Under Certificate of Posting Department of Physics, Indian Institute of Technology IIT.P.O. Madras-600 036 Ref. No. Date. 14.06.13

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Dear Sir,

DUE DATE: 05.07.13

- 1. Quotations are invited in duplicate for the item shown below/overleaf/ enclosed list.
- 2. The quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
- 3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
- 4. If the item is under DGS &D RATE CONTRACT, RC No. and the price must be mentioned. It may be also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the RC (Please note that we are not Direct Demanding Officers)
- 5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
- 6. **Local Firms** : Quotations should be for free delivery to this Institute. If Quotations are for Ex-godown . delivery charges should be indicated separately.
- 7. **Firms outside Chennai**: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train/lorry transport must be indicated. If Ex-godown, packing, forwarding and freight charges must be indicated.
- 8. The rate of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim, for Sales/General taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales tax Certificate will be issued at the time of final settlement of the bill.
- 9. Goods should be supplied carriage paid and insured.
- 10. Goods shall not be supplied without an official supply order.
- 11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

<u>Specification enclosed- Please indicate compatibility with</u> <u>specifications</u>

Yours Sincerely

Dr. Manu Jaiswal

HEAD/CO-ORDINATOR

Minimum Specifications for Mass Flow Controller (MFC) units:

- Three separate units: MFC for Argon Gas: 0-500 sccm MFC for Hydrogen Gas: 0-200 sccm MFC for Methane Gas: 0-200 sccm Flow should be continuously adjustable manually / locally controllable set-point with 1 sccm least count. Horizontal gas flow.
- 2. Stainless steel housing materials and fittings with VITON O-rings.
- 3. ¹/₄ inch compression fittings compatible with Swagelok ¹/₄ inch piping
- 4. Panel mounting LCD 3 ¹/₂ digits (or better) readout display for each MFC.
- 5. Inbuilt pre-calibration.
- 6. Accuracy of 1.5 % (or better).
- 7. Inlet pressure 1.5 bar. Outlet pressure 0.1-1 bar (outlet will be fed to a chamber that will be continuously pumped; outlet can also be at atmospheric pressure)
- 8. Gas temperature: Ambient
- 9. Leak integrity of 1 x 10^{-7} sccs (or lower) Helium to outside environment.
- 10. Analog or Digital voltage signal.
- 11. Normally closed solenoid / electromagnetic valve.
- 12. Compatible Power supply for each unit (3 nos.) (company recommended / original power supply) must be included with adequate numbers of connecting cords and separate (3 nos.) power cables.
- 13.Please include Warranty statement. Also include all accessories, power cables, calibration statement and minor parts needed for full and satisfactory operation.

<u>Please provide a separate statement of compatibility with above</u> <u>specifications, product data sheets etc. to allow technical evaluation.</u>