attoDRY800

Technical Specifications

General Specifications	
technology	ultra low vibration, closed-cycle cryostat intimately integrated into optical table, optical table included
sample environment	cryogenic vacuum, sample cooled via braids (ATC100)
sample space	75 mm (diameter)
sample exchange	easy access via removal of vacuum shroud
usability	fully automated temperature control (vacuum, cooldown, T control, warmup), all pumps integrated,
vibration & acoustic noise damping system	proprietary low vibration design
Performance Data	
temperature range	3.8 .. 320 K (depending on configuration)
Base pressure (in sample chamber)	<5e-6 mbar
leak rate of vacuum	< 5e-9 mbar l/s
cool down time (incl. pumping time)	< 4.5 h to 5 K (depending on thermal load)
temperature stability	< 15 mK (peak-to-peak with damped sample mount)
cooling power at cold plate	>170 mW @ 5 K
vibration level (cold plate, vertical)	< 5 nm (peak-to-peak@1500 Hz)
Closed-Cycle Cooler	
power consumption	max. 3 kW
cooling of compressor	water cooling (default; requires local infrastructure), air cooling (optional)

Size and Dimensions	
optical table	standard size 900 mm x 1800 mm x 305 mm (leg height 597 mm); metric or imperial mounting threads
Options and Upgrades	
temperature controller	included
pumping kit	included
vacuum shroud	Basic (standard shroud), RT-SWD, RT-USWD upgrade, LT-APO objective, HV objective, Photonic Probe Station, or customized height, diameter, windows & working distance
electrical access	36 customer wires included, heat sunk @ 4 K
feedthroughs	electrical (DC, HF), optical fibers, gas capillary (on request)
sample motion	Premium Line positioners and scanners
cryostat compressor upgrade	air-cooled (grey-room recommended)
flexlines	extension to 13 m or 20 m (instead of 6 m)
air-compressor	for active vibration isolation of table
Compatible Equipment	
confocal microscopes	attoCFM I
confocal Raman microscopes	attoRAMAN (on request)
Cryogenic Photonic Probe Station	confocal microscope with 2 fiber probes for side excitation/detection