Indian Institute of Technology Kanpur

Department of Electrical Engineering

Enquiry No: IITK/EE/GR/2016/3

Enquiry Date: 11/11/2016 Closing Date: 22/11/2016

Sealed quotations are invited for a microfluidics syringe pump. The technical specifications are as follows.

Feature	Specification
Syringe Sizes	Upto 60cc, 140 cc partially filled
Advance per step	Minimum step $< 4.5 \text{ nm}$
Number of syringes	1
Motor type	Step motor
Maximum speed	> 0.2 cm/min
Minimum speed	$< 9 \times 10^{-5} \text{ cm/hr}$
Maximum pumping rate	$> 1200 \ \mu l/min$
Minimum pumping rate	$< 15 \mathrm{\ nL/hr}$
Maximum force	150 lbs at min.speed, 18 lbs at max. speed
Syringe inside diameter range	0.1 to 50 mm
Programmable	Yes
Motor stall Detection	Yes
Control	RS-232 and TTL control interfaces

Terms and Conditions

- 1. A single quote should be made with financial and technical specifications. The sealed envelopes with the quote should be superscribed with the inquiry number.
- 2. Manufacturer's specification sheet/brochure must be enclosed as a proof of technical specifications.
- 3. Quotations should not be an exact copy of the specifications mentioned above.

- 4. Quotes should have a minimum validity of 60 days.
- 5. Maximum educational discounts should be applied. This equipment will be used in a laboratory that will support research as well as teach and train students.
- 6. The delivery period and warranty should be specifically stated.
- 7. The bidder must be authorized by the manufacturer or OEM to supply, install and maintain the system. Specific authorization by the manufacturer for participating in this tender has to be enclosed with the bid.
- 8. The indenter/institute reserves the right to cancel the tender without any reasons. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.

For Delivery to IIT Kanpur

- 1. The price should include delivery, installation, taxes and other charges. All prices are to be for IIT Kanpur.
- Quotes should be made for the following delivery modes: (a) Ex-works,
 (b) CIF Delhi
- 3. IIT Kanpur is exempted from payment of Excise Duty under notification No.10/97.

Address quotations to
Dr. G Rajshekhar
ACES 325B
Department of Electrical Engineering
Indian Institute of Technology, Kanpur
Kanpur-208016, UP, India
Email: gshekhar@iitk.ac.in