

Tender Notice for: **“Binary gradient HPLC system with UV and Refractive Index (RI) Detectors and accessories items”**

Tender Id: **2021_DU_629391_1**

Tender reference no: **YPK-UDSC/PI-2021-01R1**

Organisation Chain: **Delhi University | Department of Microbiology – DU**

Last Date: 19th May 12PM


Dr. Yogender Pal Khosa
Associate Professor
Department of Microbiology
University of Delhi South Campus
New Delhi-110 021



UNIVERSITY OF DELHI SOUTH CAMPUS

Department of Microbiology
University of Delhi South Campus
New Delhi-110021
Tel. 011-24157369, Fax. 011-24115270

No: YPK-UDSC/PI-2021-01R1

Date: 08.05.2021

Tender specification for **“Binary gradient HPLC system with UV and Refractive Index (RI) Detectors and accessories items”** purchase through e-procurement portal

Important Note: This tender is a retender of our earlier tender No: YPK-UDSC/PI-2021-01, or Tender Id: 2021_DU_626089_1 Dated 08.04.2021, due to the receipt of limited number of bids as earlier bids against this tender ID 2021_DU_626089_1 stand cancelled.

The quotations are invited under Two-bid system for **one Unit of “Binary gradient HPLC system with UV and Refractive Index (RI) Detectors and accessories items”** The quoted price should be FOR destination in INR (Indian Rupees only) upto Department of Microbiology, University of Delhi South Campus, both supplying and installation included. The last date of bid submission is **19th May 2021 by 12:00 PM as per the tender specifications mentioned below**

“Binary gradient HPLC system with UV and Refractive Index (RI) Detectors and accessories items” The two solvent delivery units should be capable of working in both isocratic and gradient operations. The HPLC system, UV and RID Detectors, and other accessories should minimally meet the following technical specification. All items except the computer must be from the original manufacturer:

1. Solvent Delivery System (Binary Gradient pump): Two Quantity

- Solvent Delivery Pump: **Two pumps required (02 units)**
- Flow rate 0.01 – 10 mL/min for each pump or more
- Flow precision $\leq 0.1\%$ or 0.06% RSD
- Flow accuracy $\pm 1\%$
- Operating pressure range 0 – 6000 psi or 400 Bar or more
- Parallel or series type Double Plunger
- Plunger capacity 10 micro Liter or better
- Gradient Compositional accuracy $\pm 0.5\%$ to 1%
- Gradient Compositional precision $<0.5\%$ RSD
- Pressure ripple: $\leq 2.0\%$

- Delay Volume < 200 μ L
- Gradient Ripple : < 1% to 1.5%
- Important Note: The Two solvent delivery unit should be capable of working in both isocratic & gradient operations & able to deliver precise composition of two solvents.

2. Mixture: One Quantity

- With appropriate capacity to handle the mixing of above-required solvent delivery pumps

3. Manual Injector with variable loop: One Quantity

- Suitable Manual Injector should be quoted with **four separate different** capacity loops (10, 20, 100, and 500 microliters). **(Quantity: 4 Loops)**
- 4 syringes suitable for above required loop volume must be supplied. **(Quantity: 4 syringes)**

4. UV Detector: One Quantity

- Wavelength range: 190 - 700nm or better
- Light source: Deuterium lamp
- Noise: $\leq 0.5 \times 10^{-5}$ AU (Single wavelength)
- Drift: $\leq 1 \times 10^{-4}$ AU/hour.
- Linearity: $\leq 5\%$ at 2.5 AU
- Bandwidth: ≤ 8 nm or better.
- Flow cell Volume: ~ 16 ml or lower, 10mm Path Length withstand on the pressure of 12 MPa or better
- Measurement range: 0.0001 to 4.0000 AUFS or equivalent.
- Wavelength Accuracy: ± 1 nm
- Sampling Rate : Upto 80 Points/s
- Wavelength Repeatability: ± 0.1 nm.
- Flow cell design: Taperslit for reduced RI effects or better to avoid RI effects

Note: The feature of Lamp optimization software or equivalent for low noise performance in visible range without lamp change.

5. RID: Refractive Index Detector: One Quantity

- Refractive index range: 1.00 to 1.75 RIU
- Measurement range: 5.0×10^{-4} RIU to 7.0×10^{-9} RIU
- Linear dynamic range: $\leq 5.0\%$ over $\pm 5.0 \times 10^{-4}$ RIU
- Noise : ± 1.5 - 2.5×10^{-9} RIU maximum
- Drift1: 2.0×10^{-7} RIU/hour
- Filter time constant: 0.0 to 5.0 s (Hamming) and 0.0 to 10.0 s (RC)
- Operating Flow rate range: 0.1 to 10.0 mL/min or better
- Attenuation settings: 1 to 500×10^{-6} RIU and 1 to 1024 maximum in emulation mode

- Temperature control of cell unit: 30 to 55 °C ±0.5 °C, settable 1 °C increments
- Flow cell volume: 10 µL or less
- Flow cell pressure limit: ≤ 100 psi or better or 2 MPa or better
- Light Source: LED 880 nm or better light source
- Zero Point adjustment: Auto zero, optical zero, and fine zero

6. Column Oven/ Heater: One Quantity

- Temp Range: 10°C above room temperature to 80°C
- Temp Accuracy: ± 0.1 °C
- Two Columns up to 250 mm or higher in length should be accommodated.

7. Column: Two units of the following specification(one each)

- NH2 (250 X 4.6 X 5um) **(One Quantity)**
- C-18 (250 X 4.6 X 5UM) **(One Quantity)**

8. System Controller and Chromatography Manager Software: One Quantity each

- System controller **(One Quantity)**
- Software for Control, acquire and process HPLC data should be latest, genuine, and original with dedicated serial and key. The supplied software should operate the instrument through a computer with complete 21 CFR compliance The Embedded Oracle database can be an added advantage but not a prerequisite. **(One Quantity)**
- Real-time triggers to react the condition i.e. to take action on Fault, Leakage, Stop, Start, wavelength switching, injection etc.

9. Desktop to run HPLC system with software: One Quantity

- Branded PC (Either Dell, HP, or Acer) with original windows 10 professional, core i5 10th generation processor, antivirus, 22 inch monitor, 1 TB HDD, 8 GB RAM or better specifications

10. Warranty and other terms

- Two years warranty should be provided.
- The vendor should have a service center/office in the Delhi NCR region of India.
- Training should be provided onsite.
- The latest Model should be quoted

Note: Nothing is optional in this tender, So quote your FOR price in INR in BOQ, (Binary gradient HPLC system with UV and Refractive Index (RI) Detectors + all other accessories)

Important: For technical compliance, read the complete tend document very carefully before bidding.

1. Nothing is optional in this tender, so quote the final price, including all the above requirements **FOR destination price in Indian Rupee must be quoted.** Quotations are invited under two-bid system
2. Should carry Certification of US or European standard for the quoted equipment. Documentary proof to be submitted.
3. The vendor should have at least 10 years of track record of supply of **Binary gradient HPLC system with UV and Refractive Index (RI) Detectors.** Documentary proof must be submitted.
4. **The vendor/manufacturer should enclose user list with the address of atleast 50 users of the same model/Configurations of Binary gradient HPLC system with UV and Refractive Index (RI) Detectors or higher installed throughout India in various reputed government Institutes/Academic institutes/Universities/ ICAR/CSIR/ICMR/IITs other research labs in government-funded institutions.**
5. **Note: Documentary proof of at least 20 users in terms of purchase orders and installation reports for same or higher model required, with phone no and complete address of buyer.**
6. The vendor should submit an authorized distributor certificate issued by the original manufacturer for the quoted item. Manufacturer or vendor must have post-sale service provider in Delhi in case of any technical or functional issue with the machine.
7. The vendor should also enclose the original literature/catalogue/company brochure **and fill out a compliance sheet, with the relevant page number** and line number of the brochure mentioned against each point of the technical specifications given above. The quoted specifications/features should be available on the company website **(Please provide the original manufacturer website showing the requested technical specification).**
8. The machine should be under **2 Years “Comprehensive warranty”** from the date of installation.

Important Information:


1. Bidder should be Manufacturer/ Authorized Partner/ Reseller of the manufacturer and a Letter of Authorization from the manufacturer for the same and specific to the tender should also be enclosed. The bidder should also be the Authorized Service Provider. (attach the required certificate)
2. All vendors are requested to attach original technical literature/ catalogue in support of the mentioned specifications & highlight the above features. The same features should be available on the company website **(Please provide the original manufacturer website showing the specification).**
3. Please note: IGST/CGST+SGST@5% would be applicable for supply to University of Delhi South Campus under Custom notification of 47/2017. DSIR Certificate/CDEC would be provided on request.

4. The quotations should be addressed to **Dr. Y. P. Khasa**, Department of Microbiology, University of Delhi South Campus, Benito Juarez Road, New Delhi-110021, and should be **uploaded on the e-procurement portal, latest by 19th May 2021 by 12:00 PM**
5. Quotations have to be submitted in a **two-bid system**. The first part, **Technical bid**, should consist of all technical details and supporting documents with terms and conditions. **A Compliance Sheet must be filled by the vendor** against each point and giving reference of the same (page number, line number) in the supporting company brochure/document.
6. The second part, **Financial bid**, should contain item-wise pricing of items mentioned in the technical bid.
7. The bidder will have to quote all the required items together: partial quotes will not be accepted. For each item, make and model, have to be mentioned clearly. (Nothing is optional)
8. The quote should be valid for 90 days from the due date.
9. Payment will be made by wire transfer or through an online system as per University rules after the installation of the instrument.

Commitment to Accept Lowest or Any Tender

- Demonstration of the equipment with all accessories (mentioned in the tender document) will be required on the recommendation of the Purchase Committee at Department of Microbiology, University of Delhi South Campus, New Delhi-110021.
- The University of Delhi shall be under no obligation to accept the lowest or any other offer received in response to this tender notice and shall be entitled to reject any or all offers. The University of Delhi will not be obliged to meet and have discussions with any vendor and or to listen to any representations.

Dr. Y. P. Khasa
Department of Microbiology
University of Delhi South Campus
New Delhi-110021


Dr. Yogender Pal Khasa
Associate Professor
Department of Microbiology
University of Delhi South Campus
New Delhi-110 021