

International and Inter University Centre for Natural Resources Management
University of Kerala, Kariavattom campus

Quotations are invited for the following instrument from the manufactures/authorised suppliers

Instrument : **MULTIPARAMETER WATER QUALITY ANALYSER**
(PORTABLE METER pH/ mV/ ION/ CONDUCTIVITY/ TDS/ RESISTIVITY/ SALINITY/TEMP.)

TERMS & CONDITIONS

Delivery : At Kariavattom Campus
Rate : Inclusive of tax

SPECIFICATIONS

Waterproof handheld meter with software, power adapter & carrying kit set (all probes should have 3 m cable length). The instrument should have the following specifications :

- Simultaneously measure and display at least four parameters.
- Accept 2-cell and 4-cell Conductivity probe
- Measure 90.00 mg/L in DO concentration and 600 % in DO saturation.
- Rugged and waterproof for applications in harsh environments
- Step-by-step prompt that guide users through set-up, calibration and trouble-shooting
- High/low alarm limits
- Meter automatically should log up to 500 readings with time and date in GLP-compliant format
- Non-volatile memory
- Password protection

The individual specifications of each electrode are as follows:

pH	Range	-2.000 to 20.000 pH
	Resolution	0.1/0.01/0.001 pH
	Accuracy	±0.002 pH
	Auto-Buffer Recognition	Yes

	Slope & Offset Display	Yes
Ion	Range	0.001 to 19900 ppm
	Resolution	2 or 3 digits
	Accuracy	0.5 % Full scale (monovalent) 1 % Full scale (divalent)
	Calibration Points	Up to 8
mV	Range	±2000.0 mV
	Resolution	0.1 mV
	Accuracy	±0.2 mV
Temperature	Range	-10.0 to 110.0 °C/14.0 to 230.0 °F (Meter) 0 to 60.0 °C/32.0 to 140.0 °F (DO)
	Resolution	0.1 °C/0.1 °F
	Accuracy	±0.5 °C/±0.9 °F
Conductivity	Range	0 to 2.000,2.000 to 300.0 µS/cm; 300.0 µS/cm to 4.000 mS/cm 4.000 to 40.00 mS/cm,40.00 to 500.0 mS/*cm
	Resolution	0.05 % Full scale 0.01, 0.1 µS/cm ; 0.001,0.01,0.1 mS/cm
	Accuracy	±1 % Full scale + 1 LSD
	Calibration Points	4 (1 per range) auto,5 (1 per range) manual
	Cell Constant (K)	0.010 to 10.000
	Temperature Coefficient	Linear & pure
	Normalisation Temperature	15 to 30 °C
	Auto-Ranging	Yes
TDS	Range	0 to 2.000,2.000 to 300.0 ppm; 300.0 ppm to 4.000 ppt 4.000 to 40.00 ppt,40.00 to 500.0 ppt#
	Resolution	0.05 % Full scale 0.01, 0.1 ppm ; 0.001,0.01,0.1 ppt
	Accuracy	±1 % Full scale + 1 LSD
	Calibration Points	5 points
	Conversion Factor	0.4000 to 1.000
	Auto-Ranging	Yes
Salinity	Range	0 to 0.770,0.770 to 143.3 ppm; 143.3 ppm to 2.138 ppt 2.138 to 23.64 ppt,23.64 to 80.00 ppt#
	Resolution	0.01, 0.1 ppm ; 0.001,0.01 ppt
	Accuracy	±1 % Full scale + 1 LSD

Resistivity	Range	2.000 Ω to 25.00 Ω , 25.00 Ω to 250.0 Ω , 250.0 Ω to 3.333 k Ω , 3.333 k Ω to 500.0 k Ω , 500.0 k Ω to 20.00 M Ω
	Resolution	0.01 Ω , 0.1 Ω ,0.001 Ω ,0.1 Ω ,0.01M Ω
	Accuracy	± 1 % Full scale + 1 LSD
Meter Features	Operating Temperature	0 to 50 $^{\circ}\text{C}$
	ATC	Yes
	Hold Function	Yes
	Ready Function	Yes
	Memory	500 Data sets
Inputs	DC Phono sockets, BNC, 8 Pin connector, 6 pin connector	
Power	4x 1.5 V 'AA' Alkaline batteries or 9 V DC Adapter, 500 mA	

Interested parties may submit their quotations on or before 4pm, 24th November 2017 to the following address:

Co-ordinator
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Trivandrum 695 581