

**TECHNICAL SPECIFICATIONS-CUM-COMPLIANCE TABLE FOR  
PICO-AMMETER**

for

The Department of Civil Engineering, IIT Madras, Chennai

**NOTE:** For each specification, please enter “Yes” or “No” in the second column of this table. **If a cell in the second column is left blank, then it will be assumed that the quotation does not comply with the respective specification/requirement.** Provide catalogues, data sheets and/or other documentation to support the compliance of your equipment to the given specifications.

Specifications	Yes / No	Remarks
<b>1. General</b>		
The system should include components such as <ul style="list-style-type: none"> <li>• Pico-ammeter</li> <li>• Built-in battery</li> <li>• Triaxial cables, alligator clips, and bulkhead connectors</li> <li>• Software to operate the instrument</li> </ul>		
<b>The system should possess the following features or better</b>		
1.1 Current measurement range: 0.01 fA - 20 mA		
1.2 Resolution: < 1 pA		
1.3 Display resolution: $\geq$ 6 digits		
1.4 Accuracy: $\pm$ (1% + 10 fA)		
1.5 Measurement rate $\geq$ 10,000 readings/s		
1.6 Burden voltage $\leq$ 20 $\mu$ V		
1.7 Power supply: 220 V, 60 Hz		
1.8 Operating environment: 0 to 50 °C, 30 to 90 % RH		
1.9 Screen should support both graphical and numerical displays of measurements		
1.10 Time-domain view to capture current transients		
1.11 Auto navigation option to select optimal range (as mentioned in 1.1)		
1.12 Options to perform statistical analysis such as determining mean, standard deviation etc. without a separate computer		
1.13 Interface for USB 2.0, LAN, GPIB, LXI Core		
1.14 Indication of Current Overrange		
<b>Features of the Built-in battery</b>		
1.15 Built-in battery operation		
1.16 Capacity of battery $\geq$ 100 Wh		
1.17 Operating time: At least 6 hours		

<b>Features of the add-on accessories:</b>		
1.18 Length of triaxial cable $\geq$ 1 m		
1.19 Number of alligator clips $\geq$ 4		
1.20 Number of bulkhead connector $\geq$ 1		
<b>Features of the add-on software:</b>		
1.21 Software to operate the instrument <i>Specify key features in the Remarks cell</i>		
<b>Experience, Installation &amp; Training:</b>		
1.22 The company should have at least 15 years of experience in the field of electrical instrument and measurement systems		
1.23 Provide a list of IITs/government agencies, where similar equipment was supplied with email id and phone contact details		
1.24 Free installation of Pico-ammeter at IIT Madras		
1.25 Free hands-on training on the installation, operation, testing, data acquisition, maintenance, and emergency management of the instrument for minimum of two users, for one working day at IIT Madras		
1.26 Technical support to clarify queries from IIT Madras on subsequent usage of the instrument		
1.27 Before the final purchase order is released, a full-fledged demonstration at IIT Madras on the installation, current measurement, and data analysis on at least one test set-up is required. Online LIVE demonstration is also okay (due to COVID pandemic scenario). <i>Specify all that can be demonstrated in the Remarks cell</i>		

## **TERMS AND CONDITIONS**

1. Provide quotation for Pico-ammeter and add-on accessories
2. The quoted price should be inclusive of all taxes/freight/installation charges etc.
3. The quote should be prepared based on 5% GST considering Educational Institute/Research purpose.
4. Customs/Excise Duty exempted price should also be quoted.
5. The quotation should have at least three months validity.
6. Brand name of the equipment should be mentioned and brochure to be enclosed.
7. Warranty conditions, details of the nearest servicing centers, user reference, necessary supporting catalogues and demonstration should be provided.
8. The right to accept or reject quotes without assigning any reason rests entirely with the undersigned.
9. Authorized dealer certificate should be attached with tender.
10. If the date of receipt and opening of quotation is declared a holiday, the next working day shall be the last day for the purpose.
11. The item mentioned in the tender is for research purpose. Any specification which is above or below the defined values is not compatible for the studies and hence not fit to purpose and will be rejected. Only the specifications which is suitable for the research work will be considered for the next stage of the tender process.
12. Decisions made by the selection committee will be final.