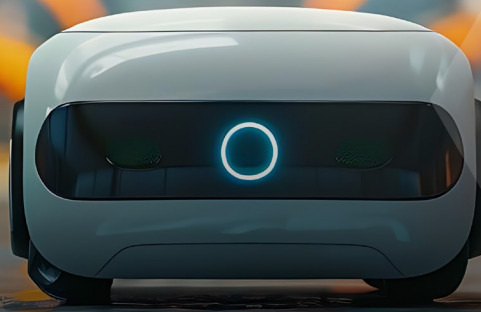




POWERING YOUR AUTONOMOUS FLEET

Precision Digital Servo Drives for Mobile Robotics

Mobile robotics, including automated guided vehicles (AGVs) and autonomous mobile robots (AMRs) demand precise and reliable motion control to operate safely and effectively. Copley Controls provides a comprehensive portfolio of digital servo drives specifically engineered for these high-performance applications.

THE COPLEY ADVANTAGE

We optimize our servo drives for next-generation mobility with features that address the unique challenges of autonomous systems:

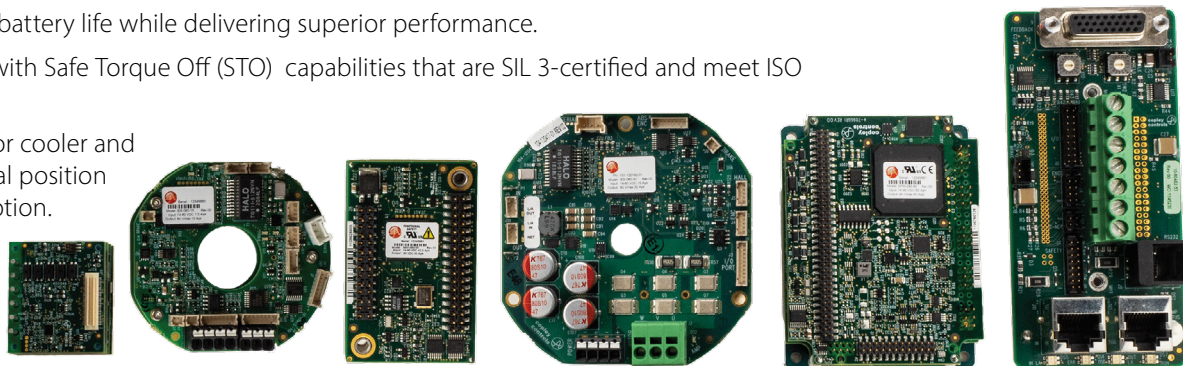
Sub-millimeter Precision: Our drives enable navigation in confined spaces and precise docking maneuvers with over 10,000 control cycles per second.

Real-time Response: Drives process sensor data instantaneously to avoid obstacles and adapt to changing conditions without latency.

Extended Runtime: With efficiency over 99%, our drives maximize battery life while delivering superior performance.

Functional Safety: Operate confidently alongside human workers with Safe Torque Off (STO) capabilities that are SIL 3-certified and meet ISO 13849-1 requirements.

Advanced Features: Our solutions include Field Oriented Control for cooler and faster motor operation, high-bandwidth control loops for exceptional position tracking and dynamic PWM technology to optimize power consumption.



Our drives offer seamless communication with EtherCAT and CANopen support, and flexible feedback options like incremental, BiSS, SSI, EnDat and resolver encoders. We also provide CME, our powerful and intuitive configuration software with auto-phasing, auto-tuning and oscilloscope capabilities to simplify system commissioning — plus Copley Motion Libraries (CML) and Copley Motion Objects (CMO) to accelerate the development of motion control application software.

PRODUCTS FOR MOBILE ROBOTICS

	Nano HP & Nano ^{PLUS} HP	Nano & Nano ^{PLUS}	Accelnet ^{PLUS}	Argus ^{PLUS}
				
Current, A	140 cont. 140 peak	5-35 cont. 10-70 peak	3-50 cont. 6-50 peak	30 cont. 60 peak
Voltage, VDC	9-90	9-180	9-180	9-90
Dimensions, in.	NES/NEP-HP: 1.3×2.6×2.5 NES/NEP-HP-Z: 1.44×2.6×2.5	NEP/NPP: 1.38×1.18×0.86 NEP/NPP-Z: 1.85×1.38×1.32	2.5×1.6×1.1	3.1×2.4×0.92
Communication	EtherCAT, CANopen, Ethernet, UDP, TCP-IP, Modbus-TCP, RS-232	EtherCAT, CANopen, Ethernet, UDP, TCP-IP, Modbus-TCP, RS-232, Ethernet/IP	EtherCAT, CANopen	EtherCAT, CANopen
Feedback	• Dual absolute: BiSS, SSI, EnDat, Absolute A • Analog Sin/Cos • Incremental encoder • Digital halls	• Dual absolute: BiSS, SSI, EnDat, Absolute A • Analog Sin/Cos • Incremental encoder • Digital halls	• Dual absolute: BiSS, SSI, EnDat, Absolute A • Analog Sin/Cos • Incremental encoder • Digital halls • Aux encoder/output	• Dual absolute: BiSS, SSI, EnDat, Absolute A • Analog Sin/Cos • Incremental encoder • Digital halls • Aux encoder/output • Resolver
Safety	STO: SIL 3, Category 3, PL e	STO: SIL 3, Category 3, PL e	STO: SIL 3, Category 3, PL e	STO: SIL 3, Category 3, PL d

CONTACT OUR MOTION CONTROL SPECIALISTS TODAY TO DISCUSS YOUR AGV OR AMR APPLICATION REQUIREMENTS