

Bid Document

Bid Details	
Bid End Date/Time	28-01-2019 18:00:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	45 (Days)
Ministry/State Name	Gujarat
Department Name	Education Department Gujarat
Organisation Name	Commissionerate Of Technical Education
Office Name	Gandhinagar
Total Quantity	2
Item Category	Water Quality Meters / Analyzers
Average Turn Over of Last 3 Years	1 Lakh (s)
Experience with Gov. Required	3 Year (s)
MSE Exemption For Years Of Experience And Turnover	No

Water Quality Meters / Analyzers (2)

Technical Specifications

[* As per GeM Category Specification](#)

Specification	Specification Name	Values	Allowed Values
TYPE / NOMENCLATURE / PROTECTION	Type of Meter / Analyzer	Bench Type	Bench Type, Handheld
	Functional nomenclature	TDS Meter	Dissolved Oxygen Meter, Salinity Meter, ORP Meter, TDS Meter, Turbidity Meter, pH Meter, Multi Parameter Water Quality Analyzer
	Ingress Protection (Main Unit)	IP 57	IP 55, IP 56, IP 57, IP 65, IP 66, IP 67, IP 68, NA being Bench Top
	Calibration	Automatic	Manual, Automatic
MEASURED WATER QUALITY PARAMETERS	Dissolved Oxygen (DO)	Yes	Yes, No

	DO % Stauration	Yes	Yes, No
	Conductivity	Yes	Yes, No
	Resistivity	Yes	Yes, No
	Salinity	Yes	Yes, No
	Total Dissolved Solids (TDS)	Yes	Yes, No
	pH	Yes	Yes, No
	Oxidation Reduction Potential (ORP)	Yes	Yes, No
	Ammonium	Yes	Yes, No
	Nitrate	Yes	Yes, No
	Chloride	Yes	Yes, No
	Turbidity	Yes	Yes, No
	Depth	Yes	Yes, No
	Temperature	Yes	Yes, No
	Atmospheric Pressure	Yes	Yes, No
MEASUREMENT OF DISSOLVED OXYGEN (DO) / DO % Saturation	Dissolved Oxygen (DO) measurement Principle	Optical	Optical, Electro Chemical (Amperometric), NA
	Sensor / Probe/ Electrode Type	Lifetime Luminiscent for Optical	Lifetime Luminiscent for Optical, Polarographic for Electro Chemical, Galvanic for Electro Chemical, NA
	Measurement Range for DO Content (in ppm or mg/l)	0-20	*
	Resolution (in ppm or mg/l)	0.02,0.05,0.5	*
	DO Accuracy (+/-)	2	*
	Measurement Range for DO % Saturation (in %)	0-200	0-200, 0-400, 0-500, 0-600, 0-800, NA
	Resolution (in %)	0.2,0.5,5	*
	DO % Accuracy (+/-)	2	*
MEASUREMENT OF CONDUCTIVITY (EC)	Conductivity measurement principle	Conductive (contacting)	Conductive (contacting), Inductive, NA
	Sensor/ Probe/Electrode Type	2 Cell Electrode	2 Cell Electrode, 4 Cell Electrode, NA
	Material of Electrode	Platinum	Platinum, Titanium,

			Gold Plated Nickel, Graphite, NA
	Measurement Range (in $\mu\text{S}/\text{cm}$)	0-20	*
	Resolution (in mho or $\mu\text{S}/\text{cm}$)	0.002,0.005	*
	EC Accuracy (+/-)	1	*
MEASUREMENT OF RESISTIVITY	Resitivity measurement principle	Conductivity Conversion	Conductivity Conversion, NA
	Lowest Measurement Value for Resistivity (in ohm-cm)	2	0, 1, 2, 5, 10, NA
	Highest Measurement Value for Resistivity (in Mega ohm-cm)	2	1, 2, 5, 10, 20, 50, 100, 200, NA
	Resolution (in ohm-cm)	5,10	*
	Resistivity Accuracy(+/-)	2	*
MEASUREMENT OF SALINITY	Salinity measurement principle	Conductivity Conversion	Conductivity Conversion, NA
	Measurement Range (in parts per thousand or g/l or PSU)	0-10	*
	Resolution (in g/l)	0.02,0.05	*
	Salinity Accuracy (+/-)	2	*
MEASUREMENT OF TOTAL DISSOLVED SOLIDS (TDS)	TDS measurement principle	Conductivity Conversion	Conductivity Conversion, NA
	TDS Measurement Range (in parts per thousand or g/l)	0-100	0-100, 0-200, 0-400, 0-500, 0-600, 0-800, NA
	Resolution (in g/l)	0.005,0.01,0.02	*
	TDS Accuracy (+/-)	2	*
MEASUREMENT OF pH	pH measurement principle	Electro chemical	Electro chemical, NA
	Sensor / Probe / Electrode Type	Hydrogen (Platinum) Electrode	Hydrogen (Platinum) Electrode, Antimony Electrode, Glass Electrode, Ion Selective Electrode (ISE), NA
	Number of Sensors / Electrodes	Single Electrode	Single Electrode, Combination Electrode

			(2 Electrode), Differential Electrode (3 Electrode), NA
	pH Measurement Range	0-14	0-14, NA
	Resolution (in pH number)	0.02,0.05,0.1	*
	pH Accuracy (+/-)	1	*
MEASUREMENT OF OXIDATION REDUCTION POTENTIAL (ORP)	ORP measurement principle	Electro chemical	Electro chemical, NA
	Sensor / Probe/ Electrode Type	Platinum Electrode	Platinum Electrode, Ion Selective Electrode (ISE), NA
	Number of Sensors /Electrodes	Single Electrode	Single Electrode, Combination Electrode (2 Electrode), Differential Electrode (3 Electrode), NA
	Lowest Measurement Value for ORP (in mV)	-3000	-3000, -2500, -2000, -1500, -1000, -500, 0, NA
	Highest Measurement Value for ORP (in mV)	3000	3000, 2500, 2000, 1500, 1000, 500, NA
	Resolution (in \pm mV)	0.02,0.05,0.1,0.5	*
	ORP Accuracy (+/-)	2	*
MEASUREMENT OF AMMONIUM	Sensor / Probe/ Electrode Type	Ion Selective Electrode	Ion Selective Electrode, NA
	Measurement Range (in ppm or mg/l)	0-100	0-100, 0-200, 0-300, 0-400, 0-500, 0-600, NA
	Resolution (in ppm or mg/l)	0.01,0.02,0.1,0.5	*
	Ammonium Accuracy (+/-)	10	*
MEASUREMENT OF NITRATE	Sensor / Probe/ Electrode Type	Ion Selective Electrode	Ion Selective Electrode, NA
	Measurement Range (in ppm or mg/l)	0-100	0-100, 0-200, 0-300, 0-400, 0-500, 0-600, NA
	Resolution (in ppm or mg/l)	0.1,0.2,0.5	*
	Nitrate Accuracy (+/-)	10	*
MEASUREMENT OF CHLORIDE	Sensor/Probe/Electrode Type	Ion Selective Electrode	Ion Selective Electrode, NA
	Measurement Range (in ppm or mg/l)	0-400	0-400, 0-600, 0-800, 0-1000, 0-1200,

			0-1500, NA
	Resolution (in ppm or mg/l)	0.01,0.02,0.05,0.1,0.2, 0.5	*
	Chloride Accuracy (+/-)	15	*
MEASUREMENT OF TURBIDITY	Turbidity measurement principle	Nephelometric measurement according to ISO 7027	Nephelometric measurement according to ISO 7027, Nephelometric measurement according to US EPA 180.1, NA
	Light Source	Infrared Led	Infrared Led, White light tungsten lamp, NA
	Measurement of scattered light	30 degree scatter nephelometer	30 degree scatter nephelometer, 90 degree scatter nephelometer, NA
	Lowest Measurement Value for Turbidity (in FNU or NTU)	0.01	0.01, 0.05, 0.1, 0.5, 0, NA
	Highest Measurement Value for Turbidity (in FNU or NTU)	10	*
	Resolution (in FNU or FTU)	0.05,0.1,0.2,0.5	*
	Turbidity Accuracy (+/-)	2	*
MEASUREMENT OF TEMPERATURE	Sensor/Probe Type	Semi Conductor Based Thermister	Semi Conductor Based Thermister, Resistance Temperature (RTD) Detector, NA
	Lowest Measurement Value for Temperature (°C)	-20	-20, -15, -10, -5, 0, 5, 10, NA
	Highest Measurement Value for Temperature (°C)	50	*
	Resolution (°C)	0.05,0.1,0.2,0.5	*
	Temperature Accuracy (+/-)	1	*
MEASUREMENT OF PRESSURE	Sensor /Probe Type	Pressure transducer	Pressure transducer, NA
	Lowest Measurement Value for Pressure (in mmHg)	200	*

	Highest Measurement Value for Pressure (in mmHg)	800	800, 825, 850, 875, 900, 950, 1000, NA
	Resolution (in mmHg)	0.1,0.2,0.5,1	*
	Pressure Accuracy (+/-)	1	*
MEASUREMENT OF DEPTH	Measurement Method	Water Pressure method	Water Pressure method, NA
	Depth Measurement Range (in meters)	0-10	*
	Length of Cable connecting peobe (inclusive in the scope of supply)	1	*
COMPENSATION / CORRECTION	Temperature correction	Automatic	Automatic, Manual, Automatically compensates for manual input value, NA
	Salinity Correction	Automatic	Automatic, Manual, Automatically compensates for manual input value, NA
	Barometric Pressure correction	Automatic	Automatic, Manual, Automatically compensates for manual input value, NA
DISPLAY / STORAGE	Type of Display	LCD	*
	Display Digit Size	30	*
	Number of Digits in Display	3	*
	Number of parameters diplayed simultaneously	2	*
	Memory (in Data Sets)	20000	*
	Internal memory (GB)	64	*
	In-built GPS	No	*
	Date /time Stamp in Entries	No	*
Connectivity interface	USB	*	
POWER SOURCE	Power Source	Rechargeable Battery,Mains (230 ±10 Volts / 50 Hz AC)	*
	Battery Size, if Non Rechargeable Battery	AA	*
	Battery Chemistry, if	Li-ion	*

	Rechargeable Battery		
	Voltage of each Battery	24	*
	Number of Batteries required for operation	1	*
	Number of Batteries Inclusive in the Scope of Supply	1	*
	Battery Capacity (mAh)	10000	*
	Battery Life	1000	*
	Suitable Adapter to be supplied to make the equipment Work on 230 V \pm 10 %, 50 Hz	Yes	*
GENERIC	Armour housing of Sensor / Probe	Rubberised metallic	*
	Probe / Sensor / Electrode supplied with equipment	Yes	*
	Number of elctrodes supplied	20	*
	Weight	2	*
	Dimensions (mm x mm x mm)	-	*
	Carry Case included in the scope of supply	No	*
	Any other features	-	*
	List of Items and Quantity of each item included in the offer	-	*
OPERATING CONDITIONS	Minimum Operating Temperature	-5	0, -5, -10, -15, -20
	Maximum Operating Temperature	50	50, 55, 60, 70
	Operating Humidity, Rh at 40 deg C	65	65, 70, 75, 80, 85, 90, 95
WARRANTY	Warranty on Equipment	1	1, 2, 3, 4, 5, 6
	Warranty on Probe / Electrode	12	6, 12, 18, 24, 30, 36, 48
	Warranty on Cables for Connecting Probe	1	1, 2, 3, 4, 5
CERTIFICATION	Availability of Test Reports from Central Govt / NABL approved / ILAC accredited Lab to	No	Yes, No

	prove conformity to the specification		
	If Yes, Test Report to be furnished to the Buyer on demand	NA	*
	Test Report No and Date	-	*
	Name of the Lab and Address	-	*

* Bold specifications are the golden parameters.

Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Vadodaria Ghanshyambhai	380015, The Principal, L.D.College of Engineering, Navarangpura	2	30

EMD Detail

Required	No
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ePBG Detail

Required	No
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Splitting

Bid splitting not applied.

Buyer Specific Additional Terms and Conditions

- 1. Scope of supply (Bid price to include all cost components) :** Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)
- 2. Pre-dispatch inspection / testing at Seller premises :** Before dispatch, the goods will be inspected and tested by Buyer / Consignee or their Authorized Representative / Nominated External Inspection Agency by Buyer (Fee/Charges taken by the External inspection Agency shall be borne by the Buyer) at Seller's premises for their compliance to the contract specifications. The Sellers will provide necessary testing facilities and shall bear cost of in house testing required, if any. Seller shall notify the Buyer through e-mail about readiness of goods for pre-dispatch inspection and Buyer will notify the Seller about the Authorized Representative/ Nominated External Inspection Agency and the date for testing. The goods would be dispatched to consignee only after clearance in pre-dispatch inspection. Consignee's right of rejection as per GTC in respect of the goods finally received at his location shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by Buyer/ Consignee or its Nominated External Inspection Agency prior to the goods' shipment.
- 3. Availability of service Centres :** Bidder /OEM must have Service Centre In the State of each Consignee's Location

- 4. Timely Servicing / rectification of defects during warrantee period:** After having been notified of the defects / service requirement during warrantee period, Seller has to complete the required Service / Rectification within time limit specified. If the Seller fails to complete service / rectification with defined time limit, a penalty of defined % of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG).
- (i) Time Limit for Service / Rectification of defects will be as defined in the SLA document for the service.
- (ii) Penalty per week of delay as % of unit price of product will be as defined in the SLA document for the service.
- Seller to give compliance Yes / No while submitting bid.
5. The Purchaser reserves the right to increase or decrease the ordered quantity up to 25 percent at the time of placement of contract . The purchaser also reserves the right to increase the contracted qty up to 25% during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly

[This Bid is also governed by the General Terms and Conditions](#)

---Thank You---