

Orbitor RS2 Microplate Mover

The Thermo Scientific™ Orbitor™ RS2 Microplate Mover is the perfect compact bench-top mover solution to automate a variety of workflows with integrated barcode scanning for greater flexibility. Its innovative bi-directional telescoping arm provides exceptional reach and precision while its expansive 360° workspace makes it a great laboratory productivity partner. This reliable, simple and robust mover easily accesses the most complicated instruments and increases efficiency as the centerpiece of various high-throughput applications.

Efficient and reliable

The Orbitor RS2 mover provides unbeatable reliability and improved process efficiency with its unmatched speed and accuracy. The integrated barcode scanner enables sample tracking and inventory management. While the plate detection in the gripper helps to eliminate labware handling errors and reduces the risk of lost samples. Built upon our heritage of robotics leadership and integration expertise, the Orbitor RS2 mover is a sound, reliable investment for any lab.

Develops with your needs

As one of the most flexible movers in the market, users often invest in the Orbitor RS2 mover for single instrument loading and later request additional instrumentation and integration. Orbitor RS2 mover solutions can easily be upgraded in the field, either adding multiple devices for operation pooling or with sample preparation instrumentation. It also provides a wide range of plate storage options, with combinations of sequential access stacks or random access hotels and storage carousels. The Orbitor RS2 mover can also be placed on a track axis to match your labs requirements as your workflows evolve.



Designed for safety

The Orbitor RS2 mover is inherently safe, designed to work in direct cooperation with a person in a defined, purpose built workspace without guarding or shielding. Not only does it meet the rigorous international standards for collaborative robots, novice and experienced automation users also appreciate the Orbitor RS2 movers range of integrated safety features.

The overhead gripper in the arm naturally avoids the possible issues of protruding off-set fingers used by other movers, and force control stops all movement at the slightest unexpected contact.

Maximizes uptime

When your product warranty ends, you can rely on our tiered and customizable plans to ensure your mover keeps performing reliably.

Orbitor RS2 Specifications

Axis/Joint Specifications

Axis	Distance	Speed	Acceleration
Z (height)	570 mm	750 mm/sec	2250 mm/sec
Radius (reach)	±410 mm	1200 deg/sec	3600 mm/sec ²
Theta (rotation)	Infinite	225 deg/sec	675 deg/sec ²
Gripping Distance	130.4/75.4 mm (open/close)		

General Specifications

Power Requirements	120 W, 85~264 VAC, 47~63 Hz
Operating Environment	15–40°C
Humidity	10–80% rH up to 31°C, decreasing linearly to 50% rH at 40°C Max 80% rH Non-condensing
Safety Compliances	CE, CSA, CSAu
Mass	25 kg
Nominal Payload	250 g
Motion Control	Closed Loop Servo, Brushless Motor
Control	Directly from PC, requires Microsoft® Windows® 10

Storage Options

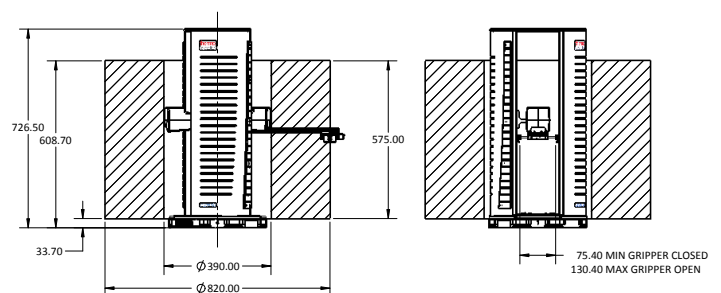
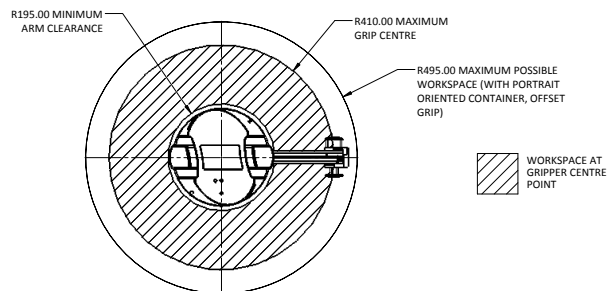
Random Access (Hotels)	8 standard plates per hotel
Sequential Access (Stacks)	40 standard plates per stack

Maximum Capacity

Random Access (Hotels)	72 standard plates (9 hotels around the mover)
Sequential Access (Stacks)	360 standard plates (9 stacks around the mover)

Gripper Details

Handles most SBS-standard labware
Landscape or Portrait
Easily handles lids
Plate detection in the gripper
Adjustable gripping force and speed settings
Compatible with many plate types



Find out more at thermofisher.com/OrbitorRS2

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