HA1.25B2-S

±1250V, ±2mA
PRECISION HIGH VOLTAGE AMPLIFIER MODULE

- FEATURES
  - ±1250V / ±2mA
  - High Precision, High Stability
  - Low Noise
  - High Speed
  - Inhibit Input
  - V/I Monitor Outputs
  - Local High Voltage Generation
  - Interlock Input

- APPLICATIONS
  - Electrostatic Deflection
  - EAP
  - Mirror Deflection / Deforming
  - Electrophoresis
  - Ion Beam Deflection
  - Electro Optics
  - MEMS
  - Mass Spectrometry
  - High Voltage Testing

The HA1.25B2-S is a high precision high voltage amplifier 3U / 6HP / 220mm plug-in card. It provides output voltages between -1250V and +1250V at ±2mA. The amplifier output is available via an SHV connector located on the front panel.

Signal gain is 125, the input voltage range is ±10V. The amplifier features high precision, very high stability, high speed as well as very low ripple and noise.

The output voltage can be controlled by means of a differential setpoint input. The amplifier is equipped with a voltage and current monitor and a TTL compatible INHIBIT input.

The amplifier output is protected against overcurrent, short circuit, overvoltage and high voltage flashover / arc.

External supply voltage is +24V. The high voltage generator is part of the module.

A safety interlock circuit is provided to integrate the unit into an emergency shutdown circuit. When the interlock loop is open, the internal high voltage sources are being shut down.

- TECHNICAL DATA
  - Output Voltage: ±1250V ... ±1250V, bipolar
  - Output Current: ±2mA
  - Full Power Bandwidth: DC ... >4kHz @ CL=0
    DC ... >1kHz @ CL=200pF
  - Small Signal Bandwidth: DC ... >10kHz @ CL=200pF
  - Control Input: ±10V (10V = 1250V), BNC, Rf = 50kΩ
  - DC Gain: 125 ±0.2%
  - Temperature Coefficient: typ. 10ppm/K
  - Load Regulation: < 50ppm
  - Ripple / Noise: < 30mVpp / < 4mVRMS @ CL=200pF
  - Monitor Output (V): ±10V (10V = 1250V), BNC
  - Monitor Output (I): ±10V (10V = 2mA), BNC
  - INHIBIT Input: TTL compatible, BNC
  - Output Connector: SHV
  - Supply Voltage: +24VDC ±10%
  - Ambient Temperature: Operation: 0 - +40°C
    Storage: -25 - +70°C
  - Dimensions: 3U x 6HP x 220mm

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