

CCR-SCON for Hall measurements

Cryogen-free vertical field 3 T Superconducting Magnet Probe Station



Janis cryogen-free series probe stations provide the researcher with vacuum and cryogenic probing capabilities without requiring the use of liquid cryogenics. 4 K, 10 K, and 80 K cryocoolers use proven Gifford-McMahon (G-M) technology for reliable and affordable sample cooling. Typical applications include MEMS, nanoscale electronics, superconductivity, ferroelectrics, material sciences, and optics.

Model CCR-SCON for Hall measurements	
Magnetic field	±3.0 T (from ~ 4 K to 350 K) ±2.5 T (from ~ 350 K to 400 K) ±2 T (from 400 K to 420 K)
Temperature range	~ 4 K to 420 K (optional 500 K)
Temperature stability	±50 mK
Maximum	6 probes
Sample size	2 in diameter standard (electrically grounded or isolated or triaxially guarded)
Vibration level	Less than 1 μm
Probe tip holder temperature at base temperature	<45 K
Cooling time	<8 h
Vacuum level	~ 10^{-6} Torr (with vacuum gauge mounted on vacuum chamber; ~ 10^{-7} Torr optional)
Probe arms	DC/low frequency (up to 20 MHz); microwave (40, 50, 67 GHz); fiber optic (multimode, single mode)
Optional monoscopes	5 or 4.2 or 3.4 μm resolution CCD or USB camera; mounted on XYZ travel stages
Probe arm leak current	Typically 1 to 2 fA at 1 V for triaxial probe arms; ~0.05 pA at 1 V for coaxial probes

