



Multi-Sensing
Autonomous Vehicle

Datasheet

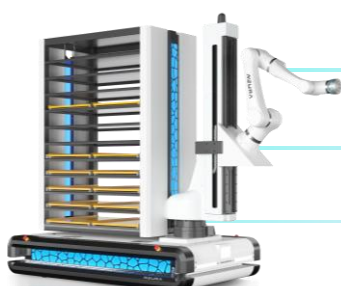
World's smartest and most performant Mobile Robot.

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
Lifting Unit	0-45 mm, 4 x 125 kg	0-55 mm, 4 x 374 kg
Velocity	1.5 m/s	1.5 m/s
Actuation	Differential drive	Differential drive
Communication interfaces	CAN, Ethernet, Python API	CAN, Ethernet, Python AP
Outbound interfaces	1x Ethernet, 1x CAN	1x Ethernet, 1x CAN
IP classification	IP 44/IP 54 based on request	IP 44/IP 54 based on request
Positioning accuracy	±5 mm	±5 mm
Status indicators	Programmable status LEDs	Programmable status LEDs

Mobile manipulator solutions



Combination with
MAiRA or LARA

Flexible rotating axis

Pallet-sized shelf

Safety Features

360° Safety Laser Scanners

PLd/Category 3 (ISO 13849-1)

Manufacturing Compliance

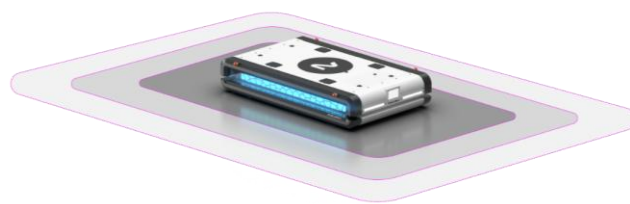
ISO 3961-4

Safety Zones

safety zone with safe stop, and 2 warning zones with stop and reduced speed

Field Sets

32



Warning zone 2
(reduced speed)

Warning zone 1
(stop)

Safety zone
(safe stop)

Software features

Network Connectivity

WLAN Control (NAT)

Human-Robot-interaction

Visual, audio, force feedback, motion tracking, PC-based GUI

Environment visualization

dynamic obstacle bypass and trajectory replanning*

Fleet management

Formation driving*, and fleet monitoring tool* (based on number of vehicles requested)

SLAM

Dynamic Mapping Avoidance

Communication

Python API

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

1.5 hours

Up time

7.5 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

Note:

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