attoCFM III

1009051

Technical Specifications

General Specifications	
type of instrument	fiber optics based confocal microscope for transmission measurements
sensor head specifics	2 independent fiber-coupled low temperature compatible aspheric objectives for ultimate stability
Confocal Unit	
configuration	one fiber-coupled LT objective for excitation, one fiber-coupled LT objective for detection
key benefits	ultra-stable longterm transmission measurements & independent wavelengths for excitation & detection
pinhole configuration	pinhole provided by single mode fiber core
pinhole size	dependent on fibers, typically 3 .. 9 µm mode field diameter
compatible LT-objective	LT-IWDO, LT-LWDO (see accessory section for more information)
Illumination	
excitation wavelength range	limited to wavelength range of single mode fiber, default 650 nm (others on request)
illumination port specification	FC/ APC-connector for single mode fiber
Detection	
detection mode	e.g. transmission, reflection, luminescence, fluorescence
detection wavelength range	limited to wavelength range of single mode fiber, default: 650 nm (others on request)
detection port specification	FC/ APC-connector for single mode fiber
Sample Positioning	
total travel range	independent degrees of freedom for both LT-objectives 5 x 5 x 5 mm^3 (open loop) with fixed sample
step size	0.05 .. 3 µm @ 300 K, 10 .. 500 nm @ 4 K
fine scan range	50 x 50 $µm^2$ @ 300 K, 30 x 30 $µm^2$ @ 4 K (open loop)
sample holder	Ti plate with aperture of 8 mm in diameter with integrated heater and calibrated temperature sensor
Suitable Operating Conditions	
temperature range	1.5 K..300 K (dependent on cryostat); mK compatible setup available on request
magnetic field range	0..15 T+ (dependent on magnet)
operating pressure	designed for He exchange gas (vacuum compatible version down to 1E-6 mbar on request)
Suitable Cooling Systems	
titanium housing diameter	47 mm
bore size requirement	designed for a 2" (50.8 mm) cryostat/magnet bore
compatible cryostats	attoDRY1000/1100/2100..
Compatibility with Electronics	
scan controller and software	ASC500 basic (for detailed specifications please see attoCONTROL section)
laser	LDM600 laser/detector module
Options and Upgrades	
closed loop upgrade for coarse positioners	incl. for both objectives

All rights, including rights created by patent grant or registration of a utility model or design as well as rights of technical modifications are reserved. Delivery subject to availability. Designations may be trademarks, the use of which by third parties for their own purposes may violate the rights of the trademark owners. © attocube systems GmbH