SMR250 series

Compact, sturdy, and intelligent

Swarm-native AMR powered by Swarm Core for optimized intralogistics efficiency



Key Features

- Full Swarm Core integration for easy configuration, operation, and monitoring
- Multi-layer operation safety ranging from sensor level to robot coordination
- Double circuit design for minimized failure rate with performance level C
- Built-in Swarm protocol enables SMR's interoperability with third party robots and equipment
- EMC (IEC 61000-6-1/2/3/4, EN IEC 61000-3-2/3, EN 12895) certificate
- CE (ISO 3691-4, EN 1175), SEMI S17-0319, cleanroom Suitability Classification: ISO Class 3 certificate (F-Version only)

Key Benefits

Sturdy and Compact

- 1.5 m/s max speed with 250 kg full loading
- 8 hr full load runtime with 90 min charging
- Optimized space utilization including navigation in 80 cm wide aisle

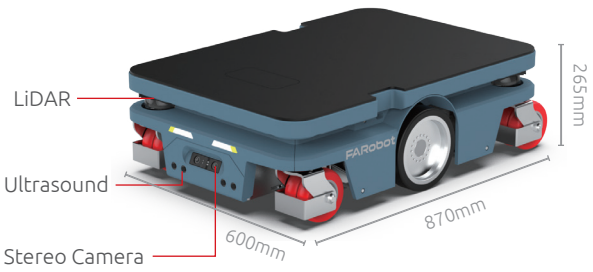
Top Module Compatibility

- Embedded mount points stabilize top modules and payloads
- Solid chassis and suspension ensure safe operation on uneven floors
- Pre-qualified conveyor and lift modules

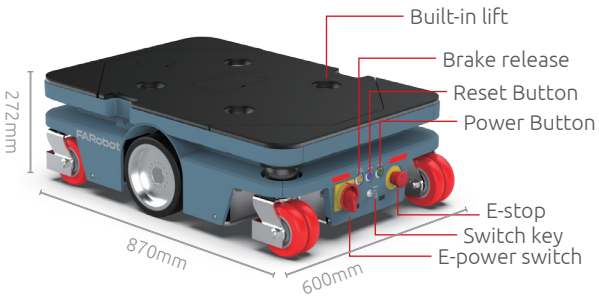
Fast Deployment

- Plug-and-play 1 hr onboarding
- Fast task points coordinates recording
- Embedded robot management tool enables task and layout adaptivity with fast parameter configuration

SMR250-F



SMR250-F-L



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Ordering Information



SMR250
- Connector for custom top modules with power, Ethernet & digital I/Os
- Built-in extendable E-stop



SMR250-L
- Low-profile design with only 272 mm height
- Built-in lift height 70 mm

Specifications

Model Name		SMR250	SMR250-L
Dimensions (LxWxH)		870 x 600 x 265 mm	870 x 600 x 272 mm
Weight		130 kg	144 kg
Form Factor	Payload	250 kg	
Power	Battery	13S8P Li-ion: 46.8V DC, 40Ah nominal capacity, 34Ah minimum capacity Up to two batteries	
	Protection	OVP, OCP, OTP, UVP, BMS	
	Runtime / charge time	8 hr full-load runtime / 90 min charging time at 20A (20-80%)	
Sensor	Long range	Dual SICK nanoScan3 360° View (F-Version) Dual SICK picoScan150, 360° view, 25m (S-Version)	
	Short range	Front stereo camera Ultrasound / Proximity Sensors (F-Version only)	
Accuracy	Global accuracy	+/- 30 mm *	
	Docking accuracy	+/- 5 mm with landmark *	
Mobility	Motion	Differential drive, forward/backward	
	Speed	Forward / Backward up to 1.5m/s	
	Stability	Dual suspension for payload stability	
	Slope	5% negative/positive slope	
	Traversable gap/step	Gap: 35 mm/Step: 20 mm	
	Wireless	IEEE 802.11 a/b/g/n/ac, 2T2R Dual-Band Wi-Fi	
Communication & Interface	Button	Power button x 1	
		Reset button x 1	
		Break release button x 1	
		Switch key x 1	
		Emergency stop button x 1	
		Emergency Power switch x 1	
Physical interfaces/Lifter		Physical interfaces: Extended Ethernet with M12 B-code x 1 Modbus TCP communication x 4DI/4DO Extended emergency stop x 1 Extended reset x 1 48V power output x 1 24V power output x 1	Built-in lift Payload: 250kg Lift height: 70 mm
Standards and certificates		EMC (IEC 61000-6-1/2/3/4, EN IEC 61000-3-2/3, EN 12895) TUV certified CE (ISO-3691-4, EN1175) & SEMI S17-0319 (F-Version only) Cleanroom Suitability Classification: ISO Class 3 **	

* In controlled conditions
** Only on SMR250-F (Flagship)

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