

Equipment Specification Data Sheet

Equipment Name: Conductivity Meter

Document No.: DS-CDM 01

Revision: 00

Project No.: 120310

Project Name: Integrated Vaccines Complex,
Chengalpattu

Block Code	Block Name	Identification No.	Capacity	Quantity
Q1	Admin QA & QC	Q1-CDM 01	-	1

NNE Pharmaplan India Limited

Name	Designation	Signature	Date
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HLL Biotech Limited

Name	Designation	Signature	Date
Reviewed by			
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Equipment Specification Data Sheet

HLL Biotech Limited, Chennai

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**INTEGRATED VACCINES COMPLEX,
CHENGALPATTU**

Equipment Name **Conductivity Meter**

Project # **120310**

Document # **DS-CDM 01**



1 Process requirements

1.1 The conductivity meter is intended to measure the conductivity of the liquid sample. The conductivity meter shall have additional features to measure the resistivity and TDS.

2 Equipment ID

2.1 Q1- CDM 01-02

3 Technical Specification

3.1	Model	cGLP Model
3.2	Type	Digital, benchtop type
3.3	Conductivity range	0.001 μ S/cm to 1000 mS/cm
3.4	Conductivity Resolution	Vendor to Specify
3.5	Conductivity Accuracy	\pm 0.5 %
3.6	Conductivity sensors	Vendor to Specify
3.7	Resistivity Range	up to 100 meg ohm
3.8	Resolution	Vendor to Specify
3.9	Accuracy	\pm 0.5 %
3.10	TDS Range	500 g/l or better
3.11	TDS Resolution	Vendor to Specify
3.12	TDS Accuracy	\pm 0.5 %
3.13	Temperature range	Vendor to Specify
3.14	Temperature accuracy	\pm 0.1 $^{\circ}$ C
3.15	Display type	LCD/TFT
3.16	Memory	Storage of upto 300 measurement with date and time
3.17	Power supply	To be compatible to standard Indian power supply sockets
3.18	Quantity	2 Nos
3.19	Expected operational hours per day	24 hrs with stand-by mode

4 Material of Construction

4.1	Glass Electrode	The glass electrode must be made from Borosilicate glass for conductivity probe.
4.2	Body of the meter	Powder coated or Vendor to specify

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HLL Biotech Limited, Chennai			
nne pharmaplan®	INTEGRATED VACCINES COMPLEX, CHENGALPATTU		 <small>HLL BIOTECH LIMITED (a subsidiary of HLL LifeCare Services) A Government of India Enterprise</small>
	Equipment Name	Conductivity Meter	
	Project #	120310	
	Document #	DS-CDM 01	
5	Specific Equipment requirement		
5.1	Standard calibration buffer solutions to be provided - Two set, along with ordering information		
5.2	Reminder for Calibration		
5.3	LCD display to show the readings, Time, date and calibration points. And audible beep indications during valid key operation		
5.4	The Conductivity meter must have, stand with flexible arm, Electrode holder and universal power adaptor. Different cell constant probes to cover the range should be provided.		
5.5	One set of additional/ spare conductivity probe to be provided.		
5.6	The equipment shall be compatible for cleaning with all standard disinfectants.		
5.7	Equipment shall facilitate easy cleaning and maintenance with standard disinfectant		
6	Other requirement		
6.1	Training and demo for user on operation and cleaning to be provided		
7	Regulatory aspects		
7.1	CE certification		
8	Safety requirements		
8.1	Proper earthing is necessary		
8.2	Appropriate closure of all parts.		
9	Documents		
	Following documents, but not limited to these, are expected from the vendor as part of the supply package in hard copy as well as editable electronic file		
9.1	IOQ documents		
9.2	Operation and maintenance manuals shall be provided along with IOQ documents during installation at site		
9.3	Warranty Letter for Minimum 1 year from the date of supply.		
9.4	Vendor should provide list of standard spare parts with ordering information.		
9.5	NPL traceable calibration certificates and calibration procedures		
9.6	Vendor should provide list of change parts (if applicable) with ordering information		
10	Timelines		
10.1	Not Applicable		

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INTEGRATED VACCINES COMPLEX,
CHENGALPATTU

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Equipment Name Conductivity Meter

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11 Preferred list of Makes

11.1 Mettler Toledo, Thermofischer Scientific, Hach, HANNA

NOTE: Accurate size and technical specification need to be mentioned by the vendor

TABLE NO: 1

Equipment ID	Block Name	Room Name	Room No	Room dimension in mm	Room height in mm
Q1-CDM 01	QC	Q1S022	Chemical Lab / Bio Chemistry	-	2400
Q1-CDM 02	QC	Q1S051	Media preparation & sterilization	-	2400

Table-2: Change Log

Date	Name	Revision	Section	Change/Comment
09-09-2015	Syed Sharique Ahmad	00	-	New document
26-10-2015	Syed Sharique Ahmad	01	All	Updated as per comments given by HBL dated 13-10-2015

Table-3: Annexure

Not applicable

