PRODUCT SPECIFICATIONS

Reconfiguring a system, smartly

SmartCarts transform conventional docking methods providing the ultimate solution to connect your workflows

Smart technology, artificial intelligence, and automation are streamlining processes in the laboratory. There is an increasing demand for laboratories to produce more in less time resulting in smaller, easier to use instrumentation with built-in connectivity. Labs, therefore, must be fast and agile. The lab of the future requires solutions that support:

• Tight connections between workflows

• Sharing of knowledge between processes

• Adaptation as your science evolves

Choosing the right docking solution for your laboratory can help. Through innovative technologies and simple designs, the Thermo Scientific™ SmartCart provides one-of-a kind solution, revolutionizing the world of docking.

Simple
Automation that doesn't weigh you down
SmartCarts are carefully engineered based on our core principles of light infrastructure and ease of use. This breakthrough solution allows you to easily reconfigure your system. Unlike classical docking solutions, SmartCarts do not involve heavy infrastructure or bulky docking stations. These light solutions challenge the conventional docking methods, thereby enabling you to decide how, where, and when to connect your workflows.

Collaborative
Automation that works with you
SmartCarts provide a way for you to reconfigure your systems smartly and efficiently on SmartHandle interactions. Through visual and haptic cues, SmartCarts will notify you about the status of your automation system, thus allowing you to be in full control of how you reconfigure your system. For more details about SmartHandles visit page 3.

Flexible
Automation that evolves with you
SmartCarts meet your evolving needs. They provide the flexibility for you to reconfigure your systems openly and dynamically as your workflows and requirements change. Features ranging from physical connections on SmartCarts to the flexible licensing structure of our Thermo Scientific™ Momentum™ Workflow Scheduling Software ensure that you are not tied down to a static solution. Docking can help you move instruments of choice:

• To another location on your system

• To another area in your lab

• To a completely different system

Thermo Fisher
S C I E N T I F I C

Standard model SmartCart front

Standard model SmartCart back

1 **At-a-glance information**
Smart Handles allow you to quickly determine the status of the cart and its devices, such as whether a device is being used by automation or available for use. They also allow for a way to interact with a SmartCart and smoothly remove it from a system

2 **Onboard power**
Power supply for onboard instrumentation

3 **Connections**
Quick connections for power, communication, and utilities at the chosen docking location or docking spot

4 **Storage**
Space for integrating cart electronics

5 **Foot brake**
Park your cart at a docking spot or anywhere away from the system and ensure that it is secure

6 **Docking Spot**
Flexible docking is supported. Dock wherever simple connections such as this are available for power, network (if required), and utilities (if required)

SmartCart connected to an inSPIRE collaborative automation platform

SmartHandle technology provides at-a-glance system health by the color state

Green
The device is available for manual use

Red
Device error

Blue
The device is available for automated use

Purple
The cart has been moved—please allow the robot to reteach

Yellow
Device warning

Pulsing*
The device is transitioning to the state indicated

* For example, pulsing green indicates the device is becoming available for manual use

Requesting a device
Grip the SmartHandle for approximately one second, and then release it. The SmartHandle changes (pulsing green).

Wait for the SmartHandle to change (steady green), grip the SmartHandle, and when it vibrates gently swing the SmartShelf outward.
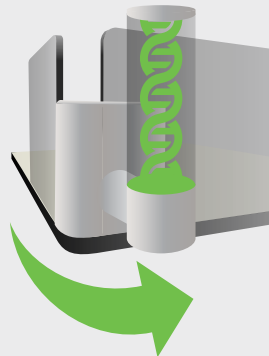
Returning a device
Grip the SmartHandle, and then slowly swing the SmartShelf in toward the center of the inSPIRE platform frame until a click is heard.
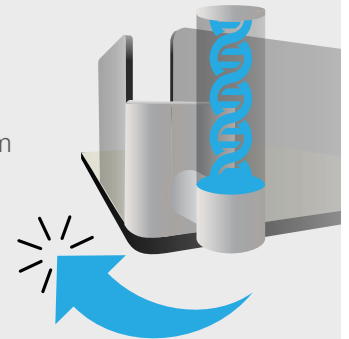
Physical parameters	
Dimensions—standard model (h × w × d)	860 × 700 × 870 mm (33.9 × 27.6 × 31.5 in.)
Dimensions—wide model (h × w × d)	860 × 1100 × 870 mm (33.9 × 43.3 × 31.5 in.)
Payload	200 kg (441 lbs)
Environmental requirements	
Ambient operating temperature	4–30°C (39–86°F)
Storage temperature	-20–60°C (-4–140°F)
Humidity	20–80% RH non-condensing.
Atmosphere	Office/laboratory environment (clean, low-dust, and dry)
Maximum operating altitude	2,000 m (6,560 ft) above sea-level
Installation location	For indoor use only
Power specifications	
System supply voltage	100/120/240 VAC
Frequency	50/60 Hz
Input current	16 A
Maximum power consumption*	280 W/450 VA
Nominal power consumption*	185 W
Nominal power consumption (onboard electronics)	20 W
Maximum heat load	100–120 V system: 1,920 W 230 V system: 2,840 W

* Includes SmartCart and its onboard UPS. It does not include supported devices.

Inspire your science today

Workflow solutions for automating science

Life science researchers looking to improve workflows or increase efficiency rely on our industry-leading automation solutions of robotic movers, automated incubation, collaborative platforms and workflow scheduling software. Whether automating a single step or an entire workflow, our laboratory solutions deliver increased walk-away time, improved reproducibility and productivity without compromising data quality, allowing our customers to focus on their science.

Lab
Automation

Get inspired at **thermofisher.com/inspire**

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