

New Low Vibration Cryogen-Free Probe Station — Now Accepting Orders



Lake Shore Cryotronics, Inc. is pleased to introduce the addition of a low vibration cryogen-free micro-manipulated probe station to its full line of cryogenic, superconducting magnet-based, electromagnet-based, high vacuum, and load-locked probe stations.

The new CCR-based probe station provides efficient temperature operation and control with a 4 K cryogen-free closed cycle refrigerator, eliminating the operating expense of liquid cryogens. The probe station operates over a standard temperature range of 4.5 K to 350 K, providing excellent temperature stability of 10 mK throughout the full-scale temperature range. An optional interchangeable high temperature sample holder extends the high-end temperature limit to 475 K. Control heaters on the sample stage, 2nd stage cold head, 1st stage riser, and radiation shield provide the probe station with fast thermal response and rapid warm-up for sample exchange — sample exchange cycle time is <3.5 hours.

Careful design consideration was taken to provide a low vibration, user-friendly tool. Integrated vibration isolation and damping prevent mechanical vibration from affecting measurement performance. Sample stage vibration is limited to <1 micron throughout the full-scale temperature range.

The CCR-based probe station is user configurable with up to six ultra-stable micro-manipulated probe arms, each providing precise 3-axis control of the probe position to land the probe tip accurately on device features. Proprietary probe tips in a variety of sizes and materials minimize thermal mass and optimize electrical contact to the device under test (DUT). Probe tips are thermally linked to the cold head to minimize heat transfer to the DUT.

For increased versatility, options include a high temperature sample holder, higher magnification monoscopes, vacuum turbo pumping systems, and fiber optic probe arm modification.

For more information on the new CCR-based probe station, please contact:
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