



SDS High Voltage - Systems Development & Solutions is a French company dedicated to serve its customers with a wide range of micro-size DC/DC converters.

SDS High Voltage designs and manufactures high voltage ultra-miniature converters. These converters are fitted in tiny housing boxes that can be soldered directly onto printed circuits. Inputs voltage are 5, 12, 15 or 24 Vdc and output voltages reach 100v to 6kv. They can be isolated or not and the output voltage is adjustable from 0V to nominal voltage (high impedance analog input).

These products are designed and manufactured to be used in a wide array of professional domains where reliability, functionality, space saving and cost-effectiveness are essential to our customers' success.

SDS High Voltage dedicates its technical know-how and experience to provide its clients with adapted solutions. in the fields of **industrial, medical, military, research and aerospace fields**.

All information are available on our website at <http://www.high-voltage-power-supplies.co.uk/miniature-converters/>.

For further information, or speak to a sales representative, please **call us on +33 (0) 1 84 23 11 10** or **contact us by e-mail at contact@sdshv.com**.

Micro-size Products - DC/DC

PRV Series - HV converter: Isolated and proportional, single or dual output and customizable polarity



The PRV Series is a proportional and isolated DC/DC high voltage converter ranging from 160 V to 4000 Vdc with single or dual polarity. Output power is up to 6 Watt. Input voltage is from 2.5 Vdc to 15 Vdc.

Highlights: high efficiency, isolation up to 500 Vdc, logical ON/OFF input, miniature, lightweight, low noise due to metal shielding and quasi-sinus oscillator, customizable polarity, single or dual output, PCB flat-mounting.

Main applications: DC to HVDC bias supplies, capacitor charging, APD/PMT/GM tubes power supplies, ink-jet printing, electrostatic detector, deflection plates, electron Beam, focusing optics.

Product	Description	Input voltage	Output voltage	Output power	Available configurations
PRV Series	Isolated and proportional, single or dual output	2.5Vdc to 15Vdc	0.16 to 1 kVdc / 0.33 to 2 kVdc / 0.66 to 4 kVdc	Up to 6W	Custom polarity (negative or positive)



Micro APD Series - PCB mount ultra-compact, high regulated DC/DC



Micro APD Series is the smallest regulated DC-DC power supply for APDs and MPPCs that need a bias voltage ranging from 0 to 100V. Input voltage is +5 Vdc.

Highlights: ultra miniature and lightweight, PCB flat-mounting, low ripple, low noise, tight line / load regulation.

Main applications: Avalanche Photo Diodes (APD), Silicon Photomultipliers (SiPM)

Product	Description	Input voltage	Output voltage	Output power	Available configurations
Micro APD Series	PCB mount ultra-compact, high regulated DC/DC	+5 Vdc	0.1 kVdc	0.1 W	Custom polarity (negative or positive)

APD Series - PCB mount ultra-compact, high regulated DC/DC



The highly compact APD-Series is a PCB mount ultra-compact, high regulated DC/DC. APD Series is specifically designed to meet the needs of professionals working to develop products for the growing commercial, and research, applications of avalanche photodiodes. These units enable customers in domains including laser range finders, fiber optic telecommunications and particle physics to achieve greater quantum efficiency and reduced total leakage current. Input voltage is from +5Vdc to +12 Vdc. Output voltage is 0.1/0.2/0.3/0.4 kVdc. Output power is 0.5 W.

Highlights: miniature and lightweight, PCB flat-mounting, low ripple, low noise, tight line / load regulation, output current limit protection, inhibition mode.

Main applications: Avalanche Photo Diodes (APD), Silicon Photomultipliers (SiPM)

Product	Description	Input voltage	Output voltage	Output power	Available configurations
APD Series	High regulated DC/DC converter	+5 Vdc / + 12 Vdc	0.1/0.2/0.3/0.4 kVdc	0.5 W	Custom polarity (negative or positive)

MTV Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC, raised mounting



The MTV Series is the ideal solution for PMTs that need a bias voltage ranging from 0 to 1500V with very small current. Input voltage is from +12Vdc to +25 Vdc. Output voltage is 0.6/1.0/1.25/1.5 kVdc. Output power is 1.0 W.

Highlights: miniature and lightweight, voltage monitoring, raised PCB mounting, self-restoring output voltage, low ripple, low noise, tight line / load regulation, output current limit protection, inhibition mode.

Main applications: Avalanche Photo Diodes (APD), Photo Diodes (PD), Photomultiplier Tubes (PM)

Product	Description	Input voltage	Output voltage	Output power	Available configurations
MTV Series	High voltage converter DC/DC, raised mounting	+12 Vdc/+25 Vdc	0.6/1.0/1.25/1.5 kVdc	1.0 W	Custom polarity Flying wire for HV output



MTM Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC, flat mounting



The MTM Series is the ideal solution for PMTs that need a bias voltage ranging from 0 to 1500V with very small current. Input voltage is from +12Vdc to +25 Vdc. Output voltage is 0.6/1.0/1.25/1.5 kVdc. Output power is 1.0 W.

Highlights: miniature and lightweight, voltage monitoring, flat PCB mounting, self-restoring output voltage, low ripple, low noise, tight line / load regulation, output current limit protection, inhibition mode.

Main applications: Avalanche Photo Diodes (APD), Photo Diodes (PD), Photomultipliers Tubes (PM)

Product	Description	Input voltage	Output voltage	Output power	Available configurations
MTM Series	High voltage converter DC/DC, flat mounting	+12 Vdc/+25 Vdc	0.6/1.0/1.25/1.5 kVdc	1.0 W	Custom polarity Flying wire for HV output

WRV Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC, raised mounting



The WRV Series use an original design involving a high frequency, pulse by pulse regulated PWM regulator (Current Mode) which allows an exceptional wide input voltage range. Thus, those converters are recommended for unregulated supplies such as batteries, solar cells, etc...and too, for systems with versatile sources of power. A pre-regulator is useless and savings are made. Also, the technique allows a tight output regulation and a very low, free of pic, ripple.TC <50ppm/°C. Output voltage is 1.0/2.0/3.0 kVdc. Input voltage is +5/+12/+25 Vdc. Output power is 1.0 W.

Highlights: PCB raised mounting, miniature and lightweight, voltage and current buffer monitoring, low ripple, low noise, tight line / load regulation.

Main applications: unregulated supplies such as batteries, solar, cells, versatile sources of power.

Product	Description	Input voltage	Output voltage	Output power	Available configurations
WRV Series	High voltage converter DC/DC, PCB mount ultra compact, regulated	+5/+12/+25 Vdc	1.0/2.0/3.0 kVdc	1.0 W	Custom polarity (fixed, negative, positive)

WRM Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC, flat mounting



The WRM Series use an original design involving a high frequency, pulse by pulse regulated PWM regulator (Current Mode) which allows an exceptional wide input voltage range. Thus, those converters are recommended for unregulated supplies such as batteries, solar cells, etc...and too, for systems with versatile sources of power. A pre-regulator is useless and savings are made. Also, the technique allows a tight output regulation and a very low, free of pic, ripple.TC <50ppm/°C. Output voltage is 1.0/2.0/3.0 kVdc. Input voltage is +5/+12/+25 Vdc. Output power is 1.0 W.

Highlights: PCB flat mounting, miniature and lightweight, voltage and current buffer monitoring, low ripple, low noise, tight line / load regulation.

Main applications: unregulated supplies such as batteries, solar, cells, versatile sources of power.

Product	Description	Input voltage	Output voltage	Output power	Available configurations
WRM Series	High voltage converter DC/DC, PCB mount ultra compact, regulated	+5/+12/+25 Vdc	1.0/2.0/3.0 kVdc	1.0 W	Custom polarity (fixed, negative, positive)



DA Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC



The DA Series is particularly adapted to controlling photonic detectors that need high bias voltages and currents. Industrials, integrators and researchers will benefit from the units small size, lightweight design, excellent voltage regulation and reduced residual undulation.

Highlights: small height and lightweight, voltage monitoring, PCB flat mounting, adjustable from 0 to full output, low ripple, low noise, tight line / load regulation.

Main applications: Avalanche Photo Diodes (APD), Electrostatic Chuck (E-chuck), Gas Chromatography, Geiger-Müller Tubes (GM Tubes), Image Intensifiers (II), Microchannel Plates (MCP), Photodiodes (PD), Photomultiplier Tubes (PMT).

Product	Description	Input voltage	Output voltage	Output power	Available configurations
DA Series	High voltage converter DC/DC, PCB mount ultra compact, regulated	+15/+24 Vdc	1.0/2.0/4.0 kVdc	1.0/ 2.0/ 4.0 W	Custom polarity (fixed, negative, positive)

DE Series - PCB mount ultra-compact, regulated, high voltage converter DC/DC



The DE Series is particularly adapted to controlling photonic detectors that need high bias voltages and currents. Industrials, integrators and researchers will benefit from the units small size, lightweight design, excellent voltage regulation and reduced residual undulation.

Highlights: small height and lightweight, voltage monitoring, PCB flat mounting, adjustable from 0 to full output, low ripple, low noise, tight line / load regulation.

Main applications: Avalanche Photo Diodes (APD), Electrostatic Chuck (E-chuck), E-Beam Lithography and Welding, Focused Ion Beam (FIB), Gas Chromatography, Geiger Muller Tubes (GM Tubes), General Laboratory, High Voltage Testing, Image Intensifiers (II), Insulator Testing, Lithography, Microchannel Plates (MCP), Photodiodes (PD), Photomultiplier Tubes (PMT), Scanning Electron Microscopes, Spectrometer.

Product	Description	Input voltage	Output voltage	Output power	Available configurations
DE Series	High voltage converter DC/DC, PCB mount ultra compact, regulated	+15/+24 Vdc	1.0/2.0/4.0/6.0 kVdc	1.0/ 2.0/ 4.0 W	Custom polarity (fixed, negative, positive)

FPB Series - Complete socket assemblies for photomultiplier tubes



SDS High Voltage manufactures complete power bases upon request to match the photomultipliers of tube diameters of 25mm (1 inch), 28mm (1 1/8 inch), and 51mm (2 inch). For an easy use of photomultiplier tubes, SDS designs socket assemblies consisting of a high quality socket, a voltage divider circuit, and a high voltage converter integrated into a compact and lightweight housing. They operate from 5, 12, 15 or 24Vdc inputs, providing single outputs of up to 1500Vdc. The voltage-divider network designed according to the application measurement or counting. Voltage monitoring is available upon request. These products are fully encapsulated. Different power base designs are possible. according to the types of photomultipliers and their mode of operation.

Product	Description	Input voltage	Output voltage	Output power	Available configurations
FPB Series	Compact PM power base incorporating an HV module plus a voltage divider	5Vdc, 12Vdc, 15Vdc or 24Vdc	0 to 100V / 0 to 1500V	Up to 1W	Custom design solutions upon request

