

DC Resistance

DynaCool (D400) / PPMS (P400) / VersaLab (V400)

DC transport for up to three channels on a standard puck can be measured using the DC Resistivity Option for the PPMS. Bridge channels can be individually configured for various levels of current excitation or power limitation, as well as enabling automated polarity-switch averaging to remove static DC offset voltages.

Key Features:

- Three multiplexed four-probe measurement channels accessible on a single puck
- Optional fourth channel for customized measurements
- Configurable bridge parameters to limit the voltage, current, or power at the sample for protecting sensitive devices, films, etc.
- Resistivity can be calculated using measured resistance from user-provided sample geometry parameters

DC Resistivity Specifications (for zero-field)

Resistance [R]

Excitation Mode: DC
 Range: 10 $\mu\Omega$ to 5 M Ω
 Sensitivity: 15 nV RMS typical*

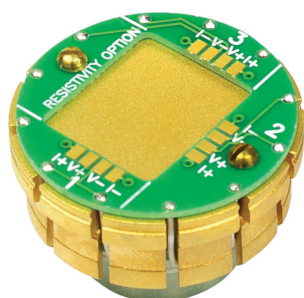
Drive Parameters

Current Range: 2 nA to 8 mA
 Compliance Voltage: 4 V, maximum
 Frequency: 5 Hz square wave

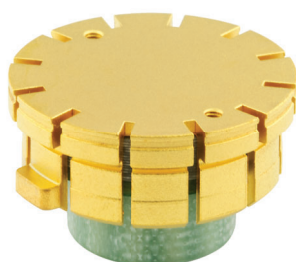
Operational Range 1.8 to 400 K; 0 to 16 T

*This corresponds to 2 $\mu\Omega$ at 8 mA excitation.

Specifications are subject to change without notice.



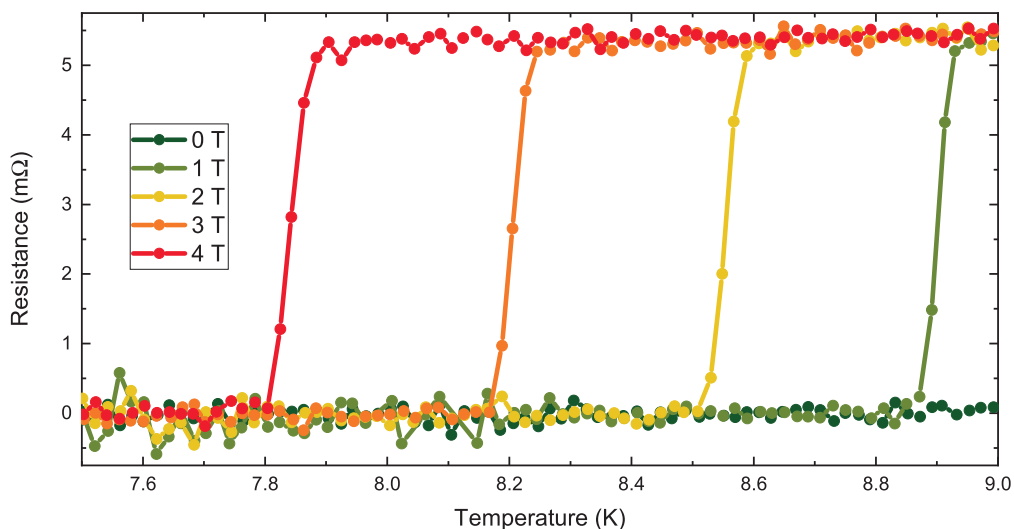
Resistivity Puck



Optional P101
Universal Sample Puck



Sample Wiring Test Station



The superconducting transition in a NbTi alloy is shown for a number of fixed magnetic fields demonstrating the field-dependence of T_c .