



# 8m122868

## 8m Class DC to AC Inverter

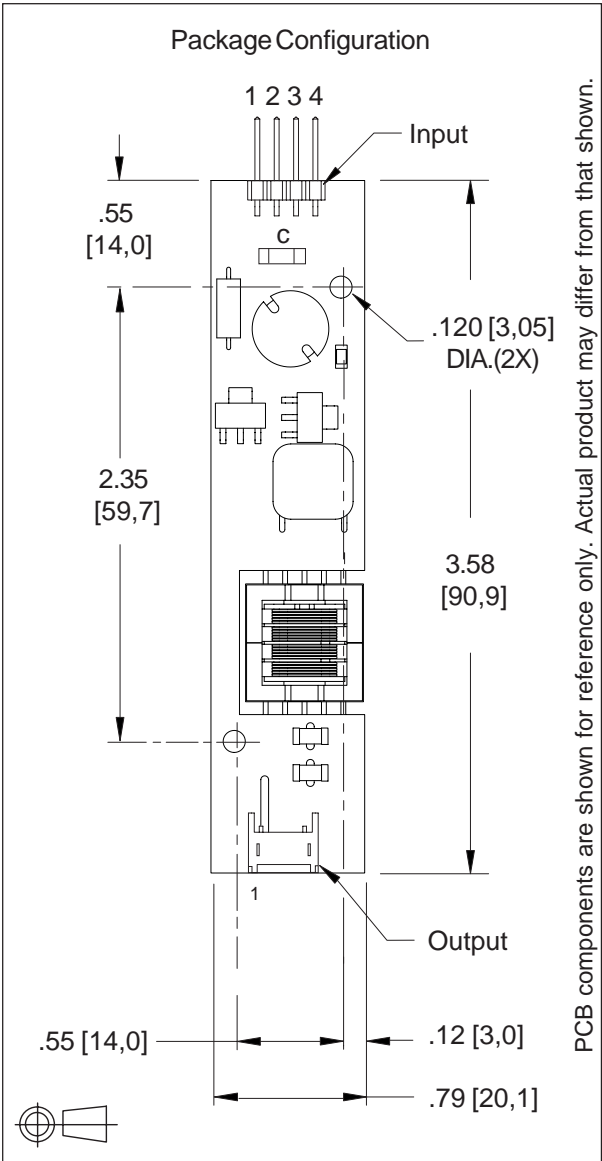
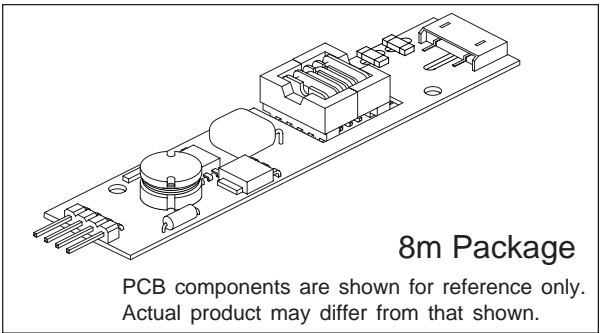
### Specifications and Applications Information

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 <sub>in</sub>	-0.3 to +13.2	Vdc
Operating Temperature	T <sub>o</sub>	-0 to +70	°C
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C

## Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	V <sub>in</sub>	+10.8 to 12.6	Vdc

## Electrical Characteristics

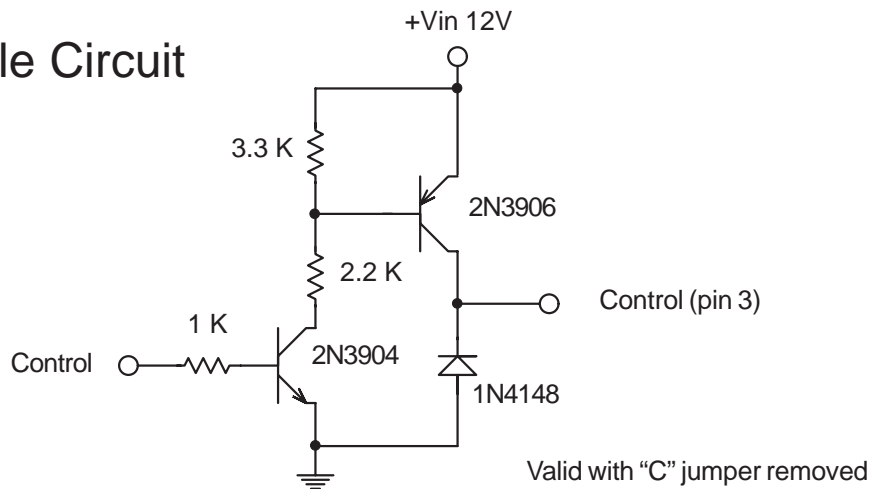
Unless otherwise noted V<sub>in</sub> = 12.00 Volts dc and T<sub>a</sub> = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current <sup>(note 1)</sup>	I <sub>in</sub>	-	.21	.25	Adc
Operating Frequency	F <sub>o</sub>	31	36	41	KHz
Minimum Output Voltage	V <sub>out</sub> (min)	1250	-	-	Vrms
Efficiency	-	-	74	-	%
Output Current (per tube)	I <sub>out</sub>	-	5.3	-	marms
Output Voltage (When powering a load simulating the referenced display)	V <sub>out</sub>	-	350	-	Vrms
Pin3 Input Current Requirement	-	-	6	-	madc

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



**Endicott Research Group, Inc.**

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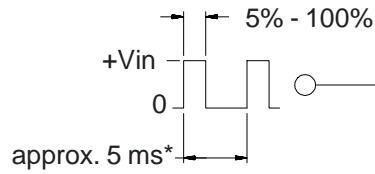
Made in USA



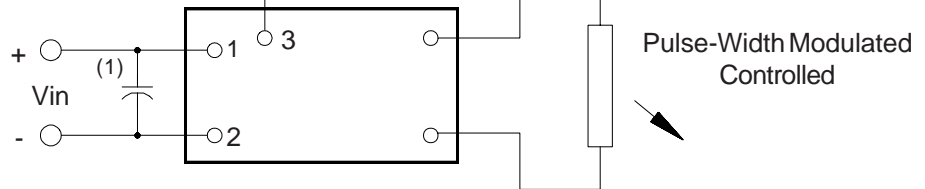
# 3 Dimming Options

(Valid with "C" jumper removed)

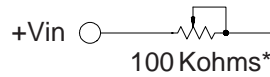
# 8m122868



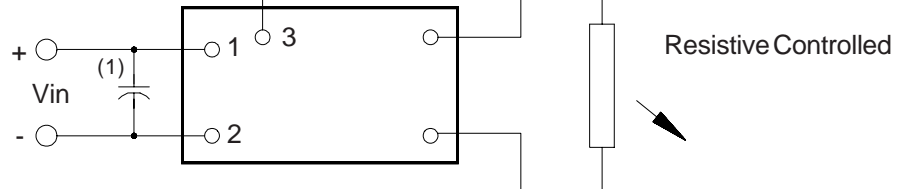
\* should be selected to be compatible with LCD and display driver



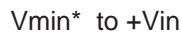
Pulse-Width Modulated Controlled



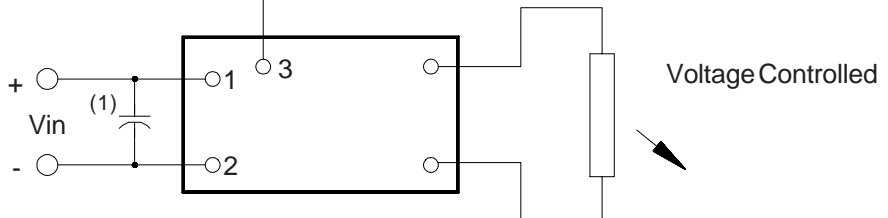
\* value should be low enough to maintain minimum tube current at minimum brightness



Resistive Controlled



\* Vmin should be high enough to maintain minimum tube current



Voltage Controlled

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



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