



**SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES**  
[An Autonomous Institute under the Department of Science & Technology, Government of India]  
BLOCK JD, SECTOR III, SALT LAKE, KOLKATA- 700 098  
PHONE: +91-(0) 33-2335 5706-08, 2335 3057/61, 2335 0312/1313  
FAX: +91-(0) 33-2335 3477/1364  
EMAIL: santosh@bose.res.in

Ref. SNB/ENQ/MP/Piezo Controller/15-16/443(WP)

1<sup>st</sup> July, 2015

Dear Sir,

Sealed quotation is hereby invited for the following item

Sl. No.	PARTICULARS	Qty
01.	<b>PIEZO CONTROLLER</b> <b>[ See reverse for Technical Specification]</b>	01 No.

Note:

- 1) If quotation is in Foreign Currency, CIF/CIP Kolkata Airport price should be quoted. In case of quotation is in INR, FOR price upto S.N. Bose National Centre for Basic Sciences need to be mentioned.
- 2) Validity of quotation should not be less than 90 days from the date of submission
- 3) Minimum One (1) year standard onsite replacement warranty is to be provided from the date of delivery/installation.
- 4) Our Payment term is subject to after delivery and satisfactory installation.
- 5) Delivery period should be mentioned in the quotation.
- 6) Our ref. no. should be mentioned on top of the quotation envelope.
- 7) Quotation for the above item should reach this office by **21<sup>ST</sup> July, 2015**

Thanking you,  
Yours faithfully,

S. K. Singh  
AR (Purchase)

## TECHNICAL SPECIFICATION OF PIEZO CONTROLLER

External Input Voltage Range	0-10 V
External Input Impedance	10 k $\Omega$
<b>External Input Gain</b>	
Voltage Limit Position 1 (75 V)	7.5 V/V $\pm$ 5%
Voltage Limit Position 2 (100 V)	10 V/V $\pm$ 5%
Voltage Limit Position 3 (150 V)	15 V/V $\pm$ 5%
<b>Output Voltage Range (Switch Selectable)</b>	
Voltage Limit Position 1 (75 V)	0-75 V
Voltage Limit Position 2 (100 V)	0-100 V
Voltage Limit Position 3 (150 V)	0-150 V
Output Current (maximum)	60 mA
Output Impedance	150 $\Omega$ , 0.047 $\mu$ F
Minimum Load Impedance	2.5 k $\Omega$
Output Noise	1.5 mVrms( $\sim$ 9.9 mVpp)
<b>-3 dB Bandwidth</b>	
No Load, Small Signal	10 kHz
No Load, 150 Vpp	8.5 kHz
1.6 $\mu$ F Piezo, 150 Vpp	250 Hz
Stability	<0.01% over 5 hrs
<b>A/D and D/A Performance</b>	
D/A Resolution	16-bit / 2.75 mV
A/D Resolution	16-bit / 3 mV
Communications	RS-232
<b>General</b>	
AC Input Voltage	115 or 230 VAC (Switch Selectable)
AC Input Frequency	50-60 Hz
AC Input Power (max)	85 VA / 30 VA
Operating Temperature	10-40 $^{\circ}$ C