KelvinoxMX®

Versatile **wet dilution refrigerator** for multi-user experiments down to 10 mK.

Options and accessories

Basic Experimental Insert

Supplied as standard, the basic experimental insert has a 6 mm line-of-sight (LOS) access to the inner vacuum chamber (IVC).

Versa Experimental Insert

Our most versatile experimental insert with four custom configurable wiring ports is specifically designed for easy installation on **Kelvinox**MX. Choose between a range of wiring options including twisted pairs, flexible coaxes or semi-rigid coaxes to suit your signal requirements.

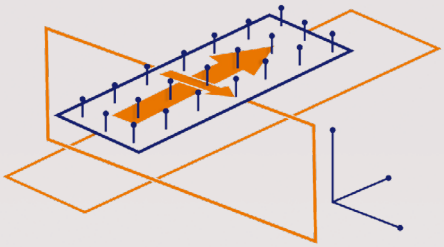
Rotator Insert

Mechanical rotator with 15 x 15 mm sample space allows for 260 degree polar rotation in high magnetic fields. The rotator assembly below the mixing chamber is demountable to make space for a cold finger when a fixed sample position is preferred. The drive rod from room temperature is retractable to break the thermal connection to the mixing chamber after rotating the sample. The insert comes with a 12 twisted pair loom, two flexible coaxes and two semi-rigid coaxes to suit a wide range of both DC and RF experiments. Automated stepper motor control using **Mercury**iTC.

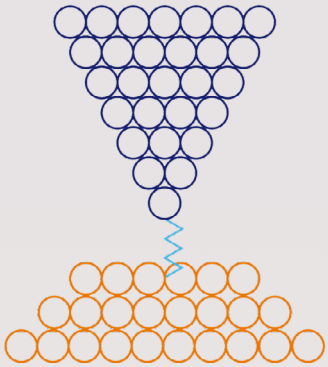
Low Eddy Current Sample Holder

Our low eddy current sample holder with optimised geometry minimises both sample temperatures during a field sweep and quench forces acting on the refrigerator during a magnet quench.

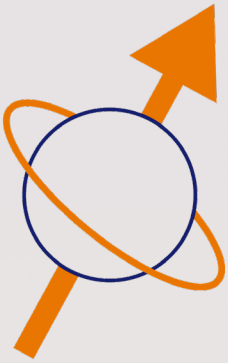
Electrical Transport Measurements



Scanning Probe Microscopy



Spintronics



- Compatible with our wet Integra magnet systems
- Patented solution for experimental insert which separates wiring services from the refrigerator
- Easily change between different experimental configurations
- Easy to upgrade, service and repair
- Standard experimental inserts with configurable wiring solutions and mechanical rotation
- Automated gas handling solution with software for data visualisation and remote control

Key Specifications

Base temperature	10 mK (basic secondary insert fitted) and ≤ 17 mK (Versa or rotator secondary insert fitted)
Base temperature stability	± 1 mK
Maximum temperature	1 K
Cooling power at 100 mK	≥ 400 µW for **Kelvinox**MX400 and ≥ 200 µW for **Kelvinox**MX200
Sample environment	Sample in vacuum
Continuous operation	Standard (No regeneration cycle required)