

MAV[®] Multi-Sensing Autonomous Vehicle

Data sheet



MAV is an autonomous mobile robot which is designed to collaborate with YOU.

MAV is a Multi-Sensing Autonomous Vehicle which is used for indoor intralogistic tasks. It can autonomously transport items and navigate freely in its environment. It is a robotic assistant which will make the life of people working within production sites easier and therefore streamlines production. Every second of a standing conveyor belt leads to an overall production stop since the operations are cascaded. With multiple MAVs, one malfunctioning MAV can be directly replaced by another one which keeps the production running and due to their autonomous navigation more flexible.

General Robot Specification

Payload	1.500 kg
Loading Current	60 A
Actuation	Differential Drive
Velocity	1.5 m/s
Communication Interface	CAN
Outbound Interface	1x Ethernet /1x CAN
IP classification	tbd
Weight	400 kg
Dimensions	L1530 mm x W910 mm x H293 mm
Positioning Accuracy	±5 mm
Safety Laser Scanner 360°	PLd/Category 3 (ISO 13849-1)
Status Indicators	Programmable Status LEDs
Lifting unit	4 x 0-55 mm á 400 kg, 4 x 4000 N

Battery Specification

Battery	48VDC/ 120Ah
Supply Voltage	230V, 50-60Hz
Charging Time	2h
Up Time	10h
Inductive Charging	✓

Life Cycle

Service Interval	12 Months
T1 Components Lifetime	min 36.000 h
T2 Components Lifetime	min 25.000 h

Sensors

Detection Touchless Obstacle Detection

Safety Safety Scanners

Software

Operating System NR CRUISE Control

Open Architecture 3rd Party Apps, Access to Low Level Controllers & Sensor Data

Safety Features Safe Speed Control

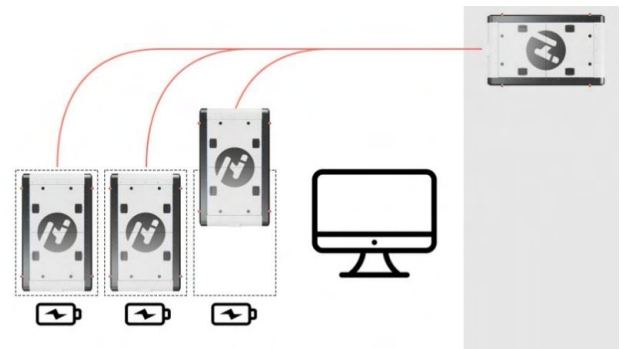
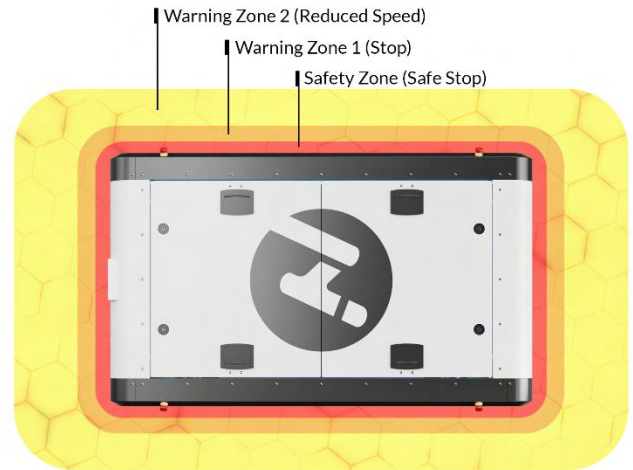
Programming Features

Smart GUI NR CRUISE Interface

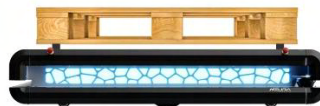
Human-Robot-Interaction Visual-, Audio- and Force-Feedback, Motion Tracking, PC based GUI

Environment Visualization Dynamic Mapping (SLAM), Pallet Identification, Dynamic Obstacle Bypass and Trajectory Replanning

Fleet Management Formation Driving, Fleet Monitoring Tool



MAV® + MAiRA®



MAV® for logistics



MAV® + LARA®

Note:

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