Measurements International Inc.

Metrology is Our Science, Accuracy is Our Business ™

DATA SHEET

MODEL 4220A



Automated Low Thermal Matrix Scanner - 20 Channel

- 20 4Wire Inputs
- 2 Amp Capability
- Automatic or Manual
- 2 or 4 Wire Outputs

MODEL INFORMATION

The Model 4220A is ideal for use in automated resistance and thermometry applications where a number of artifacts needed to be calibrated efficiently and accurately. The Model 4220A improves efficiency by eliminating the need to continually change leads when measuring groups of resistors. The Model 4220A features twenty, four terminal inputs and two, four terminal outputs.

The relays selecting the inputs can be activated using both front panel key operation or using the IEEE488 Interface Bus. A corresponding led indicates which channels are selected. Combined with Measurements International's 6010B or 6000B resistance bridges, the 4220A provides a means to create an automatic resistance measurement system.

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. 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 4220A Four Terminal Matrix Scanner. The interconnecting wire comes in either two or four conductor configurations. The wire maybe ordered in lengths with screens already attached. No 18 gauge solid copper, silver-plated, screened Teflon cable is used.



Specifications:

>145,523286.6 >368,688789.1

163,65546 67818

>108,65546 65612,23-2829 955 >198,65546 65612,23-2829 955 >152,698016 68818,28-2399 923 >198,643636 78617,73-2289 783

124,634546 78672,23-7779 683 458,11142 83417,73-2337 876

523286 64486 22-2889 986

Number of Inputs	20
Operation	Matrix
Thermal EMF's	< 50 nanovolts
Error Contribution	< 20 nanovolts
Contact Configuration	Relay - Two Coil Latching
Max Carrying 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 - Rear Panel
Manual/IEEE488	Both
Operating Environment	18 to 34°C, 10 to 80% RH
Product Details	
Warranty	1 Year Parts & Labor
Dimensions	270 x 450 x 380 mm
Weight	15 kg
Shipping Weight	20 kg
Operating Power	100, 120, 220, 240V - 50/60 Hz

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