



# SP7160, 1W, Regulated, SPECIFICATION SHEET



**Standard Model Number : SP7160**

**RoHs Model Number : SP7160/Y**

## ELECTRICAL SPECIFICATIONS

*Standard Model is NOT RoHs Compliant*

Input Voltage.....	11.5V - 16Vdc	Programming Voltage.....	0 - 5Vdc
Input Current.....	<50mA (No Load)	Programming Current.....	< 100uA
Input Current.....	<160mA (Full Load)	Programming Linearity.....	<1% (15% to 100% Vout)
Output Voltage.....	0V -+500Vdc (Programmable)	Input Filter.....	Low ESR Capacitor
Output Current.....	2.0mA	<b>Reverse Input Protection.....</b>	<b>50Vdc</b>
Voltage Accuracy.....	+/-1%	<b>Short Circuit Protection.....</b>	<b>Continuous</b>
Line Regulation.....	<0.05%	Switching Frequency.....	250 kHz
Load Regulation.....	<0.05%	Gain Adjustment.....	.5 to 10%
Output Ripple.....	<0.004% P-P	Linearity.....	<1% (15% to 100% Vout)
		Response Time.....	<150 ms (Full Load, full scale response)

## GENERAL SPECIFICATIONS

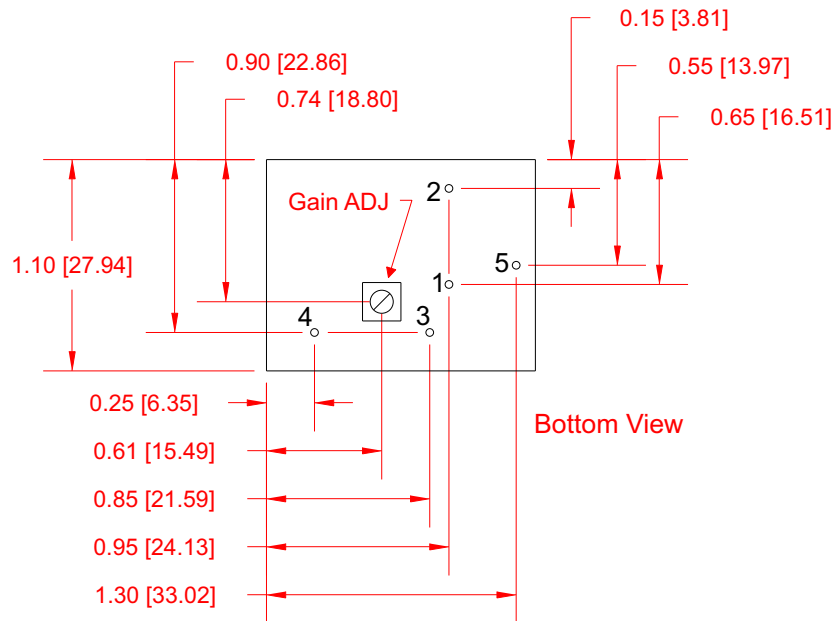
Stability .....	< 0.01% / Hr.	EMI/RFI .....	Six-Sided Shield
Temp. Stability .....	+/- 0.005%/°C	Derating .....	None
<b>Temp. (Operating, Case).....</b>	<b>-25 to +70°C</b>	Cooling .....	Free-Air Convection
Temp. (Storage) .....	-40 to +125°C	Certifications .....	UL & CE (Pending)
Humidity .....	0 to 95% (Non-Condensing)		
Thermal Shock Limit .....	1°C / 10 Seconds		

## PHYSICAL SPECIFICATIONS

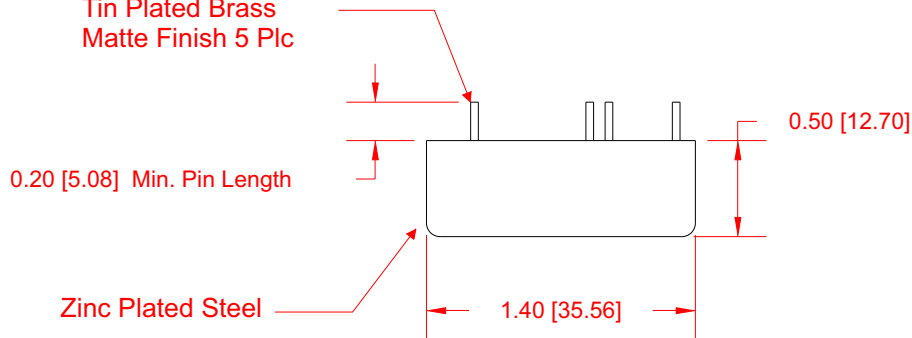
Dimensions .....	1.1 x 1.4 x 0.50 inches	Case Material .....	Zinc Plated Steel
Weight .....	1.1 Oz		



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PIN - 0.04 [1.02] Dia.  
Tin Plated Brass  
Matte Finish 5 Plc



PIN #	FUNCTION
1	+ Input
2	GND
3	Control / Programming Voltage
4	HV Output
5	Case Gnd

*Dimensions are in Inches  
[Metric equivalents in brackets]*



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## APPLICATION NOTES

### CLEANING AGENTS

In order to avoid possible damage, any penetration of cleaning fluids must be prevented, since the power supplies are not hermetically sealed.

### NUCLEAR AND MEDICAL APPLICATIONS

American Power Design products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of American Power Design, Inc.

### SAFETY REQUIREMENTS

The converters are designed to meet North American and International safety regulatory requirements per UL 60950-1/CSA 22.2 No. 60950-1-07 Second Edition, IEC 60950-1:2005, and EN 60950-1:2006. Basic Insulation is provided between input and output. To comply with safety agencies requirements, an input line fuse (1A SB) must be used external to the converter.

If one input fuse is used for a group of modules, the maximum fuse rating should not exceed 20A.

### WARRANTY

All products manufactured by American Power Design, Inc. (APD) are warranted to be free of defects due to material or workmanship for a period of one year from date of shipment. At our option, APD will repair or replace any non-conforming product.

APD expressly disclaims any liability for consequential or incidental damages resulting from the use or misuse of its products by the purchaser or others.

This warranty is in lieu of all warranties expressed or implied, including the warranties of merchantability. No other warranties, obligations, or liabilities are expressed or implied.

All products being returned for repair require a return material authorization(RMA) assigned by APD prior to return shipment.