

**Indian Institute of Technology, Kanpur
Department of Physics**

Enquiry no.: IITK/PHY/340-8

Enquiry date: 08.01.2013

Closing date: 15th January, 2013

Sealed quotations are invited for:

One 3-axis nano-positioning system, together with a closed loop driver with the following specifications:

- 1) **3-axis nano-positioning** [stage should have 3 independent axis manual positioning system(with micrometer screws) and also piezo controlled automated positioning in each of the axis] Qty# 1

<u>General Specifications:</u>	
Total travel per axis of the stage	4 mm
Load Capacity	1 Kg(max)
Thermal Stability	1 micron/Celsius
Deck Height	62.5 mm
<u>Manual Positioning Specifications:</u>	
Coarse Adjustment Range	0.5 mm/rev (with a total range of 4 mm)
Fine Adjustment Range	50 um/revolution(with a total range of 330 microns)
<u>Piezo Scanning Specifications:</u>	
Piezo control	Closed loop
Piezo Voltage Range	0-75V
Piezo Scan Range	20 micron
Piezo Bi-directional repeatability	0.05 microns
Resonant Frequency	375Hz

- 2) **Compatible 150 V closed-loop driver for all three axis of the above mentioned stage: Qty# 1**

<u>General Specifications:</u>	
Voltage Output	150 V (3 output voltages to control three axis of the above mentioned nano-positioning stage)
External Voltage Input	-10V to 90 V DC
Current	1 Amp(max)
Stability	100 ppm over 24 Hours
Noise	<3mV RMS
Piezo Capacitance(Output)	<10 microFarad
Bandwidth	10 KHz

Position Feedback Specification:	
Feedback Transducer Type	Strain Gauge
Detection Method	AC Bridge
Resolution(when in closed loop with the positioner)	5nm

Terms and conditions:

The sealed envelopes with the quotes should be superscribed with the Inquiry number.

The delivery period should be specifically stated.

Quotes should be made options for the either of the following delivery modes

- Ex-works for pickup by our world-wide transport provider
- FOB in country of origin
- CIF, New Delhi
- For delivery to IIT Kanpur

Maximum educational discounts should be applied – this equipment will be used for research as well as teach and train students.

Quotes should have a minimum validity of 60 days

Address the quotations to:

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