

# High power / High speed Piezo Driver

PZE Series

01.128.02|03-1



## FEATURES

- High-power broadband piezo driver
- Large capacity of piezo components can be driven at high speed
- Piezo of 1 $\mu$ F can be driven at 12kHz
- With DC bias function
- Output over current protection protects load.
- Closed loop control is possible by use of your displacement sensor.

## SUMMARY

PZE series is a rack-mount type, high-power piezo driver. This high-power driver enables high-speed driving of large-capacity piezo components, parallel driving with many piezo components or driving of sine wave such as excitation that require big output current.

Reference point of displacement can be easily set as they are equipped with bias function as well as amplification function of input waveform. This piezo driver with operability and high output can be used widely from research and development to production facility that requires large output.

## LINEUP

Output voltage (Vdc)	Rated output current I <sub>ave</sub> *1 (Aave)	Peak output current I <sub>p</sub> Less than 10ms (A)	MODEL	Frequency response				Output resistor ( $\Omega$ )
				Sine wave (-3dB)		Rise time (approx. value with 1 $\mu$ F load) *2		
				RL resistive load	1 $\mu$ F load	$\Delta V=100V$	0 to Max V	
0 to +100	1.3	3.75	PZE-0.1P7.5A	DC to 60kHz	DC to 5.9kHz	0.03ms	0.03ms	0.5
0 to +150	0.9	2.5	PZE-0.15P5A	DC to 40kHz	DC to 2.7kHz	0.04ms	0.06ms	1
0 to +300	0.45	1.25	PZE-0.3P2.5A	DC to 20kHz	DC to 680Hz	0.08ms	0.24ms	2

\*1: Output current when DC is 50% of rating current.

\*2: Calculated from peak output current value (10ms or less can be output) ( $T_r=C \cdot V_p-p/I_p$ ).  
Calculated from  $T_r=Tr \cdot I_p/I_{ave}$  when calculated value of  $T_r$  exceeds the time in which peak current can be output (10ms).

## SPECIFICATIONS

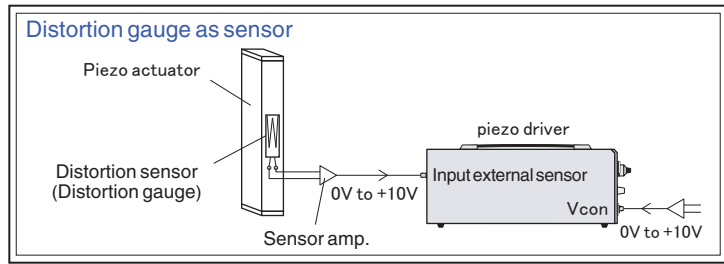
<b>Input voltage</b>	115VAC $\pm$ 10%, 50/60Hz single phase, 3A <sub>typ</sub> .
<b>current</b>	
<b>Output voltage control</b>	External control voltage $V_{con-in}=0V$ to +10V <small>Note 1</small> (Input impedance more than 10k $\Omega$ )
<b>DC bias</b>	Can be set between 0% to 100% by 10-turn potentiometer on front panel.
<b>Regulation</b>	$\pm 0.05\%$ (for 115V $\pm 10\%$ input change) <small>Note 2</small>
<b>Ripple</b>	Less than 0.02%p-p (with 500nF load at maximum output voltage)
<b>Stability</b>	Less than 0.02%/H <small>Note 2</small>
<b>Temperature coefficient</b>	Less than 0.02%/ $^{\circ}C$ <small>Note 2</small>
<b>DC output voltage display</b>	3.5 digit digital meter. Displays average output voltage.
<b>Output voltage monitor</b>	0V to +10V (output impedance 1k $\Omega$ , accuracy: $\pm 1\%$ F.S.)

<b>Protection</b>	Output over current protection by cutting-off when over current, over voltage, blackout protection.
<b>Operation temperature</b>	0 $^{\circ}C$ to +40 $^{\circ}C$
<b>Storage temperature</b>	-20 $^{\circ}C$ to +60 $^{\circ}C$
<b>Humidity</b>	20 to 80%RH(no condensation)
<b>Accessories</b>	2.5m(8.2ft) input AC cable (1) 1.5m(5ft) output cable (terminal open) (1) Instruction manual (1)

Note 1) Off-set voltage when  $V_{con-in}=0V$  is  $\pm 0.5\%$  of rating output or less than  $\pm 1V$ .  
Note 2) Value at max rating voltage with resistive load in DC operation.

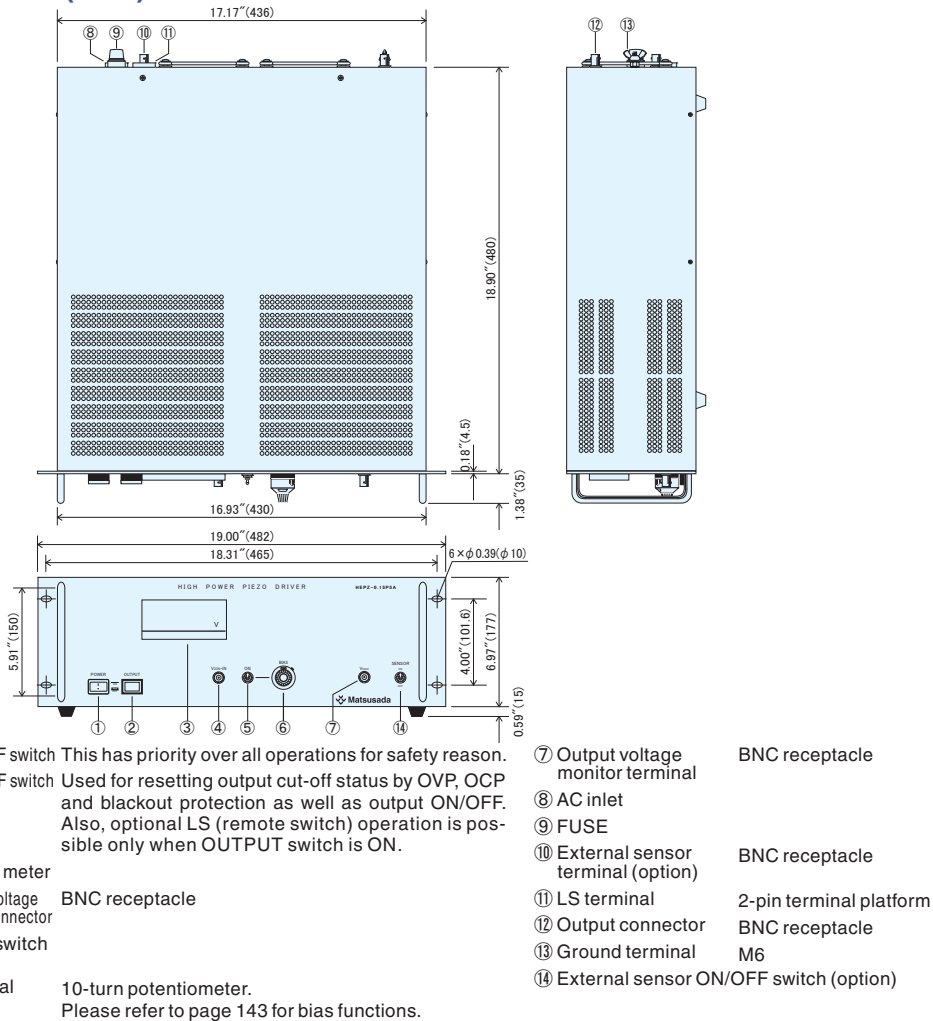
## ■ OPTIONS

- LC Current limit: Limits output current by dropping the output voltage.
- LS Remote switch ON/Off: Output voltage can be turned ON/OFF by remote signal (Each ch is independent. Short=ON, open=OFF).
- LVs External sensor input terminal: Closed loop control can be done using signal of displacement sensor (0 to 10V).



Add above L mark to the model number when ordering {e.g}PZE-0.1P7.5A-LCSVs alphabetical order

## ■ DIMENSIONS inch(mm)



### Warranty

We warrant that products contained in this catalog (hereinafter, the "Products") are free from defects in material and workmanship under normal use for a period of one (1) year from the date of shipment thereof. However, the warranty period for X-ray detectors and X-ray source shall be either one (1) year from the date of shipment or 1,000 hours, whichever shorter. The above warranty shall not apply to any Product which, at our sole judgment, has been: i) Repaired or altered by persons unauthorized by us; or ii) Connected, installed, adjusted or used otherwise than in accordance with the instructions furnished by us (including being used in an inappropriate installation environment, such as in corrosive gas, high temperature and humidity). We are not liable for any loss, damage or failure of the Products after the shipment thereof caused by external factors such as disasters. If any Product is shown to be defective as satisfactory to us, we, at our sole discretion, repair or replace such defective Products at no cost to the purchaser. We assume no liability to the purchaser or any third party for special, incidental, consequential, or other damages resulting from a breach of the foregoing warranty. This warranty excludes any and all other warranties not set forth herein, express or implied, including without limitation the implied warranties of merchantability or fitness for a particular purpose. The Products are not designed and produced for such applications as requiring extremely high reliability and safety, or involving human lives (such as nuclear power, aerospace, social infrastructure facility, medical equipment, etc.). The use under such environment is not covered by this warranty and may require additional design and manufacturing processes.



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