

Indian Institute of Technology Kanpur

Department Mechanical Engineering

**Enquiry for a portable hand held shaker**

Enquiry Number: IITK/ME/ML/2017-18/HHS

Enquiry date: 31-10-2017

Original closing date: 15-11-2017 (5 pm)

Extended closing date: 24-11-2017 (5pm)

Sealed quotations (in two separate envelopes marked separately as "Technical Bid" and as 'Financial bid' are invited as per the specifications and terms and conditions listed below.

Quantity required: one

**Specifications:**

- Portable hand held shaker (HHS) should output 1 g (9.81 m/s<sup>2</sup>) rms or 1 g peak acceleration ( $\pm 1\%$ ). Output should be selectable.
- Operating frequency should be  $\geq 20$  Hz and  $\leq 2000$  Hz.
- HHS should be useful to conveniently verify (calibrate) accelerometer performance (sensitivities)
- HHS should be powered by battery and should also be adaptable to AC
- Velocity Output: 9.81 mm/s rms
- Displacement Output: 9.81  $\mu$ m rms
- Transverse Output:  $\leq 3\%$
- Distortion: 0 to 100 gram load  $\leq 2\%$ ; 100 to 210 gram load  $\leq 3\%$
- Maximum Load: 200 gm
- Automatic Shut Off Time: 1 to 2.5 minutes
- Calibration cycles should be rated depending on the load
- Operating temperature range: -10 to 55°C
- Ramp-Up time:  $\leq 3$  sec
- Internal Battery: Type AA
- DC Power: 10 VDC; 2.4 amps
- Battery life: should be rated as per load
- Size (diameter x height): 60 mm x 200 mm maximum
- Weight:  $<1$  kg
- Accessories should include: a battery pack, wax sample, mounting base, stud, and a carrying case along with a storage box.

**Terms and Conditions:**

- Maximum education discount, if any should be offered
- Validity of quotation should be at least for 60 days
- The price quoted should be for delivery at Kanpur.
- Terms and conditions for the payment, including the banker's name of the principal and the account number
- Proprietary certificate, if relevant, should be provided.
- Delivery must be within 14 weeks from issuance of purchase order/indent
- The institute reserves the right of accepting and rejecting any quotation without assigning any reason.
- The indenter reserves the right to cancel the tender without being answerable.
- The Technical Bid should contain detailed technical specification of the product being offered and should not mention any price.
- The Financial Bid should include the detailed price quotation clearly including the cost of the equipment, taxes, service charges if any, shipping and handling charges.

Kindly submit the Technical and Financial bids in separate sealed envelopes addressed to:

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