

series ENV 300

voltage amplifier 300mA

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 LCdisplay. 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 mV_{RMS} 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.



image: module ENV 300 CAP

product highlights:

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

applications:

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

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technical data

	unit	ENV 300	ENV 300 SG	ENV 300 CAP	ENV 300 CLE	ENV 300 nanoX	ENV 300 nanoX SG	ENV 300 nanoX CAP	ENV 300 nanoX CLE
part no.		E-270-000	E-270-100	E-270-600	E-272-000	E-278-000	E-278-100	E-278-600	E-278-700
output power	W	39							
output voltage	V	-20 to +130							
output current (permanent)	mA	300				2 x 150			
voltage noise	mV _{RMS}	0,3 @500 Hz							
modulation input	V	0 to +10, BNC							
input resistance modulation input	kΩ	10							
DC offset	-	selectable via potentiometer							
monitor	-	LCD, 3,5 digit							
connector (piezo)	-	LEMO 0S.302				ODU 3pol. series L			
connector (measuring system)	-	-	LEMO 0S.304	LEMO 0S.650	ODU 4pol.	-	LEMO 0S.304	LEMO 0S.650	ODU 4pol.
monitor output (BNC)*	V	-2 to +13	0 to +10			-2 to +13	0 to +10		
input resistance monitor output	kΩ	100	<1			100	<1		
width	TE	14	20			14	20		
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 to 13V) ratio.
In closed loop systems the edited sensor signal is available. The monitor output voltage is 0 to 10V for 100% motion in closed loop mode.