



MOVIA™ Pro

Next-Generation Short-Range Lidar Sensor

MOVIA™ Pro is MicroVision's next-generation solid-state lidar, delivering high-performance short-range detection. With perception built directly into the sensor, MOVIA™ Pro processes data on the device and provides actionable output without heavy host-side compute, reducing system complexity and integration effort. An open software framework enables customization and faster development, while flexible connectivity and an industrial-grade design ensures seamless integration into demanding environments and existing system architectures.

Your Sensor. Your Software. Your Solution.



Onboard perception and Edge AI

Processes point-cloud data directly on the sensor, supporting AI at the edge while multi-echo sensing enhances perception.



Open Software Framework

Designed for maximum flexibility and for customer applications deployable on the sensor.



180° Field of View

Ultra-wide field of view for complete environmental awareness.



Flexible by Design

Supports CAN, Gigabit and 100Mbit Ethernet, and industrial-ready I/O connectors protect OEM design intent.

Product proof points

180° x 132°

Field of View

Integrated IMU

Pure solid-state

No moving parts

<400 g

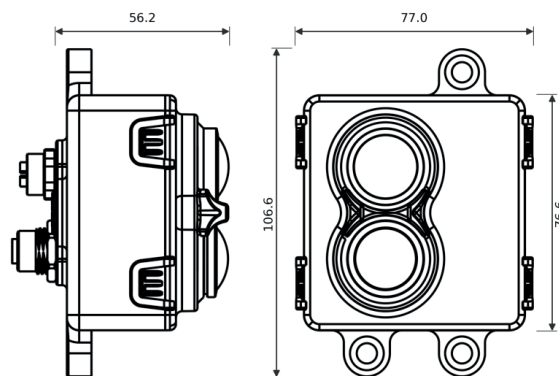
Lightweight

<9 W

Typical power consumption



180° performance. For all short-range applications.



- ▶ Highly cost-effective, scalable short-range solution
- ▶ Ideal for near-range applications like industrial ADAS including low-speed autonomy, blind-spot detection and off-road assistance.
- ▶ Software-defined evolution: Enables capabilities and enhancements through software updates
- ▶ Ultra-compact housing for seamless integration
- ▶ Pure solid-state: no moving parts
- ▶ Low power consumption
- ▶ Multi-echo capabilities
- ▶ Developed to automotive-grade standards

Purpose-Built for High-Value Commercial Applications

Aerial Systems - Civil and Defense

Supporting navigation, obstacle awareness, mapping, environmental perception and autonomous operations for unmanned platforms

Intelligent Transportation and Smart Infrastructure

Enabling intelligent intersections, traffic monitoring, automated traffic enforcement, infrastructure surveillance and connected transportation systems

Warehouse and Industrial Automation

Supporting obstacle detection, environmental awareness and automated navigation for autonomous mobile robots (AMRs), automated guided vehicles (AGVs), forklift advanced driver-assistance systems and other intelligent industrial equipment.

Security, Defense, and Emerging Applications

Supporting infrastructure protection, autonomous ground systems, off-road unmanned ground vehicles, marine systems, commercial vehicles and selected automotive applications.

Specifications & System Highlights

Technology / Laser / Optical	MOVIA™ Pro
Field of view (h x v)*	180° x 132°
Angular resolution (h x v)	Horizontal: $\leq 0.86^\circ$ · Vertical: $\leq 0.80^\circ$
Range (10 % Lambertian reflectivity)	15.1 m @ 100 klx sunlight, >90 % detection probability (TPP), FPpF < 1 % 19.8 m @ 100 klx sunlight, 50 % detection probability (TPP)
Frame rate	10 Hz
Dimensions	77 x 76.6 x 56.2 mm
Weight	< 400 g
Power Consumption	< 9 W
Ingress Protection	IP6K9K

Integrated IMU

Onboard perception and processing, supporting AI at the edge

High Flexibility

Supports CAN, Gigabit, 100Mbit Ethernet, and industrial-ready I/O and connectors

180° Perception

Precise perception across the entire width

Open Software Framework

enabling customers to develop, deploy, and update perception applications

Small and Light-weight

for seamless integration

Low Power Consumption

Typical ≤ 9 - 11 W