

attoDRY1000

1006163

Technical Specifications

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| General Specifications | |
| technology | ultra-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, Manual gas handling |
| 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 |
| 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) |
| temperature stability | < ± 10 mK expected (4 .. 50 K), < ± 25 mK guaranteed (4 .. 50 K) |
| cooling power at sample location | > 5 mW @ 5 K |
| Closed-Cycle Cooler | |
| field cooling possible | no |
| nominal cooling power | > 900 mW @ 4.2 K |
| 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 (depending on magnet choice) |
| 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: 7, 9, 12 T, vector magnets: e.g.: 8/2 T, 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 II, attoCFM III, attoCFM IV |
| confocal Raman microscopes | attoRAMAN |

