attoCMC800xs

1026302

Technical Specifications

General Specifications	
technology	compact optical cryostat integrated into optical breadboard with rack integratable, air-cooled compressor
infrastructure autonomy	single phase power supply, air cooled with low heat generation
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, USB interface for remote control
vibration & acoustic noise damping system	proprietary low vibration design
Performance Data	
temperature range	< 4K .. 320 K (depending on configuration)
base pressure (in sample chamber)	< 5e-6 mbar
cool down time (excl. pumping time)	< 5.5 h to 5 K (depending on thermal load)
cooling power at cold plate	> 100 mW @ 5 K
vibration level (cold plate, vertical)	< 5 nm (peak-to-peak@1500 Hz)
Vacuum and feedthrough specifications	
sample environment	cryogenic vacuum, sample cooled via braids (ATC100)
leak rate of vacuum	< 5e-9 mbar l/s
El. feedthrough and wiring for base operation	36 customer wires included, heat sunk @ 4 K (additional wiring on request)
additional feedthrough options	electrical (DC, HF), optical fibers, gas capillary (on request)
Compressor specifications (included)	
air cooling	.
power consumption	max. 1.4 kW, remote adjustable cooling power
Size and Dimensions	
cryostat (width x depth x height)	430 x 710 x 890 mm^3
additional weight capacity	120 kg
compressor (width x depth x height)	446 x 266 x 641 mm
compressor weight	75 kg
Options and Upgrades	
temperature controller	included
pumping kit	included
vacuum shroud	Basic (standard shroud); upgrade options: RT-SWD, RT-USWD, LT-APO objective, HV objective, Photonic Probe Station, or customized height, diameter, windows & working distance
flexlines	extension to 13 m or 20 m (instead of 6 m)
sample motion	low temperature positioners
Compatibility	
confocal Raman microscopes	cryoRaman (on request)
Cryogenic Photonic Probe Station	confocal microscope with 2 fiber probes for side excitation/detection