OP-T Digital Light-controlled Ignition Device

In the power supply circuits, power electronics PWM technology and negative feedback loop design are used to make the 12V DC battery power through - D - A – D –times voltage process. The maximum can be 12kV DC high-voltage. The features are stable high voltage output and low power loss. Also it still can output enough high voltage to ensure a reliable ball-gap discharge when battery voltage from 12V rated voltage to less than 9V, a substantial extension of the battery power after charging.

Digital Synchronous Ignition Box Optical Controller

- Light Controller receives narrow pulse ignition signal, and then convert it into light trigger signal. The minimum affected pulse width is 20 microseconds.
- A remote-control port is designed. By controlling the AC220V power input in remote-control port, it can control the function switch of light controller.

Technical Parameters

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<th>Parameter</th>
<th>Specification</th>
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<tr>
<td>Power Supply</td>
<td>DC12V or AC220V (±15%)</td>
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<td>Power Loss</td>
<td>&lt;1W</td>
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<tr>
<td>Input Signal Voltage Range</td>
<td>100V&lt;U, Peak Value&lt;2000V</td>
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<tr>
<td>Input Signal Pulse Width</td>
<td>&gt;20μs</td>
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<tr>
<td>Digital Fiber Type and Ports</td>
<td>Multi-mode, ST, 50/125μm glass fiber</td>
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<td>Simulated Fiber and Ports</td>
<td>BNC-Light emitting diodes</td>
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<td>Signal Delay</td>
<td>&lt;50μs</td>
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<td>Mechanical Code</td>
<td>42T<em>300</em>2U</td>
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Digital Light-controlled Synchronous Ignition Box

- Receive the light trigger signal from light controller, and convert it into narrow pulse electrical signals, to trigger HV circuit and produce HV synchronous ignition pulse.
- Use PWM (pulse width modulation) control and times voltage circuits to convert the battery voltage DC12V into 12KV DC high voltage.
- Use feedback loop circuit to ensure a stable high-voltage and power saving of the system, with total power consumption less than 5W.
- EMC design. This device includes digital circuits, power electronic circuits, high-voltage circuits, and high-voltage ignition circuit. Scientific electromagnetic compatibility design ensures reliability and stability of a system.

Technical Parameters

- Power Supply: DC12V
- Power Loss: <5W
- DC High Voltage Output: 10kV < U < 12kV
- Digital Fiber Type and Ports: Multi-mode, ST, 50/125μm
- Simulated Fiber and Ports: BNC-photo transistor
- Insulating Level: DC 20kV
- Signal Delay: <50μs
- Mechanical Code: 84T*420*6U

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