वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्

Council of Scientific & Industrial Research

राष्ट्रीय वांतरिक्ष प्रयोगशालाएं **National Aerospace Laboratories**



INVITATION FOR BIDS/NIT

Tender No. NAL/PUR/ACD/296/20-Y

Dated: 07-Dec-2020

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	High Temp. application linear Strain Gauge with 1 meter pre-attached 3-wire twisted lead wire, Gauge length: 3mm, Resistance: 350 Ω and Temperature (gauge	Nos	1200
	& wire):300 °C. The lead wire attachment is shown in figure 1		
2	High Temp. application linear Strain Gauge with 1 meter pre-attached 3-wire twisted lead wire, Gauge length: 1mm, Resistance: 350 Ω and Temperature (gauge & wire):300 °C. The twisted lead wire and its attachment is shown in figure 2	Nos	400
	Please refer Annexure for detailed specification.		

Single / Double Bid	Single
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation
Performance Security	Nil

- Tender Documents may be downloaded from Central Public Procurement Portal https://www.etenders.gov.in. 01. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website https://www.etenders.gov.in. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
- Tenderers can access tender documents on the website (For searching in the NIC site https://www.etenders.gov.in, 02 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 https://www/etenders.gov.in as per the schedule given in the next page.
- Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not 03. 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.
- Unsolicited / conditional / unsigned tenders (Quotations) shall not be considered. Quotations received after the due 04. 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 prospective bidders are requested to refer to the Standard Tender Document available on NAL Internet 06. (www.nal.res.in) under the icon Tender-Purchase before formulating and submitting their bids
- The Director, CSIR- National Aerospace Laboratories., Bengaluru reserves the right to accept any or all the tenders 07. either in part or in full or to split the order without assigning any reasons there for.
- Participation in this tender is by invitation only and is limited to the selected bidders. Unsolicited offers are liable to 08. be ignored. However, bidders who desire to participate in such tenders in future may bring it to the notice of Procuring Entity and apply for registration.

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<u>Technical specification of High Temperature application linear Strain Gauge (3mm gauge length)</u>

Sl. No.	Describuon	
1	Type of gauge	High Temp. Single Element Linear Strain Gauge
2	Gauge dimensions (L x W)	3x3.1mm
3	Gauge Backing dimensions (L×W)	10.2x5.2mm
4	Resistance	$350\Omega \pm 0.5\Omega$
5	Operating temperature range	-20°C to +300°C or better
6	Thermal Exp. Coefficient	3-11ppm/°C
7	Lead wire configuration	3-wire
8	Pre-attached leads with length	1m, 3-wire twisted fluorinated resin (PTFE) lead wire
9	Maximum stain	1% (10,000 με) or better
10	Fatigue life strain level no. of cycles	±1,500με, 1x106
11	Gauge factor	Approx. $2.1 \pm 1\%$
12	Gauge Grid Material	Ni-Cr alloy
13	Gauge Backing Material	Polyimide resin



Figure 1

Note:-

- 1. Vendor should submit list of government Institutions/departments wherein similar type of strain gauges were supplied in the last 3 years along with their contact details.
- 2. CSIR-NAL reserves the right to verify the information provided by vendor. In case information is found to be false/incorrect, the offer shall be summarily rejected.
- 3. Vendor should compulsorily mention quantitative and qualitative remarks against each of the parameter mentioned in the document. Only mentioning "OK/Accepted/Agreed/confirmed/will be complied "or such remarks would render the offer to be rejected.

Technical specification of High Temperature application in linear Strain Gauge (1 mm gauge length)

Sl. No.	Description		
1	Type of gauge	High Temp. Single Element Linear Strain Gauge	
2	Gauge dimensions (L x W)	1x1.7mm	
3	Gauge Backing dimensions (L×W)	6.6 x 3.2mm	
4	Resistance	$350\Omega \pm 0.5\Omega$	
5	Operating temperature range	-20°C to +300°C or better	
6	Thermal Exp. Coefficient	3-11ppm/°C	
7	Lead wire configuration	3-wire	
8	Pre-attached leads with length	1m, 3-wire twisted fluorinated resin (PTFE) lead wire	
9	Maximum stain	1% (10,000 με) or better	
10	Fatigue life strain level no. of cycles	±1,500με, 1x106	
11	Gauge factor	Approx. $2.1 \pm 1\%$	
12	Gauge Grid Material	Ni-Cr alloy	
13	Gauge Backing Material	Polyimide resin	



Figure 2

Note:-

- 1. Vendor should submit list of government Institutions/departments wherein similar type of strain gauges were supplied in the last 3 years along with their contact details.
- 2. CSIR-NAL reserves the right to verify the information provided by vendor. In case information is found to be false/incorrect, the offer shall be summarily rejected.
- 3. Vendor should compulsorily mention quantitative and qualitative remarks against each of the parameter mentioned in the document. Only mentioning "OK/Accepted/Agreed/confirmed/will be complied " or such remarks would render the offer to be rejected

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				
(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.				
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. 2. Bid Security declaration must be signed in by the Proprietor/CEO/MD or equivalent level of Officer				

of the company.