

**All-India Institute of Medical Sciences**  
**Ansari Nagar, New Delhi-29.**  
**(RESEARCH SECTION)**

Ref. No.24/Stores/Path/AKD/2014-15/RS

Dated: .03.03.2015

**Subject:** Purchase of Analytical High Pressure Liquid Chromatography, for the Department of Pathology, at AIIMS, New Delhi-29 on proprietary basis- **Inviting comments thereon.**

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The request has been received from Dr. A.K. Dinda, Deptt. of Pathology, AIIMS to purchase the subject item from M/s Waters (India) Private Limited on proprietary basis. The proposal submitted by M/s Waters (India) Private Limited and PAC certifications are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within issue of 15 days giving reference **No. 24/Stores/Path /AKD/2014-15/RS**. The comments should be received by office of Stores Officer (RS), Research Section at AIIMS on or before **20/03/2015 upto 12:30 p.m.,** failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

**STORES OFFICER (RS)**

**Encl:** Related documents enclosed.

- 1. PAC Certificate enclosed.**
- 2. Specification of equipment.**

**Computer facility: with request for uploading the same in AIIMS websites for the period of 15 days.**

**[Contentprovider.aiims@gmail.com](mailto:Contentprovider.aiims@gmail.com)**

# SPECIFICATION FOR ANALYTICAL HIGH PRESSURE LIQUID CHROMATOGRAPHY

## **1. Integrated Binary Gradient Solvent System**

- Flow rate 0.001 to 10.000 mL/min. in increment 0.001mL/min.
- Flow precision: 0.1% RSD
- Flow accuracy:  $\pm 1\%$
- Max operating pressure: 6000psi
- Compressibility compensation: Programmable
- Plunger guiding system: Floating, self aligning mount
- Flow calibration: Programmable.
- Delay Volume < 200  $\mu$ L
- Operating pressure limits: Programmable high and low pressure limits, user selectable in psi, bar, kPa.

## **2. Autosampler**

- 2 microtiter plates according to SBS standards; 2x96-well high/low and 2x384-well low formats, 2X48-vial or 12-vial trays any combination of plates is allowed
- Vial/Plate dimensions(includes cap): Maximum plate/ vial height: 4.7 cm (1.9 in.) (includes septa or cap mat)
- Loop volumes: 5,10,20,100 (standard), and 500 ul; 10mL loop (standard) for prep option
- Dispenser syringe: 500 ul standard or 2500 ul optional
- Vial detection: Missing vial/well plate detection by sensor
- Wash solvent : Integrated wash solvent bottle
- Injection modes: Full loop, partial loopfill, and partial loop needle overfill mode
- RSD  $\leq 0.5\%$  for partial loop overfill injections injection volumes > 10uL
- Priority sample : Programmable

## **3. Photo Diode Array Detector**

- Wavelength Range : 190-800nm
- Wavelength Accuracy :  $\pm 1$ nm
- Wavelength Repeatability:  $\pm 0.1$ nm
- Photodiodes should be 512 or more
- Optical resolution: 1.2 nm or better
- Linearity range:  $\leq 5\%$  at 2 AU, propylparaben at 257nm
- Base line noise:  $10 \times 10^{-6}$  Au, 10nm cell at 254nm
- Drift:  $\leq 1.0 \times 10^{-3}$  /Au/hr/ $^{\circ}$ C, dry cell 254nm
- Data acquisition rate: Upto 80Hz.
- Light source: (Single Lamp)Deuterium lamp with 2000 hour warranty
- Flow cell design: Taperslit for reduced RI effects

- Lamp optimization software for low noise performance in visible range without lamp change.
- Peak purity software.

#### **4. Chromatography Manager Software:**

- Software for Control, acquire and process HPLC data
- User Friendly
- Oracle data base
- Pre-made templates, customizable data reports, report publisher
- Compatible with 64 bit Windows 7/8
- Versatility for multi-tasking without multiple software package.

#### **5. Suitable Computer**

- Intel CPU 2.8 Ghz, 4 GB RAM
- 500GB 7200 RPM 3.5" SATA 3 Hard Drive/DV+/-RW Drive
- 100/1000 PCIe Gigabit Networking Card (2 Nos)
- 19" TFT Monitor
- USB Optical Mouse/USB Entry Business Keyboard
- OS – Windows® 7 Professional 64 - Bit

#### **6. UPS**

- 3 KVA UPS with 30 minutes backup
- Online UPS System with Galvanic Isolation Transformer and SMF 12 V Batteries with Battery Rack & Inter Connecting Links (240V DC)

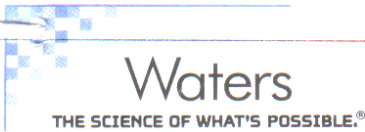
### **OPTIONAL**

#### **1. Column Oven**

- Temperature Range: Ambient to 60 degree C

#### **2. Columns: Qty 1 each**

- C18 4.6x250 mm 5μ
- C8 4.6x250 mm 5μ



Unit No. 912-917, DLF Tower-B,  
Jasola, New Delhi - 110 025  
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To whom it may concern

Dated : 02<sup>nd</sup> Feb, 2015

This is to certify that 2998 PDA Detector is a patented technology and proprietary product of Waters corporation with below mention patents .

Description	US Patent number
Apparatus and Process for Measuring Absorbance in Fluid Samples	US005883721A
Calibration Medium for Wavelength Detectors and Methods for Calibration of U.V. Absorbance Detectors And Methods for Calibration	US006783705B1
Calibration Medium for wavelength calibration of U.V. Absorbance Detectors and Methods for Calibration	US006423249B1

Waters Corporation holds an exclusive right to manufacture and supply Waters Integrated Binary Gradient Solvent HPLC System with 2998 PDA Detectors over the world.

Authorized Signatory



*Handwritten signature*  
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