

PYROELECTRIC MEASUREMENT SYSTEM

MODEL PMS100RT (96Kto 273K)



ABOUT THE SYSTEM

Low temperature Pyroelectric measurement system is designed to measure Pyroelectric of pellets and films over a temperature range 96K to 273K. The measurement system uses a Low temperature sample holder designed and developed by our company. The measurements are done using a Picoammeter which is connected with a PC and temperature controller together. The data recorded automatically for Pyroelectric in above temperature range.



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Various tests performed by this model

- Pyro vs temperature at fixed interval
- IV vs temperature at fixed interval
- VI vs temperature at fixed interval

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PYROELECTRIC MEASUREMENT SYSTEM

General Specifications

Picoammeter 6485

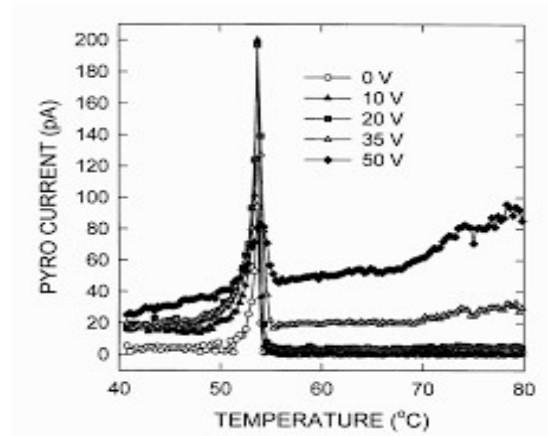
10 fA resolution
5-1/2-digit resolution
<200 μ V burden voltage
Up to 1000 readings/second
Built-in Keithley 485 emulation mode
GPIB and RS-232 interfaces
Analog output

Sample holder

SS Construction
Facility to load bulk pellet and thick film
Inbuilt heating control
Gas purging and vacuum facility

Temperature stage

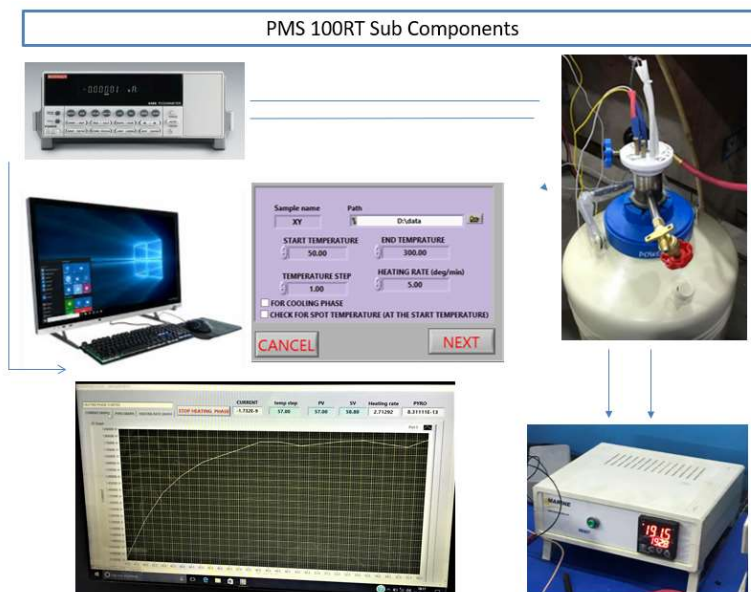
96K to 273K
Accuracy 0.1%
Stability 1 degree
PID Controller
USB Interface



System Test Specification

Input Voltage Burden: 200Uv on all ranges expect <mV on 20mA Range
Maximum Input Capacitance: Stable to10nF on all nA ranges and 2uA range; 1uf ON 20uA ranges, and on mA ranges
Maximum Continuous Input Voltage: 220VDC
NMRR¹: (50 or 60Hz) :60Db
Isolation (Meter COMMON to chassis): Typically,>5x10¹¹ Ω in parallel with <1nF
Analog output: Scaled voltage output (inverting 2V full scale on all ranges) 3% \pm 2mV 1K Ω impedance

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List of Deliverables

- Sample holder assembly
- Sample holder stand
- Temperature controller stage
- LN2 Dewar
- Vacuum Pump
- Software
- Interconnecting cables and Manual
- Keithley -6485 (Optional)

List of users

- Solid State Lab (SSPL) Delhi
- Delhi University
- RRCAT Indore
- IIT Delhi
- IIT Roorkee
- Shimla university
- Osmania University
- IIT Patna
- Maharaja Agrasen university