



Mir 1000

General information

Type	Autonomous Mobile Robot (AMR)
Designated use	For internal transportation of heavy loads and pallets within the industry and logistics
Color	RAL9005 / Signal Black

Dimensions

Length	1350 mm / 53.1 in
Width	920 mm / 36.2 in
Height	320 mm / 12.6 in
Height with MiR1000 EU Pallet Lift	407 mm / 16.0 in
Height with MiR1000 Lift	414 mm / 16.3 in
Weight (without load)	231 kg / 509 lbs
Weight with MiR1000 EU Pallet Lift	300 kg / 661 lbs
Weight with MiR1000 Lift	342 kg / 753 lbs
Clearance from ground	30 mm / 1.2 in
Load surface	1300 mm x 900 mm / 51.2 in x 35.4 in



Payload

Payload 1000 kg / 2200 lbs

Dimensions for mounting top applications Robot footprint. Contact MiR If a bigger top application is required.

Driving and navigation

Maximum speed (full payload, flat surface) 1.2 m/s (4.3 km/h)

Acceleration (full payload, flat surface) 1.0 m/s²

Turning diameter 2000 mm / 78.7 in

Precision, docking to VL marker Position (center of robot): +/- 5 mm. Angle: +/- 1°.

Minimum width: door Normal operation: 1500 mm / 59 in. Muted personnel detection means: 1000 mm / 39.4 in mm

Battery, charging

Charging options MiRCharge 48V, cable charger

MiR Charge 48V The robot communicates with MiR Charge 48V through CAN interface. Charging starts only when the robot connection is present.

Charging current, MiRCharge 48V 35 A

Charging time, MiRCharge 48V, 10% to 90% 1 hour

Charging current, cable charger 20 A

Charging time, cable charger, 10% to 90% 2 hours



Full charging cycles, minimum	1000
Battery voltage	48 V
Battery capacity	2 kWh (40 Ah at 48 V)
Battery running time	8 hours

Environment

Ambient temperature, operation	+5°C to 40°C
Ambient temperature, storage	-10°C to 60°C
Humidity	10-95% non-condensing
Environment	For indoor use only
IP Class	IP21
Water on floor	Can drive through small puddles of water on floor

Safety

Safety functions	5 safety functions according to ISO 13849-1. MiR1000 stops if a safety function is triggered
Compliance and approvals	
Safety standards for industrial vehicles	CE, EN1525, ANSI B56.5 & ISO 3691-4* (*under preparation)
EMC	EN12895, EN61000-6-2, EN61000-6-4



Connectivity, I/O

I/O connections	4 digital inputs, 4 digital outputs, 1 Ethernet port
WiFi	Dual-band wireless AC/G/N/B
WiFi connection	Router: 2.4 GHz and 5 GHz. Internal computer: WiFi adapter: 2.4 GHz and 5 GHz, 2 internal antennas.
Power for top modules	48 V / 20 A, 48 V SafePWR / 20 A shared, 24 V / 2A.
Communication protocol	REST, Modbus

Sensors and cameras

Laser scanners	2 psc.: SICK microScan 3. FoV: 360° up to 30 m in a plane at 200 mm height.
3D camera	2 psc.: Intel RealSense D435. FoV: Detects objects 1700 mm high at a distance of 950 mm in front of the robot. 114° total horizontal view. Ground view, minimum distance from robot: 250 mm.
Proximity sensors	8 pcs