

# 6564 SERIES

## 8 AND 16-CHANNEL, HIGH TO ULTRA-HIGH RESISTANCE SCANNERS

#### Most Advanced High to Ultra-High Resistance Scanner Available Today!



**Guildline's 6564 High to Ultra-High Resistance Scanners** are the first commercial scanners capable of operating with measurement capabilities to 10 P $\Omega$ 's and at voltages to 1000 Vdc. This capability greatly improves the measurement and calibration throughput of high and ultra-high ohm resistance measurements. Standard laboratories can easily and quickly automate measuring single or multiple resistance values.

The 6564 Series Scanners Provides >100 PQ Typical Isolation, Measurements to 10 PQ and with Voltages to 1000 V. True Automation for High to Ultra-High Value Resistance is Now Available for Everyone!

Use of the 6564 Scanners makes no material contribution towards uncertainty based on noise or repeatability. This means using the scanner has no measured effect on Guildline's 6520 Teraohmmeter or 6530 TeraOhm Bridge-Meter Transfer measurement mode throughout the entire operational range.

Contributing less than 1 ppm of Leakage for measurements at 100 G $\Omega$  and lower, the 6564 scanner has negligible effect on the uncertainty contribution when used for direct reading measurements. Furthermore, due to the repeatability of the scanner's leakage, this leakage is easily characterized and can be removed by specifying the offset.

High and Ultra-High ohm resistance measurements are typically difficult to make and time consuming because of the low signal/noise ratio. With the 6564 Scanners and software, these difficult high ohm measurements can now be automated and scheduled at any time that is convenient to the user, even at night and weekends when the lab is empty and quiet.

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.

The 6564 Scanners are provided with BNC, Triax and type N connectors used by Guildline Teraohmmeters. Optional adaptors are provided to support BPO, BNC, and other types of connections. The 6564 offers convenient operation from either the front panel or from the built-in IEEE 488 bus; and for best in automation can be used with Guildline's TeraCal<sup>™</sup> Software.

## FEATURES

- Thermoelectric Potentials: < 20 nV
- Contact Life: >10,000,000 Cycles
- Withstands up to 1000 Vdc Providing Fully Automated Resistance Measurements
- Measurements from 100 k $\Omega$  to 10 P $\Omega$  with No Guarding Required
- Fully Automates Transfer or Bridge Measurements
- Very Low Leakage that Can be Easily Characterized
- Front Panel or Remote GPIB Control
- 2 Terminal Switching Matrix, 8 or 16 Channels
- 8 Channel is Upgradeable to 16 Channels
- N-Type Coaxial Terminals

Complete Automated High to Ultra-High Resistance Measurement Systems Available! Check out the 6535 High to Ultra High Resistance Measurement Systems.

### 6564 Series Specifications

ISOLATION SPECIFICATIONS		6530-XR Specifications		GUILDLINE STANDARD	
Measured Resistance Value	Leakage		Transfer Mode (24 Hours)	Direct Reading (12 Month)	RESISTOR DRIFT (12 MONTH)
100 MΩ	<0.1 ppm		15 ppm	100 ppm	15 ppm
1 GΩ	<0.1 ppm		15 ppm	150 ppm	35 ppm
10 GΩ	0.1 ppm		20 ppm	500 ppm	100 ppm
100 GΩ	1 ppm		20 ppm	700 ppm	200 ppm
1 ΤΩ	10 ppm		70 ppm	1100 ppm	500 ppm
10 TΩ	100 ppm		200 ppm	3000 ppm	750 ppm
100 TΩ	1000 ppm		500 ppm	5000 ppm	1000 ppm
1 ΡΩ	1%		1500 ppm	2.0%	NA
10 PΩ	10%		3500 ppm	25%	NA

	GENERA	L SPECIFICATIO	NS			
Thermoelectric Potentials:	< 20 nV typical and < 50 nV max.					
	Life: >10,000,000 cycles					
Relay Contact Ratings:	Initial Contact Resis	tance: 0.05 Ω max.	Current: 2 A max at 10 V			
	Voltage Switched: 1	.oo V max. at 1 mA	Voltage Non-Switched: 1000 V max.			
Leakage Resistance:	>100 PΩ					
Channel Outputs Termination	Male N Type Termination – Optional Adaptors available upon request					
Communication	IEEE 488 Standard					
Power Supply:	External 5 V DC supply with input power: 95~260 VAC, 50/60 Hz. Consumption: 51.3 VA					
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"	15 kg		
inches	5.6″	17.7″	16.5″	33 lbs		

Ordering Information				
6564/16	6 16-Channel Low Thermal, Quad Scanner, 1000 V <sub>max</sub>			
6564/8	6564/8 8-Channel Low Thermal, Quad Scanner 1000 V <sub>max</sub>			
/TM	Technical Manual (Included)			
/CC	Certificate of Conformance (Included)			
	*Precision Leads Set for Type N Available Upon Request			
	*Optional Adaptors Include BPO			
/CIS	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			

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