



CENTRAL ELECTROCHEMICAL RESEARCH INSTITUTE

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(Council of Scientific & Industrial Research)

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No: TEF 10044

Date: 06.09.2010

TENDER NOTICE

Sealed tenders are invited under Single-bid system from reputed manufacturers and their accredited/sole selling agents for “Supply, Installation, Commissioning and Satisfactory Demonstration” of the following item as per the following Terms & Conditions.

SL. NO	DESCRIPTION OF ITEMS	QTY
1	Potentiostat/Galvanostat/FRA with Operating Software – Suitable for field / outdoor usage [Detailed specification as per Annexure]	1 No

Last date for submission of Tenders : 06.10.2010 up to 5.00 PM (IST)

Date of opening of Technical Bid : 07.10.2010 at 3.00 PM (IST)

Terms & Conditions

1. The offer may be kept valid for at least 4 months to allow us to complete the import formalities.
2. The basic price, F.O.B Prices, Air Freight and other charges may be shown separately.
3. **Telex, Cable, Fax or e-mail bids will be accepted at the risk of the bidder.**
4. Please do not dispatch the goods until you receive a firm order from us.

Director, CECRI reserves the right to reject any or all the tenders without assigning any reason or to accept them in part or in full.

STORES & PURCHASE OFFICER

ANNEXURE

**Specifications for Potentiostat/Galvanostat/FRA with
Operating Software – Suitable for field / outdoor usage**

Power Amplifier

Compliance Voltage: $\pm 20\text{V}$

Maximum Current: $\pm 200\text{ mA}$

Rise Time: $< 1\mu\text{s}$ (No Load)

Slew Rate: $> 1\text{ V}/\mu\text{s}$ (No Load)

System Performance

Minimum Time Base: $20\mu\text{s}$

Minimum Potential step: $2.5\mu\text{V}$

Noise and Ripple: $< 50\mu\text{V}$ rms typical

Minimum Current Range: 200 nA (hardware)

Minimum Current Range: 4 nA after 50x gain

Minimum Current Resolution: 120 fA

iR Compensation

Positive Feedback

Range: $20\text{ M}\Omega$ to $20\ \Omega$ depending on current range

Current Interrupt

16 Bit DAC Potential Error Correction

Current Measurement

Ranges: 7 decades, 200 mA to 200 nA

Accuracy (dc)

$10\ \mu\text{A}$ to 100 mA : $< 0.4\%$ Full Scale

100 nA and $1\ \mu\text{A}$ Ranges: $0.5\% \pm 5\text{ nA}$ Full Scale

Frequency Response (small signal)

2 mA Range: -3 dB at $> 1\text{ MHz}$, 1 k source impedance

$20\ \mu\text{A}$ Range: -3 dB at $> 100\text{ KHz}$, 100 k source

Computer Interface

Universal Serial Bus

Differential Electrometer

Input Bias Current: <50 pA at 25°C

Max. Voltage Range: ±10V

Max. Input Voltage Differential: ±10V

Bandwidth: -3 dB @ >9 MHz

Common Mode Rejection:

>60 dB at 100 Hz

>50 dB at 100 kHz

Input Impedance: >10₁₀ Ω in parallel with <10 pF

Potential / Current Control

Digital / Analog Converters (DACs)

Bias DAC

Resolution: 16 bits

Range (Potentiostat): ±10V

Range (Galvanostat): ±100% of full-scale current

Modulation DAC

Impedance Specifications

Frequency Range: 10μHz-1MHz

Power Requirements

10-18 V DC

Softwares

Cyclic Voltammetry Software

Electrochemical Impedance Spectroscopy Software

Chronoamperometry/Chronopotentiometry Software

Corrosion Measurement Software

Electroanalytical Software

Electrochemical Impedance Analysis Software

WARRANTY: THREE YEARS

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