



Endicott Research Group, Inc.

2601 Wayne St., Endicott, NY 13760
 607-754-9187 Fax 607-754-9255
<http://www.ergpower.com>

Specifications and Applications Information

06/19/07

Preliminary

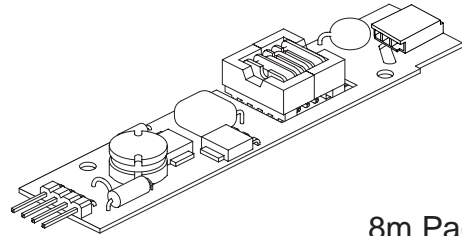
The ERG 8m053183 (*8m Class*) low profile dc to ac inverter is specifically designed to power the AU Optronics G104SN03 LCD display module to a moderate brightness level from a +5 volt dc source.

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

8m053183

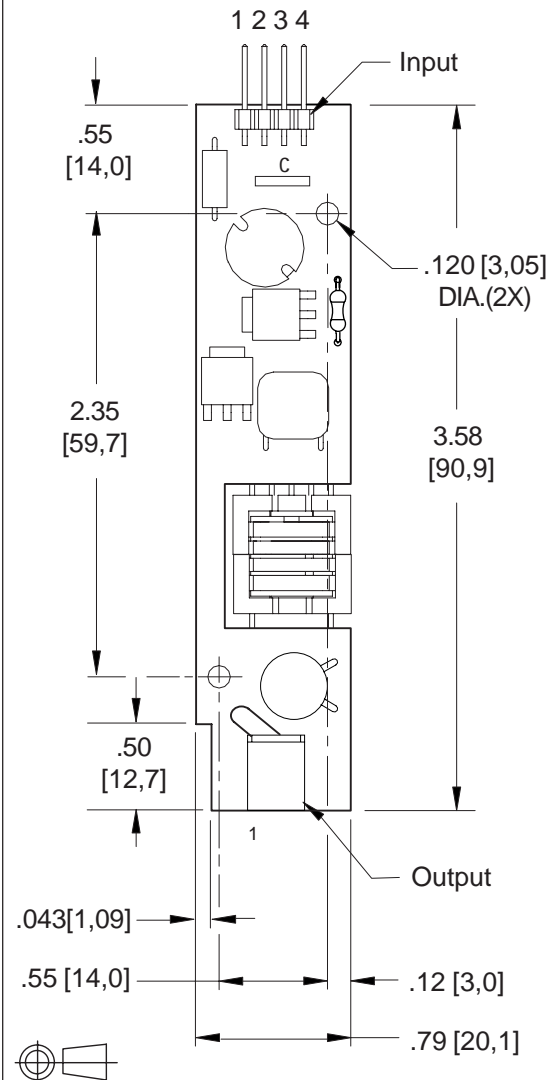
8m Class
 DC to AC Inverter



8m Package

PCB components are shown for reference only.
 Actual product may differ from that shown.

Package Configuration



PCB components are shown for reference only. Actual product may differ from that shown.

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 SM02B-BHSS-1-TB
J1-1 Vin(+) J1-2 GND J1-3 Control * J1-4 N/C	J2-1 ACout J2-2 ACout
* Valid with the "C" jumper removed	

Absolute Maximum Ratings

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +5.5	Vdc
Operating Temperature	To	-0 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C

Recommended Operating Conditions

Rating	Symbol	Value	Units
Input Voltage	Vin	+4.50 to 5.25	Vdc

Electrical Characteristics

Unless otherwise noted Vin = 5.00 Volts dc and Ta = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current ^(note 1)	Iin	-	.68	.80	Adc
Operating Frequency	Fo	35	40	45	KHz
Minimum Output Voltage	Vout (min)	1300	-	-	Vrms
Efficiency ^(note 2)	-	-	80	-	%
Output Current (per tube)	Iout	-	4.5	-	marms
Output Voltage (When powering a load simulating the referenced display)	Vout	-	560	-	Vrms
Pin3 Input Current Requirement	-	-	18	-	madc

After tube has been allowed to warm-up for 5 minutes
External Disable Circuit shown on page 3.

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.

(Note 2) With a simulated load of 124 kOhms.

Application Notes:

- 1) The minimum distance from high voltage areas of the inverter to any conductive material should be .12 inches per kilovolt of starting voltage.
- 2) Mounting hardware to be non-conductive.
- 3) Open framed inverters should not be used in applications at altitudes over 10,000 feet.
- 4) Contact ERG for possible exceptions.



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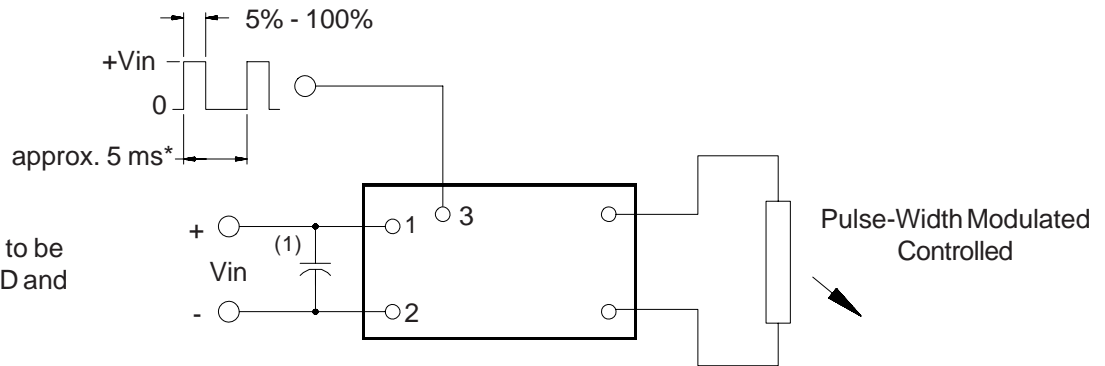
Made in USA



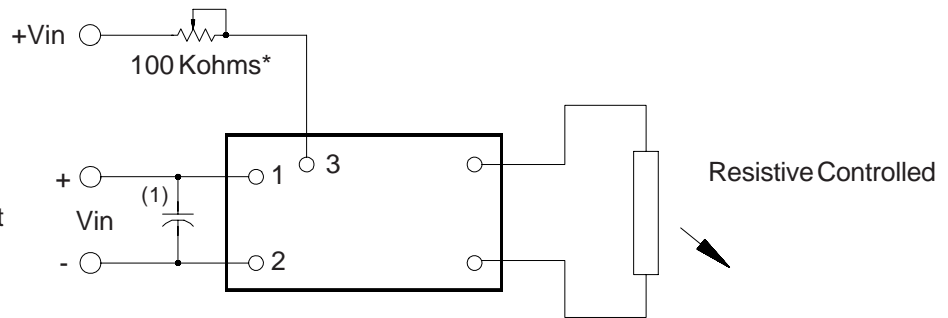
3 Dimming Options

8m053183

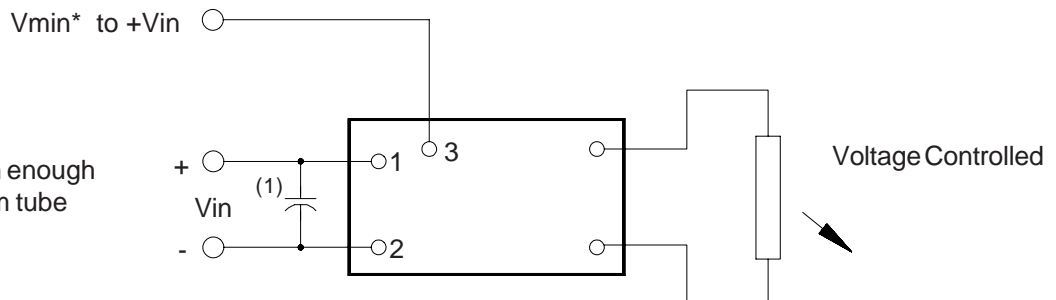
(Valid with the "C" jumper removed)



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



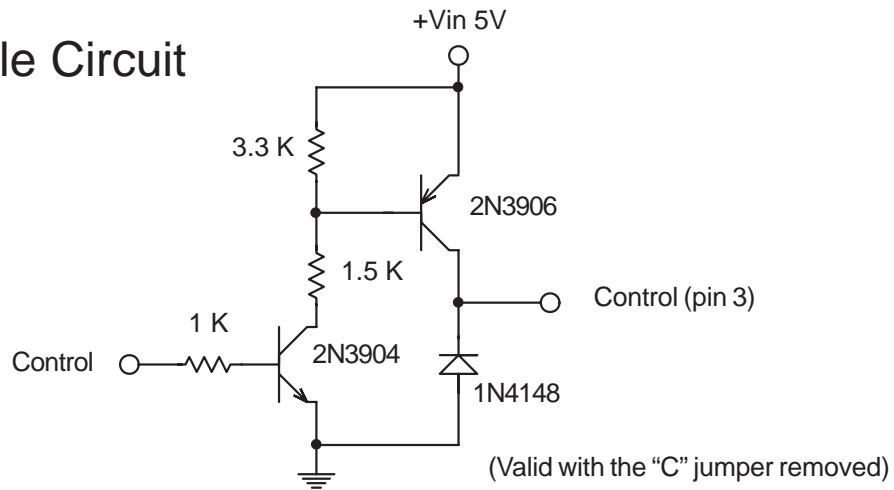
* value should be low enough to maintain minimum tube current at minimum brightness



* 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.

Disable Circuit



(Valid with the "C" jumper removed)



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.