MONTANA INSTRUMENTS®

RapidCycle 100 EC

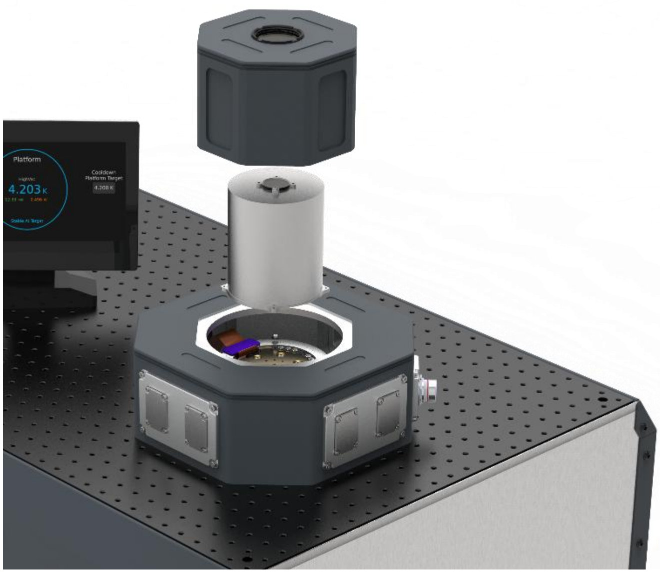
Closed-cycle cryostat with unparalleled cooldown and warmup performance to increase your throughput in cryogenic testing

Increase your throughput in electrical component cryogenic testing

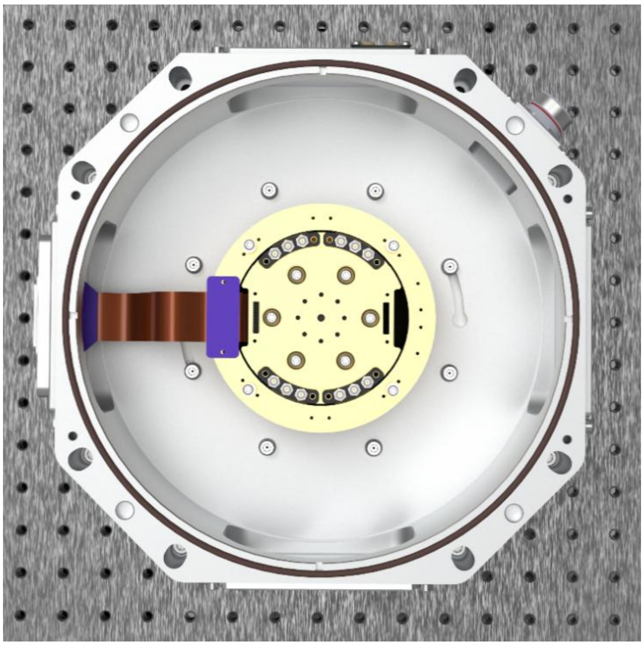
The RapidCycle Cryostat is designed to increase throughput testing of electrical components intended to be used in cryogenic environments. The closed-cycle design reduces the complexity and cost of managing liquid helium and providing the simplicity of push button cooldown and warmup. The system can achieve a full cycle of cooldown, warmup, and sample exchange in less than 2.5 hours increasing your electrical component testing.

Unparalleled Performance

Montana Instruments is known for reliable, high performance and easy to use systems. The RapidCycle Cryostat follows this formula to provide exceptional cooldown and warmup performance for demanding electrical test applications. The intuitive control design allows users to quickly setup and start a cooldown to perform their tests. Remote connection and control is accomplished via ethernet and allows test engineers to monitor and control the system remotely.



- Cooldown to 4.2 Kelvin in less than 1 Hour
- >300mW Cooling at 4.2 Kelvin
- RF and DC wiring feedthroughs
- Flexible 100mm Breadboard Sample Platform
- Cryogen-free/closed-cycle cryostat
- Turn-key equipment solution with push button cooling
- External control via ethernet

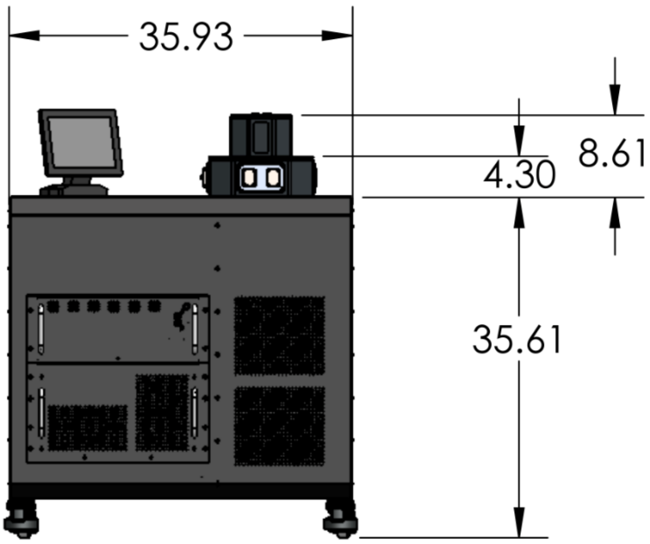


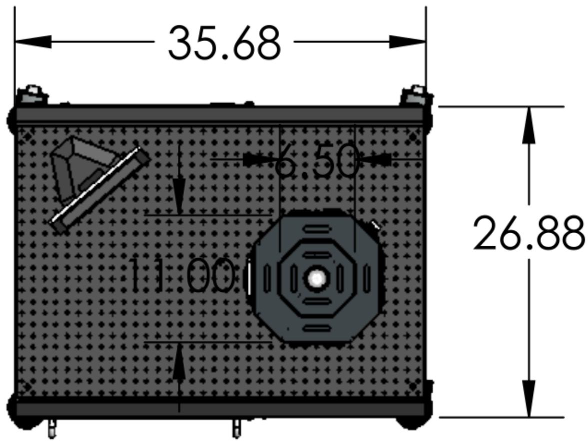
Sample Platform

The 100mm <4 Kelvin sample space provides flexibility for ever changing devices and tests. The sample space includes a larger vacuum area for custom components and wire management. The systems can be integrated with up to 48 DC I/O, 12 RF, or combination of both. Our in-house Custom Engineering team can help design and support a wide range of designs to meet your demanding requirements.

Specifications (PRELIMINARY)

Dimensions	
Sample Space *Standard configuration, customization available*	Ø100 mm x 116 mm
Performance	
Platform Base Temperature	<4.2 K
Cooling Power @ 4.2K	>300 mW
Temperature Stability (P-P)	<100 mK
Cool Down Time to 4.2K	<1 hour
Warmup Time	<1 hour
Electrical Access	
DC I/O	Up to 48
RF	Up to 12
Configurable Side Panels	6
Control	
Temperature Control Channels	2
Remote Control and Scripting	√
Cryo-Cooler	
Compressor	Water-Cooled
Cold Head	Gifford-McMahon
Flex Lines	20 meters
Options	
Sample Mounts	Multiple (Including electrical and custom designs)
Variable Temperature	ATSM (4.2 K - 350 K)
Interfacing (Side Panel Feedthroughs)	RF, DC, Fiber, Gas, KF Flange





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