The Thermo Scientific F7™ robot, with slender design and impressive reach, is perfectly suited for a wide variety of automated applications. The F7 comes complete with servo gripper, and our user-friendly Thermo Scientific MoverFrameWork™ teaching software. When combined with our industry leading Thermo Scientific Momentum™ scheduling software, the solution provides exceptional performance, and superior reliability.

**Features**
- 6 degrees of freedom
- ±0.02mm repeatability at full payload and full speed within the entire robot work envelope
- Up to 7kg payload at wrist and inertias
- Highest joint speeds and track axis readiness, maximize throughput
- Tabletop size, slim wrist, and small footprint permit operation in tight work spaces
- Collaborative mode as an option
- Enclosed mechanical design eliminates cables and hose snagging
- Upright, angle, wall or invert mounting increases installation flexibility
- Higher rigidity and the most advanced servo technology enable smooth motion without vibration in high speed operation
- Communication capabilities via standard ethernet and serial connections

**Multiple Applications**
- Screening workflows
- Synthetic biology
- Compound management
- Clinical sample handling
- qPCR/PCR preparation
- Sample preparation
- Biochemical assays
- Nucleic acid extraction
- ELISA assays
Work Environments

- Vertical workcells
- Hepa enclosures
- Cleanrooms

Robot Reliability

- The latest generation of a proven design
- Sealed bearings and brushless AC motors
- Grease fittings on all lubrication points for quick and easy preventive maintenance

Robot Controller and Options

- Track-axis ready
- Fail-safe mechanical brakes on all joints
- iPendant™, a color, internet-ready teach pendant for even easier programming and custom cell user interface design
- Extended networked I/O capabilities
- Supports a variety of intelligent functions including iRVision™ (built-in vision-ready controller) and force sensing
- IP67 rating for the entire robot and IP69 rating on the upper and lower arms allows it to withstand harsh environments
- 10m controller-to-robot connection

Thermo Scientific F7 Specifications

<table>
<thead>
<tr>
<th>Items</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axes</td>
<td>6</td>
</tr>
<tr>
<td>Payload - wrist (kg)</td>
<td>7</td>
</tr>
<tr>
<td>Reach (mm)</td>
<td>717</td>
</tr>
<tr>
<td>Repeatability (mm)</td>
<td>+/-0.02</td>
</tr>
<tr>
<td>Interference radius (mm)</td>
<td>340 (std.) / 360 (option)</td>
</tr>
<tr>
<td>Wrist moment (N-m)</td>
<td>J4: 16.6, J5: 16.6, J6: 9.4</td>
</tr>
<tr>
<td>Wrist inertia (kg-m²)</td>
<td>J4: 0.47, J5: 0.47, J6: 0.15</td>
</tr>
<tr>
<td>Mechanical brakes</td>
<td>all axes</td>
</tr>
<tr>
<td>Mechanical weight (kg)</td>
<td>25</td>
</tr>
<tr>
<td>Mounting method(1)</td>
<td>Floor, ceiling, angle and wall</td>
</tr>
</tbody>
</table>

Installation environment:

- Ambient temperature °C 0 - 45
- Humidity (non-condensing) Standard Operation: 75% or less, non-condensing. Short Term (less than one month): 95% or less
- IP Rating(s) IP69 upper and lower arms

Notes: (1) J1 and J2 axis motion range will be limited for angle and wall mount installations

Find out more at www.thermofisher.com/labautomation

©2018 Thermo Fisher Scientific Inc. All rights reserved. iPendant and iRVision are trademarks of the Fanuc Corporation. All other trademarks are the property of Thermo Fisher Scientific and its subsidiaries.