

mobIMS mobile motion system

The optimized wheel-drive system for AGVs and AMRs



The **mobIMS** mobile motion system is a complete and ready-to-use wheel drive system designed and optimized for the requirements of automated guided vehicles and autonomous mobile robots.

Cost and space saving design

Compact servo drive and gear motor with integrated brake and encoder allow saving space for other components and simplify the cabling and mechanical design of the mobile vehicle.



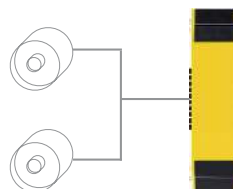
Robust design for mobile applications

Strong output bearings and a shock & vibration proof servo system ensure a powerful wheel traction and durability in rough surface conditions.

Connectivity to plc or modular safety controller

STO according to STO SIL3|PL e can be connected to a master motion PLC controller or to a modular safety controller. Two motor encoder signals A and B RS422 can be daisy chained to the modular safety controller for Safe Motion monitoring, minimizing the AGV design complexity.

Safe Motion Monitoring



Smooth running at different speeds

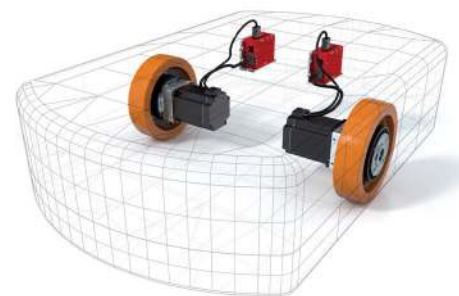
Controllability of the AGV over a wide speed range allowing a smooth run even at low speeds.

Low energy consumption


A low current consumption servo system minimizes the recharging cycles and increases the mobility range.


Key benefits

- Developed and optimized for the requirements of AGVs & AMRs
- High durability in rough surface conditions - resistant to shock and vibration
- Compact for an easy fit within AGV size constraints
- STO function for safe operation and connectivity to modular safety
- Energy efficient with low current consumption



Related products




	softMC Multi-Axis Motion Controller
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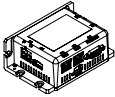
	stepIM/ servIM Integrated Stepper & Servo Motors
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mobIMS product offering

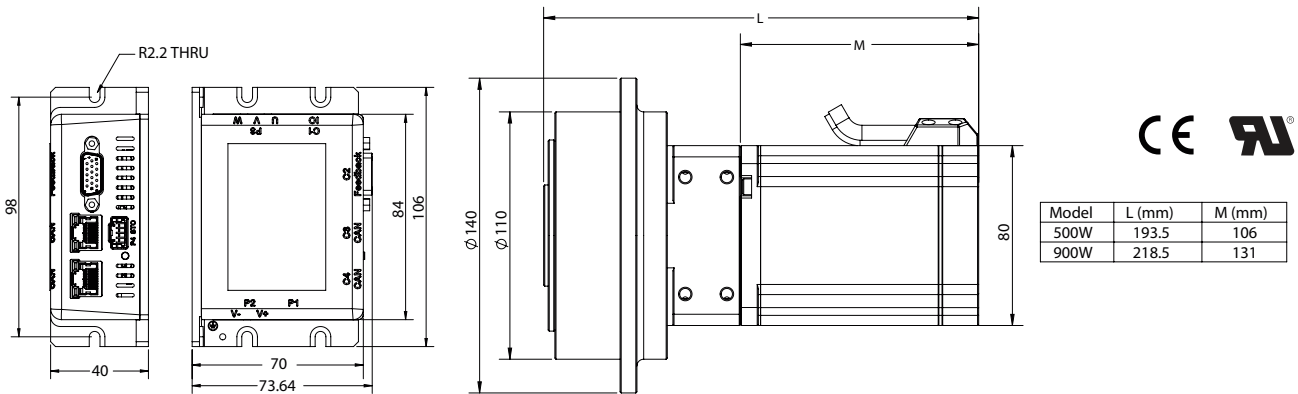
The mobIMS is a ready-to-use wheel-drive system that can be ordered with or without a mounted wheel.

- Motors frame size is 80 mm. A brake is included.
- Gearboxes have a 1:22.5 gear ratio. Other motor gearbox combinations are available upon request.
- Motors are rated IP40.
- Wheels have a maximum load of 900 kg at 1.1 m/sec, and 600 kg at 2.8 m/sec.
- Other options and combinations are available upon request.

	mobiGM gearmotor	Model	Nom./Max. torque	Nominal speed	Motor voltage	Motor power
	200 mm wheel	GM-010120	28/84 Nm	1.58 m/sec	24 VDC	500 W
		GM-010320	36/119 Nm	1.67 m/sec	48 VDC	900 W
	165 mm wheel *Available upon request	GM-010116*	28/84 Nm	1.26 m/sec	24 VDC	500 W
		GM-010316*	36/119 Nm	1.34 m/sec	48 VDC	900 W
	Without wheel	GM-010100	28/84 Nm	151 rpm	24 VDC	500 W
		GM-010300	36/119 Nm	191 rpm	48 VDC	900 W

	servSD servo drive	Model	Input bus	Input logic	Cont. current	Peak current
	CANopen® servo drive Digital IN/OUT: 4/2 Feedback: SSI encode / incremental encoder with halls sensor	SD01-030	24 VDC	24 VDC	30 Arms	100 Arms
		SD01-025	48 VDC	24 VDC	25 Arms	80 Arms

Mechanical dimensions



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STXI optimized motion solutions for mobile applications

With over three decades of experience, our application knowhow and building blocks allow us to provide products and solutions that are integrated, connected and tailored to the application requirements. Contact us for an optimal motion solution that suits your AGV requirements.



Custom gearmotors for a lift AGV robot



Integrated stepper motors for auxiliary axes in an autonomous fulfillment robot



Custom motion controller for a mobile picking robot

