MiR Hook 250 specifications

Date: 2023-09-13

The product specifications in English are the most recently updated on the Support Portal.

See the latest updates here.

General information

Designated use	For small- and medium-sized transport tasks within industry logistics, fully-automated pick-up and delivery of carts
Type	Hook for MiR250
Color	RAL 7011 / Iron Gray
Product design life	5 years or 20 000 hours, whichever comes first
Cover material	Aluminum
Disclaimer	Specifications may vary based on local conditions and application setup

Dimensions

Gripping height	80–350 mm | 3.1–13.8 in
Weight with MiR250 (without battery or payload)	188 kg | 414 lbs

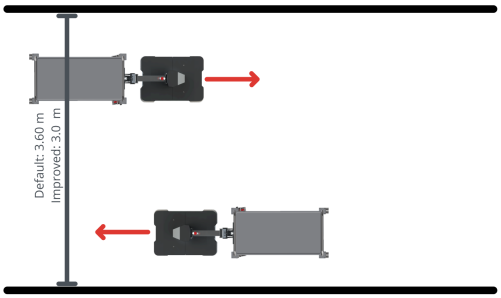
Payload

Maximum payload including cart	Up to 500 kg | 1100 lbs at 1% incline - 300 kg | 661 lbs at 5% incline

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Performance

For an in-depth explanation of the performance specifications, see the guide *MiR250 Space Requirement Best Practices*. You can find this guide on MiR Support Portal.

Operational corridor width	With maximum payload and a 700 × 1 150 mm | 27.6 × 45.3 in cart: 2 250 mm | 88.6 in
Operational corridor width for a 90° turn	With maximum payload and a 1 280 × 800 mm | 50.4 × 31.5 in cart: 2 450 mm | 96.5 in
Operational corridor width for a 180° turn	With maximum payload and a 1 280 × 800 mm | 50.4 × 31.5 in cart: 2 700 mm | 106.3 in
Operational corridor width for two robots passing	With default setup: 3 600 mm | 141.7 in With improved setup: 3 000 mm | 118.1 in 
Operational doorway width	With default footprint, maximum payload, and a 700 × 1 150 mm | 27.6 × 45.3 in cart: 1 700 mm | 66.9 in
Active operation time with maximum payload	10 h 15 min
Active operation time with no payload	14 h 7 min
Standby time (robot is on and idle)	90–10%: 16 h 6 min
Time needed for placing and picking up a cart	Placing cart: 18 sec (17–19 sec) Pick up cart: 48 sec (46–51 sec)

Acceleration limits with maximum payload	Recommended 40% of maximum acceleration, approximately 0.4 m/s^2 | 1.3 ft/s^2
Maximum incline/decline	1% with maximum payload and 40% acceleration 5% with 300 kg | 661 lbs, maximum 0.5 m/s | 1.6 ft/s
Braking distance	With a 10 kg, 40 × 60 cm | 22 lbs, 15.7 × 23.6 in cart: 0.25 m/s | 0.82 ft/s: 0.09 m | 0.29 ft 0.40 m/s | 1.31 ft/s: 0.09 m | 0.29 ft 0.80 m/s | 2.62 ft/s: 0.26 m | 0.85 ft 1.20 m/s | 3.94 ft/s: 0.50 m | 1.64 ft 1.60 m/s | 5.25 ft/s: 0.84 m | 2.75 ft 2.00 m/s | 6.56 ft/s: 1.28 m | 4.19 ft With a 558 kg, 70 × 115 cm | 1 230 lbs, 27.6 × 45.3 in cart: 0.25 m/s | 0.82 ft/s: 0.11 m | 0.36 ft 0.40 m/s | 1.31 ft/s: 0.14 m | 0.45 ft 0.80 m/s | 2.62 ft/s: 0.50 m | 1.64 ft 1.20 m/s | 3.94 ft/s: 1.06 m | 3.47 ft 1.60 m/s | 5.25 ft/s: 1.89 m | 6.20 ft 2.00 m/s | 6.56 ft/s: 2.95 m | 9.67 ft

Power

Number of full charging cycles	Minimum 3 000 cycles ⓘ The minimum number of full charging cycles before the battery capacity drops below 80% .

Charging ratio	With maximum payload: 1:12 charging to runtime ratio

Environment

Environment	For indoor use only
Ambient temperature range, operation	5–40°C | 41–104°F (the maximum ambient temperature only apply up to 1 h)
Ambient temperature range, storage	1 month: -20–60°C | -4–140°F 3 months: -20–+45°C | -4–113°F
IP rating	IP 21
Floor conditions	No water, no oil, no dirt
Maximum altitude	2 000 m | 6 561 ft

Safety

Emergency stop	Triggered by pressing the Emergency stop button

Sensors

3D Camera	1 Intel RealSense™ D435