



National Technology Centre for Ports, Waterways & Coasts.

(NTPWC)

No.606, 6th floor New academic complex

IIT Madras -Chennai -600036- PHONE:22578915.

Ref: No. PROJECT NO.OEC/17-18/138/MOSH/KMUR

DATE:14.01.2019

Tender ref no. NTPWC/CTDP/007

Item Description: Current temperature depth profiler (as per specification attached)

Due date : 30.1.2019 at 3.00 P.M.

Dear Sir,

1. Quotations/Tender with compliance sheet are invited in duplicate for the various items shown below/overleaf/**enclosed list**.
2. The quotations are to be **in two parts as Technical Offer and as Commercial offer**:
The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and super scribed with reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. Fax and Email quotation are not acceptable.
4. Quotations should be valid for 90 days from the due date and period of delivery required, warranty terms etc. should also be clearly indicated. Warranty clause will be as said in the specification.
5. Imported supplies should be quoted **for CIP chennai basis indicating mode of shipment**.
6. Local firms to quote for free delivery to this Institute. If quoted for Ex-Godown delivery charges be indicated separately.
7. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples / machine/ equipment if called for should be submitted / demonstrated at free of charges and collected back at the supplier's expenses. Compliancy certificate is to be provided indicating conformity to the technical specifications
8. Sales Tax/General Taxes/ED if applicable and such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. If this is not indicated no such claim will be admitted at any stage. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to Non-Government Educational Institutions run with no profit motive for which a concession is given. Sales Tax Certificate will be issued at the time of final settlement of the bill.
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
12. The Guarantee period of the item may be indicated clearly.
13. No Advance payment will be made for Indigenous purchase. However 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done). (IIT Madras is exempt from payment of Excise Duty and is eligible for concessional rate of custom duty and GST for 5%. Necessary certificate will be issued on demand. IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.
14. **Acceptance and Rejection**:- I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.
15. **All tender amendments will be uploaded on the website only**. Bidders should keep themselves updated & conditions mentioned in the specification needs to be strictly followed
16. **Tenders to be addressed to** : The project co-ordinator, NTPWC, room no.606, 6th floor new academic complex, IIT Madras, chennai- 600036

TENDER SPECIFICATION OF Current, Temperature Depth (CTD) PROFILER

1. The Scope of the supply

Supply of the one numbers of Current, Temperature Depth (CTD) profiler with suitable accessories.

2. Requirements

The Current, Temperature Depth (CTD) profiler is required to carry out the simultaneous multiparameter profiling in Ocean/Sea, Lake and River.

3. Technical Specification

Sl. No.	Parameter	Description/Range
1	Type	Current, Temperature Depth (CTD) profiler
2	Quantity	One
3	CTD Profiling mode	Vertical
4	Method of CTD Operation	Temperature & Conductivity Sensors with T-C Duct and pump-controlled constant flow , Forcing a Fixed Response time completely independent of CTD motion through the water , for minimal Salinity Spiking
5	Data acquisition	<ul style="list-style-type: none">➤ Sampling rate min 2 Hz➤ Internal record 64MB➤ 6 Differential A/D Channels(0 to 5volt input range)➤ One channel RS232➤ Data I/O cable minimum 2.5 m➤ A/D resolution 14bit➤ Communication RS232 / RS485 / Ethernet/USB Serial Port➤ Wet- pluggable bulk head connectors for data I/O, pump Y-cable etc.
6	Software	<ul style="list-style-type: none">➤ CTD data acquisition software➤ Software for acquisition, display, processing, calibration and archiving of oceanographic data acquired➤ Data format ASCII II➤ Software compatible with Windows OS
7	Housing/Enclosure	<ul style="list-style-type: none">➤ Suitable housing for a depth rating of 600m➤ safety handling frame of stainless steel suitable for CTD to be provided
8	Power supply	<ul style="list-style-type: none">➤ Rechargeable Battery➤ Self-Battery Powered without conductive cable during profiling➤ Provide 60 hours during profiling➤ External power supply : 9 - 28 VDC

9	Power requirements:	Sampling: <100 mA Pump: < 200 mA Communications: <100mA
10	Pump	<ul style="list-style-type: none"> ➤ Titanium housing min submersible pump ➤ Very good dynamic performance of accuracy ➤ Long-life, ➤ DC, ball-bearing motor ➤ Pump impeller and electric drive motor coupled magnetically through housing ➤ Providing high reliability by eliminating moving seals ➤ Motor speed and pumping rate remain constant over entire input voltage range ➤ Motor drive electronics intrinsically protected against reversed polarity ➤ Closed loop for Fix conductivity response time and to allow conductivity and temperature measurement to be aligned to the same packet of water ➤ Correction for thermal mass errors
CTD sensor Range		
11	Conductivity	0 to 9 S/m
12	Temperature	0 to +35 ° C
13	Pressure max	200m water depth
CTD sensor accuracy		
14	Conductivity	± 0.0005 S/m
15	Temperature	± 0.005 °C
16	Pressure	± 0.1 % of full scale range
CTD sensor stability resolution		
17	Conductivity	0.00005 S/m
18	Temperature	0.0001 °C
19	Pressure	Strain gauge 0.002% of full scale range
20	Software compatibility	Compatible with Teledyne PDS/ Hypack software
21	Spare Kits and Connectors	Complete Supporting Kits, connectors and cables.
22	Battery Power supply for minimum 60 hour profiling	Alkaline
23	Battery Charger	2 or 4 module Alkaline battery charger

24	Industrial PC	<ul style="list-style-type: none"> • 1 no of Industrial laptop capable for the marine survey using the CTD with preloaded OEM drivers and software. • Windows 7 or above • 320GB ROM, 8GB RAM DDR4, min 13" LED or LCD display • Laptop bag
25	Instrumentation spares (Spares list to be quoted as an option.)	Standard tool kit must be provided. Essential spares and consumables for the operation to be included in the offer.
26	Manuals, Technical literature	<ul style="list-style-type: none"> • Two sets of manual / The servicing manual • All necessary details such as drawings, dimensions, weights and power consumption of the system/subsystems to be provided along with the quote to facilitate assessment related to space and power requirements.
27	Case	<ul style="list-style-type: none"> • Molded/Wooden case for keeping CTD, Cables
28	Standard	Compliance to IHO Standards
29	Warranty	1 Year
30	Note: 1. AMC Cost for the CTD unit (Optional): 1 st yr = 2 nd yr = 3 rd yr = 4 th yr = 5 th yr =	

4. Eligibility

The bidder must have a strong presence of at least 10 years in the Indian market and should have supplied similar type of equipment to a govt agency

5. General

Items to be supplied along with calibration/test certificate.

6. Specification test

Specification of all items to be ensured by IITM before acceptance of the same.

7. Training

Hands on training to be provided to get operating knowledge of the items.

8. Dispatch

All items should be properly packed in the suitable box and it should be dispatched to NTCPWC,IITM,
Chennai-600036

9. Delivery

Items should be supplied within 8-12 weeks from the date of receipt of purchase order.

10. Validity

The offer should be valid for 90 days.

Done

