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Tully, New York 13159-1175
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CCFL INVERTER

(Single Tube Application)

GENERAL DESCRIPTION

The ACE-12-1816 is designed to power 1 CCFL to a nominal power level of 7.5 Watts.

Intensity control is accomplished by the user providing a variable DC level at pin 4 of CON1.

Enable control is accomplished at pin 3 of CON1.

Output is open and short circuit protected.

MECHANICAL/ENVIRONMENTAL

Weight = 27 grams

Altitude = 10,000 ft max.

Humidity < 85% non-condensing

Size (L x W x H) = 3.3 IN x 1.3 IN x 0.526 IN

PCB thickness = 0.062 IN

Mounting Holes = 0.125 IN diameter (X4)

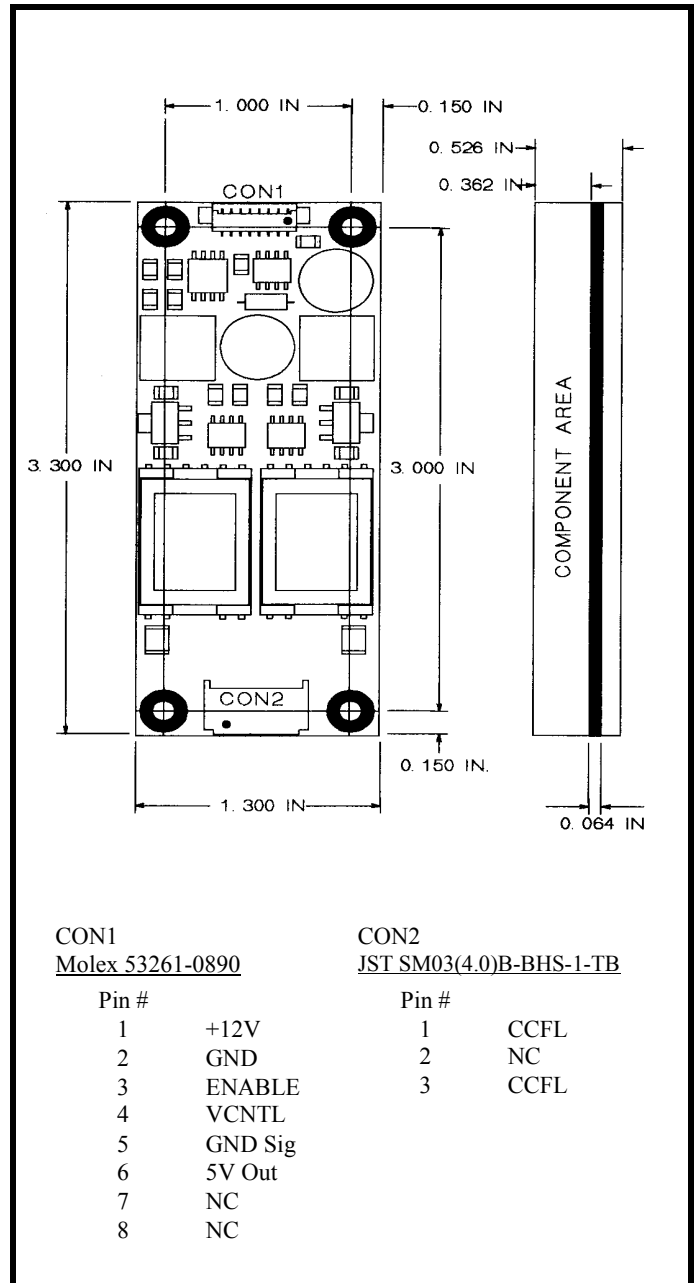
Input Power & Control Connector = CON1

CCFL Output Connector = CON2

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MAXIMUM RATINGS*

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.3 to 15	Vdc
Vip	Voltage applied to any input pin (Referenced to ground)	-0.3 to 5.3	Vdc
Iop	Current sourced or sinked from any output control pin	+/- 10	mAdc
Pin	Input power (DC input voltage x DC input current)	10	Watts
Top	Operating temperature (Still air ambient around inverter)	-20 to +85	Deg-C
Tstg	Storage Temperature	-40 to +105	Deg-C

* Maximum ratings are those values beyond which damage to the inverter may occur

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
Vin	Supply Voltage (Referenced to Ground)	10.8	13.2	Vdc
Lsv	Cold Cathode Fluorescent Lamp Sustaining Voltage	700	1000	Vrms
Vcntl	Intensity Control Voltage (see Intensity Dimming Curve pg3)	0	5.0	Vdc

ELECTRICAL CHARACTERISTICS

Vin = +12V, Lsv = 850Vrms, Vcntl = +5V, Enable = +5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		2400		Vrms
Lout	Lamp Output Current		7.9	9.6	mAdc
Lfreq	Lamp-Current Frequency		54	66	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 4) = 4.3V	95	101	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 4) = 0V to +5V	0	100	%
ENoff	Enable Control, unit OFF	Enable (Pin 3)		0.8	Vdc
ENon	Enable Control, unit ON (Pin 3)	Enable (Pin 3)	2.0		Vdc
+5Vout	+5V Reference Out (Pin 6)	10k load to ground (Pin 6)	4.75	5.25	Vdc
Iin	Input current draw			0.75	Adc
Eff	Electrical Efficiency		90		%

GRAPHS

