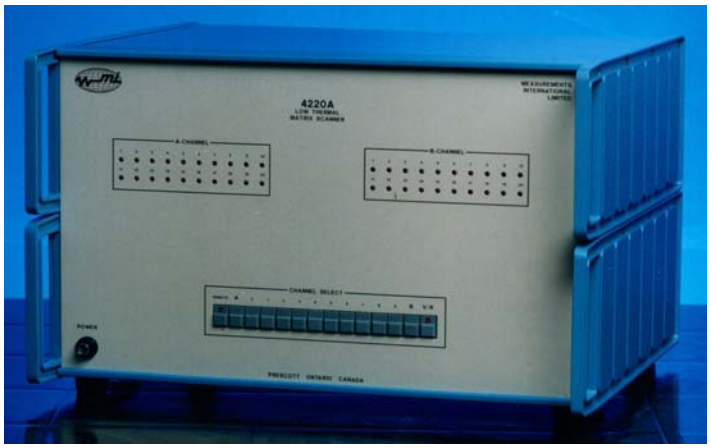
DATA SHEET

MODEL 4220A-30



Automated Low Thermal Matrix Scanner - 20 Channel 30 Amp

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

MODEL INFORMATION

The Model 4220A/30 was designed to be used in automated resistance and shunt measurement applications where a number of artifacts needed to be calibrated efficiently and accurately. The Model 4220A/30 has a total of 20 four terminal inputs and 2 four terminal outputs. The high current relays are located on the A side of the scanner only.

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 6242A resistance bridges, the 4220/30A provides a means to create an automatic resistance measurement system with up to 30 Amp capability.

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/30 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:

Number of Inputs	20
Operation	Matrix
Thermal EMF's	< 50 nanovolts
Error Contribution	< 20 nanovolts
Contact Ratings	Relay - Two Coil Matching
Max Carrying Current (A side only)	30 Amps (AC/DC)
Max Switching Current (A side only)	30 Amps (AC/DC)
Max Carrying Current (B side)	4 Amps (AC/DC)
Max Switching Current (B side)	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	$>10^{11}$ 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 450 380 mm
Weight	25 kg
Shipping Weight	27 kg
Operating Power	100, 120, 220, 240V - 50/60 Hz

MI-Canada
Measurements International Ltd.
PO Box 2359, 118 Commerce Drive
Prescott, Ontario, Canada K0E 1T0

Phone: (613) 925-5934

Toll-Free: 1-800-324-4988
Fax: (613) 925-1195
Email: sales@mintl.com

MI-USA
Measurements International Inc.
812 Proctor Ave.
Ogdensburg, NY, USA 13669

Phone: (315) 393-1323

Toll Free: 1-800-324-4988
Fax: (315) 393-1452
Email: sales@mintl.com

MI-Europe
Druzstevni 845
686 05 Uherske Hradiste
Czech Republic

Phone: (420) 572 572 801
Fax: (420) 572 572 358
Email: mieurope@mintl.com

www.mintl.com