

**DEPARTMENT OF MECHANICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY - DELHI  
HAUZ KHAS, NEW DELHI – 110016**

3.3.2014

Sealed quotations are invited for the purchase of two “Mass Flow Controllers”. Interested parties are requested to submit their technical and financial bids in separate sealed envelopes. Mark the envelopes clearly as “Technical bid” and “Financial bid”. Both the sealed envelopes should be sent in a single envelope, clearly marked as “Quotations for Mass Flow Controllers”

The technical specifications of the Mass Flow Controllers are as follows:

**Specifications:**

1. Flow Range: 0-3000 SLPM
2. Maximum pressure: 9 bar
3. Output Display: Mass flow rate, volumetric flow, temperature, pressure, Signal  
Digital mass flow, volumetric flow
4. Accuracy:  $\pm$  (0.8% of reading + 0.2 % of full scale)
5. Repeatability:  $\pm$  0.2% Full scale
6. Operating Range: 1% to 100% Full scale measurement and control
7. Typical response time: 0.1 - 0.2 second
8. Operating temperature: 10°C to +50°C
9. Input/output Signal (Analog): Mass Flow 0-5 Vdc/0-5 Vdc
10. Power Supply: 100-240 VAC
11. Pipe diameter of port: G1/4 inch
12. Digital output: RS-232 Serial / RS-485 Serial
13. Pre-calibrated for multiple gasses included: He, H<sub>2</sub>, Air, Ar, O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub>, CO, CH<sub>4</sub>,  
Ethane, Acetylene, Ethylene, Butane, Propane.

**Terms and conditions:**

1. A Calibration certificate must be provided for the digital mass flow controller.
2. IIT Delhi is exempted from paying custom duty under notification No.51/96 (partially or fully) and necessary “Custom Duty Exemption Certificate” can be issued after providing following information: (a) Shipping details i.e. Master Airway Bill No. And House Airway No. (if exists) (b) Forwarder details i.e. Name, Contact No., etc. Custom Duty Exemption Certificate will be issued to the shipment in the name of Institute and Bills of Entry should be submitted to IIT Delhi later on.
3. Either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
4. Imported items should be quoted on FOB basis (Freight on Board) and FOB price be provided.
5. Three years comprehensive warranty be provided and AMC price beyond 3 years should be mentioned separately.
6. Delivery period: within one month from the date of supply order.
7. The quotations must have validity of at least three months.

8. The products will be used for educational purposes. Any applicable academic institution discounts should be offered and stated.
9. If the bidder is an authorized dealer of any manufacturer, the authorized Indian dealership certificate from the principles should be enclosed. Similarly, proprietary certificate for proprietary items should be provided.
10. Authorities of IIT Delhi reserve the right to reject any or all quotations without assigning any reasons.
11. The quotation should provide the total price of the system including all taxes and transportation charges.
12. Payment will be made only after successful installation and verification of technical details.

Kindly submit your bids on or before 19.3.2014 to the address given below.

Dr.B.Premachandran,  
Assistant Professor,  
Department of Mechanical Engineering,  
Indian Institute of Technology Delhi,  
Hauz Khas,  
New Delhi – 110 016.