

# HV4479 SERIES

## PHOTOMULTIPLIER TUBES/APD HIGH VOLTAGE DC/DC CONVERTER



### Direct replacement of the standard 4479 series converters

- >Very low noise – very low drift
- >Vout: 300V, 600V, 1kV or 2kV models
- >Vin: 12 or 24V options
- >Polarity: fixed, negative or positive options
- >Remote voltage programming or embedded potentiometer
- >Voltage & current monitors
- >Output overshoot free, limited slew rate



### Features :

Micro-size and lightweight	Tight line & load regulation	Low ripple
Voltage & current monitors	Arc and short circuit protected	Low Temperature coefficient

Parameters:	Specifications (at Tamb=25°C unless otherwise specified)	
Model	+12Vdc	+24Vdc
Input voltage range Vin ( pins 1,2 & 3)	11.5 to 13.5V	22.5 to 26.5V
Absolute maximum input voltage Vin	+32Vdc	
Input current at full load	250mA typical	150mA typical
Output voltage	From 0 to 100% of the rated voltage (control voltage setting internally limited to 110% of its nominal maximum value)	
Polarity	Fixed positive or negative	
Fixed reference output (pin 4)	+5V +/-0.2% 50ppm/°C	+10V +/-0.2% 50ppm/°C
Control of the voltage setting (pin 5)	0 to 5V (Zin=1MΩ)	0 to 10V (Zin=166kΩ)
Variable reference output (pin 6)	0 to +5V, multi-turn trimmer	0 to +10V, multi-turn trimmer
Output voltage monitor (pin 7)	0 to +5V accuracy +/-0.2%, Zout = 1kΩ	0 to +10V, accuracy +/-0.2%, Zout = 1kΩ
Output current monitor (pin 8)	0 to +5V, accuracy +/-1%, Zout = 1kΩ	0 to +10V, accuracy +/-1%, Zout = 1kΩ
Line voltage regulation	+/-0.002% over the specified input voltage range	
Load voltage regulation	+/-0.002% no load to full load	
High frequency ripple	<2mVpp	
Low frequency ripple	<10mVpp	
Output short circuit protection	Yes, for permanent short circuit, output current limited to 110% of the full range	
Output voltage drift	Within 10ppm with stabilized temperature room	
Temperature coefficient	50ppm/°C over the operating temperature range	
Operating temperature range	Temperature of the case : -10°C to +70°C	
Storage temperature range	-20°C to +75°C ambient	
Input reversal connection protection	Yes	
Shielding and safty	None high voltage exposed area	



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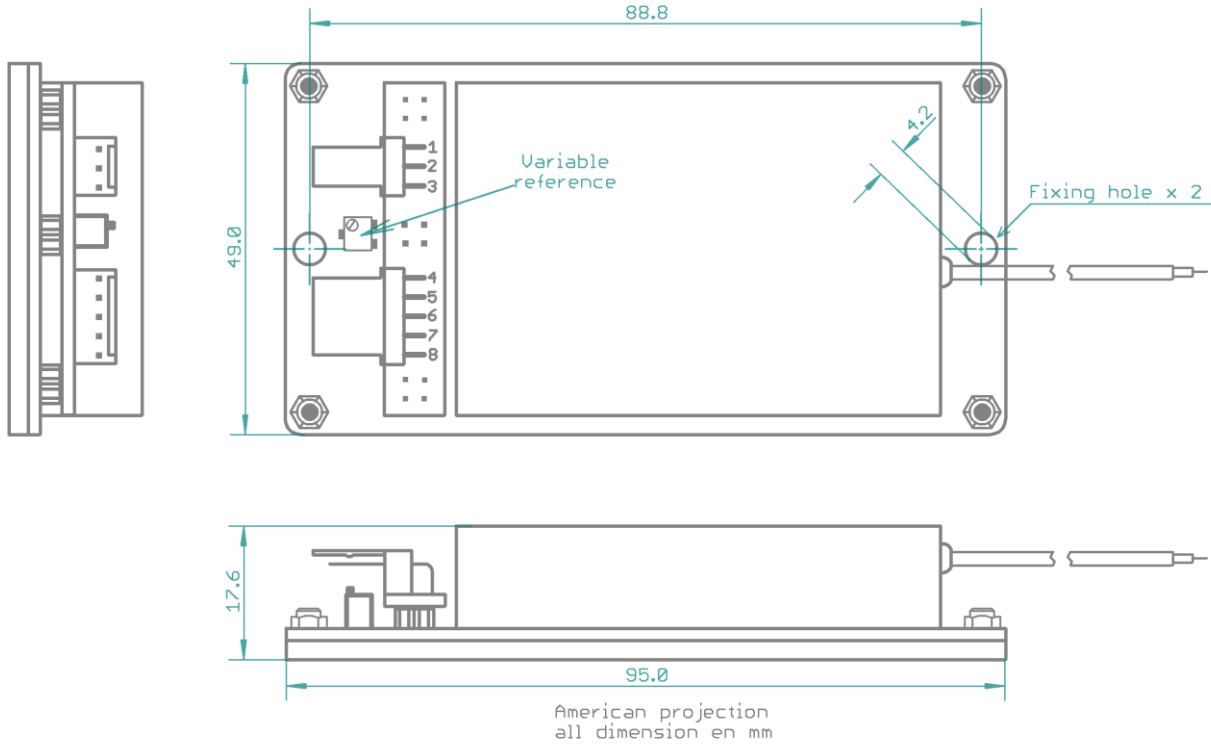
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### Package Configuration:

Dimensions	L 95 x W 49 x H 17.6mm (see mechanical drawing)
Lead	Coaxial cable RG178B/U Diam:2mm, length : 50cm
Weight	~130g
Insulation	Potted with an UL resin

### Mechanical details (not to scale):



#### Connectors reference:

- 3 ways : MOLEX KK254 22-05-7038, matches with KK 254 Crimp Housing 22012037
- 5 ways : MOLEX KK254 22-05-7058, matches with KK 254 Crimp Housing 22012057

### Connecting:

Line input	#1: supply input (In+) #2: 0V supply #3: 0V supply
Output Voltage setting	#4: reference voltage output #5: control input #6: variable reference output (embedded potentiometer)
Monitors	#7: voltage monitor output #8: Current monitor output
High voltage Output	Lead: Vout



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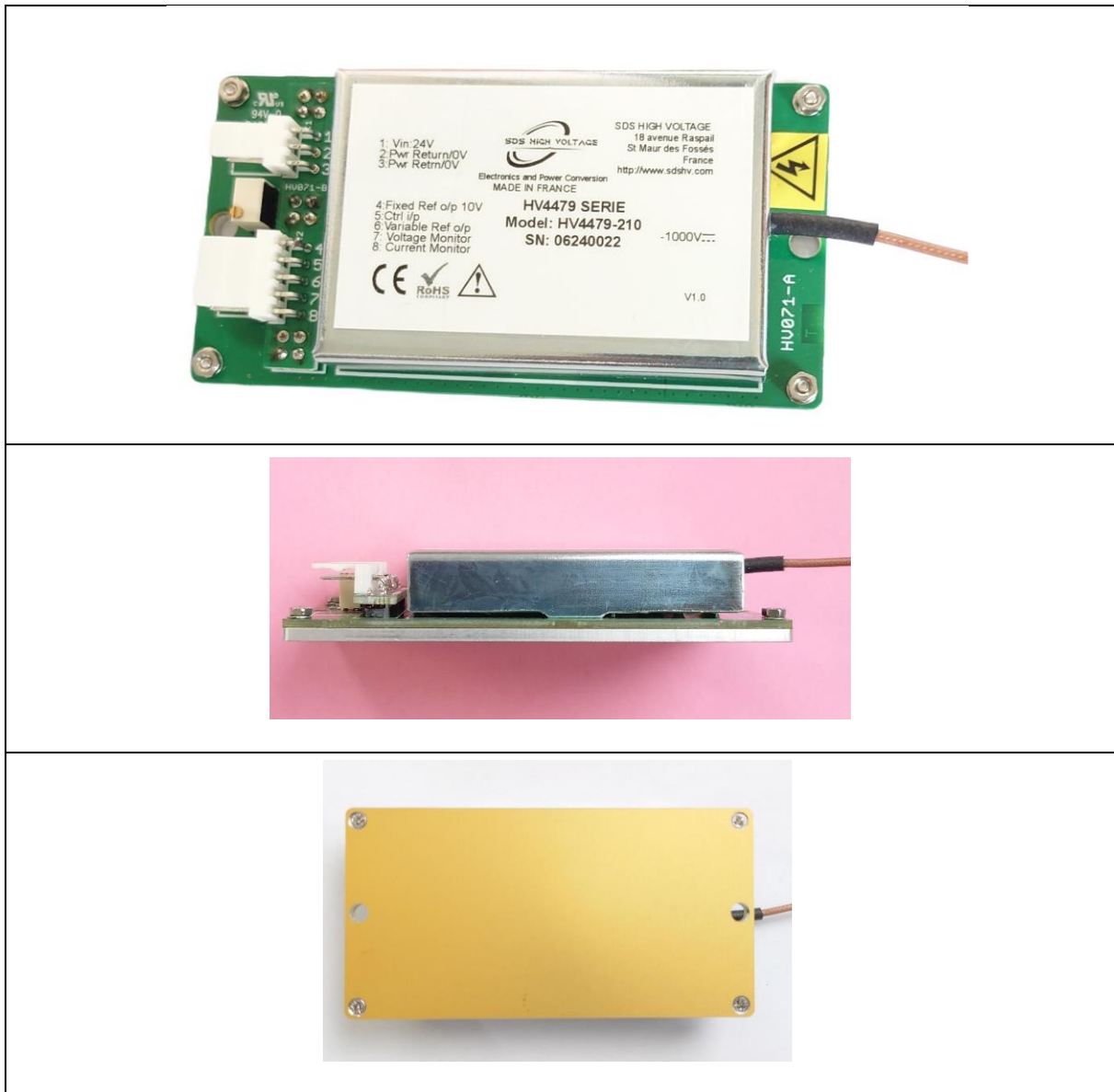
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### Ordering codes:

Output voltage	Output current	12V INPUT		24V INPUT	
		Positive	Negative	Positive	Negative
300V	3mA	HV4479-101	HV4479-201	HV4479-107	HV4479-207
600V	3mA	HV4479-102	HV4479-201	HV4479-108	HV4479-208
1kV	2mA	HV4479-104	HV4479-201	HV4479-110	HV4479-210
2kV	1mA	HV4479-106	HV4479-201	HV4479-112	HV4479-212

Other output voltage/current options may be available on demand.



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