

# attoDRY1000

1006163

## Technical Specifications

|  |   |
|--|---|
| <b>General Specifications</b>                      |   |
| 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  |
| <b>Performance Data</b>                            |   |
| 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)  |
| <b>Compressor</b>                                  |   |
| power consumption                                  | max. 9.0 kW, 7.2 kW steady state  |
| cooling of compressor                              | water cooling (requires local infrastructure)   |
| <b>Size and Dimensions</b>                         |   |
| cryostat (width x depth x height)                  | 1120 x 640 x 1050 mm <sup>3</sup>   |
| 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 <sup>3</sup>  |
| <b>Options and Upgrades</b>                        |   |
| 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                                     |
| <b>Compatibility</b>                               |   |
| confocal microscopes                               | attoCFM I, attoCFM IV   |
| atomic force microscopes                           | attoAFM I, AFM upgrade options (MFM, KPFM, PFM, conductive-tip AFM)   |

