



S3-2 SOLID STATE LIDAR SENSOR

Quanergy is once again revolutionizing LiDAR sensors with the S3™-2, which is part of the S3 solid state sensor product family. The S3-2 is a game-changing smart sensor, setting benchmarks in performance and cost. S3-2 features near zero meter minimum range while providing a real-time view of the environment.

Quanergy's Disruptive Solid State Technology

Quanergy's S3 solid state family of LiDAR sensors contains no moving or vibrating parts on either macro or micro scales. This enables the highest level of performance, longevity and cost efficiency with increasingly smaller footprints that require less power. The high reliability characteristic of the S3 family is especially important in environments where equipment up-time is essential for efficiency and profitability. In addition, the compact package enables seamless integration for smart, capable, always-aware perceptive vision.



KEY APPLICATIONS

The S3-2 is ideal for applications in intelligent robotics and industrial automation.

- **Robotics:** S3-2 improves machine vision and interactions with humans and the surrounding environment. This smart sensor supports near zero range for best collision avoidance and safety performance. In addition, the compact design of S3-2 is essential for robot arm applications.
- **Industrial Automation:** Object detection, collision avoidance and/or distance measurement for Automated Guided Vehicles (AGVs) and other industrial equipment in warehouses, factories, distribution centers and ports are essential functions. S3-2's distance accuracy and near zero range are well-suited for this market segment.

DISRUPTIVE VALUE PROPOSITION

- Solid state technology, no moving or vibrating parts
- High reliability
- Small footprint
- Low power consumption
- Cost-effective

PRODUCT FEATURES

- Near zero meter minimum range for maximum detection and coverage
- Available in various maximum range levels to serve different application needs
- Development kit with Q-View™ Sensor Management and Visualization software for easy evaluation

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SPECIFICATIONS	S3-2NSI-S00	S3-2WSI-S00	S3-2WMI-S00
Laser Class	Class 1 Laser Product (eye safe IEC 60825-1)		
Wavelength	905 nm		
Measurement Technique	Time of Flight (TOF)		
Minimum Range	<5 cm		
Maximum Range	10 m (80% reflectivity) 5 m (10% reflectivity)	10 m (80% reflectivity) 5 m (10% reflectivity)	50 m (80% reflectivity) 20 m (10% reflectivity)
Range Accuracy	±5 cm		
Frame Rate	10 Hz, 15 Hz, 20 Hz, 25 Hz		
Angular Resolution	0.1° - 0.5°		
Detection Layers	2		
Horizontal Field of View (HFOV)	50°	100°	100°
Vertical Field of View (VFOV)	4°		
Output Connection	100 Mbps Ethernet		
Data Outputs	Angle, Distance, Intensity		
Returns	1		
Ambient Light Immunity	15,000 lx		
Nominal Power	6 W		
Operating Voltage	9 - 30 VDC		
Operating Temperature	- 10°C to +50°C (+14°F to +122°F)		
Storage Temperature	- 40°C to +70°C (- 40°F to +158°F)		
Nominal Weight	671 g		
Dimensions	56 mm (W) x 77 mm (H) x 124 mm (D)		
Environmental Protection	IP67		
Certifications and Compliance	FDA, FCC, CE, RoHS, WEEE		

*Specifications are subject to change without notice