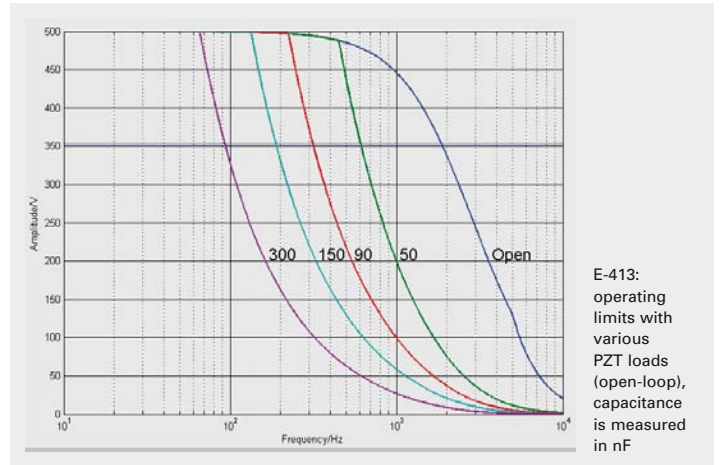


E-413 DuraAct™ & PICAShear™ Piezo Driver

Bipolar Operation for Patch Transducers and Shear Actuators



The E-413.D2 OEM amplifier module for piezoceramic DuraAct™ patch transducers (left). The piezo amplifier for piezo shear actuators is available as a bench-top version (E-413.00, front, right) or as an OEM module (E-413.OE, rear, right)



E-413: operating limits with various PZT loads (open-loop), capacitance is measured in nF

- Peak Power to 50 W
- OEM Module / Bench-Top for PICAShear™ Actuators
- OEM Module for DuraAct™ Piezoelectric Patch Transducers

Technical Data

Model	E-413.00	E-413.OE	E-413.D2
Function	Power amplifier for PICAShear™ piezo actuators, bench-top	Power amplifier for PICAShear™ piezo actuators, OEM module	Power amplifier for DuraAct™ piezoelectric patch transducers, OEM module
Amplifier			
Input voltage range	-5 to +5 V	-5 to +5 V	-2 to 8 V
Output voltage range	-250 to 250 V	-250 to 250 V	-100 to 400 V
Amplifier channels	1	1	1
Peak output power	50 W (<3 ms)	50 W (<3 ms)	50 W (<5 ms)
Average output power	<12 W (>3 ms)	<12 W (>3 ms)	<6 W (>5 ms)
Peak current	100 mA (<3 ms)	100 mA (<3 ms)	100 mA (<5 ms)
Average current	24 mA (>3 ms)	24 mA (>3 ms)	12 mA (>5 ms)
Current limitation	Short-circuit proof	Short-circuit proof	Short-circuit proof
Voltage gain	50 ±0.1	50 ±0.1	50 ±0.1
Ripple, noise, <10 kHz	100 mV _{P-P} @100 nF	100 mV _{P-P} @100 nF	100 mV _{P-P} @100 nF
Amplifier resolution	<10 mV	<10 mV	<10 mV
Input impedance	100 kΩ	100 kΩ	100 kΩ
Interface and operation			
Piezo connector	Conec sub-D 5W1 with HV (rear)	DIN 41612, 32-pin. (rear)	DIN 41612, 32-pin. (rear)
Control input voltage	SMB connector (rear)	DIN 41612, 32-pin. (rear)	DIN 41612, 32-pin. (rear)
Miscellaneous			
Operating temperature range	+5 to +50 °C (10% derated over 40 °C)	+5 to +50 °C (10% derated over 40 °C)	+5 to +50 °C (10% derated over 40 °C)
Dimensions	220 x 105 x 54 mm	14HP / 3U	7HP / 3U
Mass	1.14 kg	0.8 kg	0.4 kg
Operating voltage	24 V / 2 A	24 V / 2 A	24 V / 1 A
Power consumption	48 W	48 W	24 W

Ordering Information

E-413.D2
Piezo Amplifier for DuraAct™ Patch Transducers, -100 to +400 V

E-413.00
Piezo Amplifier for PICAShear™ Actuators, -250 to +250 V, Bench Top

E-413.OE
Piezo Amplifier for PICAShear™ Actuators, -250 to +250 V, OEM Module

Accessories:
E-500.ACD
LabVIEW Driver Set for Analog Controllers (Supports Certain D/A Boards)

E-500.HCD
HyperBit™ Functionality for Enhanced System Resolution