

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone: 0477 2258012 :0477 2258665 Fax : 0477 2258012

Website: www.homcokerala.com Email: homcokerala@gmail.com

#### **Supplier's Copy**

## **USER REQUIREMENT SPECIFICATION**

| Name of the Company    | : |  |
|------------------------|---|--|
| Contact Person         | : |  |
| Address                | : |  |
| Contact Details        | : |  |
| Department             | : | QCL-FIRST FLOOR  |
| Equipment and Code No. | : | DIGITAL pH Meter   |
| Name of work           | : | Supply, Installation, Commissioning & Validation of cGLP model microprocessor based Digital pH meter at m/s. HOMCO -Kerala |
| Ref. No.               | : |  |
| Date                   | : |  |
| Enclosures             | : |  |
| Qty.                   | : | 1 No.  |



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## **DIGITAL PH METER**

| ANNEXURE - I | : | BASIC DETAILS OF THE MACHINE |
|--------------|---|------------------------------|

| (To be                  | DESCRIPTION  (To be specified by the supplier, if any variation) |   |  |
|-------------------------|--|---|--|
| Scope                   | •  | Supply, Installation, Commissioning & Validation of cGLP model Microprocessor based Digital pH meter along with connecting accessories, cables etc. at M/s. HOMCO –Kerala |  |
| Model                   | :  | *   |  |
| pH Range                | :  | -2.000 to 20.000 pH *   |  |
| Resolution              |  | Selectable 0.1, 0.01 pH*  |  |
| Accuracy                | :  | ± 0.01 pH *   |  |
| Temperature Range       | •  | -30°C to 100 °C*  |  |
| Calibration             | :  | 5 points. Auto/manual*  |  |
| Mv Range                | •  | ±1999.9mv*  |  |
| Resolution              | •  | 0.1 mv*   |  |
| Accuracy                | •  | ±0.4 °C*  |  |
| Sensor                  | •  | Semi-conductor Type*  |  |
| Display                 | :  | LCD with Backlight*   |  |
| Data Entry              | :  | By 5 soft keys*   |  |
| Storage                 | :  | 500 samples with Calibration Data*  |  |
| Real Time Clock         | :  | 24 hours mode with date*  |  |
| Printer interface       |  | Rs232*  |  |
| Additional Requirements |  |   |  |

|             | 1,Toughened glass -body refillable pH electrode with built in ATC for high viscous sample |
|-------------|---|
|             | like creams   |
|             | 2) Bench meter with stand   |
|             | 3)Warranty for meter should be 3 years  |
|             | 4) Should be supplied with 250ml each g with pH 4.01, 7.00, 10.01 NIST certified buffers  |
| 5) Should b | e with security password setting  |



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| ANNEXURE – II & III            | : cGN      | IP FEATURES AND OPERATIONAL FEATURES |
|--------------------------------|------------|--------------------------------------|
| DESCRIPTION                    |            |                                      |
| (To be specified by the suppli | er, if any | variation)                           |
| MOC                            | :          | *                                    |
| Finish                         | :          | *                                    |

<sup>\*</sup> To be specified and confirm by the supplier as per their equipment design

ANNEXURE - IV : ELECTRICAL DETAILS

|  | DESCRII   | PTION   |
|--|-----------|---|
| To be specified  | l by the  | supplier, if any variation)   |
| Standard Operating Frequency   | :         | 50 Hz   |
| Standard Operating Voltage   | :         | 230 / 415V*   |
| Total power consumption  | :         | *   |
| PLC and HMI details  | :         | *   |
| Tower lamp   | :         | *   |
| Starter  | :         | *   |
| Major Cabling details  |           |   |
| For Main supply (In client's scope)  | :         |   |
| For Main drive motor   | :         | *   |
| End connection details   | :         | MCB or Socket should be with equipment  |
| Earthing requirement   | :         | Arrangement should be with system   |
| An Isolator Circuit breaker  | •         | To be supplied with machine at power supply in point of appropriate capacity by vendor. * |
| Cable length with equipment  | :         | *   |
| Any other detail not mentioned above   | , also to | be included.  |
| Client will provide & connect the requirements and its other accessories to be |           | le in to vendor's panel. From machine panel to ied and connected by vendor at site.       |

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#### DESCRIPTION

(To be specified by the supplier, if any variation)

#### Miscellaneous:

- Wiring between Panel and the Machine should be in the Scope of Vendor. The exact measurements shall be taken by visiting the site. \*
- ❖ The Incomer to the Operating Panel shall be provided by HOMCO, however any Cable Trays or SS 304 Conduits required for the same shall be provided by the Vendor. \*
- ❖ Cable routing from Operating Panel to the Machine shall be done as per cGMP i.e., routing through Cable Trays outside Clean Room Areas and SS 304 Conduits inside Clean Room Areas. \*
- ❖ All the Component Makes should match the Approved Makes list provided. \*
- Any deviation from this should be documented and communicated to HOMCO. \*
- All Calibration Certificates are to be produced during Installation of Machine, without which the Installation is deemed incomplete. All the Certificates should be Traceable to National / International Standards. \*
- The Validity of Calibration shall be minimum 9 months and maximum 12 months from the date of Installation. \*
- ❖ All the Signal Cables should be shielded to avoid interference. \*
- Complete Earthing of Equipment. \*
- Complete covering of Electrical Cables and Other Connections. \*

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ANNEXURE - V : SAFETY FEATURES

#### **DESCRIPTION**

(To be specified by the supplier, if any variation)

Wherever possible, warning symbol should be provided. \*

Electrical wiring must be concealed. \*

\* To be specified and confirm by the supplier as per their equipment design

ANNEXURE - VI : MECHANICAL DETAILS

# DESCRIPTION (To be specified by the supplier, if any variation) Dimension (In mm) : \* Net Weight (In Kgs.) : \* Type of Packing : \* Case Dimension (In mm) : \* Gross Weight (In Kgs.) : \* Foundation details (If required) : \*

ANNEXURE - VII : LIST OF ANCILLARY / ACCESSORIES / OPTIONAL ITEMS

#### **DESCRIPTION**

(To be specified by the supplier, if any variation)

- Optional Items (If any, Vendor should provide the list with rate) \*
- If any items required but not included in URS, to be mentioned and submitted with unit rate and quantity \* (And it can be indicated during pre-bid meeting)

Details of Bought out components to be specified.

Any other ancillary or accessories or optional items not mentioned above also to be quoted.

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| ANNEXURE - VIII | • | TRAINING REQUIREMENT |
|-----------------|---|----------------------|
|                 |   |                      |
|                 |   |                      |

- > Training to all concern of M/s. HOMCO, Kerala for the Installation, commissioning, and validation of this lab item should be provided by vendor and training record will be documented.
- > shall support client in execution of all the Qualification Phases.

### ANNEXURE - IX : APPROVED MAKES

| Stainless steel sheet & pipe: Tata/Jindal       | : | * |
|---|---|---|
| HMI : Siemens / Allen Bradely / Delta /<br>Exor |   | * |
| PLC: Siemens / Allen Bradely / Delta            |   | * |
| Cables : Finolex , Polycab                      |   | * |

- ❖ Any other components, not mentioned above, to be specified by the vendor.
- All the Component Makes should match with the Approved Makes listed above. Any deviation from this should be documented and communicated to HOMCO and Pharma Consultant.

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#### **ANNEXURE - X DOCUMENTATION**

List of all Documents to be supplied along with equipment [AS APPLICABLE]

| Sr. | Document to be supplied  | Qty    | Remarks |
|-----|--|--------|---------|
| No. |  |        |         |
| 1   | Design and operational qualification   | 2 sets |         |
| 2   | SAT/FAT procedures   | 2 sets |         |
| 3   | Operation manual   | 2 sets |         |
| 4   | Maintenance manual   | 2 sets |         |
| 5   | Spare parts manual   | 2 sets |         |
| 6   | All engineering drawings   | 2 sets |         |
| 7   | List of instruments  | 2 sets |         |
| 8   | Calibration certificates   | 2 sets |         |
| 9   | Warranty / Guarantee   | 2 sets |         |
| 10  | List of all components with referencing  | 2 sets |         |
| 11  | Civil foundation drawings  | 2 sets |         |
| 12  | Pre installation requirements  | 2 sets |         |
| 13  | Installation requirements  | 2 sets |         |
| 14  | Installation manual  | 2 sets |         |
| 15  | Technical literature, data sheets and equipment catalogues                         | 2 sets |         |
| 16  | DQ, IQ, PQ documents.  | 2 sets |         |
| 17  | Calibration Report of all sensors, controllers, PLC, transmitters, indicators etc. | 2 sets |         |
| 18  | Test Certificates of all material of construction                                  | 2 sets |         |
| 19  | Test Certificates of the software used in machine control / monitoring system.     | 2 sets |         |



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**ANNEXURE - XI TERMS AND CONDITIONS** 

| Delivery Period   | :      | *   |
|---|--------|---|
| Payment Terms   | :      | As mentioned in tender.   |
| Packaging and forwarding  | :      | By Vendor   |
| Un-loading at site  | ·      | By vendor /Supplier (If required, help for the arrangements of unloading can be done by client) Installation in position by the vendor under the client's supervision |
| Excise / Taxes /GST   | :      | *   |
| Material for Trial arrangement  | :      | * (To be arranged by client)  |
| Installation and Commissioning  | :      | By Vendor   |
| Submission of documents and drawings  |        |   |
| Response to URS and submission of quotation                                 | :      | Within 1 week   |
| Submission of detail functional design specification and schematic drawings | •      | Within a week after order finalization  |
| Submission of FAT / SAT specification                                       | :      | 2 weeks before FAT  |
| Submission of IQ AND OQ documents   | :      | With equipment delivery   |
| Drawings / diagrams   | :      | Within a week after receiving PO  |
| The supplier should notify customer 2 weeks in a                            | dvance | of the beginning of FAT   |
| Catalogue, Equipment drawing, List of clients and quotation.                | year c | f establishment to be submitted along with  |
| Any other terms, not mentioned above, also to be                            | specif | ied.  |

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| ANNEXURE - XII | ABBREVIATION |
|----------------|--------------|
|                |              |

| URS       | User Requirement Specification.                     |
|-----------|---|
| <br>номсо | kerala State Homeopathic Co-operative Pharmacy Ltd. |
| DQ        | Design Qualification                                |
| <br>IQ    | installation Qualification                          |
| <br>OQ    | Operational Qualification                           |
| <br>PQ    | Performance Qualification                           |
| <br>SS    | Stainless Steel                                     |
| <br>RHS   | Right Hand Side                                     |
| <br>мос   | Material of Construction                            |
| <br>KW    | Kilo Watt   |
| <br>HP    | Horse Power   |
| <br>RPM   | Rotation Per Minute                                 |
| <br>FLP   | Flame Proof   |
| <br>сGMР  | Current Good Manufacturing Practices                |
| <br>O&M   | operation and Maintenance                           |
| <br>GA    | General Arrangement                                 |
| <br>SLD   | Single Line Diagram                                 |
| <br>HOD   | Head of Department                                  |
| <br>QA    | Quality Analysis                                    |
| <br>MRP   | Maximum Retail Price                                |
| <br>NMT   | Not more than                                       |
| <br>VFD   | Variable frequency drive                            |
| <br>FAT   | Factory Acceptance Test                             |
| <br>SAT   | Site Acceptance Test                                |



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Any other details, not mentioned in Annexure I to XIII, to be specified in the quotation/specification by the vendor.