

series ENV 300

voltage amplifier 300mA

- ◆ 300mA permanent
- ◆ 19" casing
- ◆ excellent price-performance ratio
- ◆ low voltage noise ($< 0,3 \text{ mV}_{\text{RMS}}$)
- ◆ optional: integrated measuring amplifier and controller electronics



pic.1: module ENV300

applications:

- controlling of piezo actuators
- drift compensated controlling of piezo actuators with resistive measurement systems
- laboratory applications
- industrial applications

The voltage amplifier **ENV 300** was designed for low voltage piezo elements and is produced as a 19" casing version. The actuator's voltage current respectively the motion is monitored on the integrated LC-display. This piezo amplifier also provides the opportunity to operate the piezo element via an analog modulation input. The position of the actuator can be examined via the monitor output. Due to the very low voltage noise of the output current, only 0,3 mVRMS this amplifier system is ideally suited for positioning applications with sub-nm resolution. Special protective circuits prevent voltage spikes when switching the unit on and off and consequently avert any overload caused by overheating or short-circuit. The new soft start ensures an actuator-safe activation of the system.

Optionally the voltage amplifier **ENV 300** can be equipped with measuring amplifiers for capacitive or strain gauge measuring systems and the adequate controller electronics. With the electronic PID controller this system operates without any drift or hysteresis.

To make the amplifier series **ENV 300** useful for any kind of integrated measurement system the series has been complemented with the CLE systems.

technical data:	ENV 300 E-270-000	ENV 300 SG E-270-100	ENV 300 CAP E-270-600	ENV 300 CLE E-272-000	ENV 300 nanoX E-278-000	ENV 300 nanoX SG E-278-100	ENV 300 nanoX CAP E-278-600	ENV 300 nanoX CLE E-278-700
output power	39W							
output voltage	-20 ... +130V							
output current (permanent)	300mA				2 x 150mA			
voltage noise	0.3mV _{RMS} @500Hz							
modulation input	0 ... 10V BNC							
input resistance modulation input	10kΩ							
DC-offset	selectable via potentiometer							
monitor	LCD, 3.5-digit							
connector (piezo)	LEMO 0S 250	LEMO 0S 250	LEMO 0S 302	LEMO 0S.302	ODU3pol.	ODU3pol.	ODU3pol.	ODU3pol.
connector (measuring system)	-	LEMO 0S 304	LEMO 0S 650	ODU4pol.	-	LEMO 0S 304	LEMO 0S 650	ODU4pol.
monitor output (BNC) *	-2 ... 13V	0 ... 10V (closed loop)			-2 ... 13V	0 ... 10V (closed loop)		
inside resistance monitor output	<100kΩ (open loop) / <35Ω (closed loop)							
width	14TE	20TE			14TE	20TE		
special features	soft start, overvoltage protection, temperature rise protection, short circuit proof							
special features closed loop systems	closed loop mode selectable via button, optional: auto-closed-loop-on-functioning (Art.-Nr.: Z-300-70) optional: optimization of system load-dependent							

* In open loop systems the output voltage is displayed in a 10:1 (-2 ... 13V) ratio.

In closed loop systems the edited sensor signal is available. The monitor output voltage is 0 ... 10V for 100% motion in closed loop mode.