



No. 03/2018/EE-3/21(KM)

Dated: 23/01/2018

*From :* The Head of the Department,  
Electrical Engineering,  
IEST, Shibpur, Howrah-711 103

*To :*

Enlisted vendors of the institute and other interested parties.

Dear Sir(s),

Sealed quotations are invited for supply of the following item(s) within **05/02/2018** (05:00 pm). The quotation should include the taxes as per rule, delivery charges, entry tax if any, etc. to Indian Institute of Engineering Science and Technology, Shibpur and should mention a firm delivery period. Preferences will be given to the suppliers who can supply ex-stock. **PRICES SHOULD BE QUOTED ON A PER-UNIT BASIS. QUANTITIES MENTIONED IN THE ENQUIRY TENDER ARE NOT FINAL AND MAY BE MODIFIED DEPENDING ON ACTUAL RATE QUOTED AND FUNDS AVAILABLE WITH US.**

*Yours faithfully,*

Signature of the indenting Officer/  
Concerned Faculty Member

Prof. & Head of EE Dept.  
IEST, Shibpur, Howrah – 711 103

## List of Items:

### **1. True RMS digital autoranging multimeter with automatic terminal blocking system**

– 6 no.s

#### Technical Specifications:

The multimeter should be able to measure true RMS voltage measurement in addition to measurements offered by any standard multimeter. Suitable batteries should be provided for powering it up.

#### Automatic Terminal Blocking System (ABS)

The automatic Terminal blocking system should prevent incorrect connection of the test leads and incorrect selection of the measured quantity.

#### MIN/MAX Value Storage

In addition to the display of the actual measured value, the minimum or maximum value should have the capability of being constantly updated and stored.

#### Indication of Negative Values on the Analog Scale

When measuring DC quantities, also negative values are to be shown on the analog scale so that variations of the measured value can be observed at the zero point.

#### Indication of Negative Values on the Analog Scale

The measuring principle employed should permit the measurement of the root-mean-square value (TRMS) of AC quantities and mixed quantities (AC and DC) regardless of the waveform.

#### Automatic Data Hold

The DATA HOLD function should make it possible to hold the digitally displayed measured value. It should be ensured that no freak value but the actual measured value is held in the case of rapid changes in measured quantities. The held measured value should appear on the digital display. The actual measured value should continue to be shown on the analog scale.

#### Auto-ranging / Manual Range Selection

The measured values should be selected with a rotary switch. The measuring range should be automatically matched to the measured value. The measuring range should also be selected manually via the AUTO/MAN push button.

#### Continuity Test

This should permit testing for short circuit and open circuit. In addition to the display, a facility of sound signal should be available.

#### Temperature Measurement

The meter should automatically detect the type of sensors connected to it & display directly measured temperature.

#### Power economizing circuit

The meter should disconnect automatically when the measured value remains unchanged for about 9-10 minutes with no operating control operative during this time. The disconnection facility should have the option to be disabled.

#### Overload Warning

A sound signal indication should be there while violation of the overload limits.

#### Protective holster for rough duty

A holster of soft rubber with tilt stand should protect the meter against damage in the case of shock and drop. The rubber material should make for the meter to stand firmly even on vibrating surface.

Product Specifications

AC Voltage Range 1mV to 1000V  
DC Voltage Range 10 $\mu$ V-1000V  
AC Current Range 1 $\mu$ A-10A  
DC Current Range (Amp) 100nA-10A  
Capacitance Range (F) 10pF - 30 $\mu$ F  
Frequency Range (Hz) 0.1 Hz - 100 KHz  
Operating Temperature -10<sup>0</sup> C -50<sup>0</sup> C  
Storage Temperature -25<sup>0</sup> C - 70<sup>0</sup> C  
Altitude 2000 m

**Warranty required: 3 years minimum**  
**Delivery to be completed within 6 weeks maximum**  
**Offer validity: 60 days**

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### Details of bidder

Job details: Supply and installation of **True RMS digital autoranging multimeter** at the Electrical Engineering Department, IEST Shibpur.

1. Name of the firm (in block letters):
2. Office Address:
3. Contact No. :
4. E-mail address:
5. Whether Proprietorship firm/partnership:
6. Name of the Proprietor/Partner(s):
7. Trade License No. :
8. GST No. :
9. Service Tax Registration No. :
10. PAN:
11. Bank A/C details:
  - a) A/C name:
  - b) A/C No:
  - c) Bank Name& Branch:
  - d) IFS Code:
12. Total Quoted Price\*: (In figure):  
(In words):

\*Detail of price given in attached quotation.

Signature with seal: \_\_\_\_\_