

# Piezo Amplifier / Servo Controller Module

1 Channel, for Capacitive or Strain Gauge Sensors, Fast USB Interface



## E-621

- Integrated 24-bit USB interface
- Network capability with up to 12 channels
- Peak current up to 120mA
- Position control for SGS and capacitive sensors
- Notch filter for higher bandwidth
- Additional broadband analog interface

### Piezo servo controller with position control

1 channel. Position control for capacitive or strain gauge sensors. RS-232 and USB computer interfaces, high-resolution 24-bit transducers. Low-noise amplifier for inputting and outputting peak currents of 120 mA in the low-voltage range.

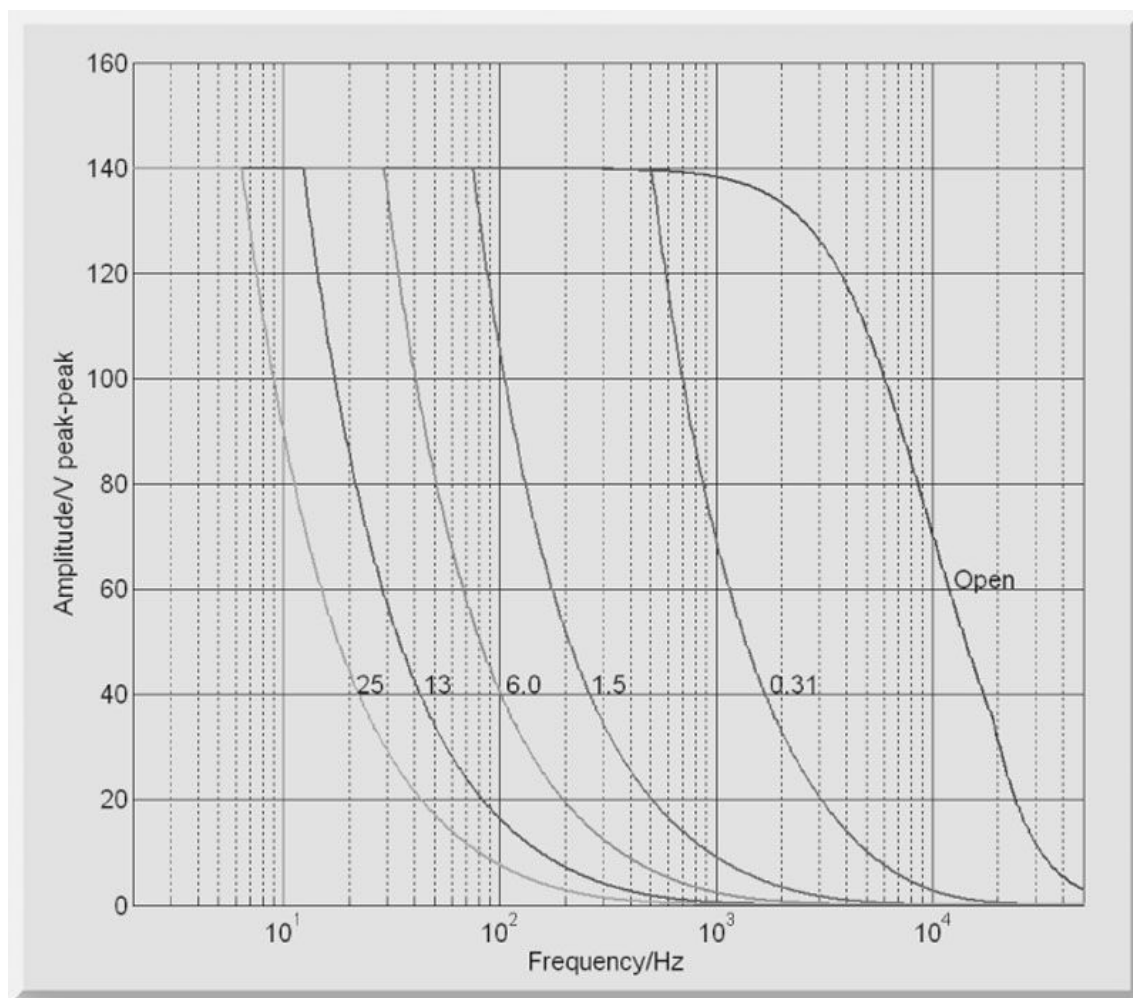
## Specifications

	<b>E-621.SR / E-621.CR</b>
Function	Power amplifier & piezo controller
	<b>E-621.SR / E-621.CR</b>
Sensor	
Controller type	P-I (analog) + notch filter
Sensor type	SGS (.S) / capacitive (.C)
	<b>E-621.SR / E-621.CR</b>
Amplifier	
Input voltage range	-2 to +12 V
Output voltage	-30 to +130 V
Peak current, < 50 ms	120 mA
Average output current	60 mA
Current limitation	Short-circuit proof
Noise, 0 to 100 kHz	0.8 mV <sub>rms</sub>
Voltage gain	10 ±0.1
Input impedance	100 kΩ
	<b>E-621.SR / E-621.CR</b>
Interfaces and operation	
Communication interfaces	USB, RS-232 (Sub-D 9 (m)), 24-bit A/D, 20-bit D/A
Piezo connection	LEMO ERA.00.250.CTL (.SR) / Sub-D special (.CR)
Sensor connection	LEMO EPL.0S.304.HLN (.SR) / Sub-D special (.CR)

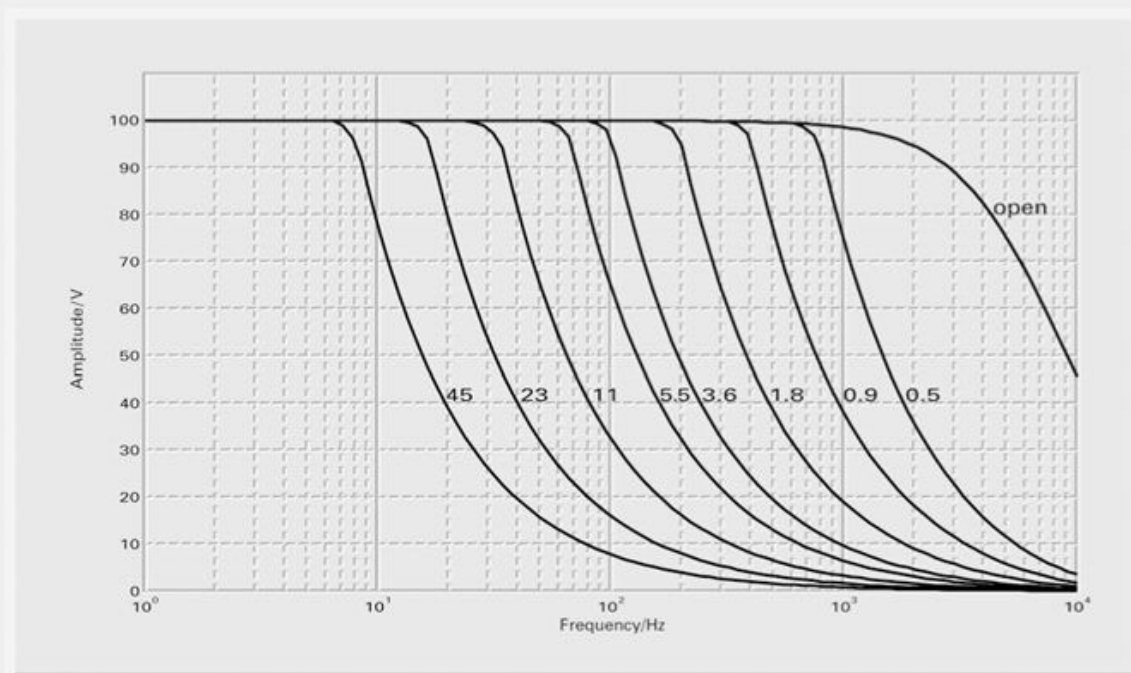
Interfaces and operation	E-621.SR / E-621.CR
Analog input	SMB
Sensor monitor output	SMB
Controller network	up to 12 channels, parallel
Command set	PI General Command Set (GCS)
User software	PIMikroMove
Software drivers	NI LabVIEW drivers, DLLs
Supported functions	Wave table, 256 data points, external trigger, 16 macros
DC offset setting	External potentiometer (not in the scope of delivery), adds 0 to 10 V to the input voltage
Miscellaneous	E-621.SR / E-621.CR
Operating temperature range	5 °C to 50 °C (above 40 °C, power derated)
Overheat protection	Deactivation at 75 °C
Dimensions	7 HP/3 RU
Mass	0.6 kg
Operating voltage	12 to 30 V DC, stabilized
Max. current consumption	2 A

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## Drawings / Images



E-621: Operating limits (open loop) with various piezo loads, capacitance values in  $\mu\text{F}$



*E-621.SR: Operating limits (open loop) with various piezo loads, capacitance values in  $\mu\text{F}$*



*E-625 (top), E-665 (middle) and 12  $\times$  E-621 in an E-500 chassis*

## Ordering Information

### **E-621.CR**

Piezo amplifier / servo controller module, 1 channel, -30 to 130 V, capacitive sensor, USB, RS-232

### **E-621.SR**

Piezo amplifier / servo controller module, 1 channel, -30 to 130 V, strain gauge sensor, USB, RS-232