

### APPLICATIONS

- > 1 channel piezo drive
- > High accuracy positioning

### KEY FEATURES

- > Compact standalone amplifier
- > 36mA continuous output
- > [-20V;150V] output voltage range
- > Low noise SNR 85dB and THD 0.1%
- > Strain gauge conditioner in option
- > Fully protected piezo amplifier

### RELATED PRODUCT

- > Piezo actuators and stages
- > UC45 / UC55 Controllers
- > Educational kit for active vibration control



NON CONTRACTUAL PICTURE

### SPECIFICATIONS

PARAMETER	TYPICAL VALUE	UNIT
Number of channels	1	
<b>Power supply</b>		
Supply voltage	110/ 240	VAC
Supply frequency	50-60	Hz
Power plug	IEC C14 Inlet with switch and voltage selector, (2P+E, protection class I)	
User serviceable fuse	2x 250V slow action 1A 5x20	
Power consumption at full power	17	VA
<b>Input</b>		
Control Input voltage	-1 ... +7.5	V
Control Input impedance	10	kΩ
<b>Output</b>		
Typical output voltage	-20 ... +150	V
Continuous peak output current (1)	±36	mA
Maximum output load	400	μF
<b>Power amplifier</b>		
Peak output power (2)	3	VA
<b>Gain</b>		
Gain	20	V/V
Gain error	±1	%
Gain linearity error	0,01	%
<b>Dynamic performance</b>		
Small signal bandwidth (-3dB) (3)	30	kHz
Power bandwidth	See chart	Hz
THD	0,1	%
Signal to Noise Ratio (4)	85	dB
<b>Protections</b>	<b>Overcurrent, Overtemperature, Overvoltage</b>	

## MISCELLANEOUS

PARAMETER	TYPICAL VALUE	UNIT
Mass	1,2	kg
External dimension	89x260x129	mm
Front face dimension	12F wide, 3U high	
Warm up time	15	min
Cooling	Natural convection	
Operating temperature range	0 ... 40	°C
Storage temperature range	-10 ... 50	°C

## INTERFACES

- > Order input BNC type
- > Piezo actuator Output LEMO EPL-00-250
- > DC Offset 10-turn screw potentiometer
- > DC Offset Range -1 ... +7.5V
- > Servo ON/OFF Selector for control loop

## INCLUDED ACCESSORIES

- > Piezo actuator cable Coax 1.5m Lemo connector -2 banana 1mm plug
- > Strain Gauge cable (if Option SG) Shielded 1.5m

## OPTIONS

- > UC45/UC55/UC65 Controller for position loop  
See specific datasheet
- > Piezo cable Specific length on request  
Please contact CTEC for more detail
- > T LEMO Enables to connect 2 CTEC actuators in parallel  
Please contact CTEC for more details
- > LEMO -BNC adapter Converts LEMO to BNC connector

> SG

Capability to read strain gauge sensor for position control  
See table below for specifications

PARAMETER	TYPICAL VALUE	UNIT
<b>Input</b>		
Sensor type	Full bridge, strain gauge-based, 4 wires	
Bridge impedance	350	Ω
Bridge excitation (5)	5	V
Gain span (6)	116 ... 2700	
Input sensitivity span @ Vb = 5V, FSO = ±10V	1.5 ... 34.5	mV/V
Input sensitivity span @ Vb = 5V, FSO = -1...+7.5V	0.6 ... 14.7	mV/V
<b>Output</b>		
Typical output voltage (7)	±10	V
Output current	±20	mA
Output impedance	100	Ω
DC offset span	±10	V
Minimum output load	600	Ω
Bandwidth - 3dB	15	kHz
<b>Accuracy</b>		
Resolution (8)	0,01	% FS
Linearity	0,01	% FS
Thermal offset drift	±0.025	% FS/ °C
Thermal gain drift (9)	± (8.5E-5 * G + 2.1E-2)	%/ °C
Thermal gain drift @ G = 500	±0.06	%/ °C
Thermal gain drift @ G = 1000	±0.11	%/ °C
Common Mode Rejection	> 100	dB
Input sensor connector	LEMO EGG.00.304.CLL	

## ANNOTATIONS

*Guaranted in labs environment*

(1) Electronically limited

(2) AC+DC apparent power. For sine signal with offset,  $RMS^2$  is  $(PEAK/\sqrt{2})^2 + OFFSET^2$

(3) Unloaded

(4) Computed as RMS output signal/ RMS output Noise floor. [1 ;200]Hz

(5) Alternative voltage 2.5, 7.5, 10V available on request

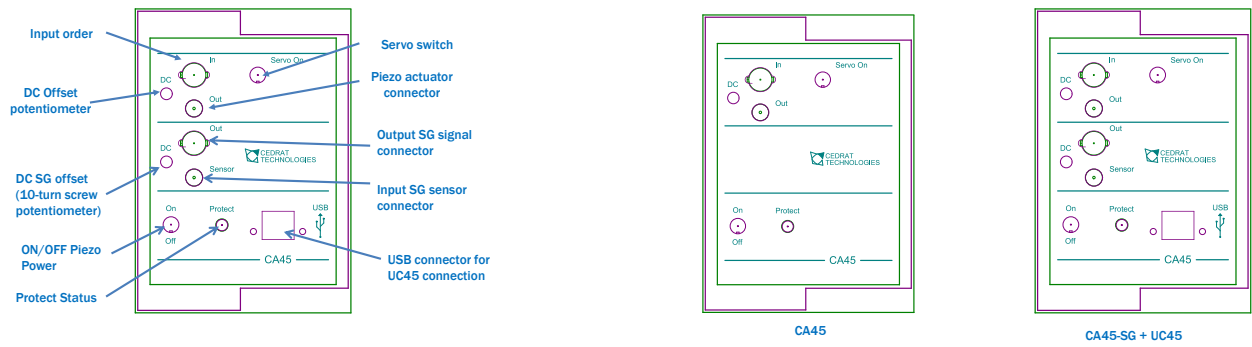
(6) Other values on request

(7) FSO : Full Scale Output, FS : Full Scale

(8) Set to [-1V ; 7.5V] on CTEC systems to be consistent with driver input

(9) G : gain

## DRAWINGS



## TYPICAL PERFORMANCE CHARACTERISTICS

