DATA SHEET

MODEL 4210A



Automated Low Thermal Matrix Scanner – 10 Channel

- 10 Four Wire Inputs
- 2 Four Wire Outputs
- True Matrix Design
- Automatic or Manual Operation

MODEL INFORMATION

The Model 4210A is ideal for use in automated resistance and thermometry applications where a number of artifacts needed to be calibrated efficiently and accurately. The Model 4210 improves efficiency by eliminating the need to continually change leads when measuring groups of resistors. The Model 4210A features ten, four terminal inputs and two, four terminal outputs.

The ten input channels can be manually selected from the front panel or selected via the standard IEEE488 Interface when used in an automated system. LED's on the front panel enable the operator to quickly see which channels have been selected. The Model 4210A forms an important part of an automatic resistance measurement system when combined with Measurements International's 6010B or 6000B resistance bridges.

Ultra sensitive, high efficiency, polarized relay technology is used to eliminate self-heating in the relay in manufacturing this low thermal matrix scanner. The relays are the latest technology used in the telephone industry. In addition, the relay boards are thermally isolated to maintain equilibrium in the switching areas.

The low thermal terminals are mechanically connected to the copper pads on the relay boards to reduce the thermals normally generated by soldered connections, thus reducing switching errors.

Interconnecting cable may also be ordered with the 4210A Four Terminal Matrix Scanner. The interconnecting cable utilizes No. 18 gauge solid copper, silver-plated, screened Teflon wire and is available in either two or four conductor configurations. The cable may be ordered in lengths with screens already attached.





Specifications:

Number of Inputs	10
Operation	Matrix
Thermal EMF's	< 50 nanovolts
Error Contribution	< 20 nanovolts
Contact Configuration	Relay - Two Coil Latching
Max Carrying Current	4 Amps (AC/DC)
Max Switching Current	2 Amps (AC/DC)
Maximum Voltage	250 Volts
Maximum Switching Voltage	220 volts
Contact Resistance	<0.05 Ohms
Expected Relay Life	10 ⁸ Operations
Insulation Resistance	>10 ¹² Ohms
Inputs	Tellurium Copper - Rear Panel
Outputs	Tellurium Copper - Front Panel
Manual/IEEE488	Both
Operating Environment	18 to 34°C, 10 to 80% RH
Warranty	1 Year Parts & Labor

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