

THE MOST ADVANCED CRYOGENIC TOOLBOX FOR QUANTUM TECHNOLOGY APPLICATIONS

Our flagship product, the OPTIDRY series, is the perfect solution for highly demanding optical experiments with remarkable thermal and mechanical stability.

FIELDS OF APPLICATION :

MAGNETIC FIELD UP TO 7 T

Quantum optics, transport measurements, spectroscopy, metrology



PULSE TUBE TECHNOLOGY LOW MAINTENANCE

EASY ACCESS MULTIPLE FEEDTHROUGHS (RF, DC,...)

TEMPERATURE < 3 K 1 K OPTION

EXPERIMENTAL CHAMBER Ø 250 mm ; 15 dm³





OPTIDRY SERIES

SCHEMATIC TOP VIEW AND DIMENSIONS

EXPERIMENTAL CHAMBER DIMENSIONS

Cold plate ø 250 mm 15 mm grid of M4 mounting holes Fully customizable

🕪 HEIGHT

Up to 300 mm Useful volume > 15 dm³ (more size in option)

GOVERALL DIMENSIONS AND WEIGHT

L : 710 \times W : 340 \times H : 690 (mm) \sim 80 kg



TEMPERATURE	
Base temperature	< 3 K guaranteed 1 K in option
Temperature stability	< 5 mK, < 100 mK in the range 5 K-100 K
Cooling time	< 8 Hours
Warming time	~ 3 Hours
Available power	> 300 mW @ 4.2 K
VIBRATIONS	
Displacement (X, Y, Z)	< 30 nm peak-to-peak < 10 nm RMS
OTHERS	
Optical access	5 optical ports (2″) (4 radial + 1 on top) Extra ports or fiber in option
Electrical access	24 DC wires Extra DC, RF in option
Sample holder	Custom design available with integrated temperature sensor and heater for PID temperature control (up to 300 K)
Others	Gas feedthrough, dedicated piezo cable, UHV flanges, flanges, inner cell

The CryoBreadBoard is the main experimental area : a low vibration, cold optical breadboard below 3 K, fully customizable with a maximum diameter of 250 mm and height up to 300 mm in the standard version. For optical experiments, it is equipped with 5 windows (up to 75 mm diam.).

2

The CryoCase holds the Cryocooler and provides another experimental environment below 3 K which is easily accessible thanks to three removable panels.



Relative displacement of the Cryobreadboard with respect to the outer optical table.



MORE THAN A SIMPLE CRYOSTAT

THE OPTIDRY IS THE MOST POWERFUL CRYOGENIC TOOLBOX WITH A HIGH ADAPTABILITY TO YOUR CURRENT AND FUTURE RESEARCH PROJECTS.





Options are available during ordering or for future opgrades



MAGNETIC FIELD

1 Axis

- Up to 7 T superconducting magnet in Helmholtz configuration
- 3 optical accesses
- Magnet easily removable

3 Axes

Ñ

Vectorial field up to : • 3 T × 1 T × 1 T

Minimum sample volume of **28 mm³** in both configurations





LOW TEMPERATURE RF PROBE STATION

- Sample space : 50 * 30 mm
- Base temperature : 5 K
- Temperature regulation up to 300 K
- 2 probes GS/SG or GSG up to 20 GHz More probes option available
- Probe arms with 3-axis nanopositioners adjustments and theta planarization
- Visualisation system included

Contact us for more probe options and configurations



TEMPERATURE OPTION & INNER CELL

1.2 K option in continuous mode :

- ⁴He circuit with pump and reservoir included
- Typical cooling power : 10 mW at 1.5 K
- Temperature and pressure control with MyCryoDisplay interface
- 1 K one shot : 8 hours typically at 1 K
- Custom gas cell available
- Size and optical access customizable



LOW WORKING DISTANCE

Custom cold finger solution for spectroscopy applications :

- 300 K breadboard ideal for piezo nanopositioners at room temperature
- Sample in vacuum
- Base temperature : 4 K with cold windows
- Minimum working distance : 2 mm or less without a cold window

Contact us for more information and configuration options.









MORE THAN A COMPANY



WE PROVIDE CUSTOM DESIGN SERVICES TO MEET THE MOST SPECIFIC NEEDS

