## वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद् Council of Scientific & Industrial Research राष्ट्रीय वांतरिक्ष प्रयोगशालाएं National Aerospace Laboratories



CSIR - NAL Estd. 1959 ISO 9001 : 2015 Certified Organization

### INVITATION FOR BIDS/NIT

#### Tender No. NAL/PUR/SID/556/20-Y

#### Dated: 29-Mar-2021

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

SI.No.	Description of Items	Unit	Quantity
1	1000kN load cell	Nos	02
	Please refer annexure for detailed specification.		_

Single / Double Bid	Single	Tender Type	Open
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation	Bid submission end date	19-Apr-2021 10.00 Hrs
Performance Security	3% of the purchase order value	Bid opening date	20-Apr-2021 11.00 Hrs

- 01. Tender Documents may be downloaded from Central Public Procurement Portal <u>https://www.etenders.gov.in</u>. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website <u>https://www.etenders.gov.in</u>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
- 02. Tenderers can access tender documents on the website (For searching in the NIC site <u>https://www.etenders.gov.in</u>, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <u>https://www/etenders.gov.in</u> as per the schedule given in the next page.
- 03. Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different Foreign principals in one tender.
- 04. Unsolicited / conditional / unsigned tenders (Quotations)/Quotations received after the due date and time **shall be summarily rejected**. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
- 05. The Bidders proposing to supply finished products directly/indirectly from vendors of countries sharing the land border with India should submit copy of registration done with the Ministry of Home Affairs and Ministry of External Affairs.
- 06. If the Products supplied are not from vendors of countries sharing land border with India, the Bidders have to enclose a declaration to that effect.

The bids of those Bidders failing to comply with the above clauses will be summarily rejected.

पी बी सं. 1779, एचएएल एयरपोर्ट रोड, कोडिहल्ली, बेंगलुरु - 560 017, भारत, P B No 1779, HAL Airport Road, Kodihalli, Bengaluru - 560 017, INDIA फोन / Phone : (का./ Off) : +91 - 80 - 2508 6040 - 45, फैक्स / FAX : +91-80-2526 9611



CSIR-National Aerospace Laboratories, Bengaluru-560 017, INDIA

- 07. Bidders are requested to refer to the instruction regarding Procurement Policies for Make in India issued by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion dated. 28-May-2018 and 4-Jun-2020 and guidelines as and when issued.
- 08. The prospective bidders are requested to refer to the Standard Terms and Conditions available on NAL Internet (<u>www.nal.res.in</u>) under the icon Tender-Purchase before formulating and submitting their bids
- 09. The Director, CSIR- National Aerospace Laboratories, Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.

nan Kumar Stores & Purchase Officer

# **Technical Specification of Load Cell**

Axial loading (Tension & Compression) pancake / doughnut type load cell is required for the structural test application. The indented load cell will be fastened on the actuator piston and used along with servo hydraulic control hardware / signal conditioner as a force control / measurement device for the structural testing applications. Following are the essential features required for the load cell.

- 1. Load cell should have max static load capacity of  $\pm 1000$  kN.
- 2. Load cell should have dual bridge for simultaneous utilization closed loop control as well as data acquisition.
- 3. Load cell should support the DC excitation voltage of  $\pm 10$  V.
- 4. Sensitivity of the load cell should be 2mv/V or more.
- 5. Electrical Connection 6 wire, min 3m Detachable cable with Threaded or Bayonet connector on the load cell side and 15 pin D type connector at the other end. Totally 6 cables to be supplied.
- 6. Load cell should have strain gages of bonded foil type and hermitically sealed.
- 7. Load cell should have precision-machined column design /Adapter foot for protection against side load and bending moment.
- 8. Load cell should have standard size threads (Female Type) to sustain max load on either side.
- 9. Load Cell Output Positive for Tension & Negative for Compression.
- 10. Operating Temperature Range:  $-20^{\circ}$  C to  $+85^{\circ}$  C.
- 11. Non-Linearity / Measurement Error/ Tolerance Should be less than  $\pm 0.5$  % FS.
- 12. Traceable Calibration certificate / OEM Test Certificate should be provided for both tension & compression (F.S).
- 13. Pin configuration should be engraved / provided for the load cell.
- 14. Load cell outer surface should be painted with metallic black/grey color / SS finish.
- 15. Material of the load cell should be corrosion / rust free preferably SS.
- 16. Load cell to be supplied should meet IP68 requirements.
- 17. Static over load capacity of the load cells should be minimum 2 times the static capacity.
- 18. Load cell should have sticker/ engrave with the information such as serial no, max load capacity, pin details etc.
- 19. Warranty should be provided for 12 months from the date of acceptance



#### BID-SECURING DECLARATION FORM

Date:		

Bid No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

(a)	have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or			
(b)	having been notified of the acceptance of our Bid by the purchaser during the period of bid validity			
	(i) fail or refuse to execute the contract, if required, or			
	<ul> <li>(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.</li> </ul>			

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of: (insert complete name of Bidder)

Dated on \_\_\_\_\_\_ day of \_\_\_\_\_\_(insert date of signing)

#### Corporate Seal (where appropriate)

Note:

- 1. In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.
- Bid Security declaration must be signed in by the Proprietor/CEO/MD or equivalent level of Officer of the company.