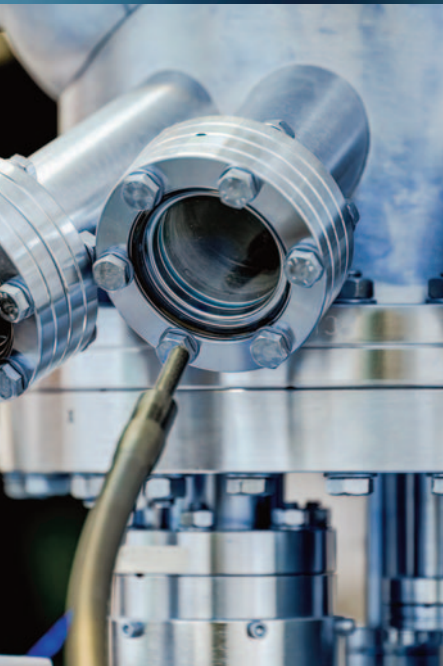




Precision High Voltage for Ion Beam/Electron Beam Applications



SEM • FIB • TEM • LITHOGRAPHY • SPECTROSCOPY • LENSES • DETECTORS
E-CHUCKS • BEAM BLANKERS • WIEN FILTERS • ION PUMPS



Low ripple, minimal micro-discharge, and high stability for I-Beam/E-Beam applications



LITHOGRAPHY
SPECTROSCOPY
E-CHUCKS
LENSES
SEM
FIB
TEM
DETECTORS
BEAM BLANKERS
WIEN FILTERS
ION PUMPS

For over 75 years, Spellman has been helping technology companies grow by providing standard and custom high voltage power converters, X-Ray generators and Monoblock® X-Ray sources of exceptional value and performance.

E-Beam and I-Beam High Voltage Power Supplies

Precision high voltage is an integral part of high-performance Electron Beam and Ion Beam applications. Spellman offers a comprehensive portfolio of standard and OEM customized solutions providing ppm level performance high voltage throughout the instrument architecture.

Spellman's extensive application knowledge and unique design capabilities enable the design of exacting products that achieve the ever-increasing performance demands, whether it be low ripple, ultra-stable outputs, minimal micro-discharges and robust protection.

Standard and OEM Customized Solutions

High voltage solutions are available for Scanning Electron Microscopes (SEM), Transmission Electron Microscopes (TEM), Focused Ion Beam (FIB), Micro Optics, Spectroscopy, Semiconductor Lithography and development mask work instrument types.

- **Ripple specs as low as 2ppm**
- **Arc and short-circuit protected**
- **Customizable for OEM applications**
- **Wide range of control options**
- **Compact footprints and mounting solutions**
- **Innovative high voltage solutions through continuous research and development**
- **Global technical support centers provide rapid local response to customer needs**

For detailed specifications on all of our E-Beam/I-Beam power supplies please visit:

spellmanhv.com/analytical



THERMIONIC SEM

EBM20N5/24



- Acceleration, bias and filament sources in a single compact package
- Highly regulated, low noise, ultra-stable accelerator supply programmable from 0 to -20kV at 250µA
- Floating filament and bias supplies referenced to the accelerator
- Differential analog programming inputs to minimize external noise and offset voltages effects



EBM-TEG



- Integrated acceleration, bias, filament, PMT, scintillator and collector sources
- Highly regulated, low noise, ultra-stable accelerator supply programmable from 0 to -30kV at 170µA
- Floating filament and bias supplies referenced to the accelerator
- High voltage outputs to drive the detector, comprising PMT, scintillator and collector grounded outputs
- Differential analog programming inputs to minimize external noise and offset voltages effects



EBM-TEGR



- Integrated acceleration, bias, filament, PMT, scintillator and collector sources in a 19" rack mountable chassis
- Highly regulated, low noise, ultra-stable accelerator supply programmable from 0 to -30kV at 400µA
- Floating filament and bias supplies referenced to the accelerator
- High voltage outputs to drive the detector, comprising PMT, scintillator and collector grounded outputs
- Five interlocks provided
- RS-232 or optional RS-485 digital interface



FIELD EMISSION SEM

EBM-FEG



- Acceleration, filament, extractor and suppressor outputs in a compact solution with extenders to mount in a 19" rack
- The accelerator is a high stability -30kV, 200µA supply
- All outputs are offered with ultra-low output ripple, excellent regulation, stability, temperature coefficient, drift and accuracy specifications
- Optical vacuum interlock
- Optically isolated RS-232 digital interface



EBM60-FEG



- Acceleration, filament, extractor and suppressor sources
- The accelerator is a high stability -60kV, 300µA supply
- All outputs are offered with ultra-low output ripple, excellent regulation, stability, temperature coefficient, drift and accuracy specifications
- Cable and gun interlocks provided
- RS-232 digital interface



FOCUSED ION BEAM AND LENSES

FIB and LGM



- Acceleration, filament, extractor and suppressor outputs in a 19" rack mountable chassis (FIB)
- High stability 35kV, 30µA Accelerator supply
- The Lens Chassis (LGM) offers two ground referenced voltage outputs up to 30kV with fixed or reversible polarity providing the high performance HV lenses required to focus the ion beam
- Optically isolated RS-232, RS-485 or Ethernet digital interface options



HIGH PERFORMANCE MODULES FOR LENSES AND OTHER PRECISION APPLICATIONS

MXE



- 2.5kV, 5kV and 10kV @ 200µA max
- Reversible Polarity
- Differential, RS-232 and RS-485 control



MPD



- 1kV to 30kV @ 10W max
- Positive or negative polarity
- Differential, RS-232 and RS-485 control
- Current control mode and wobbler function



OEM CUSTOMIZATION

Spellman takes pride in offering custom high voltage solutions to meet or exceed your expectations. Contact Spellman sales for more information.

Global technical support centers provide rapid local response to customer needs



Our globally situated technical support centers are strategically located to provide rapid local response to customer needs. Support Centers are linked through a common ERP system and real-time data reporting so information is always available about your product and delivery status

Spellman Headquarters:

AMERICAS

475 Wireless Blvd
Hauppauge, NY 11788
Phone: +1 631-630-3000
Fax: +1 631-435-1620
Email: sales@spellmanhv.com

EMEA

Broomers Park
Broomers Hill Lane Pulborough
West Sussex, United Kingdom RH20 2RY
Phone: +44 (0) 1798 877000
Fax: +44 (0) 1798 872479
Email: hvsales@spellmanhv.co.uk

ASIA

No. 86 Jinjiang Road,
Suzhou Industrial Park 215217 China
tel: +86-512-67630010
fax: +86-512-67630030
Email: sales@spellmanhv.cn

Contact us:



spellmanhv.com/contact

