



Endicott Research Group, Inc.

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 607-754-9187 Fax 607-754-9255
<http://www.ergpower.com>

8m122868

**8m Class
 DC to AC Inverter**

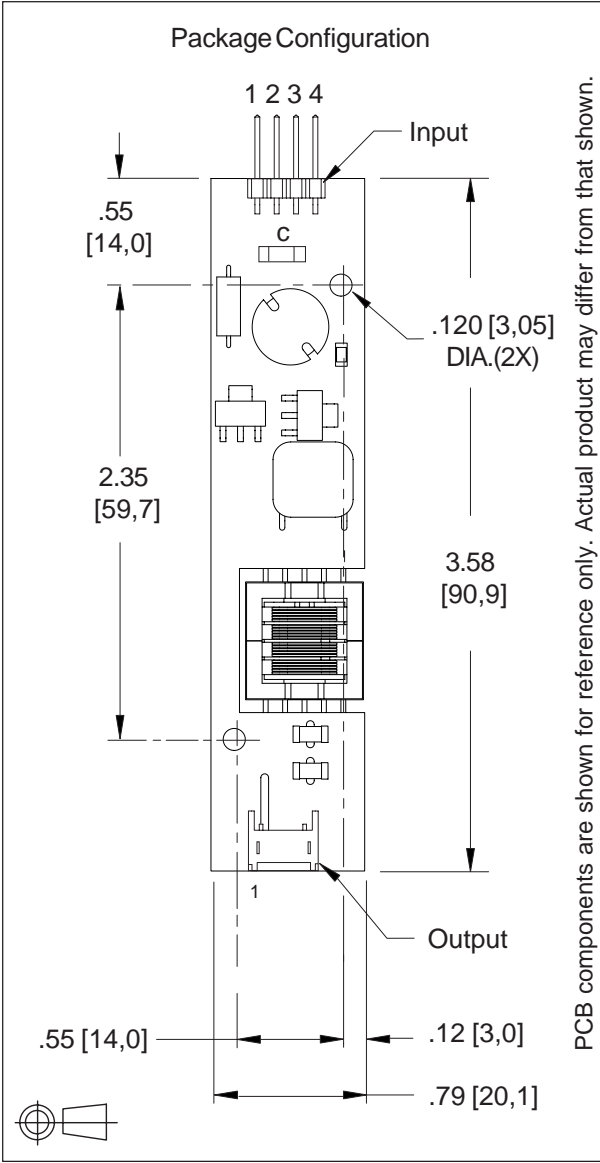
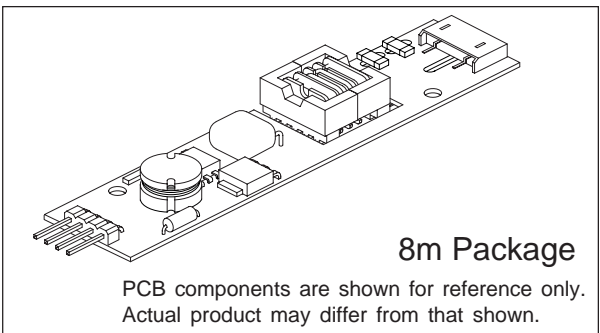
**Specifications and
 Applications Information**

04/27/04 Preliminary

The ERG 8m122868 (8m Class) low profile dc to ac inverter is specifically designed to power the Optrex T-51382-D064-FW-P-AB LCD display module to a moderate brightness level from a +12 volt dc source.

This low profile inverter features:

- ✓ Less Than 8 mm in Height
- ✓ LCD Module Specific
- ✓ Display Compatible Output Connector
- ✓ Firm Specifications
- ✓ Application Information
- ✓ Designed, Manufactured and Supported in the USA
- ✓ Custom Input and Output Voltages
- ✓ Flexible System Interface
- ✓ Notebook Display Head Compatible



Connectors	
Input Connector	Output Connector
4 pins are 0.315" [8,00] Long, 0.025" [0,63] Square and are on 0.100" [2,54] Centers.	JST SM02(8.0)B-BHS-1-TB
J1-1 Vin(+) J1-2 GND J1-3 Control * J1-4 N/C	J2-1 ACout J2-2 ACout
(* Valid with "C" jumper removed)	

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	V _{in}	-0.3 to +13.2	V _{dc}
Operating Temperature	T _o	-0 to +70	°C
Storage Temperature	T _{stg}	-40 to +85	°C

Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	V _{in}	+10.8 to 12.6	V _{dc}

Electrical Characteristics

Unless otherwise noted V_{in} = 12.00 Volts dc and T_a = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current ^(note 1)	I _{in}	-	.21	.25	A _{dc}
Operating Frequency	F _o	31	36	41	KHz
Minimum Output Voltage	V _{out} (min)	1250	-	-	V _{rms}
Efficiency	-	-	74	-	%
Output Current (per tube)	I _{out}	-	5.3	-	ma _{rms}
Output Voltage (When powering a load simulating the referenced display)	V _{out}	-	350	-	V _{rms}
Pin3 Input Current Requirement	-	-	6	-	ma _{dc}

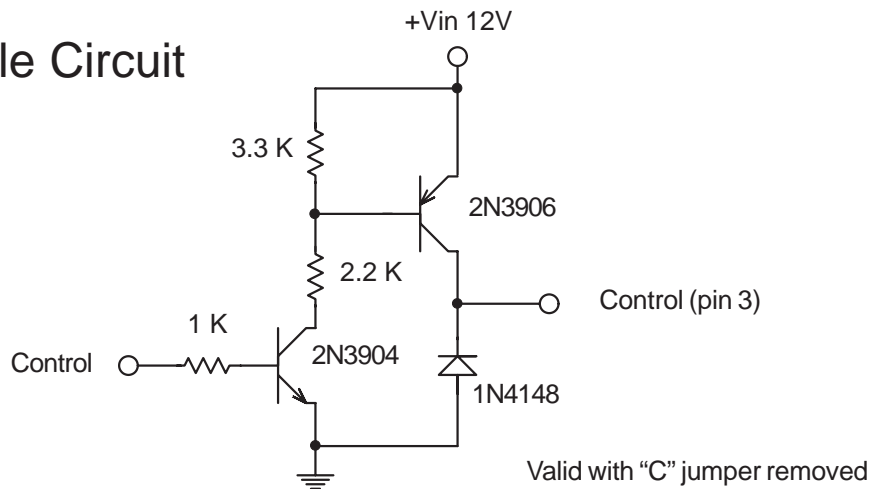
After tube has been allowed to warm-up for 5 minutes

Specifications subject to change without notice.

(Note 1) Input current in excess of maximum may indicate a load/inverter mismatch condition, which can result in reduced reliability. Please contact ERG technical support.

Input voltage specification modified for clarity on 4/2004.

Disable Circuit



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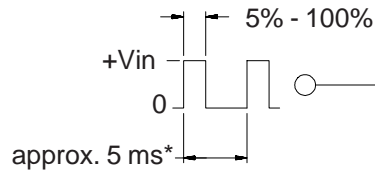
Made in USA



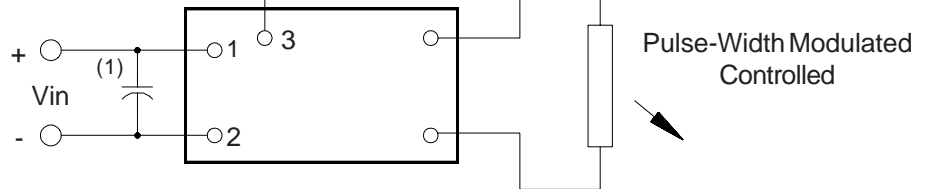
3 Dimming Options

(Valid with "C" jumper removed)

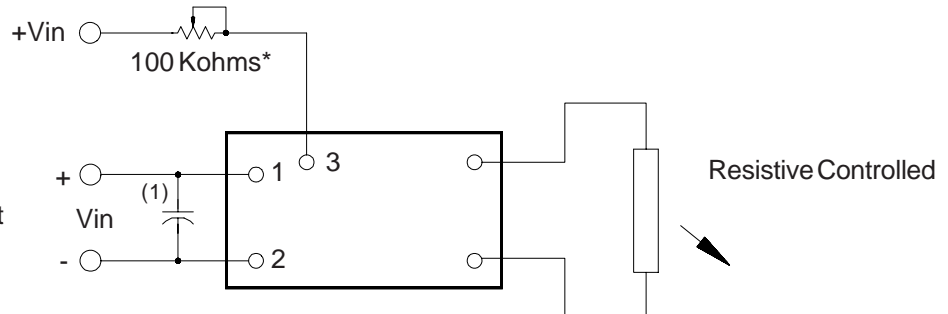
8m122868



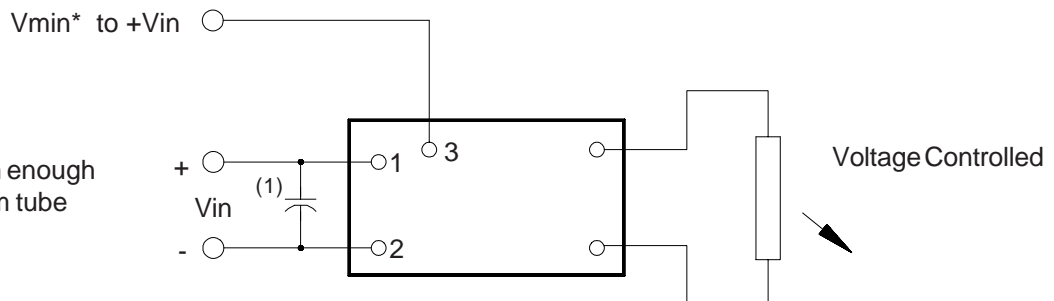
* should be selected to be compatible with LCD and display driver



* value should be low enough to maintain minimum tube current at minimum brightness



* Vmin should be high enough to maintain minimum tube current



Note 1 Input by-pass capacitor (25 uf - 100uf) may be required to reduce reflected ripple.



Endicott Research Group, Inc. (ERG) reserves the right to make changes in circuit design and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by ERG is believed to be accurate and reliable. However, no responsibility is assumed by ERG for its use.