

# Rugged Wide Range Digital Igniter Tester: Models 4314 KV and 4314 KVS

## Precision Portability Protection

- Certified Mil Std 810 – Method 511 Safe for Explosive & Volatile Atmospheres
- Complies to (EWR) 127-1, Section 3.13.8.1-2
- Reduced Current (8mA Max)
- No Hassle Test Current Monitoring from 0 to 15mA (KVS model)
- Real Time Fail Safe Check (KVS model)
- Dust and Water Resistant – Rugged Compact Design
- Wide Range 2Ω - 2MΩ
- .1mΩ Resolution
- Rechargeable Battery Operated NiMH 10AH
- Certificate of N.I.S.T. traceability



Featuring the enhanced inner circuitry of its ultra-safe 4314 Series predecessors, with the addition of constant current monitoring, fail-safe check, and 7 ranges, all designed in a compact, rugged water-resistant Pelican case for protection in the harshest environments.

The 4314 series' circuitry has been reviewed and approved by a U.S. Government Safety Board and all branches of our armed forces for specific military programs. Countless critical military, aerospace and industrial applications utilize squibs and other blasting devices, and the ability to safely test the explosive's circuitry without accidentally detonating the device is paramount.

The 4314 KV and KVS feature redundant, dual fail-safe current limiting network circuitry to ensure the instrument test currents cannot exceed the specified amount, so even in the unlikely event of a worst case component failure, the output current limiting network is still in effect.

To prove that this level of safety is intact, the 4314KVS is equipped with a constant test current monitoring display and a unique Fail-Safe test button that simulates a worst case component failure and displays the "real" fail-safe current, all while the output is isolated from the current source. The 4314 KV and KVS are impact resistant, water-tight, float in water, are waterproof up to 3-feet when closed, and can operated in direct rain.

### Range Specifications

Rng #	Range	Resolution	Test Current	Failsafe Current	Accuracy
1	2Ω	100μΩ	5mA	8mA	± 0.03% of reading ± 0.02% of range
2	20Ω	1mΩ	5mA	8mA	± 0.03% of reading ± 0.02% of range
3	200Ω	10mΩ	500μA	1.8mA	± 0.03% of reading ± 0.02% of range
4	2kΩ	100mΩ	50μA	180μA	± 0.03% of reading ± 0.02% of range
5	20kΩ	1Ω	5μA	18μA	± 0.03% of reading ± 0.02% of range
6	200kΩ	10Ω	500nA	1.8μA	± 0.05% of reading ± 0.05% of range
7	2MΩ	100Ω	50nA	180nA	± 1% of reading ± 0.2% of range
8	Standby	-	0A	-	-

### General Specifications

Display Type: 4 ½ digits LEDs (19999)  
 Overload Indication: O. L.  
 Conversion Rate: 3 readings per second  
 Terminal Configuration: 4-Wire Kelvin  
 Current Source Compl. Voltage: Clamped at 1.6V

### Power

Power: 4 "D" Cell 1.2V recharg. NiMH Batteries 10000mAh  
 Battery Charger: 6VDC at 2.5A nominal

### Temperature

Temperature Coefficient: ±0.002% per °C  
 (from 0°C-15°C and 35°C-50°C)  
 Operating Temp. Range: 0°C to 50°C  
 Storage Temp. Range: -10°C to 70°C

### Physical Specifications

Width: 10.625" / 27cm  
 Depth: 9.5" / 24cm  
 Height: 4.875" / 12.5cm  
 Weight: 5.5 lbs / 2.5 kg net;

### Accessories

<b>A</b>	Replacement Battery Charger 115V/230Vac to 6VDC @ 2.5A
<b>HDB</b>	4 Heavy Duty rechargeable NiMH Replacement Batteries 1.2V 10000mAh.

### Options

<b>AC-115</b>	Continuous Isolated AC Power
<b>AF-6</b>	A 6-pin Mil-Spec circular connector (MS3112E10-6S) replaces the four-terminal banana jacks and the battery charger jack. Makes it physically impossible to simultaneously connect the AC/DC Charger while measuring with the test leads.

As with all Valhalla Digital Ohmmeters and Igniter Testers, the Alpha 4314 is available with a host of 4-wire probes and cable sets.



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