

MOVIA™ L

Robust 3D solid-state lidar for industrial applications



Key Features

- ▶ **Robust and reliable:** 50 G shock load and up to 25,000 hours lifetime
- ▶ **Pure solid-state solution:** no moving parts
- ▶ **Transceiver resolution of** 128 columns x 80 rows
- ▶ **With integrated perception software:**
 - Ground detection and point cloud annotations
 - Object/people detection and tracking
 - 3D zone detection
- ▶ **Sequential flash scanning captures environment thousand of times per frame**
- ▶ **Adverse weather performance due to multi-echo capability**

Enhancing efficiency in warehousing and logistics



To ensure an even faster pace and higher efficiency, MOVIA™ L with onboard perception software offers configurable 3D zones and can also detect small and irregular obstacles e.g. on the floor or overhanging objects from shelves. Supporting to make processes run more quickly and safely.

Ideal for port navigation and yard automation



Ensuring efficiency and safety in port and yard operations, 3D lidar systems detect obstacles in real time, precisely measure distances, provide information, make decisions, and may even initiate actions like emergency braking. It avoids collisions, unnecessary equipment damage, and ensures security in the port area, on waterways, and in locks.

High precision in agriculture



Imprecise processes in agribusiness cost both time and money in two ways: during sowing and harvesting. MOVIA™ L with onboard perception software supports with positioning in the field down to the centimeter and offers route planning to help create clean starting edges and detect obstacles.

Greater efficiency in mining



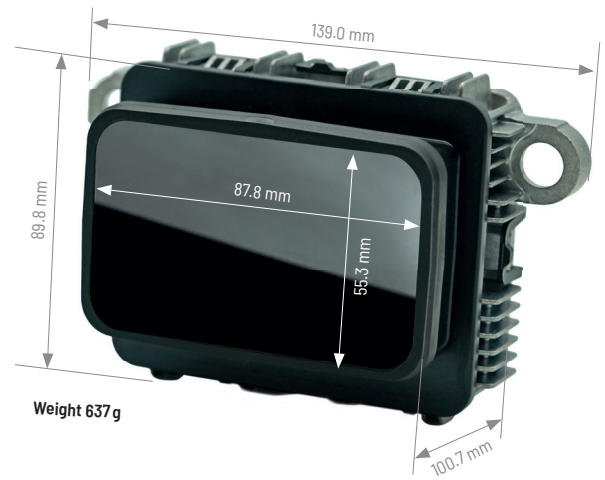
In both underground and open-cast mining, transporting raw materials for several hours over a wide range of track surfaces involves increased risks. If a vehicle leaves the track or breaks down due to unseen obstacles, the damage can be significant. MOVIA™ L can reduce these risks considerably and ensures efficient work processes.

Safe mobility at the speed of life®



Technical Data

MOVIA™ L is available with 60-degree or 120-degree optics. The fully solid-state lidar sensor features a compact, light-weight design, ensuring seamless integration into mobile units. Thanks to its onboard software, MOVIA™ L offers simple adaptability for various applications.



Optical	MOVIA™ L 60°	MOVIA™ L 120°
Max. field of view (h x v)	60° x 37.5°	120° x 75°
Max. angular resolution (h x v)	0.23° x 0.38°	0.47° x 0.75°
Measurement range	0.15 m – 80 m	0.15 m – 40 m
Range	90% target @ <1k LUX*	70 m (90% true positive rate)
	10% target @ 100 kLUX	25 m (90% true positive rate)
Accuracy	3 cm	
Frame rate	15 Hz	
Wavelength	885 nm	
Electrical	MOVIA™ L 60°	MOVIA™ L 120°
Operating voltage	9 V - 16 V DC	
Maximum power consumption	<10 W	
Typical power consumption	<7 W	
HW connector	Power: TYCO MCON 1.2 (2 Pin) Data: TYCO MCON 0.5 (4 Pin)	
Connectivity	100BASE-TX ethernet / 100BASE-T1 automotive ethernet	
Environment	MOVIA™ L 60°	MOVIA™ L 120°
Laser	Laser Class 1	
Operational lifetime	up to 25,000 hours	
Operating temperature	-40° C - 85° C	
Ingress protection	IP6K9K	

*Normal Indoor Light Conditions

Technology & Innovation



Onboard software



4D Output:
Point cloud & intensity image



No moving parts



High resolution



Low power consumption



50 G shock load



Protected from environmental
influences



Class 1 laser product

