

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.



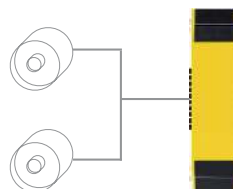
Robust design for mobile applications

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

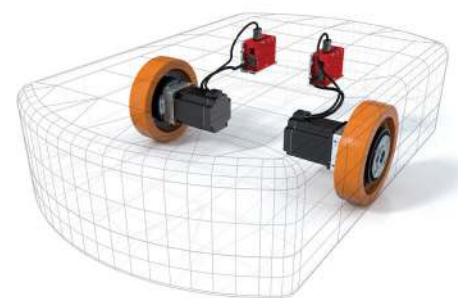
Controllability of the AGV over a wide speed range allowing a smooth run even at low speeds.

Low energy consumption

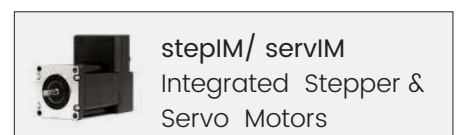
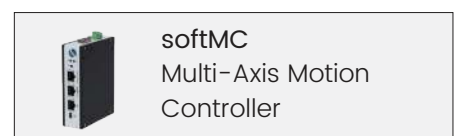
A low current consumption servo system minimizes the recharging cycles and increases the mobility range.

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





mobiMS product offering

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

- Motors frame size is 60 and 80 mm.
A brake is included.
- Gearboxes have a 10, 16 and 22.5 gear ratio.
- Motors are rated IP40 / IP54
- 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	Wheel (optional)	Model	Ratio	Nominal / Max torque (Nm)	Nominal speed (RPM)	Motor voltage (VDC)	Motor power (W)
	150 mm	GM-1811-00	10	6 / 17	300 (2.35 m / sec)	24 / 48	200
	150 mm	GM-1913-00	16	18 / 56	187 (1.47 m / sec)	24 / 48	400
	200 mm	GM-0807-00	22.5	28 / 84	151 (1.58 m / sec)	24	500
	200 mm	GM-0808-00	22.5	36 / 119	191 (2.00 m / sec)	48	900

servSD	Model	Input bus (VDC)	Input logic (VDC)	Cont. current (Arms)	Cont. current with heat sink (Arms)	Peak current (Arms)
	SD01-015	24	24	12	14.4	40
	SD01-030	24	24	20	23	70
	SD01-025	48	24	18	20	63

Communications:

CANopen
RS232

Motor Feedback:

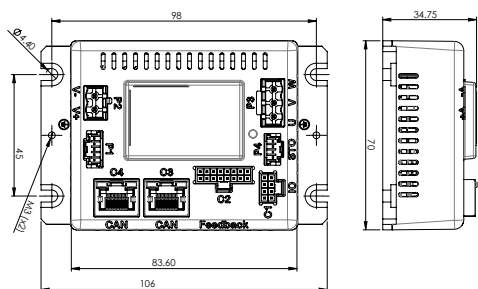
Incremental Encoder
Hall Sensors
SSI Encoder

Digital I/Os:

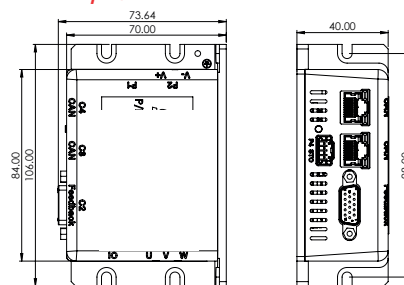
4 x Input
2 x Output

Mechanical dimensions

SD01-015



SD01-025/030



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



Overhead Transport System for FOUF and Clean Room Handling

