

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]

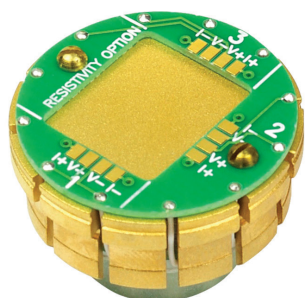
Excitation Mode: DC
 Range: 10 $\mu\Omega$ to 5 M Ω
 Sensitivity: 15 nV RMS typical*

Drive Parameters

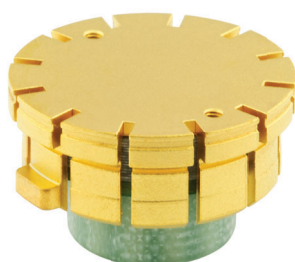
Current Range: 10 nA to 8 mA
 Compliance Voltage: 4 V, maximum
 Frequency: 5 Hz square wave

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.



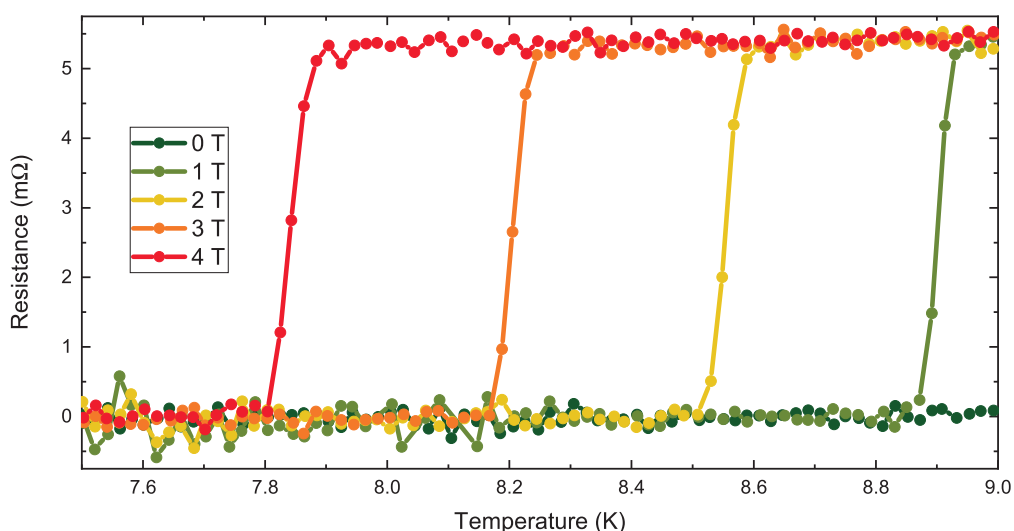
Resistivity Puck



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 .