

# APPLIED CONCEPTS INC.

397 Route 281 - P.O. BOX 1175  
Tully, New York 13159-1175  
Phone: (315) 696-6676 Fax: (315) 696-9923  
www.acipower.com

# AC-1632

PRODUCT DATA SHEET - PAGE 1 OF 2

## CCFL INVERTER (For Single Tube Applications)

11/8/06

### GENERAL DESCRIPTION

The AC-1632 is designed to power 1 CCFL from an input voltage of +12V.

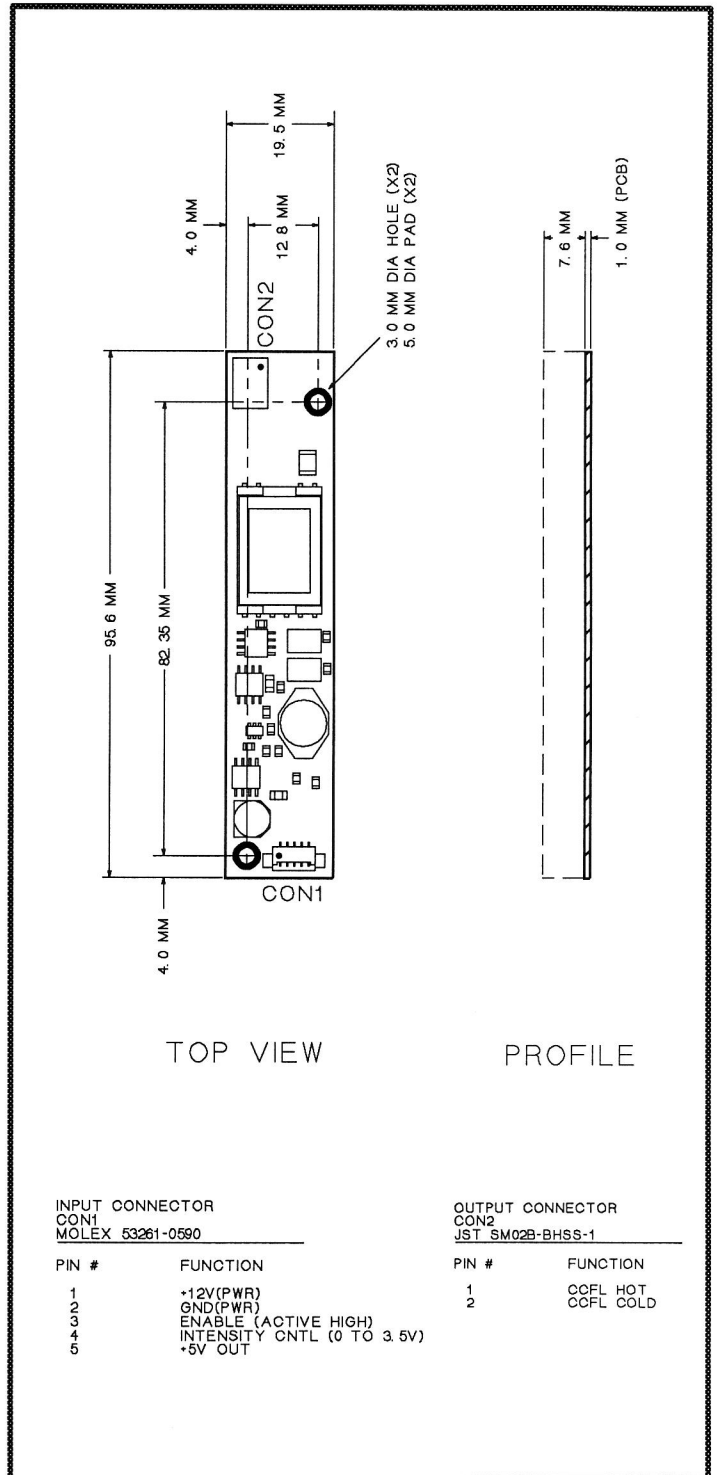
The AC-1632 features dimming control via an analog dc control level presented to pin 4 of CON1.

Enable control is accomplished @ pin 3 of CON1.

The output is open and short circuit protected.

### MECHANICAL / ENVIRONMENTAL

Weight = 14 grams  
Altitude = 10,000 Ft maximum  
Humidity < 85% non-condensing  
Size (L x W x H) = 95.6 mm x 19.5 mm x 8.6 mm  
PCB thickness = 1.0 mm  
Mounting Holes = 3.0 mm diameter (X2)  
Input Power & Control Connector = CON1  
CCFL Output Connector = CON2





**APPLIED  
CONCEPTS INC.**

397 Route 281 - P.O. BOX 1175  
Tully, New York 13159-1175  
Phone: (315) 696-6676 Fax: (315) 696-9923  
www.acipower.com

**AC-1632**

PRODUCT DATA SHEET - PAGE 2 OF 2

**MAXIMUM RATINGS\***

11/8/06

Symbol	Parameter	Value	Unit
Vin	Supply Voltage (Referenced to Ground)	-0.7 to 14	Vdc
Vip	Voltage applied to any Input Pin (Referenced to Ground)	-0.7 to 5.7	Vdc
Iop	Current sourced or sinked from any Output Pin	+/- 10	mA <sub>dc</sub>
Pin	Input Power (DC Input Voltage x DC Input Current)	5	W
Top	Operating Temperature (Still air ambient around Inverter)	-30 to +85	DegC
Tstg	Storage Temperature	-30 to +105	DegC

\* 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	284	582	V <sub>rms</sub>
Vcntl	Intensity Control Voltage Range	0	3.5	Vdc

**ELECTRICAL CHARACTERISTICS**

Vin = +12V, Vcntl = +3.5V, Enable = +5V unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Max	Unit
Lstart	Lamp Starting Voltage		1400		V <sub>rms</sub>
Lout1	Lamp Output Current	@ Lsv = 485V <sub>rms</sub>	6.3	7.7	mA <sub>rms</sub>
Lout2	Lamp Output Current	@ Lsv = 355V <sub>rms</sub>	6.7	8.3	mA <sub>rms</sub>
Lfreq	Lamp-Current Frequency		50.4	61.6	Khz
Pfreq	PWM Dimming Frequency	Vcntl (Pin 4) = +1.75V	95	101	Hz
Pdc	PWM Duty Cycle Range	Vcntl (Pin 4) = 0V to +3.5V	0	100	%
ENoff	Enable Control, unit OFF	(Pin 3)		0.5	Vdc
ENon	Enable Control, unit ON	(Pin 3)	2.0		Vdc
+5Vout	+5V Reference Out	(Pin 5) 10K load to ground	4.6	5.3	Vdc
Iin1	Input Current Draw	@ Lsv = 485V <sub>rms</sub>		0.4	Adc
Iin2	Input Current Draw	@ Lsv = 355V <sub>rms</sub>		0.31	Adc
Eff	Electrical Efficiency		80		%