



Rapid Sample Exchange

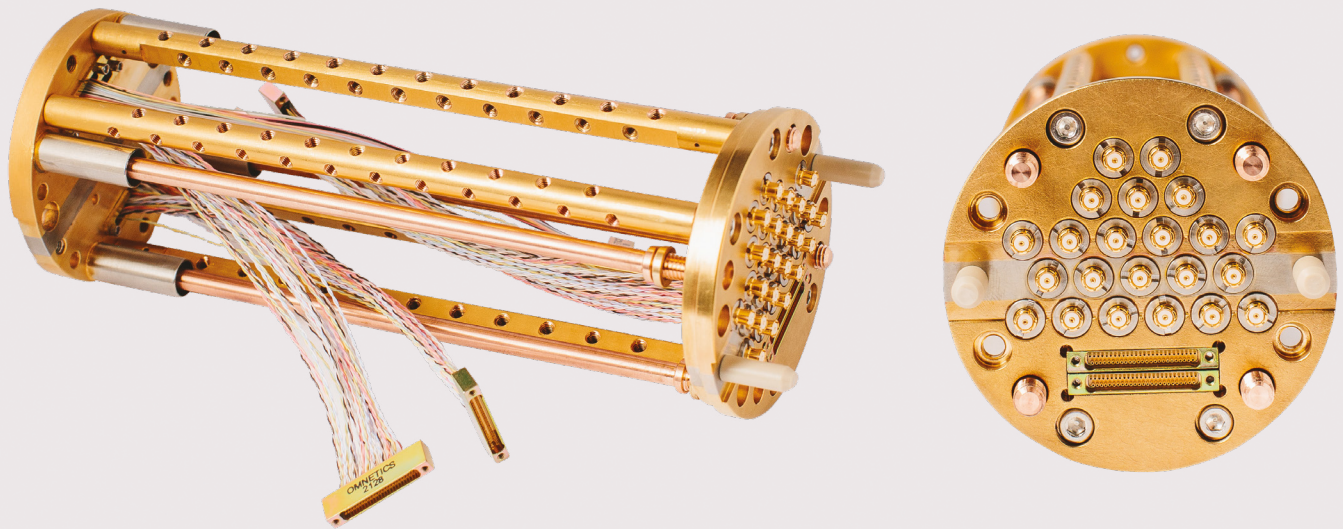
Proteox high-performance
bottom loading mechanism



Our patented bottom loader and active gas gap heat switch technology enable fast turnaround times, particularly suited to magnet systems and qubit and device screening.

- 12 mK base temperature
- < 8 hours automated cooldown
- 15 min loading time
- ESD protection
- Ready-wired with experimental loom





Improved sample throughput with our bottom loading mechanism which allows you to get your research up and running quickly, **maximising uptime and efficiency**. Design features include: a short **software-automated cooldown** of only **8 hours**; sample exchange while the system is cold; and no need to worry about warming up the system to remove shields between experiments.

Step-by-step software wizard to guide you through the process of using the sample loading mechanism. Key routines on all Proteox systems are supported using software wizards.

Make-before-break connection. Vacuum lock with integrated grounding wires ensures the sample can be biased/grounded for ESD protection throughout the loading process.

Market-leading 12 mK sample temperature is ensured by our unique combination of a high-force pressed contact, spring-loaded radiation baffles and removable loading arm.

Early sample screening at intermediate temperatures with our patented[‡] loading method, enabling samples to connect with the experimental wires within **15 minutes**. No need to wait for pre-cooling to determine whether the sample is fit for use.

Proven reliability and noise integrity with more than 150 sample loaders installed. Designed with optimised geometry for reduced eddy-current heating and careful EMI shielding, making the puck suitable for even the most demanding applications including low-noise electron transport, magneto-optical, spintronics and quantum computing.

Extensive connectivity with integrated wiring looms ensures easy compatibility with your PCB. Up to **28 RF lines** and **96 DC connections** are provided plus optimised sample space to suit a range of magnet bore sizes and multiple anchoring points for integrating third-party rotators, positioners and filtered sample holders.

Puck	BL42	BL60	BL72
RF Connectors	14	22	28
DC Connectors	48	96	96
Magnet Bore	57 mm	77 mm	90 mm
Sample space	42 mm	60 mm	72 mm
Puck length	94 mm	144 mm	144 mm

[‡]Patent Protected

EU: EP2409096 B1
 EU: EP2742299 B1
 USA: US9816750 B2
 Japan: JP895328 B2
 China: CN103814258 B
 UK: GB2493553 B
 WO2013021217A2



For more product information please contact your regional office:

Related Products



Proteox

Modular platform for qubit scale-up and cold electronics integrations utilising a customisable secondary insert.



Coaxial wiring

Across the majority of our systems, coaxial wiring can be added for frequencies up to 40 GHz with a variety of connectors and materials.



Sample loading pucks

A variety of sizes of sample loading pucks are available for use with our patented sample loading mechanism. Ideal for a multi-user facility, the pucks will cool to base in a matter of hours.



Sample Protect

Protect sensitive samples from electrostatic discharge.

Visit nanoscience.oxinst.com/products/ProteoxFamily or email nanoscience@oxinst.com

Main service locations: UK, USA, Germany, China, Japan and India

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