

## APPLICATIONS

- > Piezo drive up to 3 channels
- > High accuracy positioning

## KEY FEATURES

- > 90 mA continuous output
- > 300 mA optional peak output
- > [-20 V;150 V] output voltage range
- > Low noise SNR 85 dB and THD 0.1%
- > Push pull configuration in option
- > Fully protected piezo amplifier
- > Building block for multi channel configuration

## RELATED PRODUCT

- > Piezo actuators and stages
- > CTEC Powered benchtop case
- > CTEC Powered 19" subrack
- > UC55 Controllers
- > SG75 / ECS75 sensors conditioners



## SPECIFICATIONS

PARAMETER	TYPICAL VALUE	UNIT
<b>&gt; General</b>		
Function	Driver for piezoelectric actuator	
Number of channels	1 ... 3	
<b>&gt; Input</b>		
Control Input voltage	-1 ... +7.5	V
Control Input impedance	10	kΩ
<b>&gt; Output</b>		
Output voltage	-20 ... +150	V
Continuous peak output current <sup>(1)</sup>	±90	mA
Transient peak output current <sup>(2)</sup>	±300	mA
Maximum output load	400	μF
<b>&gt; Power amplifier</b>		
Peak output power <sup>(3)</sup>	45	W
<b>&gt; Gain</b>		
Gain	20	V/V
Gain error	±1	%
Gain linearity error	0.01	%

### > Dynamic performance

Small signal bandwidth (-3dB) <sup>(4)</sup>	30	kHz
Power bandwidth	See chart	
THD	0.1	%
Signal to Noise Ratio <sup>(5)</sup>	85	dB

### > Protections

Overcurrent,  
Overtemperature,  
Overvoltage

## ANNOTATIONS

Guaranteed in labs environment

<sup>(1)</sup> Electronically limited

<sup>(2)</sup> With EPC Enhanced Peak Current - During 600µs with a max repetition rate of 20ms - Internally limited - see specific application note

<sup>(3)</sup> Max. instantaneous output power =  $\max(p(t)) = \max(u(t) \times i(t))$ , with EPC

<sup>(4)</sup> Unloaded

<sup>(5)</sup> Computed as RMS output signal / RMS output Noise floor. [1; 200]Hz

<sup>(6)</sup> Extended temperature under request

<sup>(7)</sup> no Dynamic Current Limitation for integrated Push Pull option

## MISCELLANEOUS

PARAMETER	TYPICAL VALUE	UNIT
Mass	1	kg
Front face dimension	10F wide, 3U high	
Warm up time	15	min
Cooling	Forced air	
Operating temperature range <sup>(6)</sup>	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 /  
2x banana 1mm plug

## OPTIONS

> **Push pull** Capability to drive push-pull piezo mechanisms

PARAMETER	TYPICAL VALUE	UNIT
Output DC voltage	130	V
DC error	±0.25	V
Average output current	±90	mA
Continuous peak output current <sup>(7)</sup>	±90	mA
Load regulation	0.1	%

> **Output connector** LEMO EPG-00-303

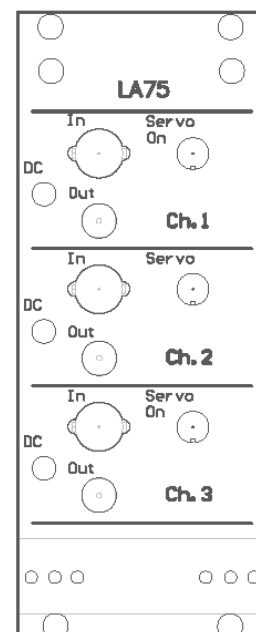
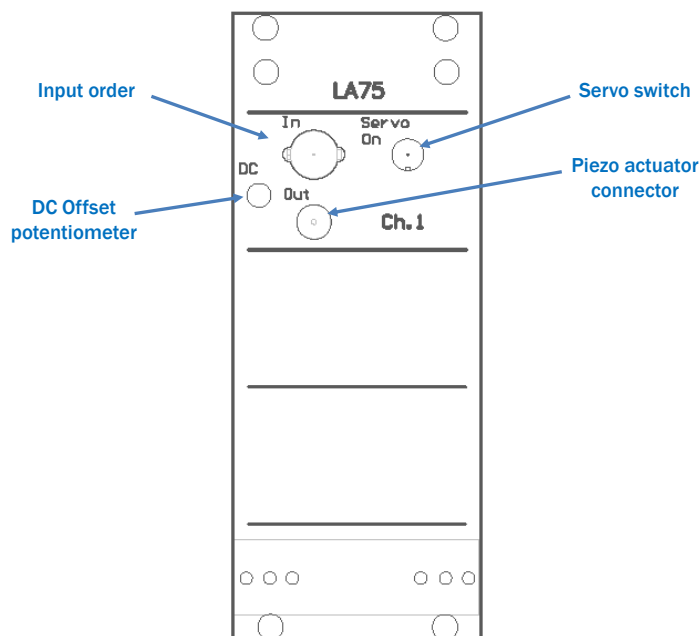
> **UC55/UC65** Controller for position loop  
See specific datasheet

> **Piezo cable** Specific length on request  
Please contact CTEC for more detail

> **T LEMO** Able to connect 2 CTEC actuators in parallel  
Please contact CTEC for more detail

> **LEMO -BNC adapter** Converts LEMO to BNC connector

## DRAWINGS



## TYPICAL PERFORMANCE CHARACTERISTICS

