



10 AND 20-CHANNEL COAXIAL HIGH RESISTANCE MATRIX SCANNERS

MODEL 4610A & 4620A

- 10 or 20 Two Terminal Channels
- N-Type Connections
- Front Panel or Remote Operation
- Maximum 1000 V Peak
- Resistance Measurements to 10 P
- Insulation Resistance > $10^{16} \Omega$



MODEL 4610A & 4620A HIGH RESISTANCE MATRIX SCANNERS

The MI models 4610A and 4620A are 10- and 20-channel Coaxial Matrix Scanners designed specifically for the use in high resistance measurements. Instead of modifying an existing design which uses board mounted reed relays, MI designed the 4610A and 4620A from the beginning with total emphasis on the sample path.

The 4610A and 4620A employs a completely coaxial sample path from input to output. In this proprietary design, leakage paths are minimized allowing measurements up to 1 T Ω with no noticeable uncertainty contribution.

The 4610A and 4620A Coaxial Matrix Scanners improve resistance measurement efficiency by eliminating the need to continually change leads when measuring groups of resistors. The input channels can be manually selected from the front panel or via the standard IEEE-488 interface when used in an automated system.

Software supplied with the model 6000B Automated Resistance Bridge and 6600A High Resistance Dual Source Bridge will automatically control the 4610A and 4620A. This allows for complete automation of multiple resistor measurements and scheduling measurements to be performed at any time, such as overnight when the lab is quiet.

N-type connections are utilized for their superior isolation properties and labeled high and low on the front and rear panel. The input and output channels are floating from chassis ground and therefore grounded by the measurement system.

A set of N-type to N-type cables are supplied for connecting the outputs to a measurement system. Additional cables are available for connection to various other types of high resistance terminals.

LEDs on the front panel enable the operator to quickly see which channels have been selected. Front panel LEDs designated A and B indicate the selected channels.



The scanners have been specially designed with a built-in protection feature that will not allow connection of the same input channel to both outputs.





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Specifications: Rev 2

Operation	Two Terminal Coaxial Matrix
Error Contribution	Resistance Measurement
1 MΩ to 100 GΩ	< 1 × 10 ⁶
1 TΩ	< 5 × 10 ⁶
10 TΩ	< 50 × 10 ⁶
100 TΩ	< 500 × 10 ⁶
1 PΩ	< 5000 × 10 ⁶
10 PΩ	< 5 %
Max Carrying Current	1 Amp (AC/DC)
Maximum Voltage	1000 Volts (Peak)
Contact Resistance	< 0.5 Ohms
Expected Relay Life	10 ⁷ Operations
Insulation Resistance	> 10 ¹⁶ Ohms
4610A (10 Ch.) Input/Output Connections	N-Type
4620A (20 Ch.) Input/Output Connections	N-Type
Manual/GPIB	Both
Operating Environment	18 to 34 °C, 10 to 80 % RH
Warranty	1 Year Parts & Labour

How to Order:

1. Model 4610A
2. Model 4620A

Cables:

1. 9331G-01 N-Male to GR
2. 9331G-02 N-Male to N-Male
3. 9331G-03 N-Male to BNC
4. 9331G-XX N-Male to Special

Dimensions (L × W × H):

4610A – 133 mm × 450 mm × 380 mm
4620A – 270 mm × 450 mm × 380 mm

Weight:

10 kg
15 kg

Shipping Weight:

14 kg
20 kg

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