



WASP™-200 Laser Rangefinder

UAV-Optimized, 200 m Miniature Laser Rangefinder (LiDAR)



CU1-001
(UART)



MC1-001
(IP67, CAN-Piccolo, RS-232)



MU1-001
(IP67, UART)



MD1-001
(IP67, CAN-DroneCAN)



CD1-001
(CAN-DroneCAN)

The WASP™-200 series of rangefinders are advanced LiDAR sensors designed for precise distance measurements up to 200 meters even when measuring challenging targets—small, low-reflectivity objects that are typically difficult to range. Encased in an ultra-compact design, these rangefinders are FDA Class 1 laser certified, ensuring safety without sacrificing performance. The WASP™ rangefinders deliver consistent and reliable measurements even in challenging conditions.

Utilizing single-shot Time of Flight (ToF) technology, the WASP™-200 rangefinders are ideal for use on fast-moving platforms and tracking rapidly moving targets. With the ability to detect targets beyond 300 meters and deliver up to 56 ranges per second (customizable to 10 kHz), these rangefinders maintain an accuracy of better than 10 cm at 200 meters, including over water. The WASP™-200 series is equipped with advanced features that make them suitable for a wide range of applications, ensuring precise and rapid range measurements.

Highlights

- **High Repetition Rate:** Ideal for fast single-shot ranging, enabling rapid scanning and effective operation on moving platforms.
- **Programmable Burst Mode Averaging:** Customizable settings for improved precision.
- **Class 1 Laser Product:** Safe and certified for various environments.
- **IP67 Rating Option:** Available waterproof version for challenging conditions.
- **Optional Fields of View:** Tailored for proximity detection applications.
- **ArduPilot Supported:** Compatible with Plane, Copter, and Rover systems.
- **Flexible Connector Options:** Includes pigtail connectors for easy integration.
- **Durable Construction:** Molded ABS plastic housing ensures long-lasting performance.
- **Versatile Mounting:** Integrated mounting options, including back or front configurations.

Software Features

- **Enhanced Precision:** Programmable burst mode and moving averaging for superior measurement accuracy.
- **Solar Noise Compensation:** Background solar noise detection and automatic compensation for consistent performance.
- **Customizable Sensitivity:** Programmable sensitivity and range offsets to adapt to various operational requirements.

Applications

- Robotics and Drones
- Scanned LiDAR
- Sense and Avoid
- Height Above Ground (HAG) flight
- Industrial Automation
- Height & Distance Measurements
- Maritime Operations
- Precise Proximity Detection

The WASP™ Laser Rangefinder are designed and manufactured in Attollo's 34,000 ft² facility in Camarillo, California. Attollo Engineering specializes in infrared imaging and has a wide range of laser-related solutions, including laser seekers, laser warning systems, and laser see-spot technology. Attollo is AS9100 certified.

SYSTEM FEATURES

WASP™-200 Laser Rangefinder



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Specifications

Laser Eye Safety	Class 1 Laser Product			
Range Performance	0.15 m to 175 m 18% reflectivity			
Range Performance *Full Sun Conditions	0.1 m to 300 m 80% reflectivity			
Maximum Range	315 m			
Accuracy	< 10 cm			
Spectral Band	905 nm			
Resolution	1 cm			
Update Rate	Single shot to 56 Hz	Single shot to 50 Hz		
Wavelength	905 nm			
Beam Divergence	8 mrad x 1 mrad			
Optical Aperture	18 mm			
Input Voltage	3.5 V to 16 V	4 V to 30 V		
Operating Current	< 75 mA @ 5 V Operating Voltage	< 75 mA @ 10 V Operating Voltage		
Inrush Current	< 100 mA @ 5 V Operating Voltage	< 100 mA @ 10 V Operating Voltage		
Connector	8 pin Hirose Connector or Pigtail	ODU IP67		4-pin DroneCAN connector
Communication Interface	UART	CAN-Piccolo, RS-232	CAN-DroneCAN, RS-232	CAN-DroneCAN
Dimensions (L x W x H)	44 x 20 x 42 mm ³	44 x 34.8 x 42 mm ³		44 x 27 x 42 mm ³
Weight	26 grams	46 grams		39 grams
Operating Temperature	-40 to + 60 °C -40 to 140 °F			



See More



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