

attoDRY1000

1006163

Technical Specifications

General Specifications	
technology	low vibration, pulse-tube based closed-cycle cryostat, designed for confocal microscopy
sample environment	He exchange gas, 4-5 different pressure ranges depending on desired sample temperature, requires manual control
sample space	49.7 mm diameter probe bore fitting all attocube inserts
sample exchange	top loading system for quick access
vibration & acoustic noise damping system	proprietary low vibration design
Performance Data	
temperature control	manual, requires optional temperature controller
temperature range	4 .. 80 K (guaranteed), 4 .. 300 K (expected); optional temp. controller required
base temperature	< 4 K
temperature stability	< ± 10 mK expected (4 .. 50 K), < ± 25 mK guaranteed (4 .. 50 K)
magnetic field control	manual control via magnet power supply, via remote control
max. magnetic field	100 % (e.g. 9 T) @ 4 .. 10 K sample temperature, 67% (e.g. 6 T out of 9 T) @ 10 .. 300 K sample temp
cool down time of sample	approx. 2 h (depending on insert)
cool down time of system (system incl. 9 T magnet)	approx. 10 .. 15 h (unattended)
cool down time of system (system without magnet)	approx. 5 .. 10 h (unattended)
cooling power at sample location	> 5 mW @ 5 K
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	2 channel (magnet + sample temperature)
pumping kit	turbomolecular pump with suitable backing pump for sample space preparation
Compatibility	
confocal microscopes	attoCFM I, attoCFM IV
atomic force microscopes	attoAFM I, AFM upgrade options (MFM, KPFM, PFM, conductive-tip AFM)

