

MIR250

Technical specification



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| General information | |
| Designated use | For small- and medium-sized transport tasks within industry logistics and healthcare |
| Type | Autonomous Mobile Robot (AMR) |
| Color | RAL 9010 / Pure White |
| Cover material | Co-extruded plastics containing PS (Polystyren) and a semi-conductive layer (due to ESD performance) |
| Product design life | Five years or 20 000 hours, whichever comes first |
| Disclaimer | Specifications may vary based on local conditions and application setup |
| Dimensions | |
| Length | 890 mm 35 in |
| Width | 580 mm 22.8 in |
| Height | 352 mm 13.9 in |
| Weight (without battery or payload) | 70 kg 143 lbs |
| Ground clearance | 50 mm 2 in |
| Wheel diameter (drive wheel) | 125 mm 4.9 in |
| Wheel diameter (caster wheel) | 125 mm 4.9 in |
| Payload | |
| Maximum payload | 100 kg 220 lbs (maximum 5% incline) |
| Towing capacity | 300 kg 660 lbs (see MiR100 Hook specifications) |
| Footprint of payload | Contact MiR if a bigger footprint is required. |
| Payload placement | Place center of mass according to directions in the user guide |
| Speed and performance | |
| Maximum speed (with maximum payload on a flat surface) | Forwards: 1.5 m/s (5.4 km/h) 4.9 ft/s (3.6 mph). Backwards: 0.3 m/s (1 km/h) 1.0 ft/s (0.7 mph) |
| Operational corridor width for a 180° turn | With default footprint and SICK safety configuration and no payload: 1 300 mm 52 in. With default footprint and SICK safety configuration and maximum payload: 1 300 mm 48 in. With minimized footprint and SICK safety configuration and no payload: 1 100 mm 48 in. With minimized footprint and SICK safety configuration and maximum payload: 1 200 mm 44 in |
| Operational corridor width | 1 000 mm 39.4 in (default footprint) |
| Minimum distance between chargers | 100 mm 3.9 in, if the robot can approach the charger in an angle of 80-100° to the wall |
| Power | |
| Battery type | Lithium ion |

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| Charging time with MiR Charge 24V | 1 h 10 m |
| External charger | Input: 100-230 V ac, 50-60 Hz Output: 24 V, max 15 A |
| Charging options | MiR Charge 24V, Cable Charger |
| Battery capacity | 39.6 Ah |
| Battery dimensions | 163 mm length × 169 mm width × 212 mm height 6.4 in length × 6.6 in width × 8.3 in height |
| Battery weight | 8.2 kg 18.1 lb |
| Battery voltage | 24V nominal |
| Running time (depending on load) | 9 hours |
| Environment | |
| Ambient temperature range | 5°C to 40°C 41°F to 104°F |
| Environment | For indoor use only |
| Noise level | 60-64 dBA (depending on surface) |
| Humidity | 10-95% non-condensing |
| Floor conditions | No water, no oil, no dirt |
| IP Class | IP20 |
| Compliance | |
| EMC | EN61000-6-2 and EN61000-6-4 |
| Safety standards for industrial vehicles | CE, EN1525, ANSI B56.5, RIA15.08, ISO13849-1 |
| Cleanroom | Class 4 (ISO 14644-1) |
| Safety | |
| Personnel detection safety function | Triggered by a human or other obstacle in the path of travel. |
| Emergency stop | Triggered by pressing the Emergency stop button. |
| Communication | |
| I/O connections | USB and Ethernet |
| Communication protocol | REST, Modbus |
| WiFi (router) | Dual-band wireless AC/G/N/B |
| WiFi (internal PC) | Dual-band wireless AC/G/N/B |
| Sensors | |
| SICK safety laser scanners | Two pcs. S300 (front and rear) 360° visual protection around robot |
| 3D camera | 2 pcs. 3D camera Intel RealSense™ Detects objects 50 mm–1 800 mm 2 in–70.9 in high in front of the robot |
| Ultrasound sensors | 4 pcs |
| Top module | |
| Maximum height from floor to top | 1 800 mm 70 in |
| Center of gravity | < 900 mm 35 in above the floor |