

**ELECTRICAL MEASUREMENT**

**Section 1: Voltage DC**

<b><u>Range</u></b>	<b><u>Accuracy</u></b>	<b><u>Cal. Device</u></b>	<b><u>Notes</u></b>
To $\pm$ 1050V	0.004%	Wavetek 9100	The 9100 is a calibrator and is able to Generate the stated values to the stated accuracy. The 1271 is a meter and can only measure the stated values.
100mV	10.0 ppm	Wavetek 1271	
1V	8.0ppm	Wavetek 1271	
10V	7.0ppm	Wavetek 1271	
100V	8.0ppm	Wavetek 1271	
1000V	10.0ppm	Wavetek 1271	

**Section 2: Voltage AC**

<b><u>Range</u></b>	<b><u>Accuracy</u></b>	<b><u>Cal. Device</u></b>	<b><u>Notes</u></b>
To $\pm$ 1050V	0.004%	Wavetek 9100	The 9100 is a calibrator and is able to Generate the stated values to the Stated accuracy. The 1271 is a meter And can only measure the stated Values.
100mV	10ppm	Wavetek 1271	
1V	8ppm	Wavetek 1271	
10V	7ppm	Wavetek 1271	
100V	8ppm	Wavetek 1271	
1000V	10ppm	Wavetek 1271	

**ELECTRICAL MEASUREMENT**

**Section 3: Current DC**

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
0 to 20A	0.01%	Wavetek 9100	The 9100 is a calibrator and is able to generate the stated values to the stated accuracy. The 1271 is a meter and can only measure the stated values.
100µA up to 10mA	50ppm	Wavetek 1271	
100mA	100ppm	Wavetek 1271	
1A	150ppm	Wavetek 1271	
1000A	±0.01%	Wavetek 9100	Generate via coils
1000A	±1%	HEME Clampmeter	Measure only
Up to 5000A	±1% of applied	Current transducer	Measure only

**Section 4: Current AC**

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
0 to 20A	0.045%	Wavetek 9100	The 9100 is a calibrator and is able to generate the stated values to the stated accuracy. The 1271 is a meter and can only measure the stated values.
100µA up to 10mA	200ppm	Wavetek 1271	
1A	500ppm	Wavetek 1271	
1000A	0.045%	Wavetek 9100	Generate via coils
Up to 5000A	±1% of applied	Current transducer	Measure only

## ELECTRICAL MEASUREMENT

### Section 5: Resistance (Generate)

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
50Ω to 2Ω	±0.8% @μΩ	Time 5070	
0 to 400MΩ	0.01%	Wavetek 9100	The 9100 is a calibrator and is able to generate the stated values to the stated accuracy.
Up to 1000MΩ (1GΩ)	±2%	Hi-Ohms Box	1000V max
Up to 100GΩ	±3%	Hi-Ohms Box	5000V max

### Section 6: Resistance (Measure)

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
1μΩ to 6Ω	±0.01%	Ducter	Traceable through Time 5070 & Wavetek 1271
10Ω	18ppm	Wavetek 1271	
100Ω to 100kΩ	10ppm	Wavetek 1271	
1MΩ	15ppm	Wavetek 1271	
10MΩ	30ppm	Wavetek 1271	
100MΩ	400ppm	Wavetek 1271	
1GΩ	±0.3%	Wavetek 1271	

### Section 7: Frequency

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
0.5Hz to 10MHz	0.0025%	Wavetek 9100	Frequency source

### Section 8: Conductivity and Capacitance

<u>Range</u>	<u>Accuracy</u>	<u>Cal. Device</u>	<u>Notes</u>
2.5nS to 2.5mS	±0.04%	Wavetek 9100	
500pF to 40mF	±0.2%	Wavetek 9100	

**ELECTRICAL MEASUREMENT**

**Section 9: Tachometers**

**Generate**

<b><u>Range</u></b>	<b><u>Accuracy</u></b>	<b><u>Cal. Device</u></b>	<b><u>Notes</u></b>
90,000rpm	±0.01%	Global 4401	Frequency source
7500rpm	±1%	Global 4401	Frequency source via calibrated tacho

**Section 9: Sound Level Calibration**

<b><u>Range</u></b>	<b><u>Accuracy</u></b>	<b><u>Cal. Device</u></b>	<b><u>Notes</u></b>
71 dB & 135dB	±0.3dB	Sound level Generator	Generate

Last revision date: 18<sup>th</sup> August 2023

Last review date: 18<sup>th</sup> August 2023