**COMMODITY DESCRIPTION**

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| 품목번호  Item No. | 관세분류번호  H.S.K. No. | 정부물품분류번호(8자리)  Korean Government Commodity Classification Code | 품명  Description | 단위  Unit | 수량  Q'ty |
| 1 |  |  | Microplate Washer  with a stacker | set | 1 |

1. **End user’s Requirement**:

**This Microplate washer is required for effective washing during ELISA based analytical assays and Cell based assays for consistent and efficient results and recoveries.**

1. This system should support 6 to 384-well plates with high resolution, LED backlit touch screen

2. The system should have inbuilt software to create, edit and run multiple protocols for day-to-day testing.

3. System should have fully variable dispense volumes, flow, and aspiration rates to control the washing cycles from a gentle cell-washing application to a vigorous wash for high-binding assays.

4. The system should have functions of the Pre/Auto Prime, Crosswise aspiration, Fully programmable

setting values (dispense height, aspiration height, aspiration delay, soak, shake, aspiration

rate, horizontal aspirate, and dispense position)

5. The system should have auto switching based on selection of buffer, up to 4 selections.

6. Should have Built-in priming trough that allows automatic manifold priming and rinsing during both operations

and maintenance modes to eliminates the need for blank plates when used in automated

robotic systems.

7. Should have Built-in fluid flow, fluid detection, and vacuum sensing provide complete protection for

unattended operation.

8. System should have the following features

* Resistive touchscreens display to support all gloved environments.

9. Enables convenient file transfer and storage using two USB flash drive ports.

10. Ultrasonic Advantage: Built-in ultrasonic cleaner for manifold self-maintenance.

11. Quick menu allow fluid paths to be easily primed, wash process started, and manifold cleaned.

12. Predefined protocols to simplify preventative maintenance, to ensure optimum washer performance.

13. Microplate stacker should be included, microplate capacity: maximum 50-plate stacks should be removable and interchangeable

14. Robotic system compatible for automated processing of up to 50 standard height microplates (Minimum 30 plates)

1. **Configurations of Goods:**

* Main Component

1. Microplate Washer 1 set
2. Microplate stacker 1set

* Accessories

1. Operation Manual 1 ea
2. Power cable 1 ea
3. Power supply 1 ea
4. PC Communication USB cable 1 ea
5. **Performance and Specification:**

1. Microplate Washer 1 set

General

a. Microplate Types: 96-well & 48 well, Low profile, and standard height

b. Shaking: Programmable in minutes and seconds, up to 60 minutes Intensities – slow, medium, fast, or variable

c. Soak Time : Programmable in minutes and seconds, up to 60 minutes

d. Onboard Software: High resolution backlit LED touchscreen UI 5.7 inch graphical color display Intel Atom processor running Windows CE Quick Menu Predefined sample wash protocols - ELISA, Cell wash, Bio magnetic separation and Vacuum filtration Create or edit multiple custom protocols Run protocols created onboard, downloaded from LHC Software, or transferred on USB flash drive

e. PC Software : Control software, for PC protocol programming and execution

f. Safety/Convenience/Maintenance:

- Waste and vacuum sensing, fluid and flow detection

- Aerosol cover

- Adjustment utility for plate positioning

- Overflow protection

- Preprogrammed maintenance routines

Washing

a. Manifold Type: 96-tube (8 X 12) manifold and 48 tube manifold as an option

b. Volume Range: 25 – 3,000 µL/well (Selectable in 1 µL increments)

c. Wash Cycles : 1 – 250

d. Dispense Precision: <3% CV

e. Residual Volume : <2 µL/well

f. Washing Speed: 9steps (3 asp. / disp. cycle)

- 300 uL/well, 96-tube manifold, final aspirate: <30 seconds

g. Flow Rates: 1 – 11steps

h. Travel rate (Aspiration rate) : 10steps

i. Fluid Delivery: Internal positive displacement pump

j. Supply Bottle Volume: upto10L

k. Automation: Compatible automation system for staking and washing

l. Manifold adjustment:

Aspiration Z axis : 1 to 210steps 26.68mm max

Aspiration X axis: -60 to 60steps 2.74mm offset

Aspiration Y axis: -40 to 40 2.96mm offset

Physical Characteristics

a. Electrical: 100 - 240 Volt AC, 50-60 Hz

b. Dimensions (W x D x H) : 14”(35.6cm) x 17”(43.2cm) x 10”(25.4cm)

c. Weight : <30lbs (13.5kg)

2. Microplate Stacker 1set

General

a. Microplate types: ANSI/SLAS Standard and low profile 48, 96-, 384- and 1536-well plates

b. Microplate capacity: 10-, 30- and 50-plate stacks are removable and interchangeable

96-/384-well: Up to 50 plates, 1536-well: Up to 75 plates

c. Processing speed (plate exchange time): <10 seconds

**D. Accessories:**

1) Complete Dispense / High Flow Waste System 115V/230V, 4L Bottles (Includes) --- 1set

2) Waste Bottle and Tubing, up to 10L — 1ea

3) Stack set 30 Plates (2ea/set) --- 1set

4) IQOQ Validation for microplate washer--- 1ea

5) IQOQ Validation for stacker--- 1ea

**E. Remarks:**

1. The installation and operation should be established by the bidder's responsibility at end user's site.

2. One-year warranty service after the performance test.

3. The quotation should be included the contact details of the product specialist (Engineer) who can communicate in English

**F. ‘위 규격서에서 명시한 제품과 동등 이상의 다른 제품 납품이 가능한 업체는 입찰에 참가할 수 있음’.**