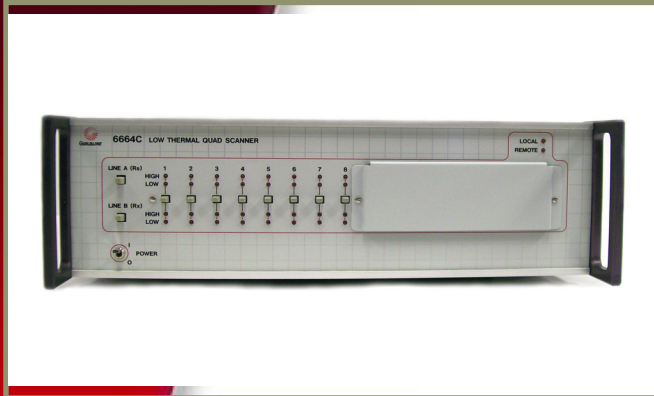


8 AND 16-CHANNEL LOW THERMAL QUAD SCANNERS

Complements All Guildline Bridges and Fully Automates Measurements



6664C FEATURES

- ◆ Withstand up to 1000 V DC to provide fully automated high ohm measurements
- ◆ Each channel is rated 2 A
- ◆ 8-channel and 16-channel models
- ◆ 8-channel model expandable to 16-channel
- ◆ Thermoelectric Potential: <20 nV
- ◆ Contact Life: >10,000,000 cycles
- ◆ Front Panel or Remote GPIB Control
- ◆ 4-Terminal Switching Matrix Scanner
- ◆ Gold flashed Tellurium Copper Terminals

Guildline's 6664C Low Thermal Quad Scanner is the first commercial scanner capable of operating at 1000V. This has greatly improved the measurement/calibration throughput of standards laboratories, since many high ohm measurements can now be automated. High ohm measurements are typically hard to make and very time consuming because of the low signal/noise ratio. With a Guildline model 6664C scanner and software, these hard-to-make high ohm measurements (up to 100 G Ω) can be automated and scheduled at any time that is convenient to the metrologists, even at night and over the weekends.

This scanner is designed to work with a Guildline 6622A Automatic Direct Current Comparator (DCC) Resistance Bridge, a model 6622T Temperature Bridge or a Teraohmmeter (model 6520). Still have one of our older Guildline Automatic Bridges such as a model 6675A? Our software and scanner also support all previous Guildline' models.

Both 8-channel and 16-channel models are available. Like other Guildline products, the 8-channel scanner can be expanded to a 16-channel model, giving our customers exactly what's needed now and the flexibility for future growth.

To manually select 4-terminal devices connected to the input channels, simply press the push button switch on the Line A-output and another on the Line B-output. All other connections remain isolated.

The 6664C performs switching for precision resistance measurements with less than 20 nanovolt of thermal offsets. Careful design in the use of latching relays, requiring only a short pulse to actuate, eliminates self-heating errors.

The 6664C Low Thermal Quad Scanner Enables Software Controlled, Fully Automated High Ohm Measurements At Up to 1000 V

Special low thermal latching relays are used. Leakage between the high and low circuits is reduced by switching them on different printed circuit boards.

Protection circuits prevent selection of more than one 4 terminal connection on a channel output at the same time. Front panel indicators show which channel is selected on each output.

6664C 8 and 16-Channel, Low Thermal Quad Scanners

SPECIFICATIONS

| | |
|-----------------------------------|--|
| Thermoelectric Potentials: | <20 nV typical and <50nV max. |
| Relay Contact Ratings: | Life: >10,000,000 cycles at low levels |
| | Initial Contact Resistance: 0.05 Ω max. |
| | Current: 2A max at 10 V |
| | Voltage Switched: 100 V max. at 1 mA |
| | Voltage Non-Switched: 1000 V max. |
| Leakage Resistance: | >10 ¹⁵ |
| Inputs/ Outputs: | Input: 16 or 8 channels of 4-terminal gold flashed tellurium copper binding posts; Output: 2 channels of 4-terminal low thermal binding posts |
| Communication | 24 pin IEEE 488 connector |
| Power Supply: | Each scanner is shipped with an external 5V DC supply that can be powered by 95~260V, 50/60Hz. Consumption – 51.3 VA |

MODEL 6664B SCANNERS

16-Channel model 6664B scanners were used in the world famous 6625AF complete measurement system (NSN 6625-01-487-6544 RH) and are still available to interested customers. These scanners are only rated for 600 V operations. Other specifications are identical to those of the model 6664C.

SERVICE AND SUPPORT

Guildline is pleased to announce that we are **ISO 17025 Accredited**. We provide the widest available accredited range of resistance available today from **1 μΩ all the way to 10PΩ**. Whether you own a Guildline product and/or have other manufacturer's resistance standards, **call today** and see what we can do for you.

ORDERING INFORMATION

| | |
|---|---|
| 6664C | 16-Channel Low Thermal, Quad Scanner, 1000 V _{max} |
| 6664C/8 | 8-Channel Low Thermal, Quad Scanner 1000 V _{max} |
| 6664B | 16-Channel Low Thermal, Quad Scanner, 600 V _{max} |
| Technical Manual and Certificate of Conformance included | |
| /Lead-11 | Low Thermal Lead Pair w/Gold Plated Banana Plugs, 1M length |
| /Lead-12 | Low Thermal Lead Pair w/Gold Plated Banana Plugs, 2M length |
| /Lead/Xm | SCW Lead Pair with gold plated banana plugs X m (specify) |
| SCW/18-30 | 30 Meters Shielded, Copper, Low Thermal Wire, AWG18 Gauge |
| SCW/18-100 | 100 Meters Shielded, Copper, Low Thermal Wire, AWG18 Gauge |
| *Other Precision Leads Are Available – Call and tell us your requirements | |
| /Controller | System Controller with IEEE and Software Integrated |
| IEEE-PCI | NI IEEE-488.2 Interface for a PCI slot (Win 9X/NT/ME) |
| IEEE-2m | NI IEEE-488.2 Interface cable, 2m double shielded |

GENERAL SPECIFICATIONS

| Environmental | Temperature | | Humidity | | |
|---------------|-----------------|----------------|---------------|---------------|--------|
| | Operating | 18 °C to 28 °C | | 15% to 80% RH | |
| Storage | -20 °C to 70 °C | | 15% to 80% RH | | |
| Dimensions | Height | Width | Depth | Weight | |
| | millimetres | 143 mm | 451 mm | 420 mm" | 13 kg |
| | inches | 5.6" | 17.7" | 16.5" | 29 lbs |

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