

LTSYS - Low Temperature Physics Measurement System

LTSYS -He3

ultra-stable low temperature physics measurement systems

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Temperature Range	
standard edition	0.3 .. 20 K (300 K on request)

General Specifications	
principle	charcoal cooling method
liquid Helium reservoir capacity	50 l
temperature isolation	liquid Nitrogen shielded (capacity 45 l)
material of body	aluminum
top loading system	quick and easy sample exchange
attoDAMP TM	vibration and acoustic noise damping system

Performance Data	
base temperature	300 mK
cooling power	60 μ W @ 300 mK
hold time at base temperature	48 hours
He3 regeneration time	typ. 30 min
estimated liquid Helium static loss rate (standard edition, without insert)	< 0.25 l/hr
thermometry	cotrol thermometer on charcoal sorption pump thermometer on 1 K pot with standard calibration RuO2 thermometer on He-3 pot

Dimensions	
cryostat (width x depth x height)	approx. 900 x 750 x 1800 mm (including rack and attoDAMP)
electronic rack (width x depth x height)	640 x 640 x 1350 mm (including rack)
required ceiling height	approx. 3 m

Options	
superconducting magnet	6 .. 12 T (15 T on request)
Helium transfer line	different sizes on request
Helium level meter	

Available Inserts	
confocal microscopes	attoCFM II, attoCFM III
atomic force microscopes	attoAFM I, attoAFM III
scanning nearfield optical microscopes	attoSNOM III
scanning tunneling microscope	attoSTM I

