COREMORROW
Piezo Nano Motion

E00/E01 Series Piezo Controller

Piezo · Nano · Motion

Harbin Core Tomorrow Science & Technology Co.,Ltd.

PRODUCT

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E00/E01 Series Piezo Controller/Amplifier List

E01 Series Piezo Controller/Amplifier

008

Types		Size	Ampflier	Channel	Output [V]	Ave.current [mA]	Peak [mA]	Analog control	Software control	Servo control	Page
E01.A	E01.A1	9 inch	E05	1	120/150	291	1000	√	×	×	009
	E01.A1 (HV)	9 inch	E07	1	0~1000	30	500	√	×	×	011
	E01.A2	9 inch	E05	2	120/150	291	1000	√	×	×	013
	E01.A3	9 inch	E05	3	120/150	291	1000	√	×	×	015
	E01.A3	9 inch	E03	3	120/150	58	1000	√	×	×	017
	E01.A3	9 inch	E03	3	±100	35	1000	√	×	×	019
	E01.A3	9 inch	E08	3	-500~1500	15	120	√	×	×	021
	E01.A6	9 inch	E03	6	120/150	58	1000	√	×	×	023
	E01.A9	9 inch	E03	9	120/150	58	1000	√	×	×	025
E01.B	E01.B1	9 inch	E05	1	120/150	291	1000	√	×	√	027
	E01.B1 (HV)	9 inch	E07	1	0~1000	30	500	√	×	√	029
	E01.B2	9 inch	E05	2	120/150	291	1000	√	×	√	031
	E01.B3	9 inch	E03	3	120/150	58	1000	√	×	√	033
	E01.B3	9 inch	E03	3	120/150, with 1 constant	58	1000	√	×	√	035
	E01.B4	9 inch	E03, E05	4	120/150	58/291	1000	√	×	√	037
	E01.B6	9 inch	E03	6	120/150	58	1000	√	×	√	039
	E01.B6	9 inch	E03	6	120/150, with 1 constant	58	1000	√	×	√	041
E01.C	E01.C1	9 inch	E05	1	120/150	291	1000	√	√	×	043
	E01.C1 (HV)	9 inch	E07	1	0~1000	30	500	√	√	×	045
	E01.C3	9 inch	E05	3	120/150	58	1000	√	√	×	047
	E01.C3	9 inch	E03	3	±100	35	1000	√	√	×	049
E01.D	E01.D1	9 inch	E05	1	120/150	291	1000	√	√	√	051
	E01.D1 (HV)	9 inch	E07	1	0~1000	30	500	√	√	√	053
	E01.D3	9 inch	E03	3	120/150	58	1000	√	√	√	055
	E01.D3	9 inch	E03	3	120/150, with 1 constant	58	1000	√	√	√	057
	E01.D4	9 inch	E03, E05	4	120/150	58	1000	√	√	√	059

E00 Series Piezo Controller/Amplifier

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Types		Size	Ampflier	Channel	Output [V]	Ave.current [mA]	Peak [mA]	Analog control	Software control	Servo control	Page
E00.A	E00.A6	19 inch	E05	6	120/150	291	1000	√	×	×	062
	E00.A18	19 inch	E05	18	120/150	58	1000	√	×	×	064
E00.B	E00.B4	19 inch	E05	4	120/150	291	1000	√	×	√	066
	E00.B12	19 inch	E03	12	120/150	58	1000	√	×	√	068
E00.C	E00.C2	19 inch	E05	2	120/150	291	1000	√	√	×	070
	E00.C3	19 inch	E05	3	120/150	291	1000	√	√	×	072
	E00.C6	19 inch	E03	6	120/150	58	1000	√	√	×	074
E00.D	E00.D1	19 inch	E05	1	0~800	100	300	√	√	√	076
	E00.D3	19 inch	E05	3	120/150	291	1000	√	√	√	078
	E00.D3	19 inch	E05	3	120/150, with 1 constant	291	1000	√	√	√	080
	E00.D4	19 inch	E03, E05	4	120/150	58/291	1000	√	√	√	082
	E00.D6	19 inch	E03	6	120/150	58	1000	√	√	√	084
	E00.D6	19 inch	E03	6	120/150, with 1 constant	58	1000	√	√	√	086

Note: The models in this catalog are only the more commonly used models. If there is no model that meets your requirements, please send your request to info@coremorrow.com or contact the person in charge of the area, and we will recommend suitable products for you.

E00/E01 Series Piezo Controller /Amplifier Introduction

Characteristics

Optional output voltage within 0~1800V/±900V, up to 18 channels for standard versions, up to hundreds of channels for custom version.
Modular, free module combination, over-current proof, over-temperature proof, dynamic power protection, etc.

Function

Optional channels, control way (analog control, software control, open-loop or servo control, button control, knob control,etc.

Slection Guide

E0 [0] . [A] [3]

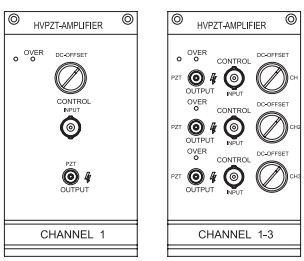
Chassis size
- [0] 19 inch
- [1] 9 inch

Type(module combination)
- [A] Analog control
- [B] Analog control, servo control
- [C] Analog control, software control
- [D] Analog control, servo control, software control

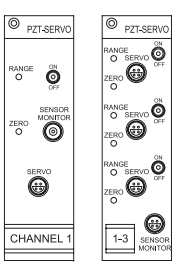
Channels
- [1] 1 channel
- [2] 2 channels
- [3] 3 channels
- … …

Combination

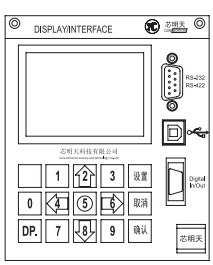
E00/E01 is combined by 4 modules, and users can choose modules freely.



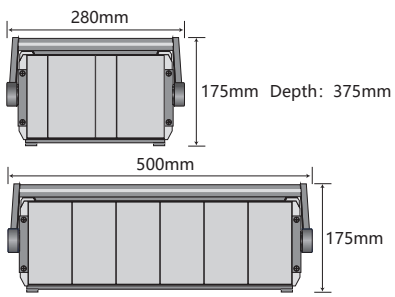
Power Amplifier Module
(Essential module)



PZT Sensor
Control Module



Display & Interface Module
(software control)

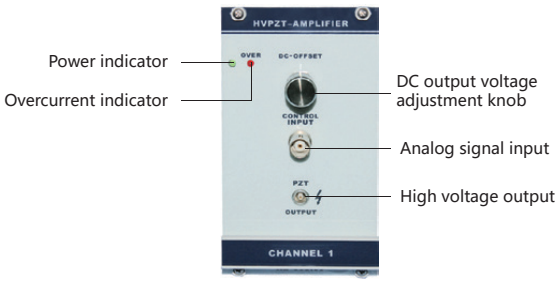


Chassis & Power Supply Module
(Essential module)

Modules Introductoin

1.Power Amplifier Module

Power amplifier Module: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



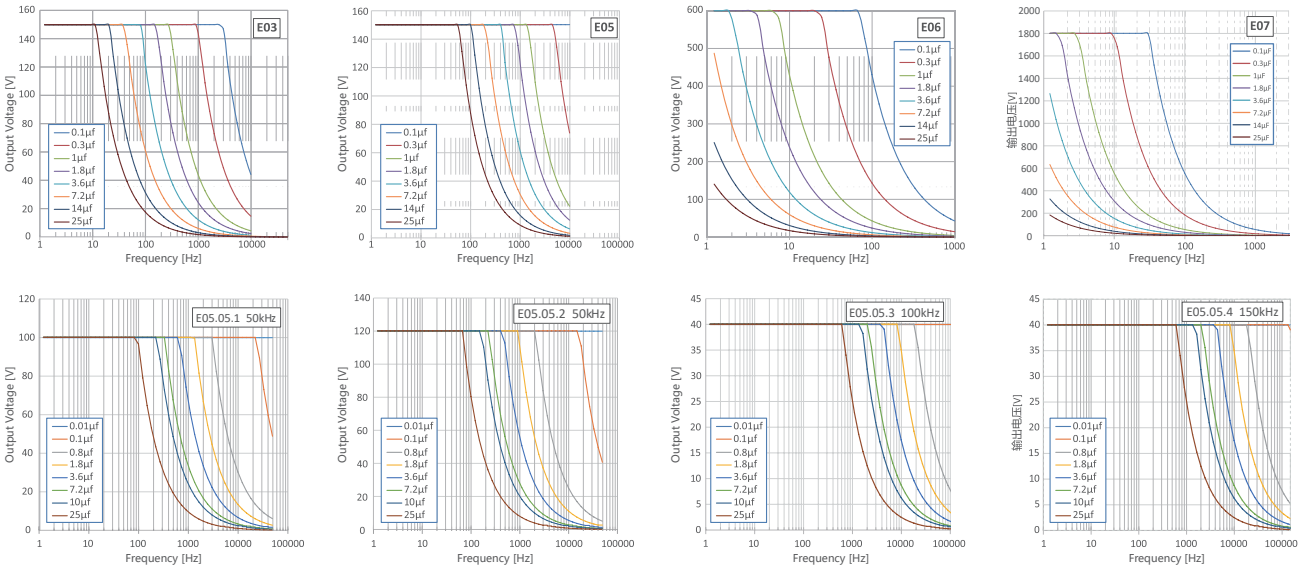
E05/E07

E03

E06

Module Type	Channels	Ave. Power	Output voltage	Frequency
E03	3	7W/channel	0~100V/120V/150V/300V, ±100V/±150V	1kHz, 10kHz, 30kHz, 50kHz
E05	1	35W	0~40V/100V/120V/150V/200V/300V/400V/600V, ±100V/±150V/±200V/±300V	1kHz, 5kHz, 10kHz, 30kHz, 50kHz, 100kHz, 150kHz
E06	2/4	3W/channel	-300V~+300V	1kHz
E07	1	5W	0~600V/900V/±450V	3kHz
Combination/Bipolar	1	10W	0~1800V, ±900V	3kHz

Curves



E03 Power Amplifier Module

Channels	Type	Analog input	Output	Frequency	Ave. current	Peak current	Ripple
1~3	E03.00.9	-2~+10V	-20~+100V	10kHz	70mA	1000mA	5mV
	E03.00.10	-1.67~+10V	-20~+120V		58mA	1000mA	
	E03.00.11	-1.33~+10V	-20~+150V		46mA	1000mA	
	E03.00.12	-2~+10V	-20~+100V	30kHz	70mA	210mA	
	E03.00.13	-1.67~+10V	-20~+120V		58mA	174mA	
	E03.00.14	-1.33~+10V	-20~+150V		46mA	138mA	
	E03.00.15	-1~+10V	-20~+200V		35mA	105mA	
	E03.00.16	-0.67~+10V	-20~+300V		23mA	69mA	
	E03.00.17	-10~+10V	-100~+100V		35mA	105mA	
	E03.00.18		-150~+150V		23mA	69mA	
	E03.05.1	0~+10V	0~+100V	50kHz	70mA	210mA	
	E03.05.2		0~+120V		58mA	174mA	

E05 Power Amplifier Module

Channels	Type	Analog input	Output	Frequency	Ave. current	Peak current	Ripple
1	E05.00.1	-2~10V	-20~+100V	1kHz	350mA	1050mA	5mV
	E05.00.2	-1.67~10V	-20~+120V		291mA	873mA	
	E05.00.3	-1.33~10V	-20~+150V		233mA	700mA	
	E05.00.4	-2~10V	-20~+200V		175mA	525mA	
	E05.00.5	-0.67~10V	-20~+300V		116mA	348mA	
	E05.00.6	-0.5~10V	-20~+400V		87mA	260mA	10mV
	E05.00.7	-10~+10V	-100~+100V	5kHz	175mA	525mA	
	E05.00.8		-150~+150V		116mA	348mA	
	E05.00.9		-200~+200V		87mA	260mA	
	E05.00.10*		-300~+300V		116mA	348mA	
	E05.00.11	-1~+10V	-20~+200V		175mA	525mA	
	E05.00.12	-0.67~+10V	-20~+300V		116mA	348mA	
	E05.00.13	-2~+10V	-20~+100V	10kHz	350mA	1000mA	5mV
	E05.00.14	-1.67~+10V	-20~+120V		291mA	1000mA	
	E05.00.15	-1.33~+10V	-20~+150V		233mA	1000mA	
	E05.00.16	-1~+10V	-20~+200V		175mA	1000mA	
	E05.00.17*	0~+10V	0~+600V	5kHz	120mA	350mA	10mV
	E05.03.1	-2~+10V	-20~+100V	30kHz	250mA	750mA	5mV
	E05.03.2	-1.67~+10V	-20~+120V		205mA	615mA	
	E05.03.3	-1.33~+10V	-20~+150V		170mA	510mA	
	E05.03.4	-1~+10V	-20~+200V		125mA	375mA	10mV
	E05.03.5	-0.67~+10V	-20~+300V		85mA	255mA	
	E05.03.6	-10~+10V	-100~+100V		125mA	375mA	
	E05.03.7		-150~+150V		85mA	255mA	
	E05.05.1	0~+10V	0~+100V	50kHz	250mA	750mA	
	E05.05.2		0~+120V		205mA	615mA	
	E05.05.3		0~+40V	100kHz	625mA	1875mA	20mV
	E05.05.4			150kHz			

*:Combination type, combined with 2 modules.

E06 Power Amplifier Module

Channels	Type	Analog input	Output	Frequency	Ave. current	Peak current	Ripple
2	E06.00.A2	-10~+10V	-300~+300V	1kHz	5mA	15mA	20mV
4	E06.00.A4						

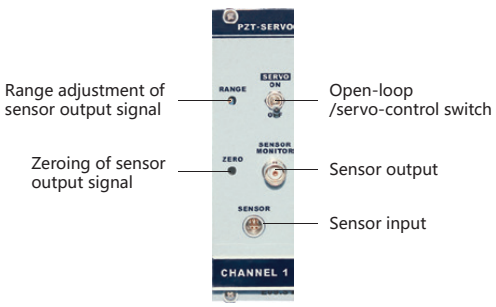
E07 Power Amplifier Module

Channels	Type	Analog input	Output	Frequency	Ave. current	Peak current	Ripple
1	E07.00.1	0~+10V	0~+600/±300V	3kHz	30mA	438mA	10mV
	E07.00.2		0~+900V				
	E07.00.3		0~+1000V				
	E07.00.4*		0~+1800V		5.5mA	16mA	20mV
	E07.00.5*	-10~+10V	-450~+450V		5.5mA	16mA	
	E07.00.6*		-900~+900V		5.5mA	16mA	

*:Combination type, combined with 2 modules.

2.E09 PZT Position Sensor Module

E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



E09.S1/L1

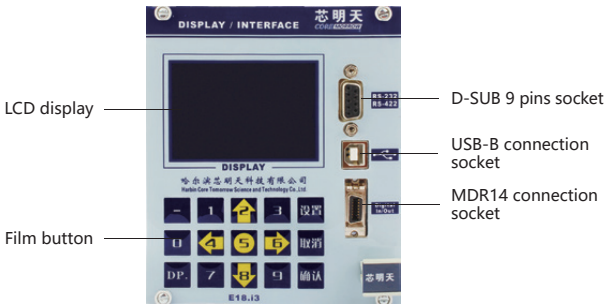
E09.S3/L3

E09.C1

Types	E09.S1	E09.S3	E09.L1	E09.L3	E09.C1
Functions	PZT Position Sensor Module				
Channels	1	3	1	3	1
Sensor type	SGS	SGS	LVDT	LVDT	CAP
Servo Characteristics	Analog P-I+notch filter	Analog P-I+notch filter	Analog P-I+notch filter	Analog P-I+notch filter	Analog P-I+notch filter
Sensor input port	ERA.0S.304.CLL	ERA.0S.304.CLL	ERA.0S.304.CLL	ERA.0S.304.CLL	ERA.0S.116.CLL
Sensor output port	BNC	ERA.0S.303.CLL	BNC	ERA.0S.303.CLL	BNC
Voltage output(V)	0~10				
Operating temperature(° C)	0~50	0~50	+10~+40	+10~+40	+10~+50

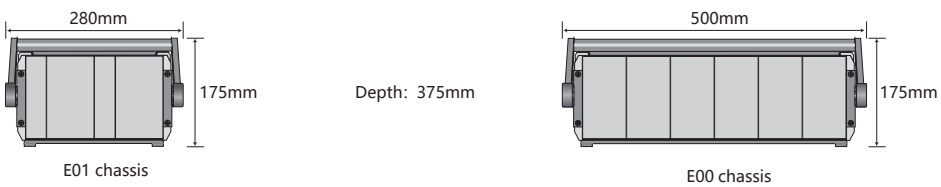
3.E18 Display & Interface Module

With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Types	E18.i1	E18.i3
Functions	Display/Interface Module	
Channels	1	3
Processor	32bit single core microprocessor 168MHz	
Linearity	0.01%	
D/A converter	16Bit ±10V	24 Bit ±10V
Output resolution	1/30000	1/100000
A/D converter	16 Bit ±10V	
Film button	15 buttons	
Computer interface	RS-232/422, USB	
Baud rate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000	
Output wave frequency	10kHz	
I/O interface	1~3pcs, user can set the input or output, MDR14 connector	
LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters	
Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave	
Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters	
Software waveform control	Programmable waveform output, standard waveform output	
Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development	
Operating temperature(° C)	0~50	

4.Chassis & Power Supply Module



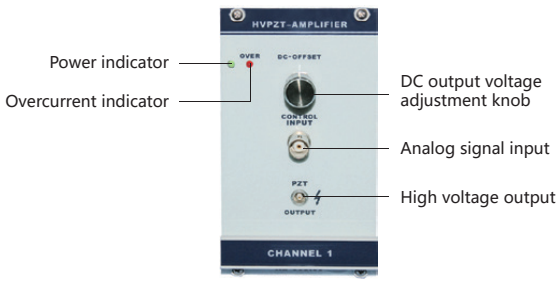
E01 Series Piezo Controller
9 Inch Chassis

E01.A1 Piezo Amplifier (E05 module)

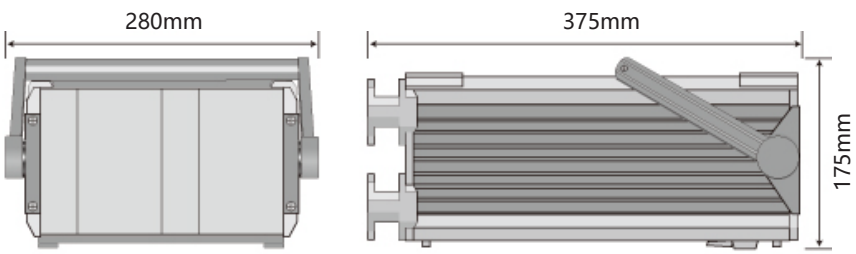
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E05 power amplifier module × 1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



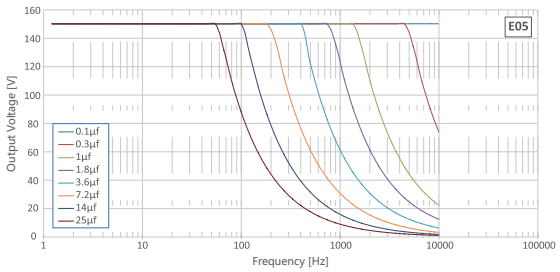
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A1 (E05 module)
Power amplifier module	Channels	1
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×1
(only for PZT with bare wires)

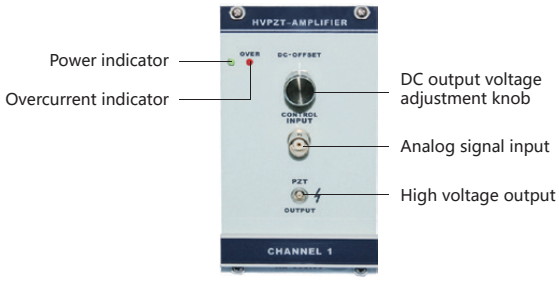
BNC to fish clip line×1
(for analog input)

E01.A1 Piezo Amplifier（E07 module, 1000V）

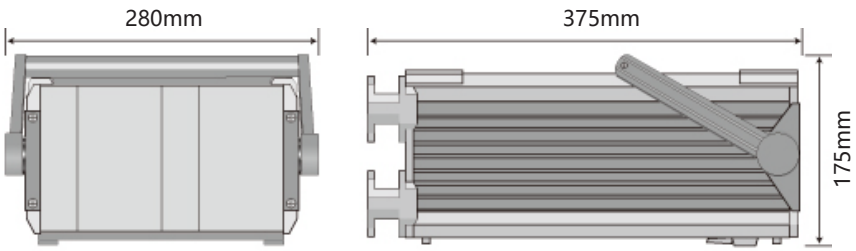
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E07 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



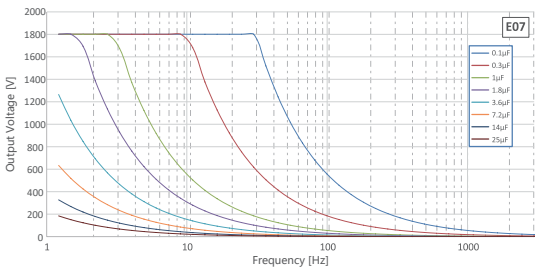
E01 Chassis & Power Supply Module×1



Technical Data

Type		E01.A1(E07 module,1000V)
Power amplifier module	Channels	1
	Contol analog input	0~10V
	Output voltage	0~1000V
	Ripple	50mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	3kHz
	Ave.current	30mA
	Peak current	500mA
	Voltage gain	100
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual ajustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO cable×1
(Only for PZT with bare wires)

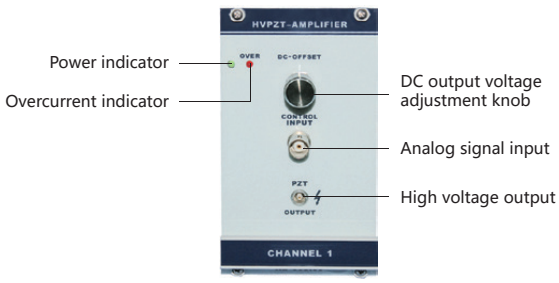
BNC to fish clip line×1
(for analog input)

E01.A2 Piezo Amplifier (E05 module)

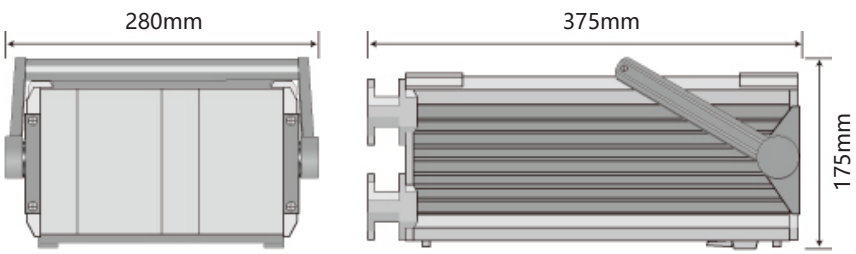
- 2 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E05 power amplifier module × 2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



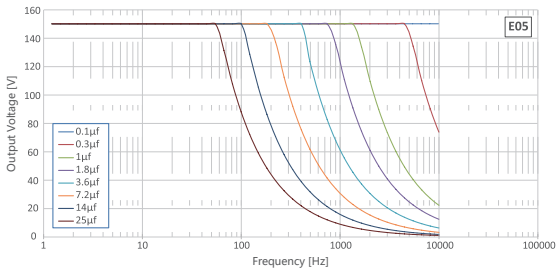
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A2 (E05 module)
Power amplifier module	Channels	2
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×2
(only for PZT with bare wires)

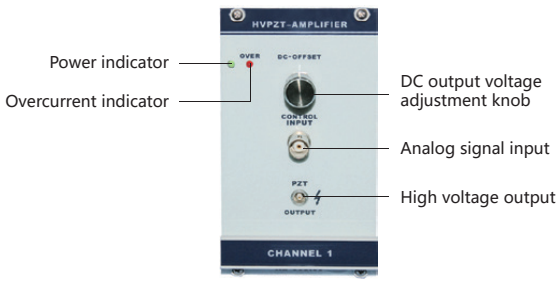
BNC to fish clip line×2
(for analog input)

E01.A3 Piezo Amplifier（E05 module）

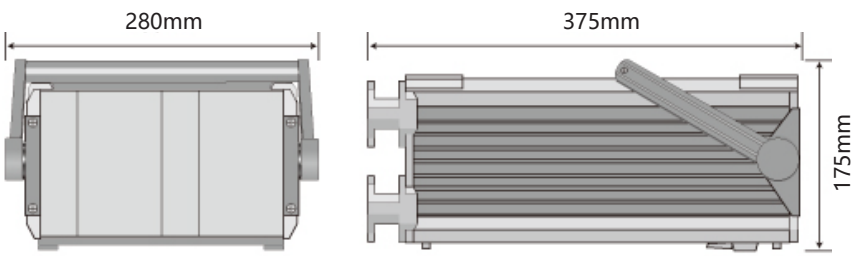
- 3 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E05 power amplifier module × 3: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



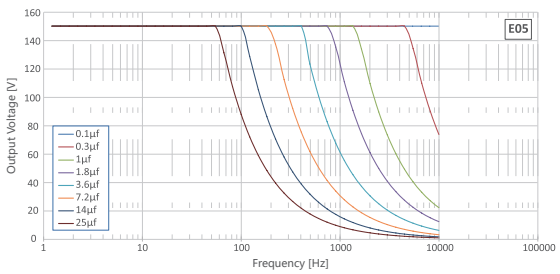
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A3（E05 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×3
(only for PZT with bare wires)

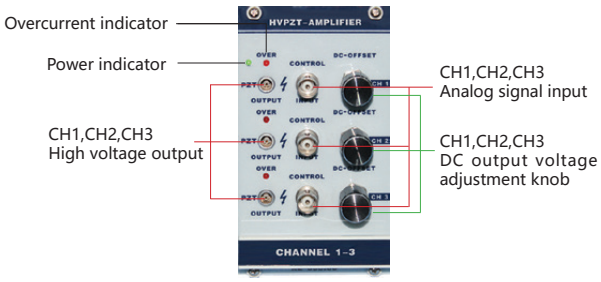
BNC to fish clip line×3
(for analog input)

E01.A3 Piezo Amplifier（E03 module）

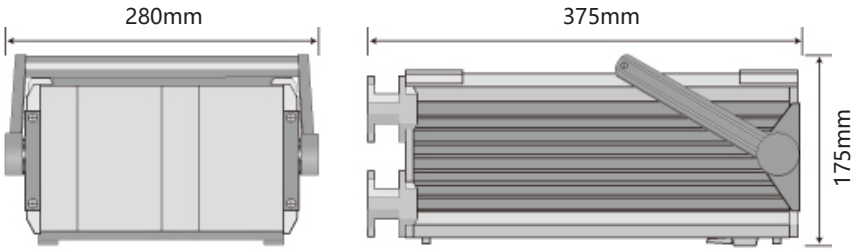
- 3 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E03 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



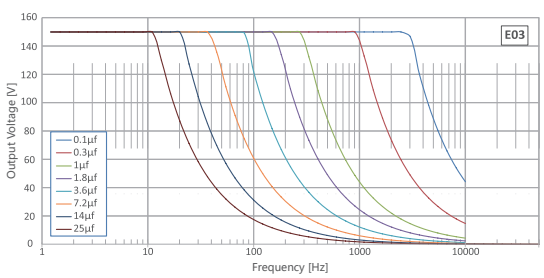
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.A3（E03 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×3
(only for PZT with bare wires)

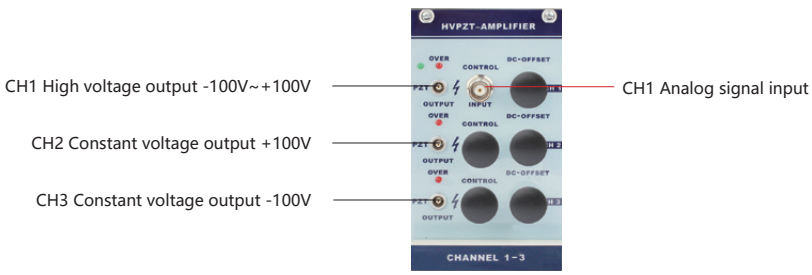
BNC to fish clip line×3
(for analog input)

E01.A3 Piezo Amplifier (For driving piezo benders)

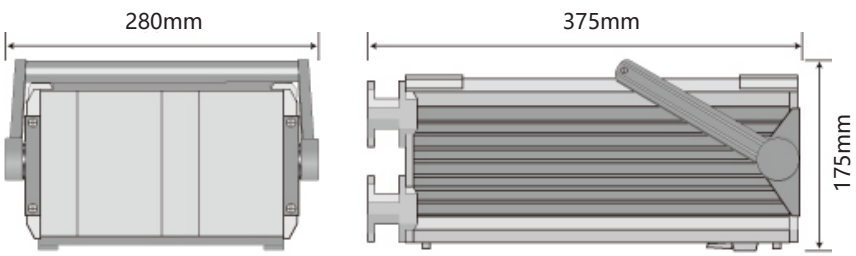
- 3 channels (2 constant voltage outputs and 1 variable voltage output)
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E03 power amplifier module(with constant voltage)×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



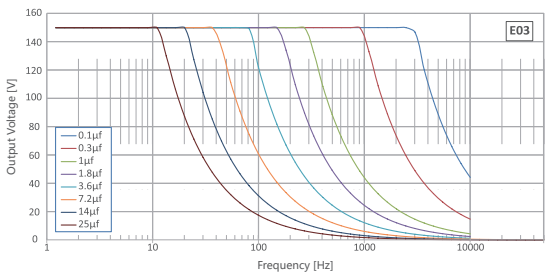
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.A3 (E03 module)
Power amplifier module	Channels	3
	CH1 contol analog input	-10V~+10V
	CH1 output voltage	-100V~+100V
	CH2 output voltage	+100V constant voltage
	CH3 output voltage	-100V constant voltage
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz
	Ave.current	35mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	10
	Knob adjustment	-
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


BNC to fish clip line×1
(for analog input)

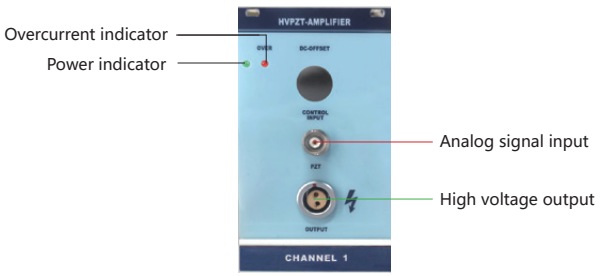

LEMO to fish clip line×3
(only for PZT with bare wires)

E01.A3 High Voltage Piezo Amplifier（E08 module）

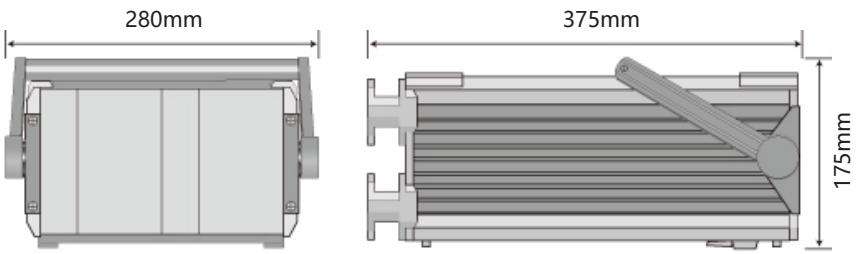
- 3 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E08 power amplifier module × 3: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



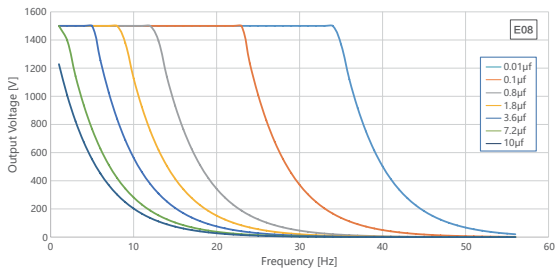
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A3（E08 module）
Power amplifier module	Channels	3
	Contol analog input	-2.5V~+7.5V
	Output voltage	-500V~+1500V
	Ripple	20mVpp（loading）
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	3kHz
	Ave.current	15mA
	Peak current	120mA
	Bandwidth (1/10 signal)	>3kHz
	Voltage gain	150
	Knob adjustment	-
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Analog input control

Voltage vs Frequency Curves

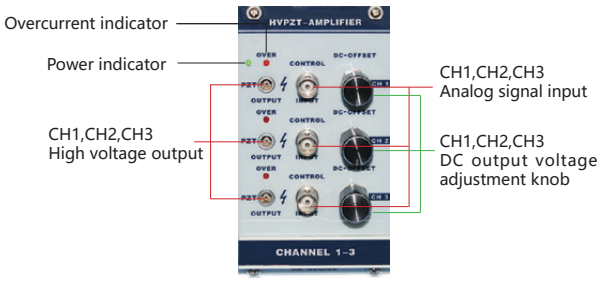


E01.A6 Piezo Amplifier（E03 module）

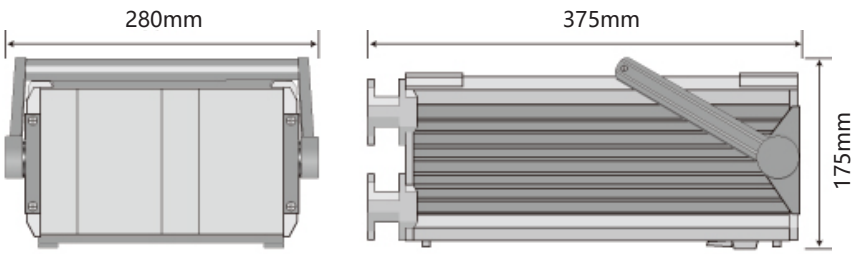
- 6 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E03 power amplifier module×2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



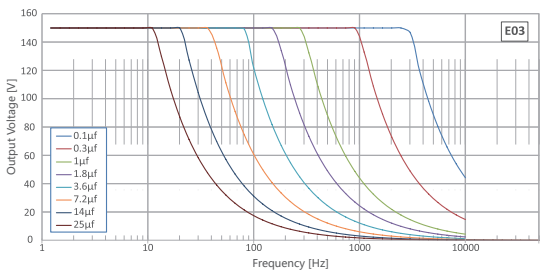
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.A6（E03 module）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×6
(only for PZT with bare wires)

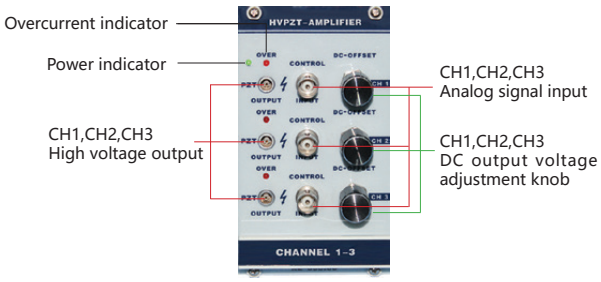
BNC to fish clip line×6
(for analog input)

E01.A9 Piezo Amplifier（E03 module）

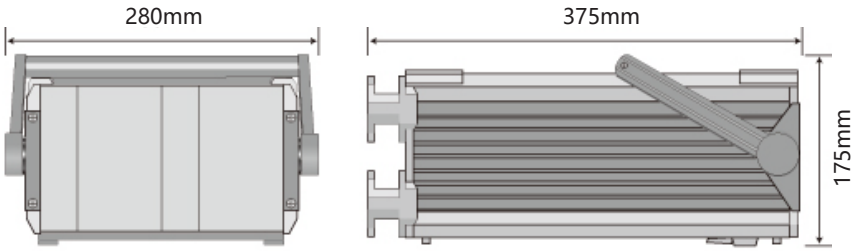
- 9 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E03 power amplifier module × 3: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



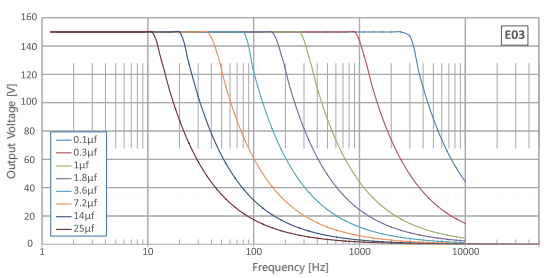
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A9（E03 module）
Power amplifier module	Channels	9
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×9
(only for PZT with bare wires)

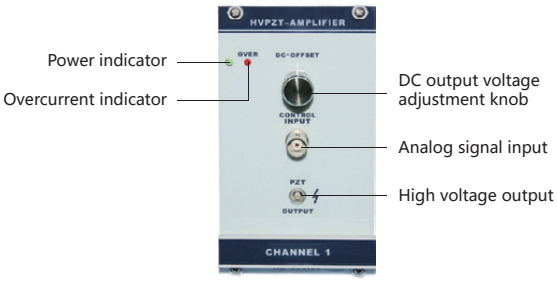
BNC to fish clip line×9
(for analog input)

E01.B1 Piezo Controller（E05 module）

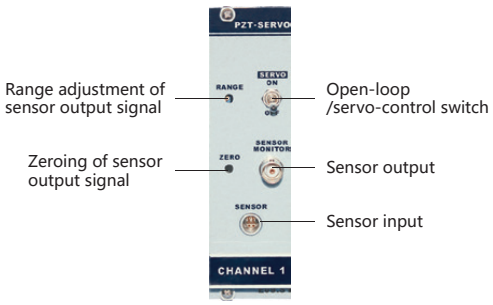
- 1 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

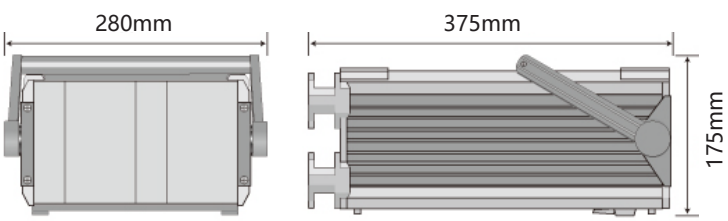
E05 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S1 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



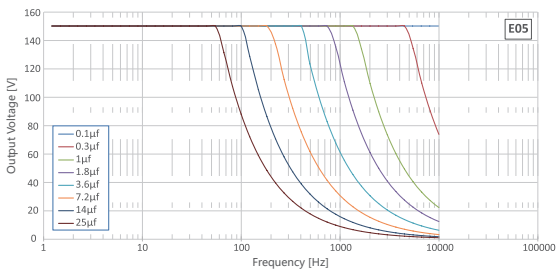
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.B1（E05 module）
Power amplifier module	Channels	1
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	1
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

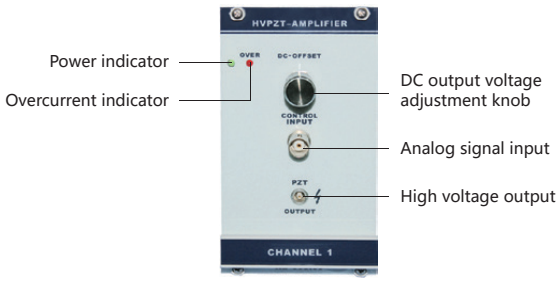
BNC to fish clip line×2
(1 for analog input, 1 for sensor output)

E01.B1 High Voltage Piezo Controller（E07 module, 1000V）

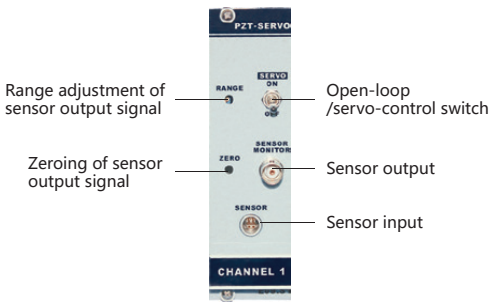
- 1 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

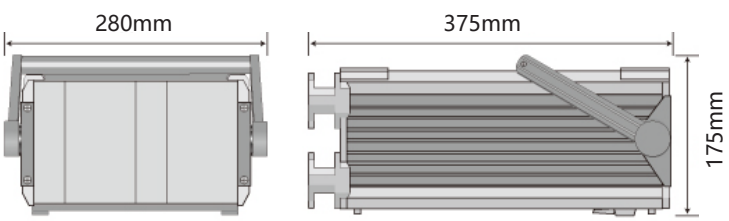
E07 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S1 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



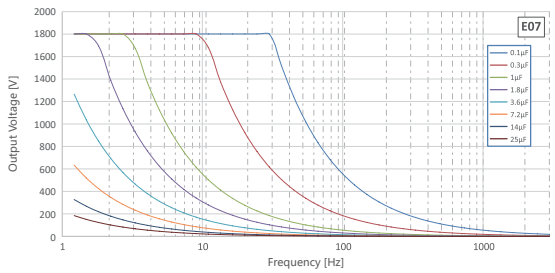
E01 Chassis & Power Supply Module×1



Technical Data

Type		E01.B1(E07 module，1000V)
Power amplifier module	Channels	1
	Contol analog input	0~10V
	Output voltage	0~1000V
	Ripple	50mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	3kHz
	Ave.current	30mA
	Peak current	500mA
	Voltage gain	100
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	1
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

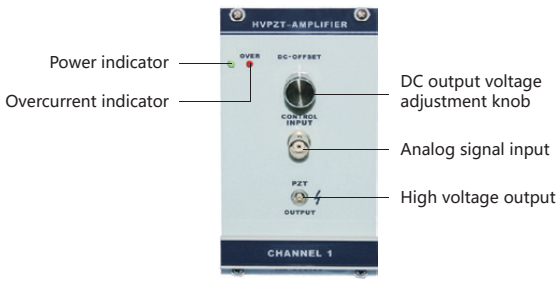
BNC to fish clip line×2
(1 for analog input, 1 for sensor output)

E01.B2 Piezo Controller（E05 module）

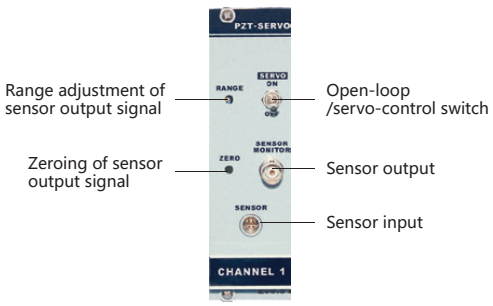
- 2 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

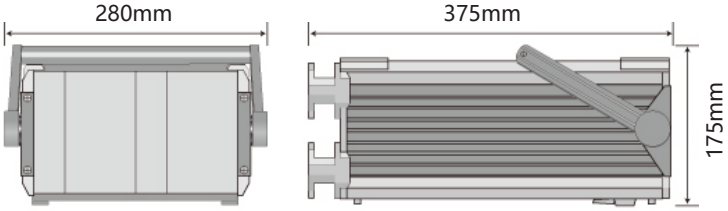
E05 power amplifier module×2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S1 PZT sensor control module×2: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



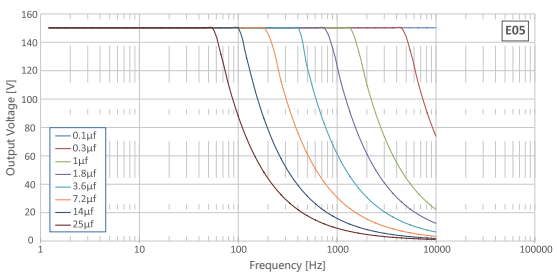
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.B2 (E05 module)
Power amplifier module	Channels	2
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS (Optional LVDT, CAP)
	Sensor channels	2
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

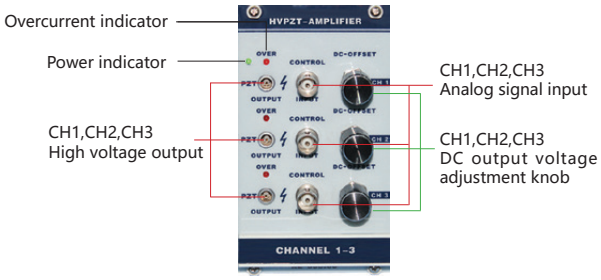
BNC to fish clip line×4
(2 for analog input, 2 for sensor output)

E01.B3 Piezo Controller（E03 module）

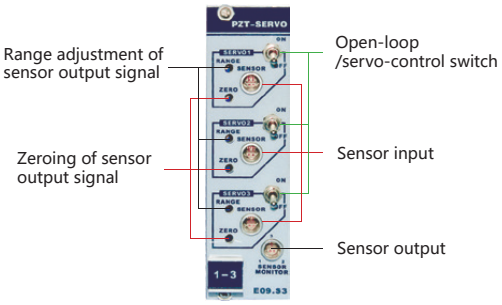
- 3 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

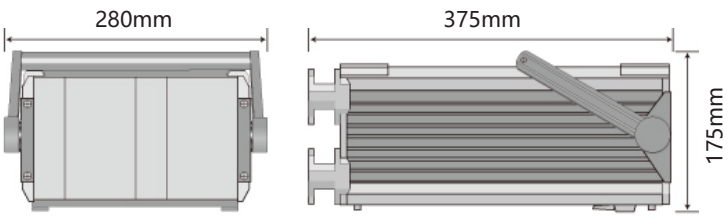
E03 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S3 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



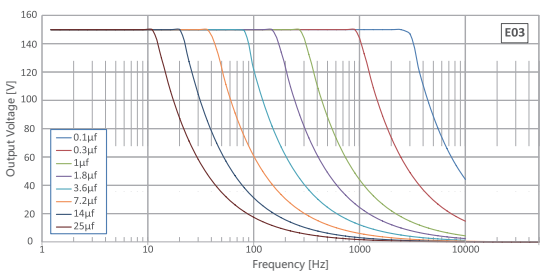
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.B3（E03 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

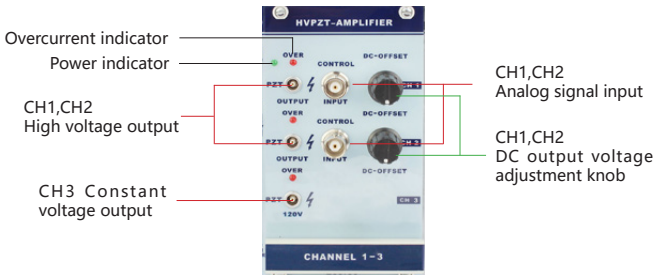
BNC to fish clip line×3
(for analog input)

E01.B3 Piezo Controller (E03 module, with constant output)

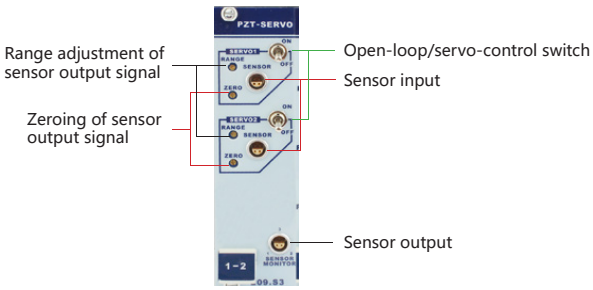
- 3 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

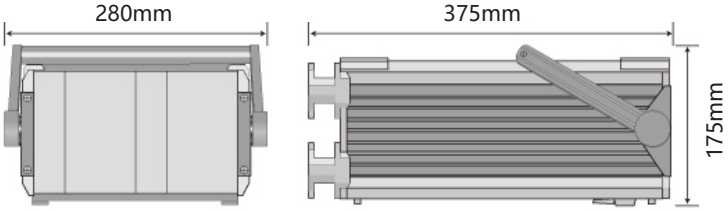
E03 power amplifier module (with constant output)×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S3 PZT sensor control module (with constant output)×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



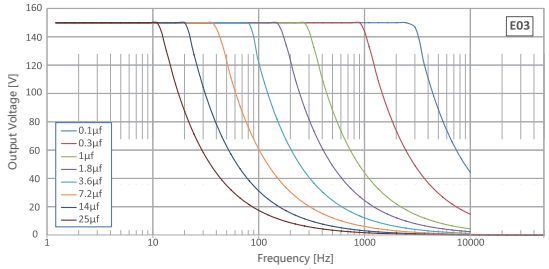
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.B3（E03 module, with constant output）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）, the 3rd channel is constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

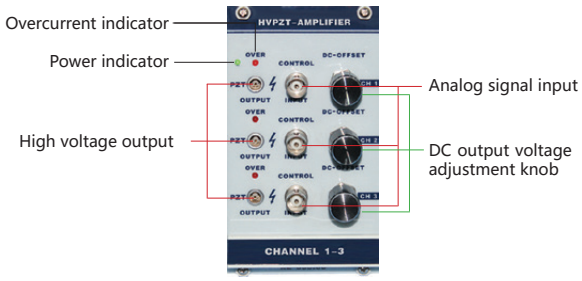
BNC to fish clip line×2
(for analog input)

E01.B4 Piezo Controller (E03, E05 module)

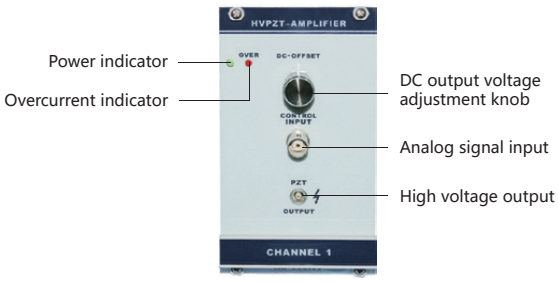
- 4 channel
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

E03 power amplifier module×1+E05 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.

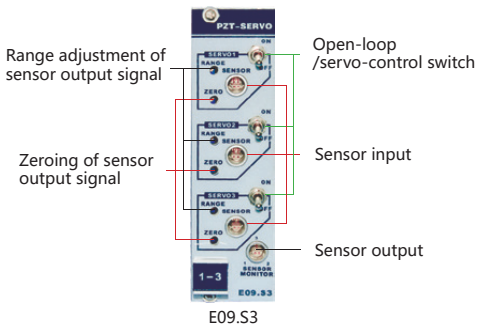


E03

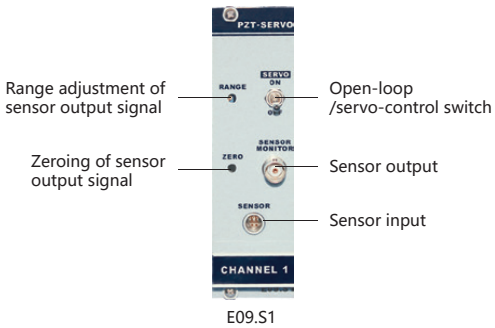


E05

E09.S3 PZT sensor control module×1+E09.S1 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.

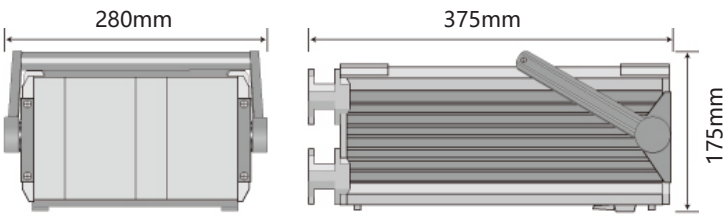


E09.S3



E09.S1

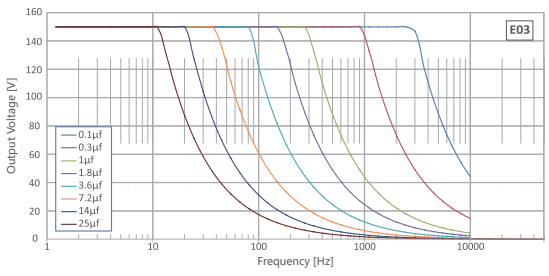
E01 Chassis & Power Supply Module×1

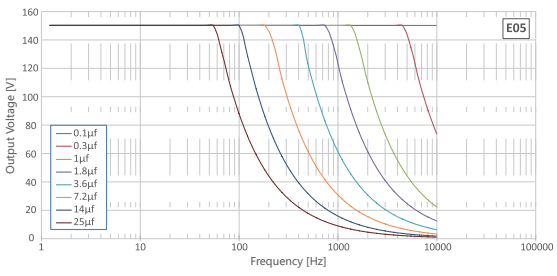


Technical Data

Types		E01.B4 (E03, E05 module)
Power amplifier module	Channels	4
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	E03 module: 58mA, E05 module: 291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS (Optional LVDT, CAP)
	Sensor channels	4
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	E09.S1 module: BNC, E09.S3 module: ERA.0S.303.CLL
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves





Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

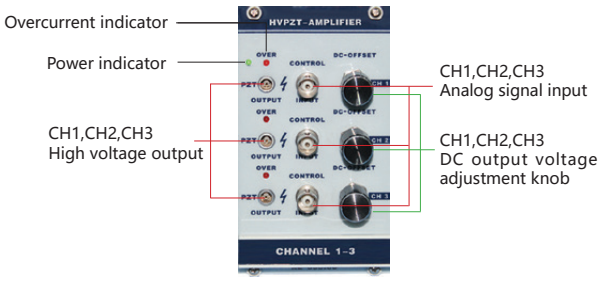
BNC to fish clip line×5
(4 for analog input, 1 for sensor output)

E01.B6 Piezo Controller (E03 module)

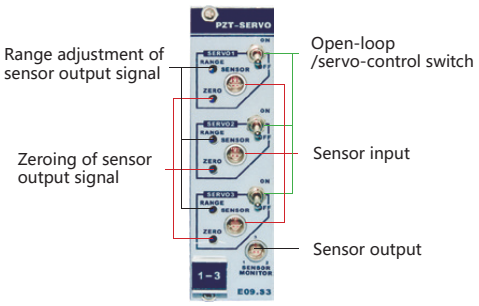
- 6 channels
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

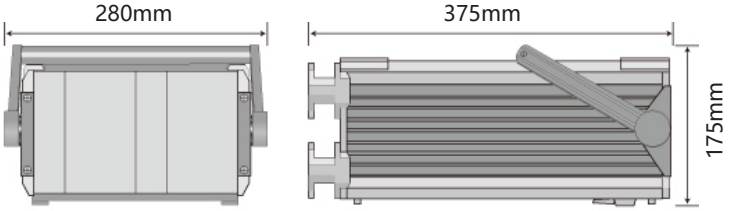
E03 power amplifier module × 2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S3 PZT sensor control module × 2: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



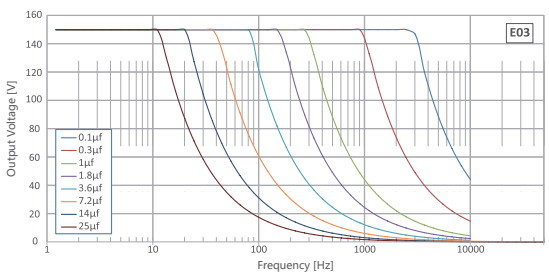
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.B6（E03 module）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	6
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10% , 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×2
(for sensor output)

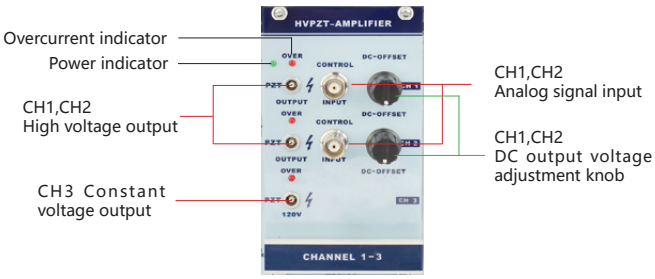
BNC to fish clip line×6
(for analog input)

E01.B6 Piezo Controller (E03 module, with constant output)

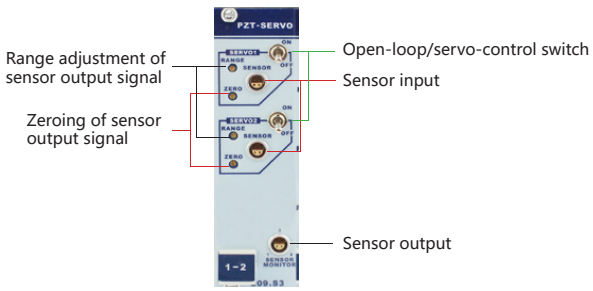
- 6 channels (2 constant outputs)
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

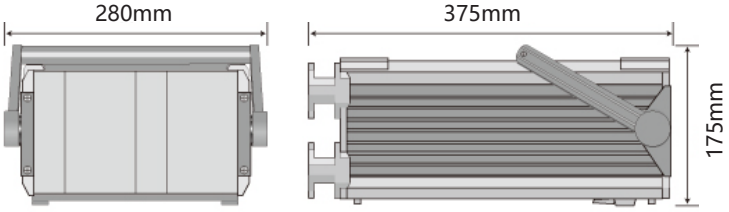
E03 power amplifier module (with constant output)×2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S3 PZT sensor control module(with constant output)×2: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



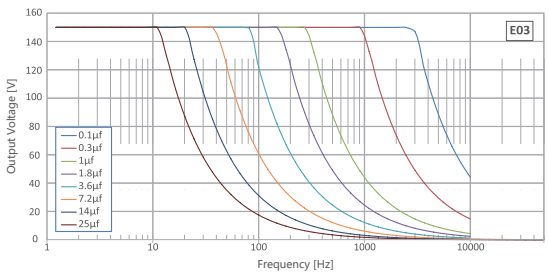
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.B6（E03 module, with constant output）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）, the 3rd channel is constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	6
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Output voltage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10% , 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×2
(for sensor output)

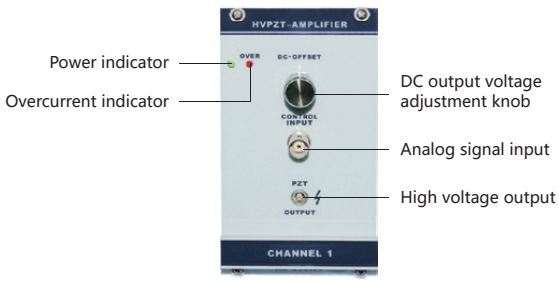
BNC to fish clip line×4
(for analog input)

E01.C1 Piezo Controller（E05 module）

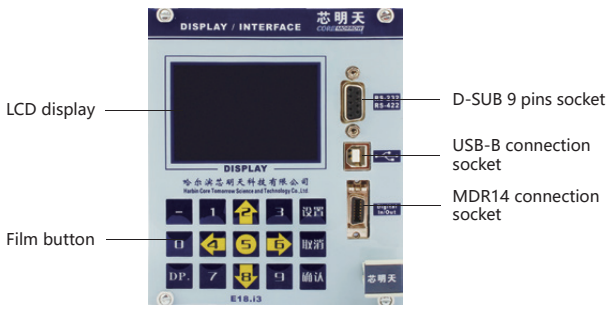
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

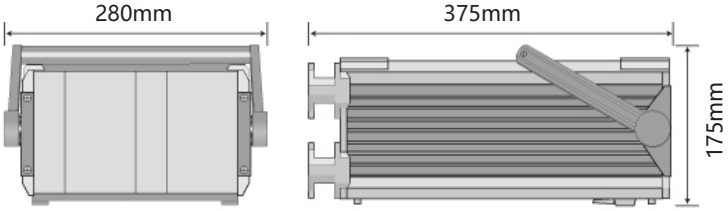
E05 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i1 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



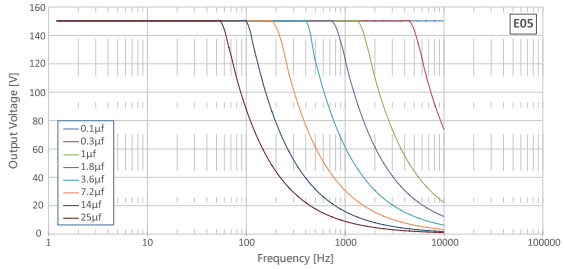
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.C1 (E05 module)
Power amplifier module	Channels	1
	Contol analog input	-1.67~10V (optional 0~5V)
	Output voltage	-20~120V (optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (optional 30k, 50kHz, etc.)
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Display & interface module	Channels	1
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×1
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO to fish clip line×1
(only for PZT with bare wires)

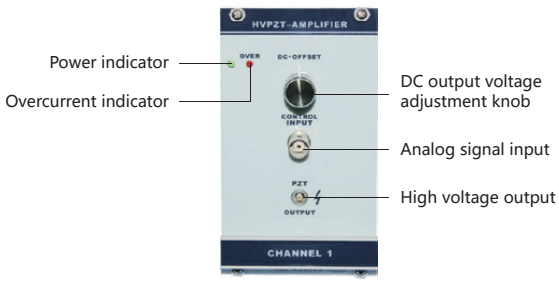
Series port line×1
(for communication)

E01.C1 Piezo Amplifier（E07 module，1000V）

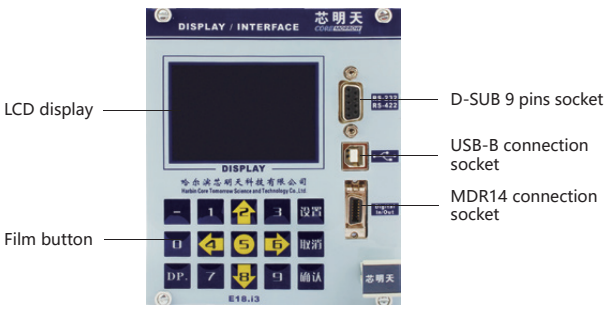
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

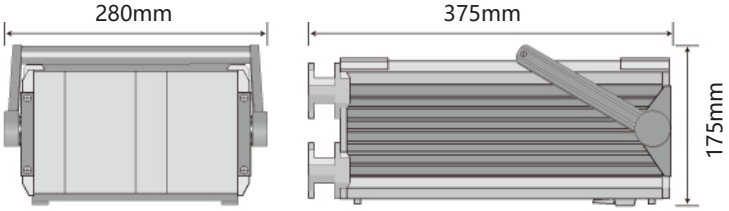
E07 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i1 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



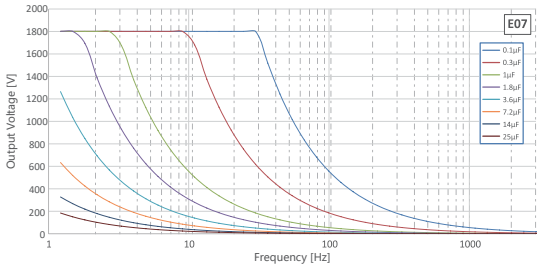
E01 Chassis & Power Supply Module×1



Technical Data

Types		E01.C1(E07 module, 1000V)
Power amplifier module	Channels	1
	Contol analog input	0~10V
	Output voltage	0~1000V
	Ripple	50mV
	Voltage stability	< 0.1%F.S. /8hours
	Input impedance	100KΩ±20%
	Bandwidth	3kHz
	Ave.current	30mA
	Peak current	500mA
	Voltage gain	100
	Knob adjustment	10 turns
Display & interface module	Channels	1
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10% , 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×1
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO cable×1
(only for PZT with bare wires)

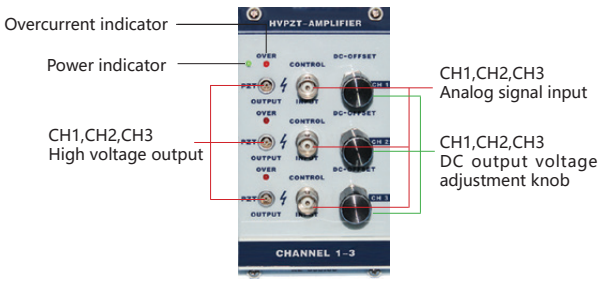
Series port line×1
(for communication)

E01.C3 Piezo Amplifier (E03 module)

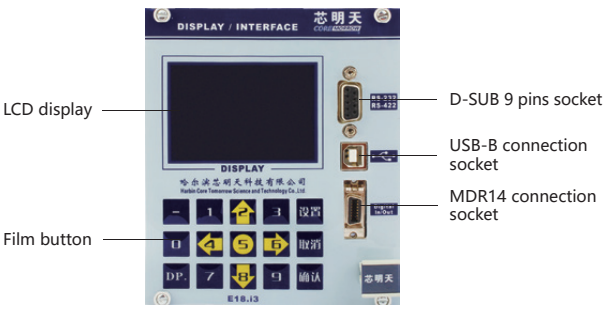
- 3 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

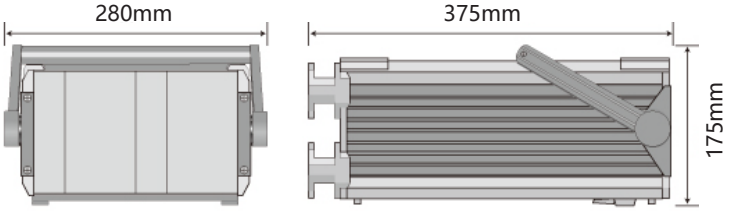
E03 power amplifier module × 1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i3 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



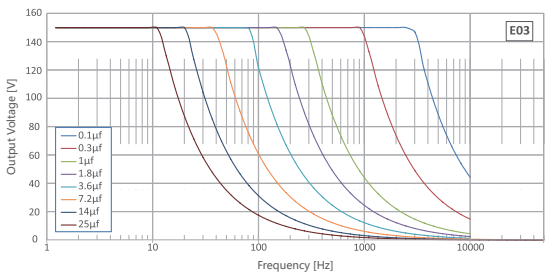
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.C3 (E03 module)
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×3
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO to fish clip line×3
(only for PZT with bare wires)

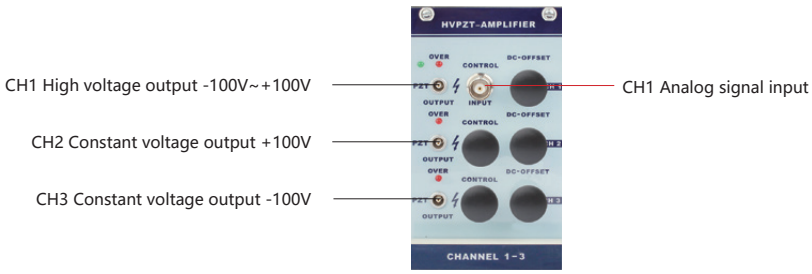
Series port line×1
(for communication)

E01.C3 Piezo Amplifier (For driving piezo benders)

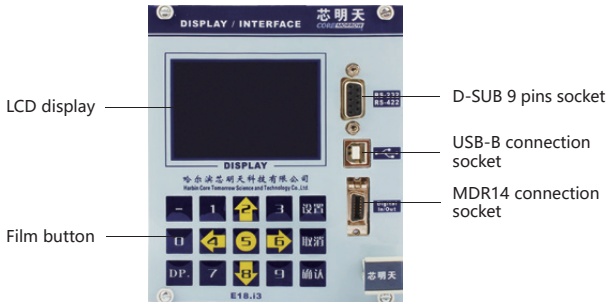
- 3 channels (2 constant voltage outputs and 1 variable voltage output)
- Analog control
- Software control
- Keyboard control
- Knob control
- Servo control

Combination Modules

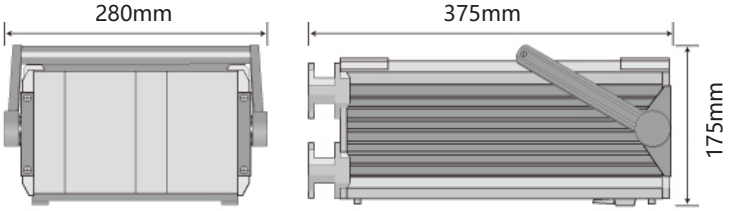
E03 power amplifier module × 1(with constant voltage): Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i3 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



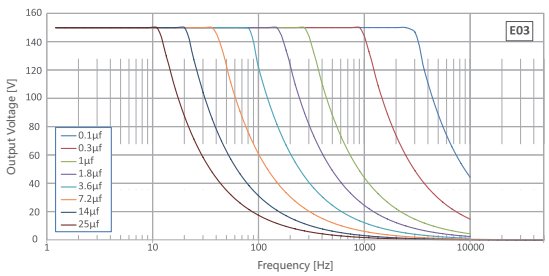
E01 Chassis & Power Supply Module × 1



Technical Data

Types		E01.A3 (E03 module)
Power amplifier module	Channels	3
	CH1 contol analog input	-10V~+10V
	CH1 output voltage	-100V~+100V
	CH2 output voltage	+100V constant voltage
	CH3 output voltage	-100V constant voltage
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz
	Ave.current	35mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	10
	Knob adjustment	-
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×1
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO to fish clip line×3
(only for PZT with bare wires)

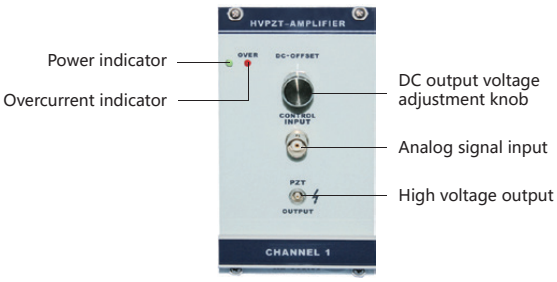
Series port line×1
(for communication)

E01.D1 Piezo Controller（E05 module）

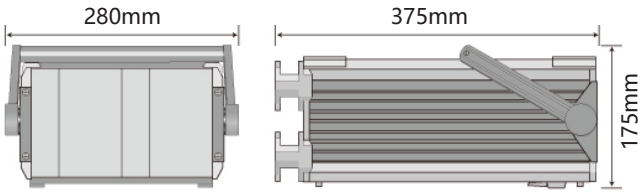
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

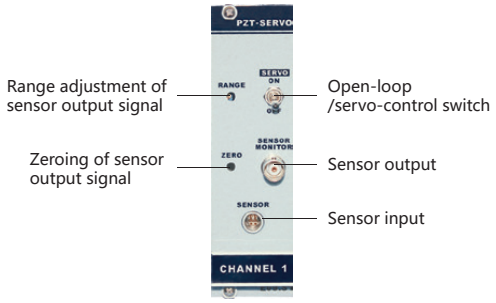
E05 功 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



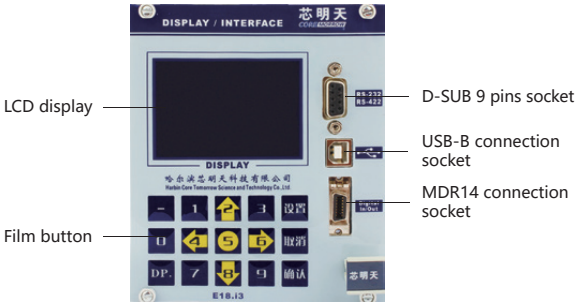
E01 Chassis & Power Supply Module×1



E09.S1 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



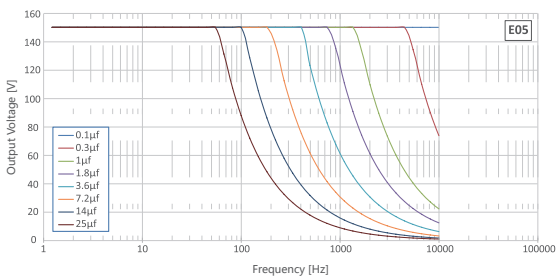
E18.i1 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E01.D1（E05 module）
Power amplifier module	Channels	1
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	1
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Sensor output votlage	0~10V
Display & interface module	Channels	1
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


I/O line×1


Series port line×1
(for communication)


USB line×1
(for communication)

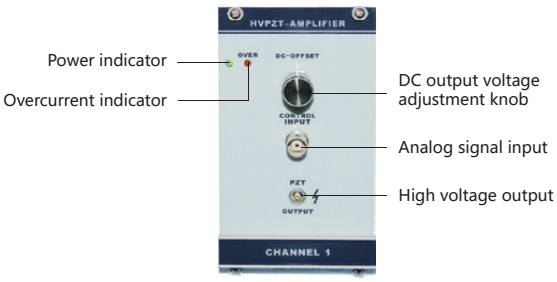

BNC to fish clip line×2
(1 for analog input, 1 for sensor output)

E01.D1 High Voltage Piezo Controller (E07 module, 1000V)

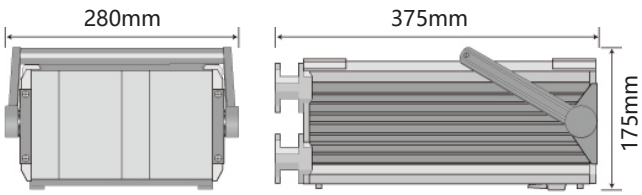
- 1 channel
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

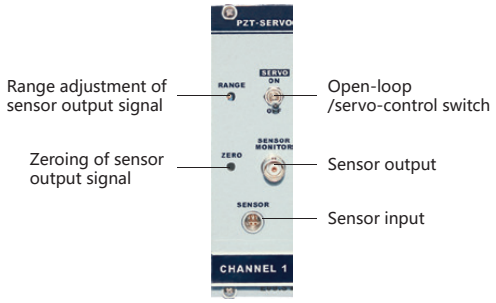
E07 power amplifier module × 1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



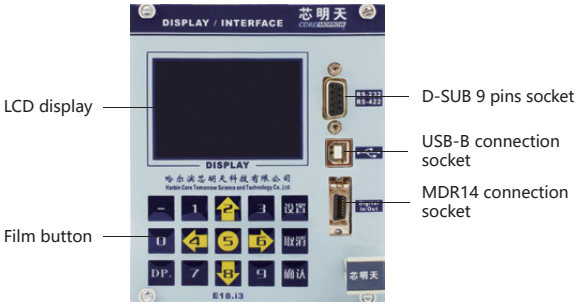
E01 Chassis & Power Supply Module × 1



E09.S1 PZT sensor control module × 1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



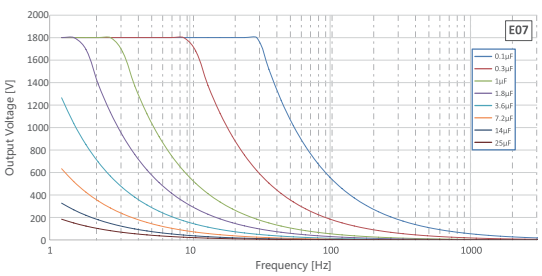
E18.i1 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E01.D1(E07 module，1000V)
Power amplifier module	Channels	1
	Contol analog input	0~10V
	Output voltage	0~1000V
	Ripple	50mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	3kHz
	Ave.current	30mA
	Peak current	500mA
	Bandwidth (1/10 signal)	100
	Voltage gain	10 turns
	Knob adjustment	SGS（Optional LVDT, CAP）
PZT sensor control module	Sensor type	1
	Sensor channels	Analog P-I+notch filter
	Servo	ERA.0S.304.CLL
	Sensor port	BNC
	Sensor output port	0~10V
	Sensor output votlage	0~50℃
Display & interface module	Channels	1
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

I/O line×1

Series port line×1
(for communication)

USB line×1
(for communication)

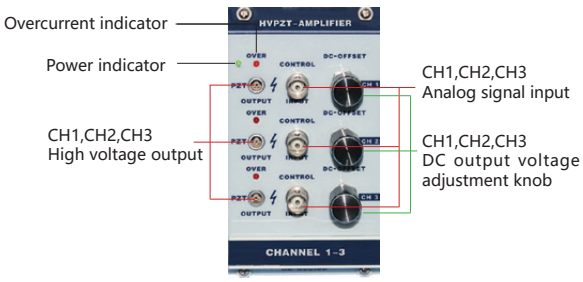
BNC to fish clip line×2
(1 for analog input, 1 for sensor output)

E01.D3 Piezo Controller（E03 module）

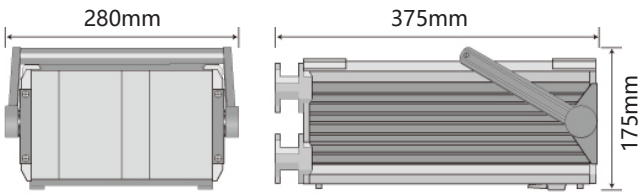
- 3 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

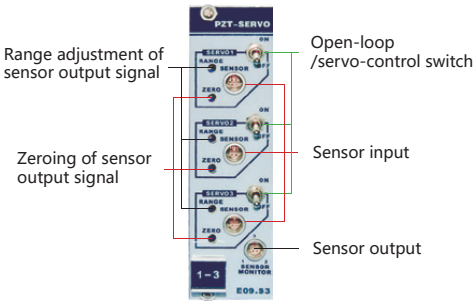
E03 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



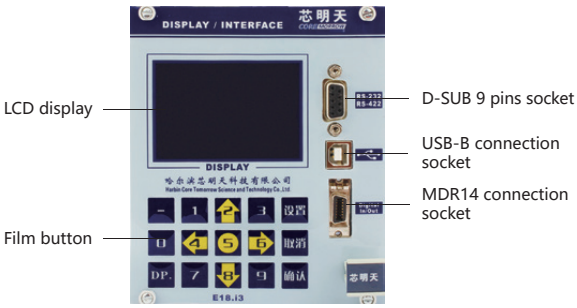
E01 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



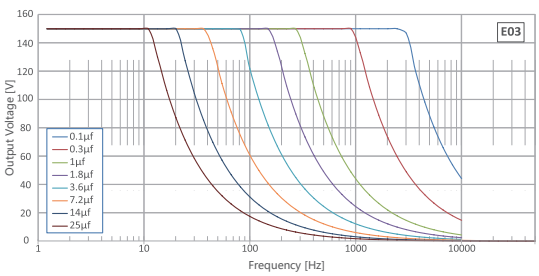
E18.i3 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E01.D3（E03 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

I/O line×1

USB line×1
(for communication)

BNC to fish clip line×3
(for analog input)

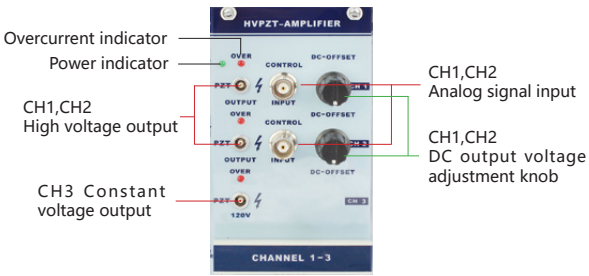
Series port line×1
(for communication)

E01.D3 Piezo Controller（E03 module）

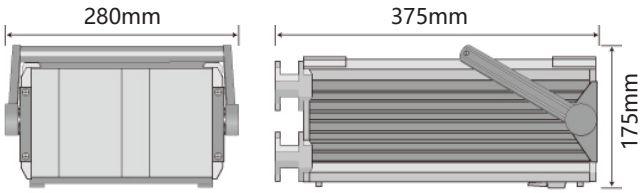
- 3 channels (1 contant output)
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

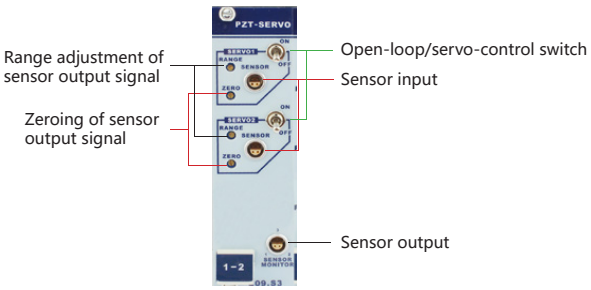
E03 power amplifier module(with constant output)×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



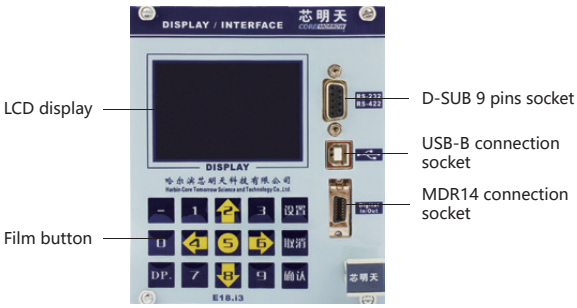
E01 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module(with constant output)×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



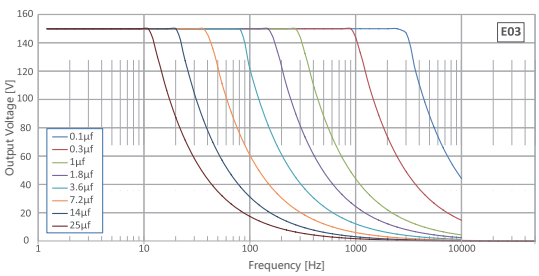
E18.i3 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E01.D3（E03 module, with constant output）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）, the 3rd channel is constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	280×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



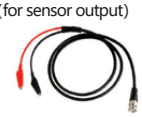
Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

I/O line×1

USB line×1
(for communication)



BNC to fish clip line×2
(for analog input)

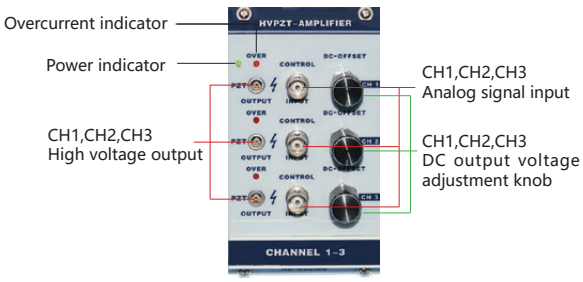
Series port line×1
(for communication)

E01.D4 Piezo Controller (E03, E05 module)

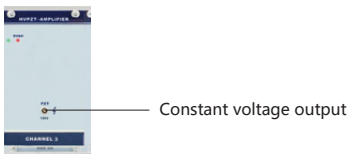
- 4 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

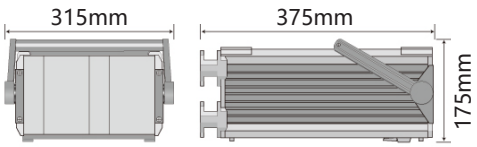
E03 power amplifier module(with constant output)×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



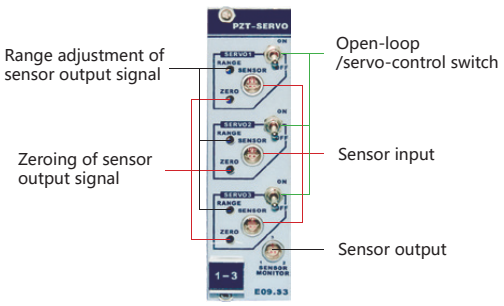
E05 constant voltage module ×1: The function of the module is to output constant voltage value, usually used for piezoelectric products requiring constant voltage control.



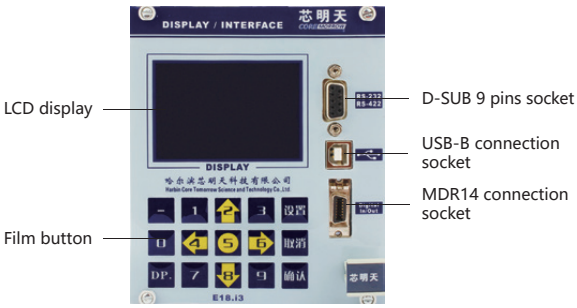
E01 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module(with constant output)×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



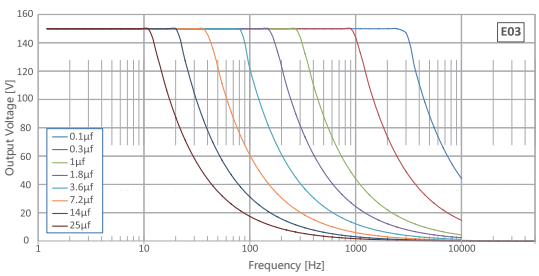
E18.i3 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E01.D4 (E03 and E05 module, with constant output)
Power amplifier module	Channels	4 (Including one constant voltage output)
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V) , Including one constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS (Optional LVDT, CAP)
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	315×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



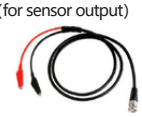
Included Cables

Power cable ×1

LEMO line×1
(for sensor output)

I/O line×1

USB line×1
(for communication)



BNC to fish clip line×2
(for analog input)

Series port line×1
(for communication)

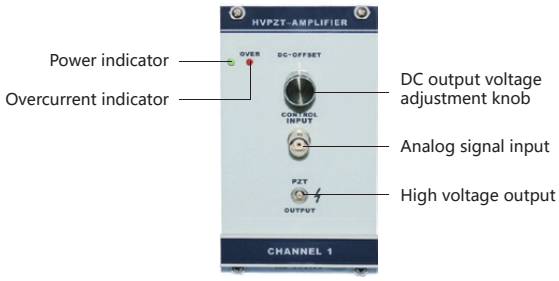
E00 Series Piezo Controller
19 Inch Chassis

E00.A6 Piezo Amplifier (E05 module)

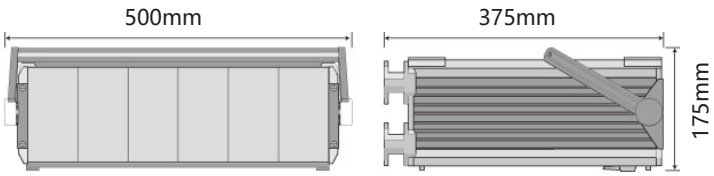
- 6 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E05 power amplifier module × 6: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



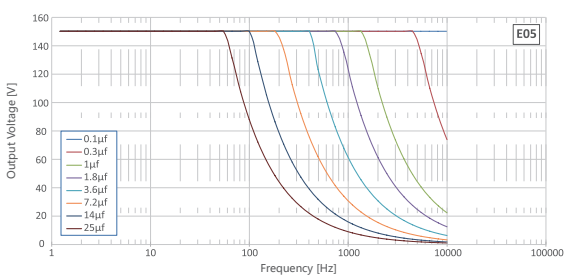
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.A6（E05 module）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×6
(only for PZT with bare wires)

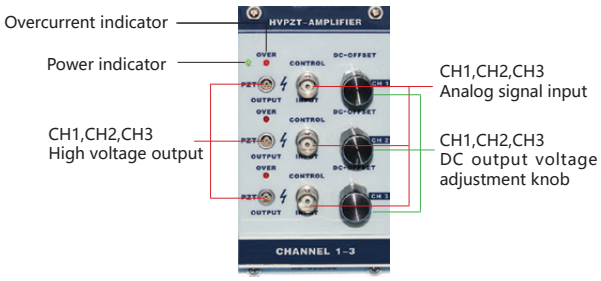
BNC to fish clip line×6
(for analog input)

E00.A18 Piezo Amplifier（E03 module）

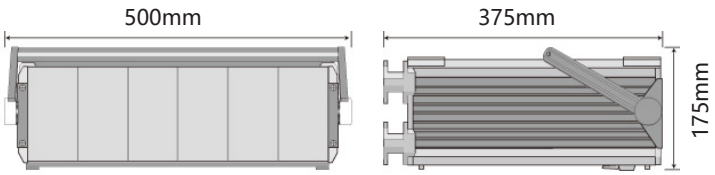
- 18 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

E03 power amplifier module×6: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



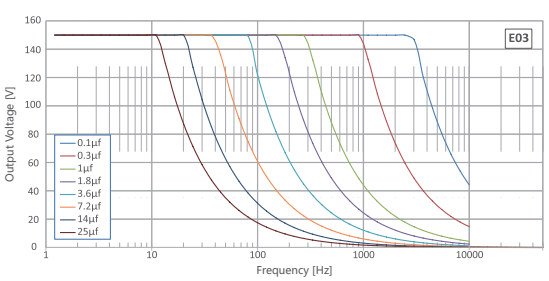
E00 Chassis & Power Supply Module×1



Technical Data

Types		E00.A18（E03 module）
Power amplifier module	Channels	18
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO to fish clip line×18
(only for PZT with bare wires)

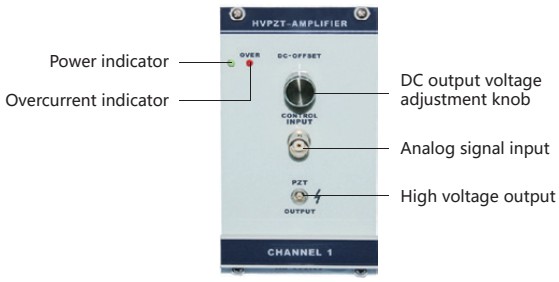
BNC to fish clip line×18
(for analog input)

E00.B4 Piezo Controller (E05 module)

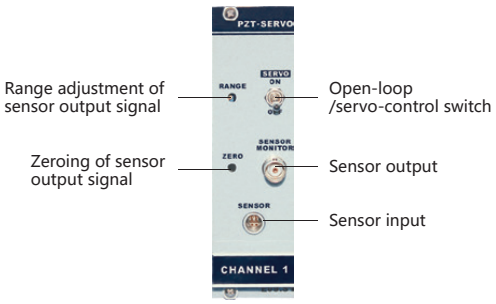
- 4 channels
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

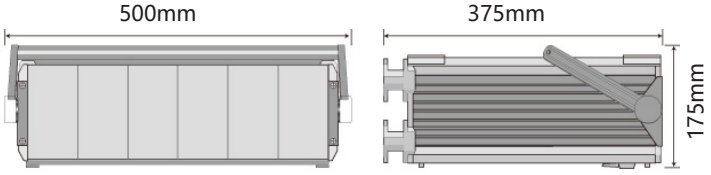
E05 power amplifier module × 4: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S1 PZT sensor control module × 4: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



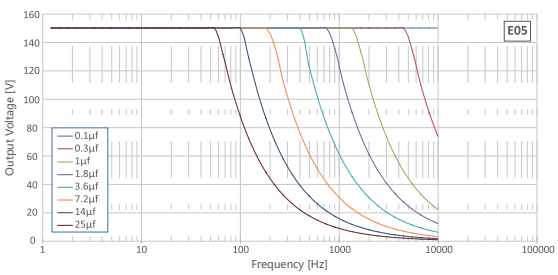
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.B4（E05 module）
Power amplifier module	Channels	4
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	4
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Sensor output votlage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

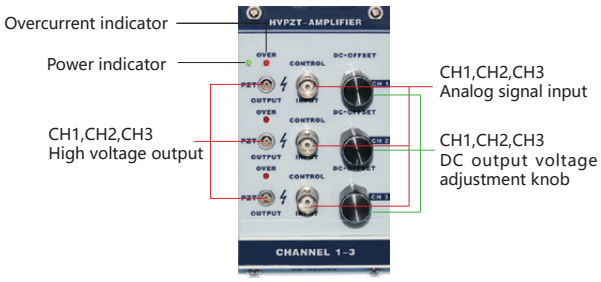
BNC to fish clip line×8
(4 for analog input, 4 for sensor output)

E00.B12 Piezo Controller (E03 module)

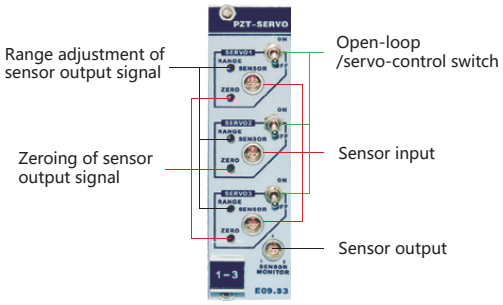
- 12 channels
- Analog control
- Knob control
- Servo control
- Software control
- Keyboard control

Combination Modules

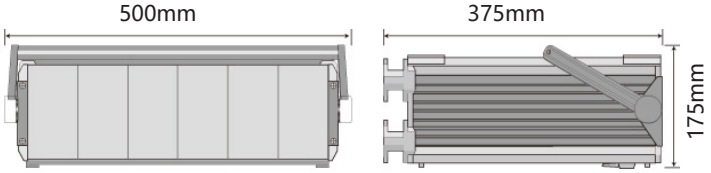
E03 power amplifier module × 4: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E09.S3 PZT sensor control module × 4: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



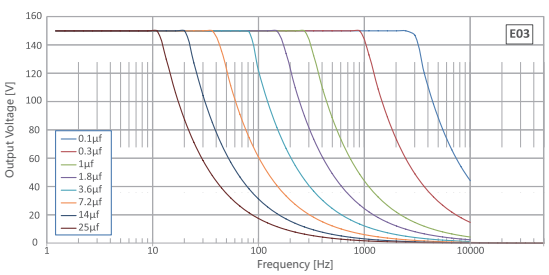
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.B12（E03 module）
Power amplifier module	Channels	12
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	12
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog control, Open-loop/Servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

LEMO line×4
(for sensor output)

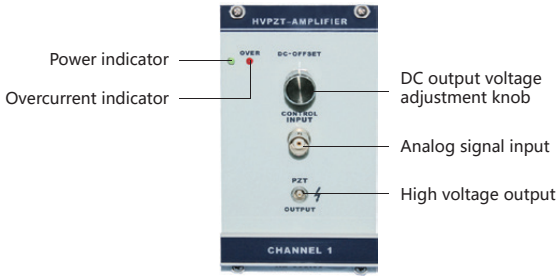
BNC to fish clip line×12
(for analog input)

E00.C2 Piezo Amplifier (E05 module)

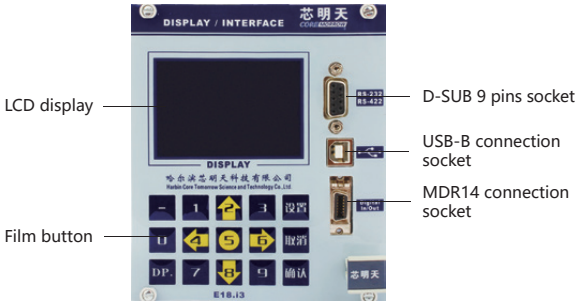
- 2 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

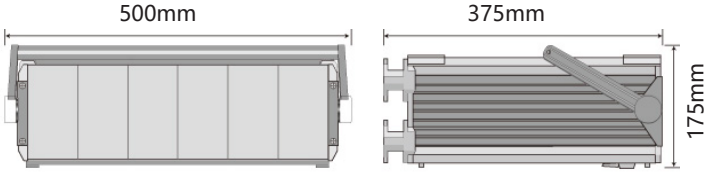
E05 power amplifier module × 2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i3 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



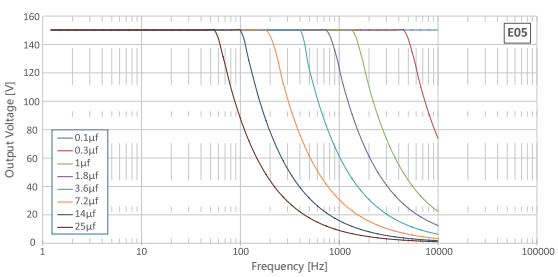
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.C2（E05 module）
Power amplifier module	Channels	2
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Display & interface module	Channels	2
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×2
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO to fish clip line×2
(only for PZT with bare wires)

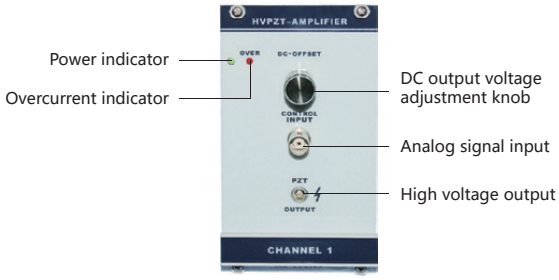
Series port line×1
(for communication)

E00.C3 Piezo Amplifier (E05 module)

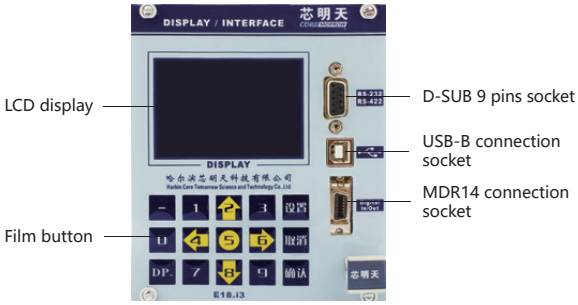
- 3 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

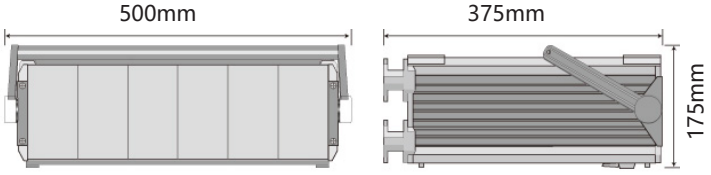
E05 power amplifier module × 3: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i3 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



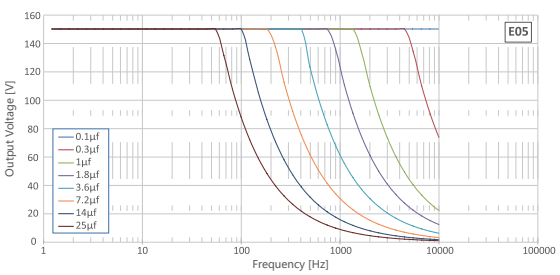
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.C3（E05 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


BNC to fish clip line×3
(for analog input)


I/O line×1


USB line×1
(for communication)


LEMO to fish clip line×3
(only for PZT with bare wires)

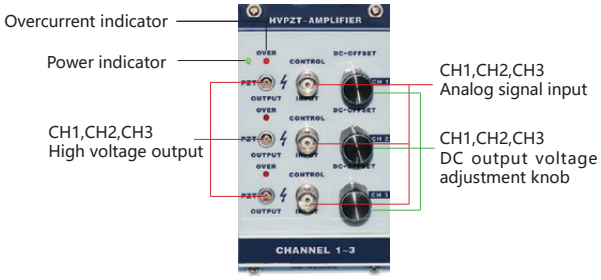

Series port line×1
(for communication)

E00.C6 Piezo Amplifier (E03 module)

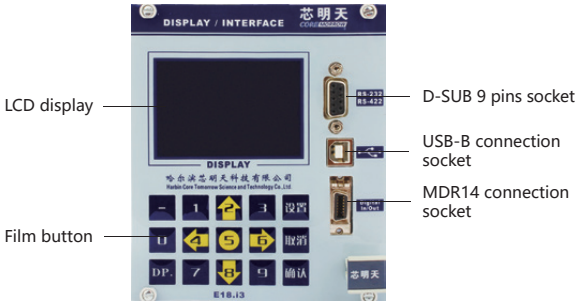
- 6 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

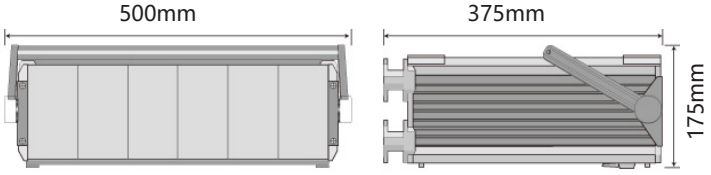
E03 power amplifier module × 2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



E18.i3 display & Interface module × 2: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



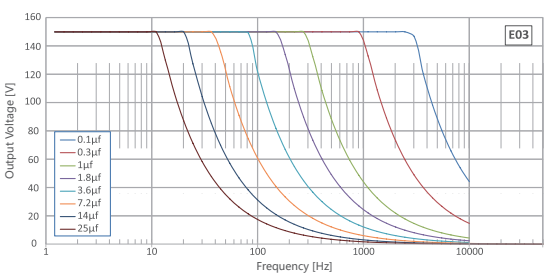
E00 Chassis & Power Supply Module × 1



Technical Data

Types		E00.C6（E03 module）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
Display & interface module	Channels	6
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


BNC to fish clip line×6
(for analog input)


I/O line×1


USB line×1
(for communication)


LEMO to fish clip line×6
(only for PZT with bare wires)

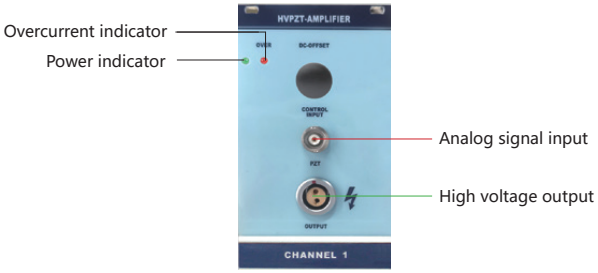

Series port line×1
(for communication)

E00.D1 High Voltage Piezo Amplifier (E05 combination type)

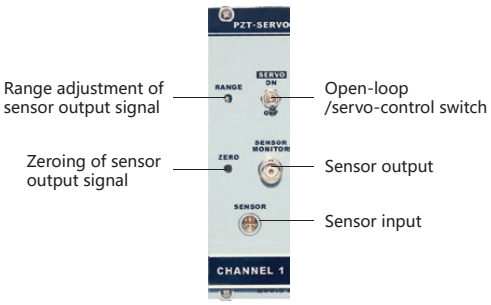
- 1 channels
- Analog control
- Software control
- Keyboard control
- Servo control
- Knob control

Combination Modules

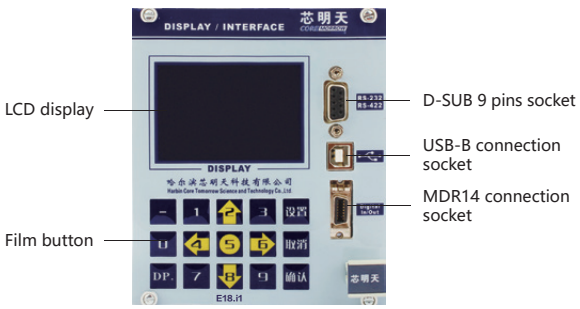
E05 power amplifier module × 1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



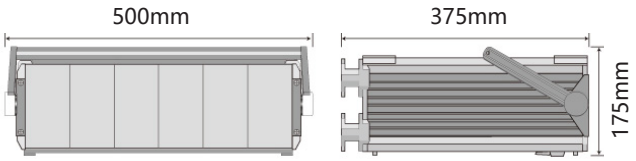
E09.S1 PZT sensor control module × 1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



E18.i1 display & Interface module × 1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



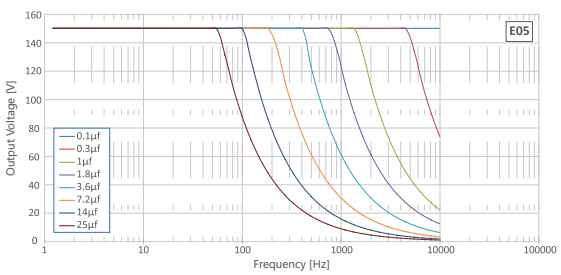
E00 Chassis & Power Supply Module×1



Technical Data

Types		E00.D1(E05 combination type)
Power amplifier module	Channels	1 (combination type)
	Contol analog input	0~10V
	Output voltage	0~800V
	Ripple	20mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	5kHz (-3DB)
	Ave.current	100mA
	Peak current	300mA
	Voltage gain	80
	Knob adjustment	No
PZT sensor control module	Sensor type	SGS（Optional LVDT、CAP）
	Sensor channels	1
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Sensor output votlage	0~10V
Display & interface module	Channels	1
	D/A converter	16Bit±10V(Optional 24Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422、USB
	Bandrate	9600、19200、38400、57600、76800、115200 、128000、230400、256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Analog input, computer serial/USB interface, spontaneous waveform control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


I/O line×1


Series port line×1
(for communication)


USB line×1
(for communication)

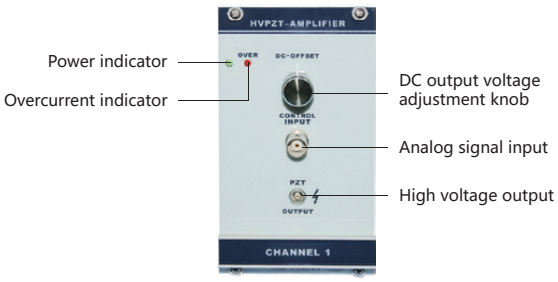

BNC to fish clip line×2
(1 for analog input, 1 for sensor output)

E00.D3 Piezo Controller (E05 module)

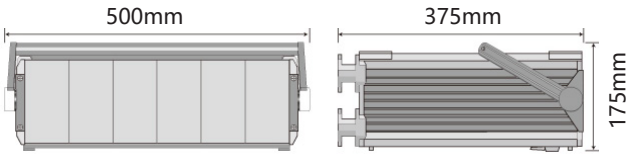
- 3 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

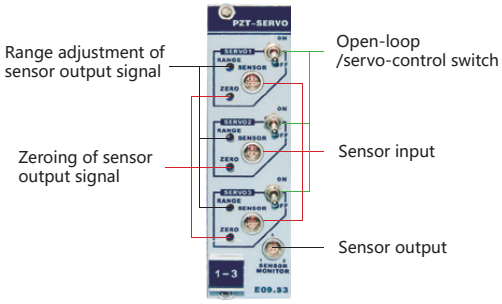
E05 power amplifier module×3: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



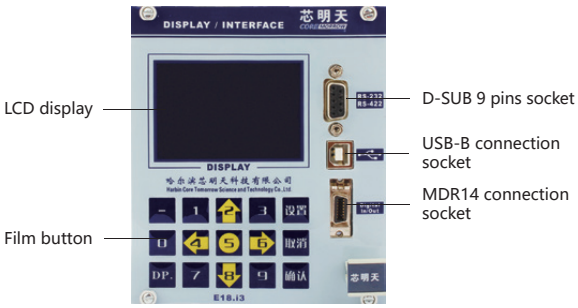
E00 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



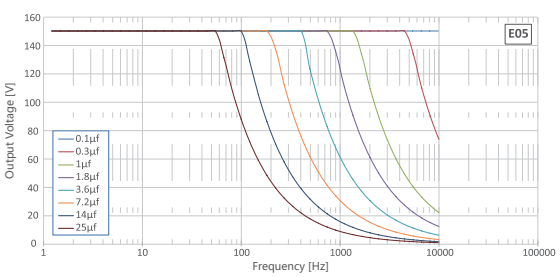
E18.i3 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E00.D3（E05 module）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


BNC to fish clip line×3
(for analog input)


I/O line×1


USB line×1
(for communication)


LEMO line×1
(for sensor output)

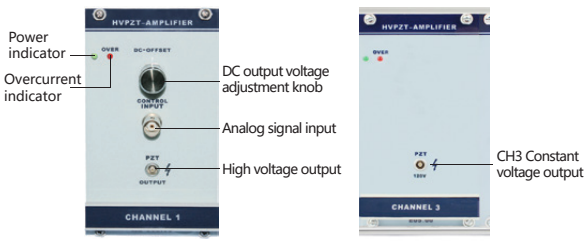

Series port line×1
(for communication)

E00.D3 Piezo Controller（E05 module, with constant output）

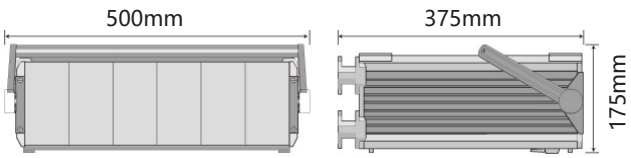
- 3 channels (1 constant output)
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

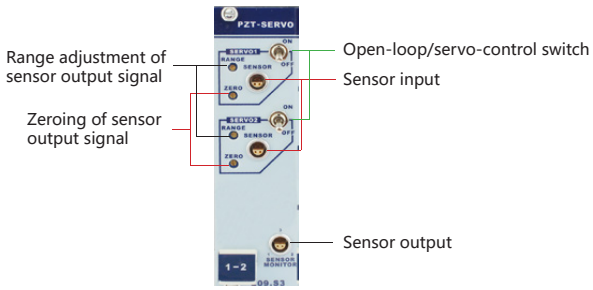
E05 power amplifier module×2+E05 constant output module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



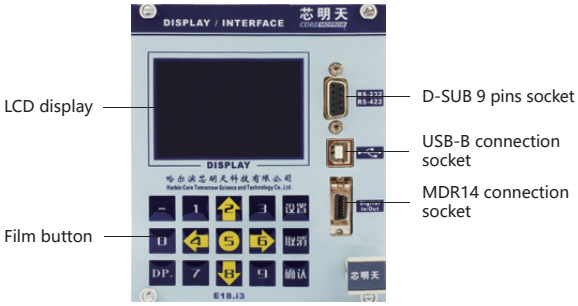
E00 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module(with constant output)×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



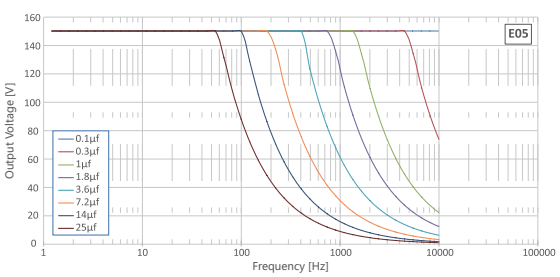
E18.i3 display & Interface module×1: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E00.D3（E05 module, with constant output）
Power amplifier module	Channels	3
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）, the 3rd channel is constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	3
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	3
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


BNC to fish clip line×2
(for analog input)


I/O line×1


USB line×1
(for communication)


LEMO line×1
(for sensor output)

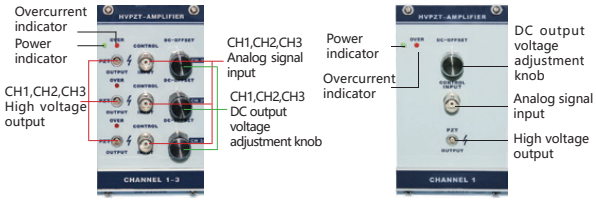

Series port line×1
(for communication)

E00.D4 Piezo Controller (E03, E05 modules)

- 4 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

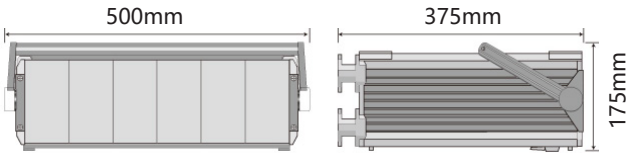
Combination Modules

E03 power amplifier module×1+E05 power amplifier module×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.

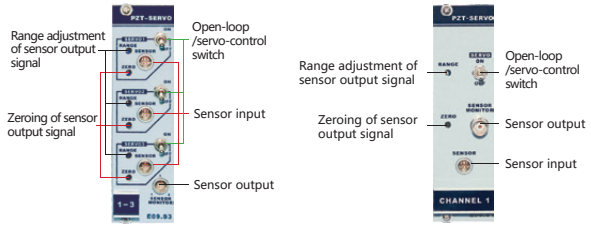


E03 E05

E00 Chassis & Power Supply Module×1

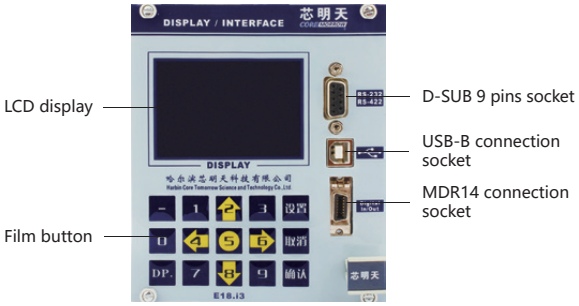


E09.S3 PZT sensor control module×1+E09.S1 PZT sensor control module×1: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



E09.S3 E09.S1

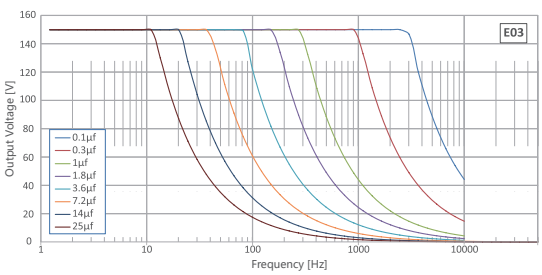
E18.i3 display & Interface module×2: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.

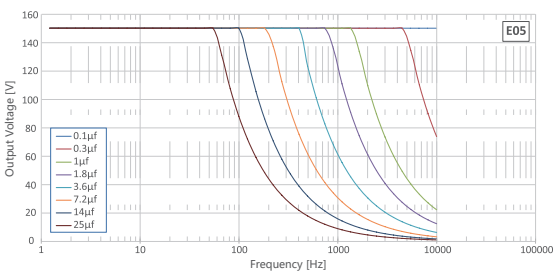


Technical Data

Types		E00.D4 (E03 and 05 modules)
Power amplifier module	Channels	4
	Contol analog input	-1.67~10V (Optional 0~5V)
	Output voltage	-20~120V (Optional -20~150V)
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz (Optional 30k, 50kHz, etc.)
	Ave.current	E03 module: 58mA, E05 module: 291mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS (Optional LVDT, CAP)
	Sensor channels	4
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	E09.S1 module: BNC, E09.S3 module: ERA.0S.303.CLL
	Sensor output votlage	0~10V
Display & interface module	Channels	4
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%, 50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves





Included Cables

Power cable ×1

BNC to fish clip line×5
(4 for analog input, 1 for sensor output)

I/O line×1

LEMO line×1
(for sensor output)

USB line×1
(for communication)

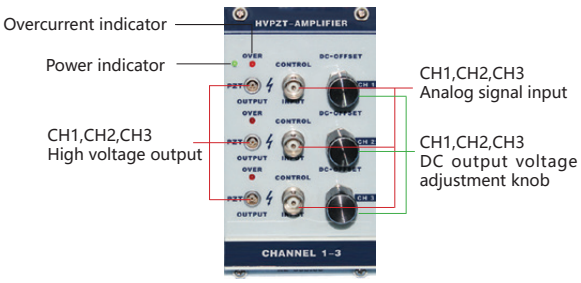
Series port line×1
(for communication)

E00.D6 Piezo Controller (E03 module)

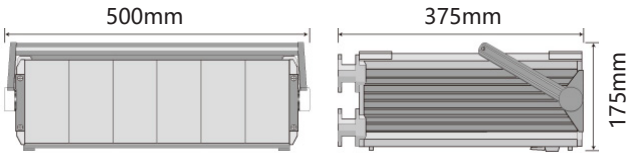
- 6 channels
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

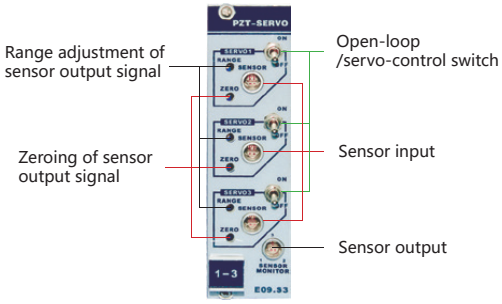
E03 power amplifier module × 2: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



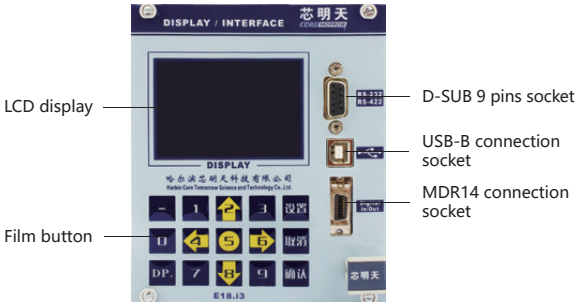
E00 Chassis & Power Supply Module × 1



E09.S3 PZT sensor control module × 2: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



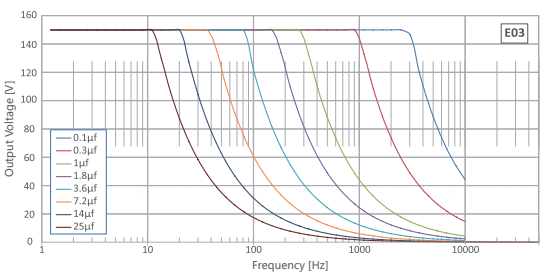
E18.i3 display & Interface module × 2: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E00.D6（E03 module）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	6
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Sensor output votlage	0~10V
Display & interface module	Channels	6
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables

Power cable ×1

BNC to fish clip line×6
(for analog input)

I/O line×1

USB line×1
(for communication)

LEMO line×2
(for sensor output)

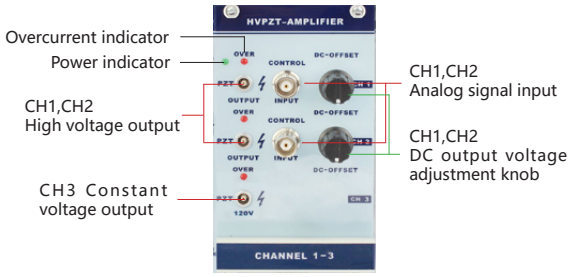
Series port line×1
(for communication)

E00.D6 Piezo Controller (E03 module, with constant output)

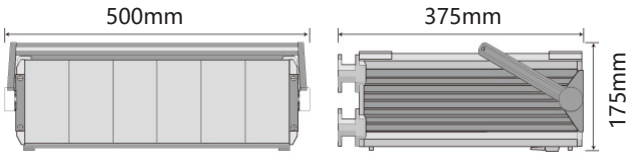
- 6 channels (2 constant outputs)
- Analog control
- Knob control
- Software control
- Keyboard control
- Servo control

Combination Modules

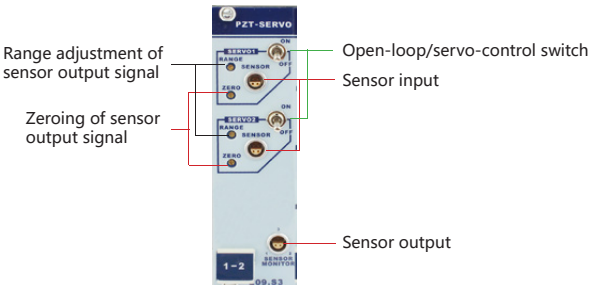
E03 power amplifier module(with constant output)×1: Its main function is to amplify small signal from external analog input or given by the computer through DA or other control signals through a voltage and power amplifier circuit inside the Power Amplifier Module.



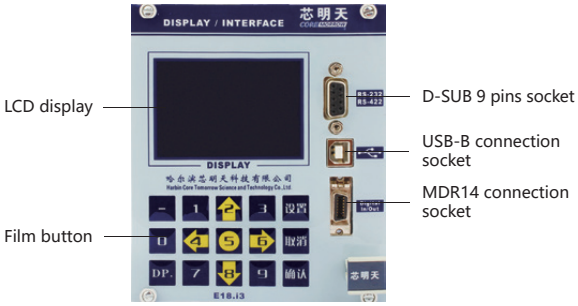
E00 Chassis & Power Supply Module×1



E09.S3 PZT sensor control module(with constant output)×2: E09 PZT sensor module provides high precision, high stability and high reliability excitation signals for sensors in nanopositioning mechanisms such as PZT or micromotion stages, and detects and processes feedback signals from PZT or micromotion stages. The servo control is done by the internal algorithm circuit. The E09 PZT sensor module is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



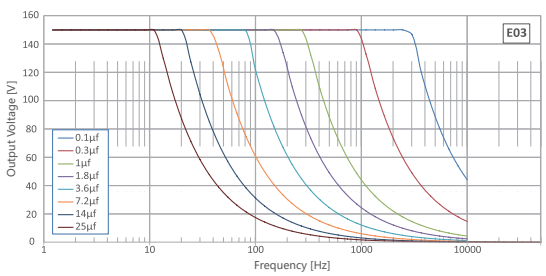
E18.i3 display & Interface module×2: With LCD and PC interface, E18 measures and displays the output voltage of Power Amplifier Module and the current displacement of sensor module, receives and processes control commands from computer, and with keyboard, LCD and is equipped software for human-computer interaction, and with servo control and other functions. It is not a stand-alone device and needs to be integrated into the E00/E01 chassis.



Technical Data

Types		E00.D6（E03 module, with constant output）
Power amplifier module	Channels	6
	Contol analog input	-1.67~10V（Optional 0~5V）
	Output voltage	-20~120V（Optional -20~150V）,the 3rd and 6th channels are constant voltage output
	Ripple	5mV
	Voltage stability	< 0.1%F.S./8hours
	Input impedance	100KΩ±20%
	Bandwidth	10kHz（Optional 30k, 50kHz, etc.）
	Ave.current	58mA
	Peak current	1A
	Bandwidth (1/10 signal)	>20kHz
	Voltage gain	12
	Knob adjustment	10 turns
PZT sensor control module	Sensor type	SGS（Optional LVDT, CAP）
	Sensor channels	6
	Servo	Analog P-I+notch filter
	Sensor port	ERA.0S.304.CLL
	Sensor output port	BNC
	Sensor output votlage	0~10V
Display & interface module	Channels	6
	D/A converter	16Bit±10V(optional 24 Bit±10V)
	Output voltage resolution	1/30000
	A/D converter	16Bit±10V
	Film botton	15 buttons
	Communication port	RS-232/422, USB
	Bandrate	9600, 19200, 38400, 57600, 76800, 115200, 128000, 230400, 256000
	Output frequency	10kHz
	I/O port	1~3pcs, user can set the input or output, MDR14 connector
	LCD keyboard control function	Output and measure voltage and displacement, spontaneous waveform, selection function, set parameters
	Spontaneous waveform	Sine wave, square wave, triangle wave, sawtooth wave
	Software control function	Output and measure voltage and displacement, waveform control, selection function, set parameters
	Software waveform control	Programmable waveform output, standard waveform output
	Secondary development	VC++, Matlab, LabView routine and DLL dynamic link library function, easy for development
	Operating temperature	0~50℃
Chassis & power supply module	Power supply	AC 220V±10%，50Hz±10%
	Current limit	Short-circuited proof
	L×H×D	500×175×375mm
Function	Basic control way	Manual adjustment, analog input, computer serial/USB interface, spontaneous waveform control, open-loop/servo control

Voltage vs Frequency Curves



Included Cables


Power cable ×1


LEMO line×2
(for sensor output)


I/O line×1


USB line×1
(for communication)


BNC to fish clip line×4
(for analog input)


Series port line×1
(for communication)

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