

MAV

Multi-Sensing
Autonomous Vehicle

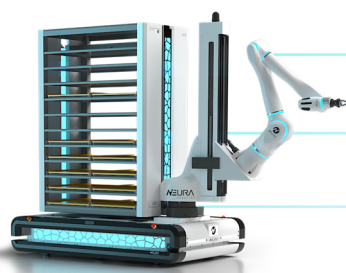
Datasheet

World's smartest and most performant AMR.

MAV revolutionizes intralogistics by loading and moving any type of goods autonomously. Thanks to its integrated sensors, it can navigate and safely detect obstacles without requiring additional peripheral devices. Combining MAV with a collaborative or cognitive robot creates powerful mobile manipulator solutions.

General specs	MAV 500	MAV 1500
Payload	500 kg	1500 kg
Dimensions	L1255 mm x W678 mm x H294 mm	L1530 mm x W910 mm x H293 mm
Weight	300 kg	400 kg
Velocity	1.5 m/s	1.5 m/s
Actuation	Differential drive	Differential drive
Communication interfaces	CAN, Ethernet	CAN, Ethernet
Outbound interfaces	1x Ethernet, 1x CAN	1x Ethernet, 1x CAN
IP classification	IP 44	IP 44
Positioning accuracy	±5 mm	±5 mm
360° safety laser scanner	PLd/Category 3 (ISO 13849-1)	PLd/Category 3 (ISO 13849-1)
Status indicators	Programmable status LEDs	Programmable status LEDs
Lifting unit	0-55 mm, 4 x 125 kg	0-55 mm, 4 x 374 kg

Mobile manipulator solutions



Combination with
MAiRA or LARA

Flexible rotating axis

Pallet-sized shelf

Sensors

Detection Touchless Safe Obstacle Detection

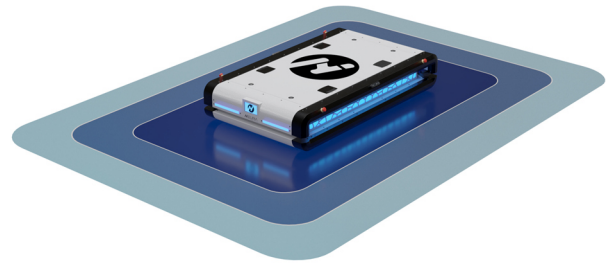
Safety Laser scanners for 360° view

Software

Operating system NR CRUISE Control

Open architecture 3rd party apps, access to low level controllers and sensor data

Safety features Safe Human Detection, Safe Speed Control



Warning zone 2 (reduced speed)

Warning zone 1 (stop)

Safety zone (safe stop)

Programming features

Smart GUI NR CRUISE Interface

Human-robot-interaction Visual, audio, 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

Life cycle

Service interval 12 months

T1 components lifetime Min. 36.000 h

T2 components lifetime Min. 25.000 h

Battery specifications MAV 500

Battery 51.8 VDC / 60 Ah

Supply voltage 230 V, 50-60 Hz

Loading current 60 A

Charging time 1.2 hours

Up time 5 hours

Charging Manual, inductive

Battery specifications MAV 1500

Battery 51.8 VDC / 120 Ah

Supply voltage 230 V, 50-60 Hz

Loading current 60 A

Charging time 2 hours

Up time 10 hours

Charging Manual, inductive

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