

Line-of-sight port

^3He dump

Universal housing

HelioxVT™

Why choose HelioxVT?

The **HelioxVT** range of single shot ^3He systems allows users to access temperatures below 300 mK for extended periods.

A fully configured **MercuryiTC** provides total control of the **HelioxVT**, automating cool down from room to base temperature and simplifying integration into your measurement setup via a range of standard communication interfaces.

For more specific experimental requirements, we can offer tailored ^3He systems designed to meet your needs.

Precise control of magnetic field and temperature

The **HelioxVT** is designed to operate safely in integrated into cryo-magnet systems – allowing access to the lowest temperatures and the highest fields.

Sorption pump

1 K condensing stage

IVC flange

^3He pot



Features

- Achieves less than 300 mK for more than 40 hrs and achieves 50 μ W of cooling power at 350 mK for over 6 hrs
- Fast turn around time for sample exchange
- HelioxVT uses a cold gas environment with a 50 mm access, therefore no liquid helium
- The sample temperature range of a new or existing VTI can be extended below 300mK to be conservative and consistent.
- No liquid helium in the sample plane making the **HelioxVT** ideal for neutron or X-ray scattering experiments.
- Compatible with 50 mm diameter VTIs
- 1 K pot free design – no additional room temperature pumps make this a simple, self-contained solution.

Magnetic Field Configuration

Magnetic field requirement	Configuration	Benefits
Up to 14 T	HelioxVT with TeslatronPT Cyrofree superconducting magnet system	<ul style="list-style-type: none">- No requirements for liquid cryogenics (or accompanying infrastructure)- Complete turn-key solution for material characterisation

Key Specifications

Base temperature	\leq 300 mK for 40 hrs with no applied heat load
Cooling power	< 350 mK for 6 hrs with 50 μ W applied
Temperature range	300 mK to 300 K
Temperature stability	\pm 3 mK below 1.2K ; \pm 0.1 K above 1.2 K
HelioxVT Sample space	43 mm diameter

Visit nanoscience.oxinst.com or email nanoscience@oxinst.com

Main service locations: UK, USA, Germany, China, Japan and India
© Oxford Instruments Nanotechnology Tools Ltd, 2019. All right reserved.