sentences from GPS Receiver (GPS not included)

63-9286 Rev-K VLP-16-LW

For more details and ordering information, contact Velodyne Sales ([sales@velodyne.com](mailto:sales@velodyne.com))

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

Copyright ©2019 Velodyne Lidar, Inc. Specifications are subject to change. Other trademarks or registered trademarks are property of their respective owners.