

Probe stations family

Cryogen-Free Probe Stations



Cryogenic Probe Stations



Lake Shore cryogenic probe stations provide precisely controlled environments for non-destructive measurement of the electrical properties of materials and early-stage electronic devices.

Typical applications include sampling I-V and C-V curves over a wide range of temperatures, measuring microwave and electro-optical responses, characterizing magnetotransport properties in variable magnetic fields, Hall effect measurements to understand carrier mobility, and a variety of other material studies.

Model	Magnet field	Max probe arms	Standard temperature range	Optional high temperature	Optional low temperature	Max sample size	Vacuum	Sample stage rotation
Cryogen-Free Cryogenic Probe Stations								
CRX-EM-HF	0.6 T horizontal field electromagnet	4	8 K to 420 K	—	—	25 mm (1 in) diameter	10 ⁻⁵ torr	±360° (optional)
CRX-VF	2.5 T vertical field superconducting magnet	6	10 K to 420 K	—	—	51 mm (2 in) diameter	10 ⁻⁵ torr standard, 10 ⁻⁷ torr optional	—
CRX-4K	—	6	4.5 K to 350 K	20 K to 675 K	—	51 mm (2 in) diameter	10 ⁻⁵ torr	—
CRX-6.5K	—	6	<10 K to 350 K	20 K to 675 K	—	51 mm (2 in) diameter	10 ⁻⁵ torr	—
Cryogenic Probe Stations								
FWPX	—	6	4.5 K to 420 K	—	3.5 K	102 mm (4 in) diameter	10 ⁻⁵ torr	±5°
EMPX-H2	0.6 T horizontal field electromagnet	4	4.5 K to 420 K; 8 K to 420 K with 360° rotation option	—	3.2 K	25 mm (1 in) diameter	10 ⁻⁵ torr	±360° (optional)
CPX-VF	2.5 T vertical field superconducting magnet	6	4.2 K to 420 K, <10 K to 420 K with load lock	—	2 K	51 mm (2 in) diameter	10 ⁻⁵ torr standard, 10 ⁻⁷ torr optional	±5°
CPX	—	6	4.2 K to 420 K, <10 K to 420 K with load lock	—	Low temp: 1.9 K Very low temp: 1.6 K	51 mm (2 in) diameter 12.7 mm (0.5 in) with load-lock	10 ⁻⁵ torr standard, 10 ⁻⁷ torr optional	±5°
TTPX	—	6	4.2 K to 420 K	20 K to 675 K	3.2 K	51 mm (2 in) diameter	10 ⁻⁵ torr	—
PS-100	—	4	4.2 K to 420 K	—	3.2 K	32 mm (1.25 in) diameter	10 ⁻⁵ torr	—

Do you need DC and AC stimulus and measurement capabilities? Then consider adding our unique modular source measure system:



An innovative instrument architecture optimized to provide synchronous DC, AC, and mixed DC+AC source and measure to 100 kHz for low-level measurements