attoDRY2100

1009389

Technical Specifications

General Specifications	
technology	low vibration, pulse-tube based closed-cycle cryostat, designed for magneto-optical applications
sample environment	He exchange gas
sample space	49.7 mm diameter probe bore fitting all attocube inserts
sample exchange	top loading system for quick access
usability	fully automated temp. and mag. field control via integrated touchscreen, web interface or LAN API
vibration & acoustic noise damping system	proprietary low vibration design
Performance Data	
temperature control	fully automated, including all pumps and valves, touchscreen & remote control via PC
temperature range	1.65 .. 300 K (automated control)
base temperature	1.65 .. 1.8 K (for standard inserts)
temperature stability	< ± 5 mK expected (1.5 .. 10 K), < ± 10 mK guaranteed (1.5 .. 10 K)
magnetic field control	via touchscreen, via remote control, via API
max. magnetic field	100 % (e.g. 9 T) @ 300 K
cool down time of sample	approx. 3 .. 5 h (depending on insert)
cooling power at sample location	> 1 mW @ 2 K
initial cool down time of system without insert (unattended)	15 .. 20 h (system without magnet), 20 .. 24 h (incl. 9 T magnet)
Compressor	
power consumption	max. 9.0 kW, 7.2 kW steady state
cooling of compressor	water cooling (requires local infrastructure)
Size and Dimensions	
cryostat (width x depth x height)	1120 x 640 x 1050 mm^3
required min. ceiling height	approx. 2.60 m (depending on magnet)
optional electronics rack (width x depth x height)	640 x 640 x 1050 mm^3
Options and Upgrades	
superconducting magnet	solenoids: 9 T, 12 T, vector magnets: e.g.: 9/3 T, 9/1/1 T, ...
bipolar magnet power supply	included (with optional magnet)
temperature controller	included
pumping kit	turbomolecular pump with suitable backing pump for sample space preparation
Compatibility	
confocal microscopes	attoCFM I, attoCFM IV
confocal Raman microscopes	cryoRAMAN
transport measurements	atto3DR