

Government of India
Bhabha Atomic Research Centre
Electromagnetic Applications & Instrumentation Division

Ref No: BARC/EMAS/0/2021/PT/P-12572

03/11/21

.....whomsoever it may concern.....

Sub: Supply and warranty of custom torque measurement instrument along with signal processing and display unit as per attached specification


Dear Sir/Madam,

1. Quotations are invited Supply and warranty of custom torque measurement instrument along with signal processing and display unit as per attached specification
2. Bidder shall quote for Supply and warranty of custom torque measurement instrument along with signal processing and display unit as per attached specification.
3. Taxes and Excise Duties shall be quoted separately. Form AF / H whichever is applicable shall be provided, if required.

The quotation must reach The Head, Electromagnetic Application & Instrumentation Division by 11/11/21 12:PM and must be sent in a sealed envelope super scribed with the reference number & the due date given above only through India Ordinary Post/Speed Post. (11/11/21 - 12PM)

4. The address on the envelop should read: The Head,
Electromagnetic Application & Instrumentation Division,
RCnD Bldg., North Site
BARC, Trombay,
Mumbai - 400 085.
(Kind Attn: P Trivedi, SO/F)
5. The bidder shall complete the job within 3months from the date of firm work order issued to the bidder.
6. Head, Electromagnetic Application & Instrumentation Division reserves the rights to accept / reject any or all quotations without assigning any reason.
7. Quotation must also indicate the validity of offer. Quotation must also indicate the GST No and PAN number of the supplier.
8. The quotation has to be signed by authorized person with company seal.
9. Payment will be made by EFT only after satisfactory completion of work on production of bill, delivery challan and advance stamped receipt. Income tax as applicable will be collected at the time of payment.
10. In case of any technical clarifications, the supplier may kindly contact the indenting officer through Email only. (Email ID:praveent@barc.gov.in)

Encl.: Technical Specification Sheet no: Annexure-B


P Trivedi
SO/F,EMAS,EmA&ID

Annexure -B
Technical specification of Torque measurement instrument

1.0 Scope : - The tender is invited for supply and warranty of torque measurement instrument along with signal processing and display unit as per specification attached.

- Para 2 gives the technical requirements of torque meter
- Para 3 gives deliverables
- Para 4 gives general instructions
- Para 5.0 requirement of packaging and safe delivery
- Para 6.0 Confidentiality requirement

2.0 Technical requirements:

The detail specification of the indented items is given as follows: The torque meter measures the torque applied to the rotating shaft with the strain gauge transmit it to receiving section by non-contact and outputs as voltage. It should measure rotating torque, power and speed.

Technical specification	value
Rated capacity	±200Nm
Power supply input	DC 24volt
Consumption current	Max 150mA
Signal output	±5volt DC
Load resistance	>2kohms
Responsivity	1kHz
Pulse output	4 pulses output/rotation
Signal delay	0.6ms
Safe overload	500%FS
Non linearity	0.03%FS
Hysteresis	0.03%FS
repeatability	0.03%FS
Operation temp range	-10 to 50 degC
Temperature effect on zero	0.01%FS/degC
Temperature effect on span	0.01%FS/degC
Maximum rotation speed	12000 rpm
Torsional spring constant	41.7x10 ³ NM/rad
Inertia moment	1.4x10 ⁻⁴ kgm ²
Torsional rotational frequency	8.5khz
	6 wires
Cable	Display unit should be compatible with the meter and should display torque, rpm and power.
Display unit	

Note: - The torque meter is to be tested with motor shaft so 30 mm -20mm coupling for no load coupling is to be provided along with torque meter.

3.0 Deliverables: -

S.No.	Description	Value /qty
1	Torque meter with accessories as per technical specification attached	1 set

	Maintenance and user manual along with calibration test certificate	
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4.0 General Instructions

- i) Suppliers shall enclose the complete product sheet and user manuals along with offer. Calibration certificate of meter should be attached. Otherwise their offer may be rejected. Either principal or agent shall submit their offer.
- ii) Overall cost will only be compared and should include packaging, forwarding and safe delivery to BARC at RCZ stores.

5.0 Requirement of packaging and safe delivery

- a. Protective covers: Supplier shall make necessary arrangements for all components using a suitable PVC cover or moulded thermocol. Proper care should be taken while handling the component during fabrication, inspection, testing and packing.
- b. Packaging: After completion of all testing and identifying the components, the components shall be packed suitably for shipment, so that no damage occurs in transit. The purchaser shall subject the packing procedure to prior approval. At least one copy of packing list shall be kept in the package for quick and easy verification

6.0 CONFIDENTIALITY CLAUSE

- 8.1 No party shall disclose any information to any third party concerning the matters under this Contract generally. In particular, any information identified as "Proprietary" in nature by disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to sub-contractors, consultants, advisors or the employees engaged by a party with equal force.
- 8.2 "Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "Official secrets" under section 5 of the Official Secrets Act, 1923: Any contravention of the above mentioned provisions by any contractor / sub-contractor, consultant, advisor or the employees of the contractor will invite penal consequences under the aforesaid legislation
- 8.3 Prohibition against the use of BARC's name without permission for publicity purpose. The contractor or subcontractors, consultants, advisors or the employees engaged by a party shall not use BARC's name for publicity purpose through any public media like: press, radio, TV or Internet without any prior approval of BARC (wide circular ref.: 2/Misc -9/Lgl/2001/92 date 30/04/2001)