

## NV100/D NET Digital Piezo Controller

### Concept

The NV100/D is a digital piezo controller with an ethernet interface for remote control and servicing of piezo actuators. The user can drive quasi static or dynamic step positioning applications through the network access, allowing more flexibility and the use in critical environments.

For the operation of the actuator a control voltage of -20V to +130V and a peak output current of 100mA (2x40mA NanoX®) are supplied.

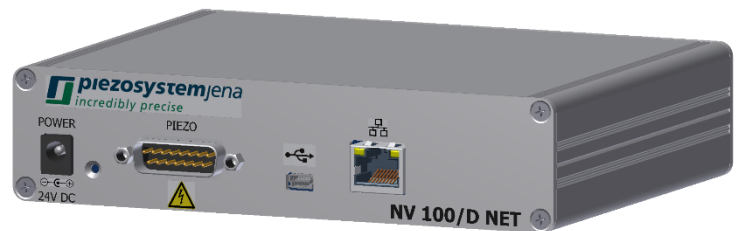
With a 16-bit resolution, the NV100/D NET guarantees high positioning accuracy and low noise.

Due to the stored information in the EEPROM, the actuator is being automatically recognized. The NV100/D can be used with actuators equipped with either strain gauge or capacitive sensors, as well as with actuators without measurement system. The NV100/D also supports actuators based on piezosystem jena's own NanoX® bi-directional actuating technology.

### Features:

The NV100/D NET has an automatic sensor identification (ASI) function. All values of the actuating system, like serial number of the actuator, actuator name, control parameters and filter settings, are stored in the actuator plug. This allows an easy exchange of actuators or controllers.

A digital PID controller is integrated in the controller. The user can change the values according to his current setup himself.



perspective view of the  
NV100/D NET

### Product highlights:

- Ethernet connection for remote control
- 100mA peak current
- **Automatic Sensor Identification** (ASI-function)
- **Automatic System Calibration** (ASC-function)
- 16 bit resolution
- Voltage supply of several elements can be daisy-chained
- Loop control with adjustable PID controller
- Low-pass filter and slew rate limiter
- USB interface
- Aluminum casing

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### Technical Data

part no.		E-730-810
power supply $\pm 10\%$	V	24VDC
Input current	A	max. 0.3
power connector	-	2.1 mm DC plug
electric fuse	-	1.1 A Polyswitch (resetable)
channels	-	1
output voltage	V	-20 ... +130
output current (constant)	mA	80 (2 x 40 in NanoX®-mode)
voltage noise (@500 Hz Bandwidth)	mV <sub>RMS</sub>	0.7
actuator connector	-	D-Sub 15 pol.
DA-converter resolution	bit	16
sensor	-	external sensor, strain gauge, capacitive
AD-converter resolution	bit	16
controller architecture		full PID control
features		short circuit proof
<b>interface module</b>		
USB		2.0
Ethernet		RJ45
<b>casing</b>		
dimensions (l * w * h)	mm	165 x 38 x 120
<b>environment</b>		
operating temperature	-	5 ... 35°C / 41 ... 95°F
humidity	% <sub>rel</sub>	max. 80, non-condensing
altitude	m	up to 2000



front view of the NV100/D NET