ELECTRONIC SAFE & ARM DEVICE

This high voltage Electronic Safe and Arm Device (ESAD) is designed for mission critical applications where a reliable arming and firing sequence with precise timing events is vital. Used for flight termination systems and rocket motor ignition, our ESADs meet the stringent requirements of RCC-319 and MIL-STD-1901A. This fully electronic device interfaces with a flight termination receiver, or mission controller, through a customizable input connector. This device outputs a high voltage firing current to initiate single or dual Low Energy Exploding Foil Initiators (LEEFIs). Our ESADs can be integral with the LEEFI energetic output or can initiate the LEEFIs through a high voltage flex stip. Also referred to as a high-energy electronic initiator firing unit, this device meets safety board requirements by incorporating three unique inhibits that must be satisfied prior to firing. Both “armed on the ground” and “armed after safe separation” approved variants are available.

FEATURES

• At least two unique environmental inhibit inputs
• Power On Self-Test (POST)
• Single or dual output LEEFI firing circuits
• Arm status monitor
• Power dropout protection and input filtering
• Failsafe and return to safe function
• Internal keep alive power supply
• Hermetically sealed laser welded package

INHIBIT OPTIONS

Two static switches & one dynamic switch:
• Factory selectable separation timers
• Accelerometers
• Breakwire (umbilical disconnect)
• Event sequence and timeout
• Flight battery switch detection
• Additional custom configurations available

ELECTRICAL CHARACTERISTICS

Logic Power: Wide voltage input range options 5v - 36v
Arming Power: Internal regulation of power inputs for logic and arming circuits
Power Requirements: Pre-Armed quiescent current <70mA, Arming peak current available from (100mA @ 100ms arming time) to (1.2A @ 10ms arming time), Post-Armed quiescent current <100mA