



# Endicott Research Group, Inc.

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# E2838

## Specifications and Applications Information

05/01/04

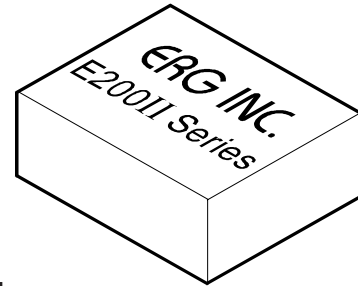
Preliminary

The E2838 (E200II Series) dc to ac inverter is specifically designed to power the Optrex DMF-50944NCU-FW-AD display to a moderate brightness level from a +12 volt dc source.

The E2838's small size and encapsulated package makes it the ideal power source for applications where small size, high efficiency and reliability are critical.

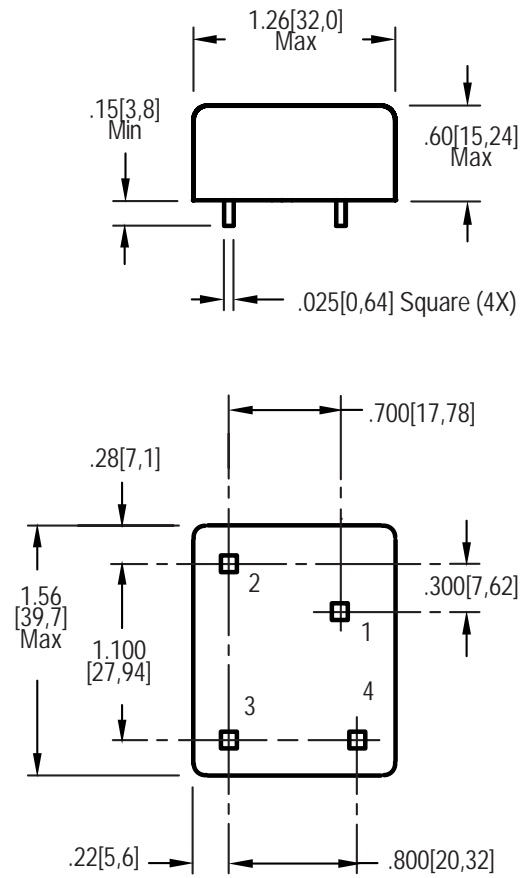
This inverter is designed to satisfy the most common cold-cathode lighting requirements for the Optrex DMF-50944NCU-FW-AD display. Custom units, providing different inputs, outputs or package refinements are available.

## Single Tube DC to AC Inverter

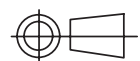


E200 Package

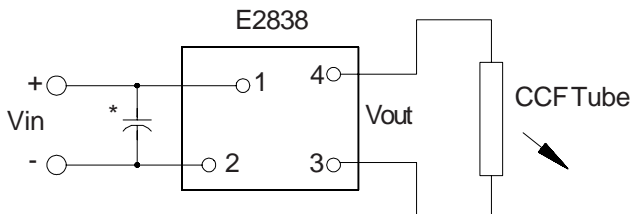
### Package Configuration



1. Vin(+)
2. Vin(-)
3. Vout(AC)
4. Vout(AC)



### Connection Diagram



\* Input bypass capacitor may be required (10uf - 100uf)

**Absolute Maximum Ratings**

Rating	Symbol	Value	Units
Input Voltage Range	Vin	-0.3 to +13.2	Vdc
Operating Temperature	To	0 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C

**Absolute Maximum Ratings**

Rating	Symbol	Value	Units
Input Voltage	Vin	+10.8 to 12.6	Vdc

**Electrical Characteristics**

Unless otherwise noted Vin = 12.00 Volts dc and Ta = 25°C

Characteristic	Symbol	Min	Typ	Max	Units
Input Current	Iin	-	.20	.24	Adc
Operating Frequency	Fo	34	39	44	KHz
Minimum Output Voltage	Vout (min)	1000	-	-	Vrms
Efficiency	-	-	83	-	%
Output Current per CCFT	Iout	-	4.6	-	marms
Output Voltage (When powering a load simulating the referenced display)	Vout	-	435	-	Vrms

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

Specifications subject to change without notice

Input voltage specification modified for clarity on 5/2004.



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