Corrigendum to purchase of Mass flow controller and meter for gases like CO\textsubscript{2}, CO, H\textsubscript{2}, N\textsubscript{2}, Ar, Methane, etc. (NIT No. 7723)

Date: 16/02/2017

Following are the revised required specifications for the purchase of Mass flow controller and meter for gases like CO\textsubscript{2}, CO, H\textsubscript{2}, N\textsubscript{2}, Ar, Methane, etc.

**TECHNICAL SPECIFICATIONS for Mass Flow Controller/meter:**

The mass flow controller cum meter should be equipped with digital display and keypad to monitor and input the desired flow rate.

1. Flow range: 0 - 100 SCCM.
3. Pressure coefficient: $+0.01\%$ of full scale per psi or better.
4. One time calibration: At least for 10 standard gases including nitrogen, argon, oxygen, carbon dioxide, carbon monoxide, methane, hydrogen, etc.
5. Control range: 2-100 % of full scale flow. Auto shut off at lower levels.
6. Accuracy: $\pm 1\%$ of F.S.
7. Repeatability: $\pm 0.2\%$ of Reading or better.
8. Operating range: 1% to 100 % full scale measure and control.
9. Operating temperature range: 0°C to 50°C.
10. Temperature coefficient: $+0.025\%$ of full scale per F\textdegree or better.
12. Input supply voltage: 220 Volts/50 Hz.
13. Fittings: Swagelok tube or similar.
14. Wetted material: 316 stainless steel or equivalent.
15. Warm-up time: $\leq 30$ sec.
16. Leak integrity: $5 \times 10^{-9}$ atm cc/sec of helium or better.
17. Digital communications: RS232 or similar.
18. Required number of cables should also be supplied.
19. Seals: Viton or metal, whichever is appropriate.
20. Must include 24VDC Universal Power Adaptor.
21. NIST Traceable calibration report should be provided.
22. Thermal mass flow meters would be preferred.

**TERMS and CONDITIONS:**

1. The quotation, in sealed envelope marked as “Ref: IITD/MFC - 7723” should reach the undersigned on or before 5 pm on 3\textsuperscript{rd} March 2017.
2. The prices quoted must be on FOB basis.
3. The quotation should be provided in a sealed envelope to the undersigned.
4. Institute reserves the right to accept/reject all/any quotation without assigning any reason thereof.
5. The delivery period should be clearly indicated in the quotation.
6. Submitted quotations should clearly mention the validity period, preferably for a minimum of 03 months.
7. Incomplete and conditional submitted tenders would be summarily rejected.
8. The mode of payment should be clearly indicated.
9. Necessary certificate should be enclosed by the vendor in case of proprietary nature of the quoted items.
10. In case the quotation is being submitted by authorized agent of the principal manufacturing company, the AUTHORISED SALES AGENCYSHIP certificate from the PRINCIPALS should be furnished along with the quotation. Quotations without this authorization certificate will be rejected.
11. The quotation should include comprehensive warranty for at least 1 year.
12. Special discount/rebate wherever admissible keeping in view that items are being procured for educational purpose in respect of Public Institution of national importance may please be indicated.

Dr. Pravin Popinand Ingole
Department of Chemistry,
IIT Delhi, Hauz Khas,
New Delhi 110016 (India).

Ph.: 011 2659 7547.
Mob. 9582994655.