Lake Shore PS-100 Tabletop Cryogenic Probe Station



A prepackaged solution that is:

Simple to order

Rapidly shipped

Ready to use

A standard, fully specified TTPX probe station

- Four-arm triaxial TTPX configuration for four-point probing
- High-stability operation over the full TTPX temperature range
- Configured for sensitive, high-impedance DC measurements
- High-precision, micro-manipulated stages for accurate probe tip placement
- Minimizes electrical noise and thermal radiation losses
- Samples up to 32 mm (1.25 in) diameter
- Provides accurate, precise temperature control
- Just add cryogen and vacuum pump
- Cryogenic operation with either liquid nitrogen or liquid helium
- Tabletop design with small footprint

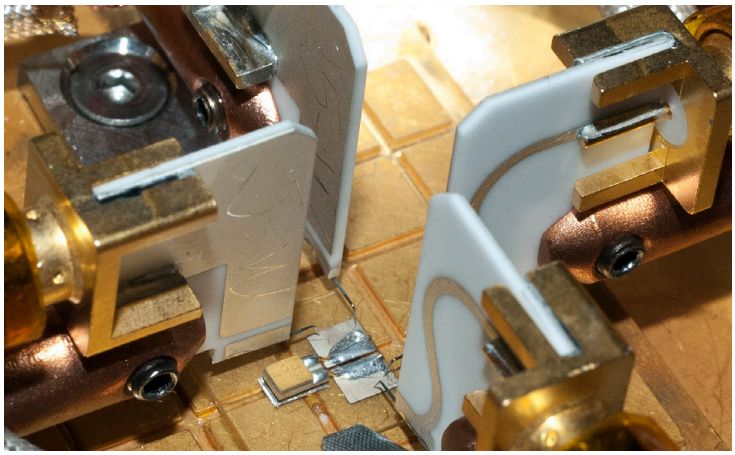
Field upgradable with any number of TTPX options for additional testing capabilities

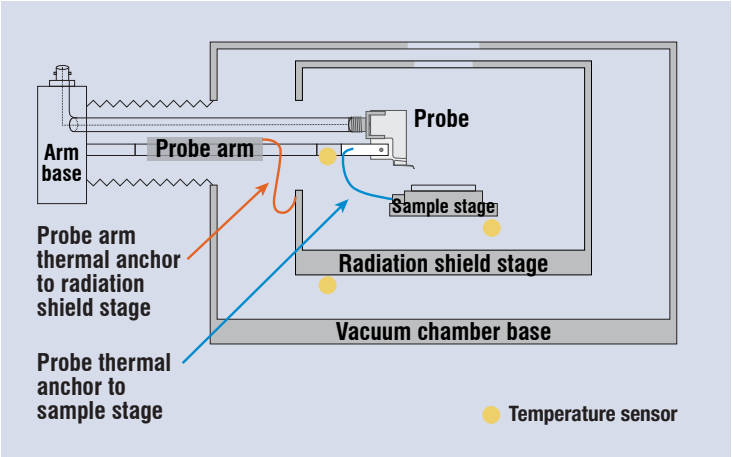
What is Included:

- TTPX platform with standard ground sample holder
- Four micro-manipulated stages with four probe arms (MMS-07)
- Four cryogenic coaxial probe cables (ZN50C-T)
- Feedthrough and internal cable (FT-TRIAX) for the future addition of a triaxial sample holder
- Four probe holders (ZN50-26U)
- Probe starter kit containing:
  - Two 25 µm probes with beryllium copper tips (ZN50R-25-BECU)
  - Two 25 µm probes with tungsten tips (ZN50R-25-W)
  - Two 25 µm CTV (continuously variable temperature) probes with tungsten tips (ZN504-CVT-25-W)
- Tool kit and spares kit for standard operation and configuration
- Z70 microscope vision system with ring and coaxial light
- Lake Shore Model 336 temperature controller
- Transfer line for use with nitrogen or helium
- Detailed manual and documentation

Lake Shore CRYOTRONICS
a DwyerOmega brand

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Lake Shore TTPX probe stations take thermal management to the next level with complete thermal anchoring. Plus, vapor-cooled shielding blocks radiation from reaching the sample.

Prepackaged, ready-to-use TTPX

Offering versatile cryogenic testing in a preconfigured system, the PS-100 is ideal for labs with limited funding or who are just starting out with materials testing.

Can be in the lab fast

It's also the choice for researchers who need a solution quickly. Typically, it can be in your lab worldwide in less than a month from the time it's ordered.

Suits most types of probe station measurements

The versatile TTPX probe station is configured for the most sensitive DC measurements of materials.

Precise temperature control

The included Lake Shore Model 336 controller regulates sample stage and radiation shield temperatures independently while monitoring probe arm temperature.

Easy to add other TTPX capabilities

When your research needs change or your budget allows, add other capabilities, such as low- or high-temperature options, vibration isolation, or backside optical access.

Throttles unwanted heat sources

Complete thermal anchoring and radiation shielding keeps heat from reaching the sample, increasing sample temperature accuracy. Plus probes are cooled to the sample stage temperature to minimize heat load to the device under test.

Ordering information

Part number	Description
PS-100	Model PS-100 TTPX tabletop cryogenic probe station

Specify your power supply.
Components of the system are configured for your country's supply voltage and ship with the appropriate power cords. Please specify from the following choices. If your required cord type is not offered, please select based on the required voltage so that the components can be configured correctly and make arrangements to supply your own 3-pin IEC cord.

1 100 V—U.S. cord (NEMA 5-15)
2 120 V—U.S. cord (NEMA 5-15)
3 220 V—Euro cord (CEE 717)
4 240 V—Euro cord (CEE 717)
5 240 V—U.K. cord (BS 1363)
6 240 V—Swiss cord (SEV 1011)
7 220 V—China cord (GB 1002)

You will also need a turbopump. Please select one that matches your supply voltage:

TPS-FRG-100/120V	Compact turbo pumping system; includes V-81 turbo pump (NW 40) with oil free dry scroll backing pump, FRG-700 full range gauge, controller, and interface cable to USB port; full range gauge allows measurement of pressure from atmosphere to 10^{-8} Torr; included interface cable allows connection to standard USB computer port for vacuum pressure logging; includes Agilent 24 month warranty NOTE: requires PS-TP-KIT (below)
TPS-FRG-220/240V	Compact turbo pumping system; includes V-81 turbo pump (NW 40) with oil free dry scroll backing pump, FRG-700 full range gauge, controller, and interface cable to USB port; full range gauge allows measurement of pressure from atmosphere to 10^{-8} Torr; included interface cable allows connection to standard USB computer port for vacuum pressure logging; includes Agilent 24 month warranty NOTE: requires PS-TP-KIT (below)
PS-TP-KIT	Includes all components necessary to connect NW 40 turbo pumping system to probe station; includes 1 m NW 40 bellows, tee for inline gauge mounting, and necessary clamps/fittings; also includes NW 25 and NW 16 adaptors for transfer line maintenance evacuation

For more information, including specifications, see **www.lakeshore.com**