

Ref: C-CAMP/L-082/2021-22 (C)

July 23, 2021

## ENQUIRY

Dear Sirs,

Please let us have your lowest quotation for the following:

Sl. No.	Item description	Qty.
1	<b>Ultra high performance liquid chromatography (UHPLC)</b> <b>Technical Specifications</b>	<b>1</b> <b>No.</b>
PUMP		
Pumping Method	Parallel-type double plunger (approx. 10 $\mu$ L/1 stroke)	
Flow Rate Settings Range	0.0001 - 3.0000 mL/min (1.0 - 105 MPa) 3.0001 - 5.0000 mL/min (1.0 - 80 MPa) 5.0001 - 10.0000 mL/min (1.0 - 22 MPa)	
Flow Rate Accuracy	$\pm 1\%$ (under specified conditions)	
Flow Rate Precision	0.06% RSD or 0.02 minSD, whichever is greater	
Pulsation	$\leq 0.08$ MPa (1 mL/min, 7 MPa, Water or 0.1 mL/min, 5 MPa) $\leq 0.80$ MPa (1 mL/min, 80 MPa)	
Gradient mode	High-pressure gradient (2 or 3 solvents), Quaternary low-pressure gradient	
Gradient Range of Set Concentrations	0~100% (in 0.1% steps)	
Gradient Concentration Accuracy	$\pm 0.5\%$ (under specified conditions)	
Mixer	Option: (HPGE) 20/40/100/180/500/1700/2600 $\mu$ L (LPGE) 40/300/500/1700/2600 $\mu$ L	
Wetted Material	SUS316L, Hastelloy C, PEEK, PE, PTFE, Sapphire, Ruby, Zirconia	
Available pH Range	1 - 14	
Automatic Rinsing Kit	Standard equipment	
Degassing Unit	Connectable 1 unit	
Dimensions [mm], Weight	W260 x H140 x D500, 12kg	
Operating Temperature Range	4 ~ 35 $^{\circ}$ C	
Power supply	AC100-240 V, 50/60 Hz, 150VA	
System Controller		
Monitor	LabSolutions, Web monitor	
Connectable unit	Solvent delivery unit: max. 4, Autosampler: 1, column oven: max. 4, Detector: 2, etc.	
Number of connectable units	8 (Option use 12)	
Event input/output	Input: 1, output: 2	
Analog board	Up to one channel (option)	
Communication	Ethernet	
Reservoir tray	-	
Dimensions[mm], weight	W260x H71 x D500, 5 kg	
Operating Temperature Range	4 ~ 35 $^{\circ}$ C	
Power supply	AC100-240V 50VA 50/60Hz	
De-Gasser		
Number of degassed solvents	5	
Degassed flow line capacity	400 $\mu$ L / 1 line	
Dimensions [mm], Weight	W130 x H72 x D500, 4 kg	
Operating Temperature Range	4 ~ 35 $^{\circ}$ C	
Power supply	Supplied from solvent delivery unit	

Auto Sampler	
Injection method	Total injection (standard), loop injection (optional)
Injection Volume	0.1~50 $\mu$ L
	0.1~2000 $\mu$ L (optional)
Injection volume accuracy	$\pm 1\%$ (5 $\mu$ L injection, n=10)
Linearity	>0.9999%
Injection cycle time	$\leq 7.8$ seconds (under specified conditions)
Samples for Processing	288 (microtiter plate, 96 well $\times$ 3 plates), 1152 (microtiter plate, 384 well $\times$ 3 plates), 252 (1 mL sample vial, 84 $\times$ 3 plates), 162 (1.5 mL sample vial, 54 $\times$ 3 plates), 84 (4 mL sample vial, 28 $\times$ 3 plates), 36 (10 mL sample vial, 12 $\times$ 3 plates), 72 (1.5 mL micro tube, 24 $\times$ 3 plates)
Injection Volume Reproducibility	RSD $\leq 1.0\%$ (0.5~0.9 $\mu$ L), RSD $\leq 0.5\%$ (typically, 0.5 $\mu$ L), RSD $\leq 0.5\%$ (1.0 ~1.9 $\mu$ L), RSD $\leq 0.25\%$ (typically, 1.0 $\mu$ L), RSD $\leq 0.25\%$ (2.0~4.9 $\mu$ L), RSD $\leq 0.15\%$ (5.0 $\mu$ L~)
Carryover	<0.0003% (with rinse, typically)
Dip rinsing outside the needle and injection port rinsing	Standard equipment
Pumping rinse outside the needle	Standard equipment
Internal rinsing (3dil)	Option
Sample Cooler	Standard equipment
Sample cooler temperature setting range	4 ~ 45 $^{\circ}$ C
Sample cooler temperature accuracy	$\pm 2^{\circ}$ C (sensor position $\pm 0.5^{\circ}$ C)
Wetted Material	SUS316L, DLC,PEEK,GFP, PTFE, FEP,ETFE, sapphire, ceramics, PPS, FFKM
Available pH Range	1 – 14
Dimensions [mm], Weight	W 260 x H 280 x D 500
	24 kg
Operating Temperature Range	4 ~ 35 $^{\circ}$ C
Column Oven	
Cell temperature control type	Forced air circulation
Temperature control range	Room Temperature -10 $^{\circ}$ C ~ 100 $^{\circ}$ C
Temperature accuracy	$\pm 0.5^{\circ}$ C
Temperature precision	0.1 $^{\circ}$ C
Containable column size and number	Up to 250 mm L. column x 6, 300 mmL. Column x 3
Dimensions [mm],	W 260 mm x H 415 mm x D 500 mm
Weight	21 kg
Operating Temperature Range	4 ~ 35 $^{\circ}$ C
Power supply	AC100-240 V, 400 VA, 50/60 Hz
PDA Detector	
Light source	Deuterium (D2) lamp, tungsten lamp
Number of Photodiode Array	1024
Wavelength Range	190~800 nm
Wavelength Accuracy	$\pm 1$ nm
Wavelength precision	0.1 nm
Slit width	1.2 nm, 8 nm
Spectral Resolution	$\pm 1.4$ nm max.
Drift	0.4 $\times 10^{-3}$ of AU/hour or less (under specified condition)
Noise	4.5 $\times 10^{-6}$ AU or less (under specified condition)
Linearity	2.5 AU or higher (under specified condition)
Temperature Coefficient	0.3 $\times 10^{-3}$ AU/ $^{\circ}$ C or less (under specified condition)
Standard Flow Cell	Optical path length :10 mm, Cell volume :12 $\mu$ L, Pressure :12 MPa
	Material of Wetted Parts :SUS316L, PFA, quartz

Cell range to set temperature	19~50°C, 1°C Step
Optional flow cells	UHPLC cell (optical path length: 10 mm, cell volume: 8 µL, equipped with temperature control function) (Pressure 12 Mpa)
	Semi-micro cell (optical path length: 5 mm, cell volume: 2.5 µL, equipped with temperature control function) (Pressure 12 Mpa)
	Inert cell (optical path length: 10 mm, cell volume: 12 µL, equipped with temperature control function) (Pressure 8.0 MPa)
	Preparative cell (optical path length: 0.1/0.2/0.5 mm, cell volume: 0.8/1.6/4.0 µL, equipped) (Pressure 3.0 Mpa)
	Micro flow cell (optical path length :3 mm, cell volume :0.21µL) (Pressure 8.0 Mpa)
	High maximum pressure cell (optical path length: 10 mm, cell volume: 12 µL) (Pressure 40 Mpa)
Temperature Control Points	Lamp-house, Polychrometer , Flow-cell (except some cells : see also “Optional flow cell”)
UV Cut-off Filter	Built-in (selectable by method setting)
Available pH Range	1~14 (Cell quartz might be damaged by the mobile phase pH >10.)
Dimensions[mm], weight	W 260 x H 140 x D 500, 10 kg
Operating Temperature Range	4 ~ 35 °C
Power supply	AC100-240V 180VA 50/60Hz
RID Detector	
Refractive index measurement range	1 ~ 1.75 RIU
Noise	2.5×10 <sup>-9</sup> RIU or less
Drift	1×10 <sup>-7</sup> in RIU/h or less
Range	A mode:0.06 × 10 <sup>-6</sup> ~ 500 × 10 <sup>-6</sup> RIU
	P, L-mode: 1 × 10 <sup>-6</sup> to 5000 × 10 <sup>-6</sup> RIU
Response	0.05-10 sec, 10 steps
Polarity-Change	Use
Zero adjustment	Auto zero, Optical Zero, Fine Zero
Maximum flow rate	20 mL/min (150 mL/min in option)
Range of cell temperature control	30 ~ 60 °C
Cell	Volume 9 µL, Maximum pressure 2 MPa
Dimensions [mm],	W 260 mm x H 140 mm x D 500 mm, 12 kg
Weight	
Operating Temperature Range	4 ~ 35 °C
Power supply	AC100-240 V, 150 VA, 50/60 Hz
Warranty	3 YEARS

Note:

1. The quotation shall be submitted in a sealed envelope duly superscribed with the enquiry number, and the due date for ..... Ref No:..... The bids should be addressed and to be mailed / couriered (sent by post/courier) to 'THE HEAD-PURCHASE'.

The bids are liable to be rejected if the sealed envelope is not addressed to “THE HEAD-PURCHASE” with Tender Ref No. and Item Description and due date. The bids delivered in person shall be dropped in Purchase Section. If the bids are sent through courier or mail, it should reach by submission date and time and CCAMP/NCBS will not be responsible for the delay.

**2. DUE DATE FOR SUBMISSION OF QUOTATION AGAINST THIS ENQUIRY IS 13/08/2021 BY 5.30PM.**

**3. QUOTATIONS RECEIVED AFTER THE DUE DATE SHALL BE REJECTED.**

4. The validity of your quotation should be for 60 days from the due date.

5. All duties, taxes, surcharge and cess as currently applicable must be stated in your quotation, separately. Otherwise your quote is liable to be rejected.

6. Your quotation should indicate delivery period & warranty period.

7.Delivery to be made to our stores. Please indicate charges, if any extra. Transit Insurance should be done upto CCAMP Stores.

8.If you are unable to supply the quality, specifications or brand as mentioned in our enquiry, please state so and then offer alternative to quality/specifications.

9.Payment: within one month after delivery & acceptance/satisfactory installation.

10.Please ensure that the enquiry number and the due date is superscribed on the envelope failing which your quotation is liable to be rejected.

**11. If the item is covered under DGS&D rate contract, please quote the rate as per the DGS&D rate contract with xerox copy of the DGS&D order.**

12.Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees. The decision of the arbitrator shall be final and binding on the parties. The venue for arbitration shall be Bangalore. The provisions of the Arbitration and Conciliation Act, 1996 as amended from time to time shall apply. The courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties

13.Since we are a research institution, we are exempted from paying Customs duty (Except advalorem duty of 5% + 2% Cess and 1% Cus Sec & High Edu. CESS vide Notification No.51/96 with latest amendments) and excise duty vide Notification No. 10/97 CENTRAL EXCISE dated 01-03-1997 for all scientific equipments, technical instruments, equipments (including computers), their accessories, spares, consumables and software. Hence, please offer your prices

14.If the item is covered under DGS&D rate contract, please quote the rate as per the DGS&D rate contract with xerox copy of the DGS&D order.

15. CCAMP is a public funded research institute and is entitled to concessional rate of GST @ 5% for certain items supplied for research purpose vide notification no. 47/2017 and 45/2017 dated 14th Nov, 2017. The offer should be submitted after fully considering the above notification.

16. Liquidity Damages: If the equipment/ items as per specifications in our P.O. is not supplied (shipped) within the specified delivery schedule, then liquidated damages (not in terms of penalty) will be imposed automatically and shall be deducted from the bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

17. Income Tax at the applicable rates as per the Indian Income Tax Act 1961 will be deducted at source for the services availed / ordered. In case of service provider, the rate of tax deduction shall be at 2% as per Section 194C, and in case of fee for professional / technical services



Chetana S. R.

GKVK, Bellary Road, Bangalore 560 065. India  
Phone +91-80-23666344. Fax +91-80-23636662  
[chetana@ncbs.res.in](mailto:chetana@ncbs.res.in) . [www.ccamp.res.in](http://www.ccamp.res.in)