



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

INVITATION FOR TENDERS

Tender No. NAL/PUR/STTD/158/23

Dated: 07/10/2024

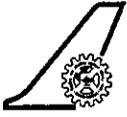
CSIR - National Aerospace Laboratories (NAL), Bengaluru, Republic of India, is one of the premier research laboratories under aegis of Council of Scientific and Industrial Research (CSIR), an autonomous body under the Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organisation. 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.

Sl. No.	Description of Item(s)	Unit	Quantity
1	Kulite Pressure Transducer: Tubular type (XCS-062-25A) As per attached specifications	Nos	05
2	Kulite Pressure Transducer: Flat Type (LQ-125-25A) As per attached specifications	Nos	06

Single / Double Bid Only	Single	Tender Type	Global Tender
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation	Bid submission end date	07-Nov-2024 10.00 Hrs
Performance Security	Nil	Bid opening date	08-Nov-2024 11.00 Hrs

- Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not registered in e-procurement can register free of cost before participating through the website <https://www.etenders.gov.in>. 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>, kindly go to Tender Search option, select tender type and select 'Council of Scientific and Industrial Research', in organisation 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.
- a. Global Tender Enquiry: 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 authorisation letter from their principal. To maintain sanctity of tendering system, one Indian Agent **cannot** represent two different Foreign principals in one tender



- b. Open Tender enquiry: Only Local suppliers with prescribed local content as detailed in DIPPT Order No. P-45021/2/2017-PP (BE-II) dated 16th Sep, 2020 and subsequent orders issued by Ministry of Finance (GoI) from time to time, are eligible for bidding. Bidders must enclose the certificate declaring the local content of supplies as per our standard form.

Note: Kindly refer to the first page (NIT) for tender type (i.e. Open Tender Enquiry / Global Tender Enquiry) and submit your bid accordingly.

04. Unsolicited / conditional / unsigned 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 bids' failing to comply with the following clauses will be summarily rejected.
- a. The Bidders' proposing to supply finished products directly/indirectly from vendors' of countries sharing the land border with India should submit a copy of registration done with DPIIT.
- b. 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.
06. As per Govt. of India procurement policies,
- a. The purchaser intends to give purchase preference to local supplies (Preference to Make in India) in case the cost of procurement is up to Rs. 50.00 lakhs.
- b. The procuring entity intends to give purchase preference to products/goods manufactured by micro, small and medium enterprises.
07. Bidders' are requested to refer to the instructions 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. Kindly, note CSIR-NAL **GST No. 29AAATC2716R1ZB**. And the bidders are requested to furnish their GST No. in their invoice failing which we will *not* be able to make timely payment.
09. Printed conditions, if any, submitted along with your quotation shall not be binding on us.
10. The prospective bidders' are requested to refer to the Standard Terms and Conditions available on NAL Internet (www.nal.res.in) under the icon Tender-Purchase before formulating and submitting their bids'.
11. 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.

Thanking you,

Yours faithfully

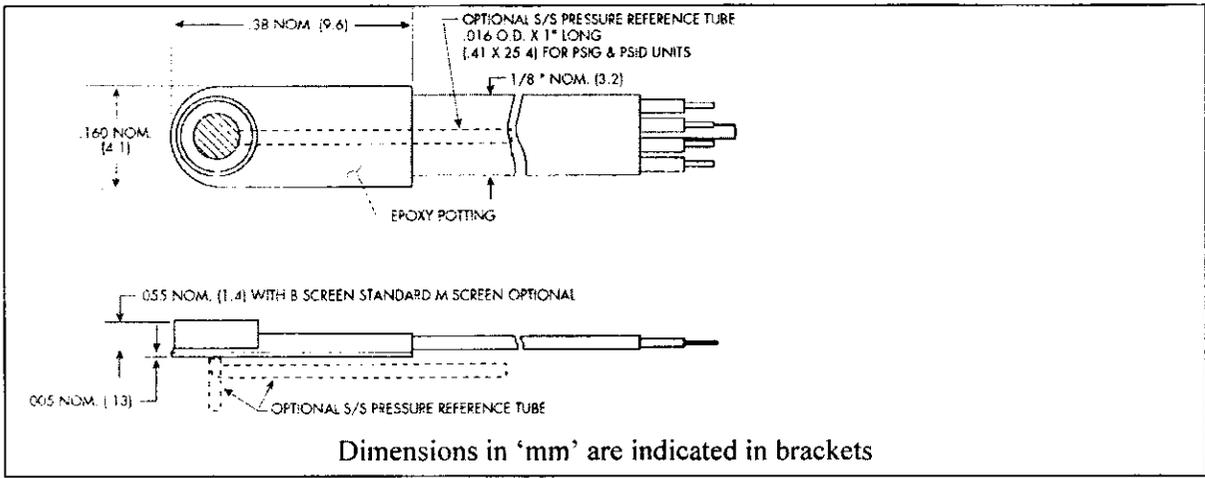

SO (S&P) / SPO

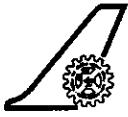
For and on behalf of CSIR-NAL



Specifications for Flat Type Pressure Transducer (LQ-125-25A)	
Description	Specification
Sensor type	Flat
Pressure Range	25 PSI
Operational Mode	Absolute, Sealed Gage
Over Pressure	2 Times Rated Pressure With No Change in Calibration
Burst Pressure	3 Times Rated Pressure
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases
Rated Electrical Excitation	10 VDC/AC
Maximum Electrical Excitation	15 VDC/AC
Input Impedance	1000 Ohms (Min.)
Output Impedance	1000 Ohms (Nom.)
Full Scale Output (FSO)	100 mV (Nom.)
Residual Unbalance	± 5 mV (Typ.)
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFUL (Typ.), ± 0.5% FSO (Max.)
Resolution	Infinitesimal
Natural Frequency (KHz) (Typ.)	240
Acceleration Sensitivity % FS/g	
Perpendicular	5.0×10^{-4}
Transverse	5.0×10^{-4}
Insulation Resistance	100 Megaohm Min. @ 50 VDC
Environmental - Operating Temperature Range	-65°F to +250°F (-55°C to +120°C)
Compensated Temperature Range	+80°F to +180°F (+25°C to +80°C)
Thermal Zero Shift	± 1% FS/100°F (Typ.)
Thermal Sensitivity Shift	± 1% /100°F (Typ.)
Steady Acceleration	30,000 g. (Max.)
Linear Vibration	10-2,000 Hz Sine, 100g. (Max.)
Physical - Electrical Connection	4 Conductor 32 AWG Ribbon Cable 36" Long
Weight	0.2 Grams (Nom.) Excluding Cable
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon

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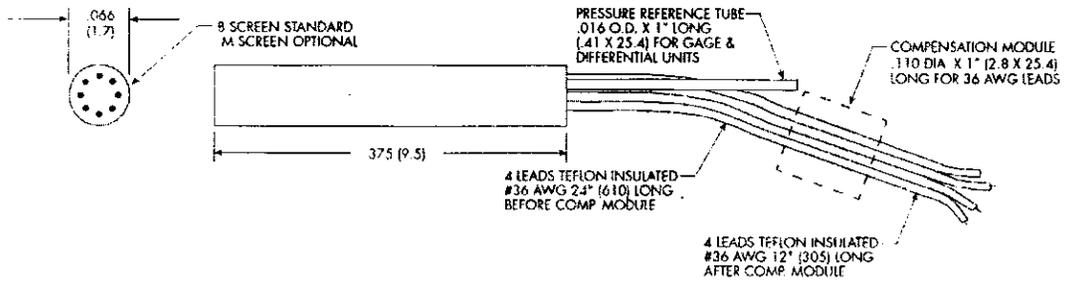
NAL/PUR/STTD/158/23

Date: 07-10-2024

Specifications for Tubular Type Pressure Transducer (XCS-062-25A)

Description	Specification
Sensor type	Tubular
Pressure Range	25 PSI
Operational Mode	Absolute
Over Pressure	2 Times Rated Pressure With No Change in Calibration
Burst Pressure	3 Times Rated Pressure
Pressure Media	All Nonconductive, Noncorrosive Liquids or Gases
Rated Electrical Excitation	10 VDC/AC
Maximum Electrical Excitation	15 VDC/AC
Input Impedance	1000 Ohms (Min.)
Output Impedance	1000 Ohms (Nom.)
Full Scale Output (FSO)	125 mV (Nom.)
Residual Unbalance	± 5 mV (Typ.)
Combined Non-Linearity, Hysteresis and Repeatability	± 0.1% FSO BFSL (Typ.), ± 0.5% FSO (Max.)
Resolution	Infinitesimal
Natural Frequency (KHz) (Typ.)	240
Acceleration Sensitivity % FS/g	
Perpendicular	5.0×10^{-4}
Transverse	6.0×10^{-5}
Insulation Resistance	100 Megaohm Min. @ 50 VDC
Environmental -	
Operating Temperature Range	-55°C to +120°C
Compensated Temperature Range	25°C to +80°
Thermal Zero Shift	± 1% FS/100°F (Typ.)
Thermal Sensitivity Shift	± 1% /100°F (Typ.)
Steady Acceleration	10,000g. (Max.)
Linear Vibration	10-20,000 Hz Sine, 100g. (Max.)
Physical - Electrical Connection	4 Leads 36 AWG 30" Long
Weight	0.2 Gram (Nom.) Excluding Module and Leads
Pressure Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon

(mm)
07/10/2024



Dimensions in 'mm' are indicated in brackets