



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR – 721 302, INDIA

No. IIT/PHY/SPIN/AKD/LN2

Date : 20-09-2018

Sub: Procurement of Equipment

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed bids from Indian reputed manufacturers who have adequate credential for supply/installation of **customer designed low temperature cryostat** for the items as per the specifications given below for the **Department of Physics**, Indian Institute of Technology, Kharagpur, India. All these experimental units (standalone complete setups) are required for dedicated use in UG and PG laboratory courses.

Interested parties may submit their sealed bids under Two-cover system as per **Technical Specifications** and **General Terms & Conditions** given below. Bidders are required to submit their **Details** along with their technical bids.

The tender be sent in a sealed packet, containing two separate sealed envelopes (one each for **Technical Bid and Price Bid**) along with prescribed tender fee and Earnest Money Deposit (EMD) duly superscripted with **Tender Notice No. IIT/PHY/SPIN/AKD/LN2, dated 20-09-2018 to Prof. Amal Kumar Das, Department of Physics, Indian Institute of Technology Kharagpur, P.O. Kharagpur Technology, PIN 721 302, West Bengal, India on or before 23-10-2018 by 4:00 PM.**

For any query pertaining to this bid document, communication be address to **Professor Amal Kumar Das**, Department of **Physics**, Indian Institute of Technology, Kharagpur-721302 [Ph.: 913222-283824]

The technical bid will be evaluated first and price bids will be opened only in respect of those OEMs/Vendors, who are found technically qualified after evaluation of Technical bids.

The **Technical bids will be opened on 23-10-2018 at 5:00 p.m.** in the Office of Head, Department of Physics, Indian Institute of Technology Kharagpur.

Copy to :

1. Institute website
2. CPPP

Head, Deptt. of Physics
For Director, IIT, Kharagpur

Technical Specifications of the Equipment: Customer designed low temperature cryostat

Specifications and primary conditions:

- (a) Customer designed cryostat as shown in figure. The company may suggest better design to fit into our existing CBM set up.
- (b) Working temperature : Room temperature (RT) to LN2 temperature (80 K)
- (c) Temperature stability : < 2 degree
- (d) Non-polarizable and highly transparent optical window of 35 mm dia.
- (e) RTD type foil sensors of 8 mm x 8 mm size.
- (f) Foil heaters of 25 mm x 10 mm size.
- (g) Use of nonmagnetic stainless steel and copper materials for cryostat.
- (h) Mylar radiation shield
- (i) Solenoid valve for controlling LN2 flow.
- (j) Temperature controller.

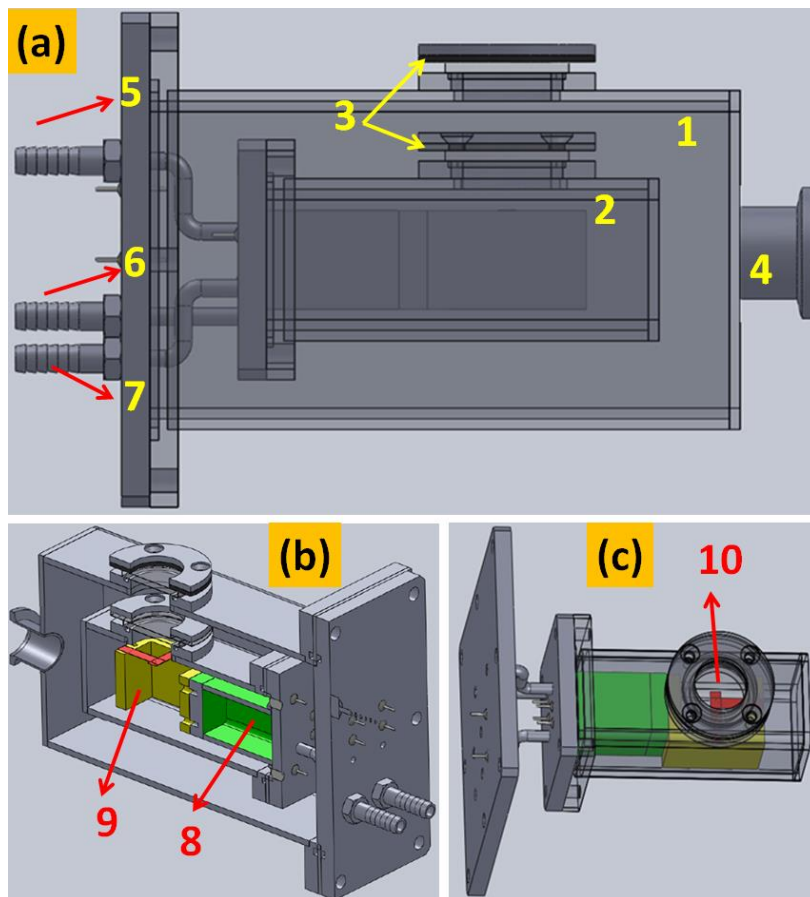


Figure: Design of the Liquid Nitrogen (LN₂) flow cryostat (a) side view, (b) cross sectional view, and (c) top view: (1) outer chamber; (2) inner chamber; (3) window ports for inner and outer chambers; (4) outer chamber vacuum port; (5) LN₂ outlet; (6) inner chamber vacuum port as well as electrical feed through for thermocouples and heater; (7) LN₂ inlet; (8) rigid mini tank for LN₂ storage; (9) rigid substrate holder (copper cold head) and (10) cantilever substrate.

GENERAL TERMS and CONDITIONS

- (1) Since several physical visit of manufacturer to our lab may be required to adopt the item to the existing CBM set up, only Indian Manufacturer should submit *two-parts* bid, Technical and Commercial bid in separate sealed envelopes. The main equipment as well as the modules should have **warranty of FIVE year**.
- (2) While submitting the technical bid, the company must undertake to ensure continued availability of adequate number of technically qualified Service Engineers for the Equipment during the period of supply, installation and throughout the warranty period.
- (3) Period of validity: Bids shall remain valid for acceptance for a period of *Four months* (120 days) from the date of opening of Price Bids.
- (4) Conditional offer will not be accepted.
- (5) Late Tenders:- Tender received after the due date and time of submission as mentioned below shall not be accepted.
- (6) All Tenders (unless otherwise specified) are to be submitted/handed over to Professor Amal Kumar Das, *Department of physics, IIT Kharagpur-721302*.
- (7) The person attending the bid opening session should be delegated with appropriate Power of Attorney (duly endorsed by a Notary Public) by the Chief Executive Officer of the Company to sign such documents. Only two persons on behalf of each Company will be allowed to participate/attend the Bid opening session.
- (8) Bid once submitted shall be the property of IIT Kharagpur and shall not be returned to the vendor at any time.
- (9) A bid submitted with false information will not only be rejected but the vendor may also be debarred from participation in future tendering process.
- (10) Canvassing in any form not only invites disqualification in this tender but may also result in debarring the vendor from participation in the future tendering process.
- (11) The vendor may be required to give presentation. Demonstration on the systems offered where vendor has installed and integrated similar solution may need to be arranged by the vendor at their own cost.
- (12) The Company must be able to provide an all-inclusive Comprehensive Annual Maintenance Contract for the equipment beyond the Warranty Period. The Institute would like to enter into Comprehensive Maintenance Contract beyond initial warranty Period with the manufacturer. No advance payment towards CMC without submission of equivalent amount of Bank Guarantee is admissible.
- (13) The installation must be completed within 15 days from the date of receipt by this institute. The presence of Service Engineer from the principal at the time of installation is essential.
- (14) **DEVIATION FROM SPECIFICATIONS:** It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if the tenderer makes any deviations, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements; otherwise, your tender will not be considered at all.
- (15) **PRICE:** Prices quoted should be for supply, installation and commissioning at I.I.T. Kharagpur. Discount, if any, should be indicated separately/prominently. The order acknowledgement should be issued by Fax within 3 days, and the item should be airlifted within 30 days from the date of receipt of the purchase order.
- (16) **PAYMENT:** Payment for indigenous items quoted in Indian Rupees will be made only after completion of supply, installation and commissioning of the Systems to the entire satisfaction of the Purchaser. No Advance Payment will be made for Indigenous Purchase.
- (17) **TENDERERS SHALL SUBMIT ALONG WITH THEIR TENDER:**
 - i) Complete address and tele links for contact persons in Manufacturer office dealing with this purchase.
 - ii) Name and full address of the OEM's Banker and their swift code.
 - iii) Proof of having ISO 9001 or other equivalent certification given by appropriate authorities.
 - iv) **EARNEST MONEY DEPOSIT: TENDERER MUST SUBMIT AN EMD OF RS. 5000/- (_REFUNDABLE) IN THE FORM OF BANK DRAFT/BANK GUARANTEE IN FAVOUR OF "INDIAN INSTITUTE OF TECHNOLOGY,**

- KHARAGPUR". It should be placed in the cover containing of Technical Bid.
- v) TENDER FEE: TENDER FEE OF TOTAL RS.____Rs. 1000/-_____IN THE FORM OF BANK DRAFT MUST ACCOMPANY THE TENDER. It should be placed in the cover containing the Technical Bid.
 - vi) Compliance comparison of specifications and terms and conditions

- (18) Note that the EMD and tender fee are not required who are eligible for exemption as per Govt. rule.
- (19) Quotations should be submitted in Separate Sealed Cover (with Sealing Wax). The quotation should be in typed format. No manual entries are allowed and any manual entry will entail rejection at the opening stage itself.
- (20) The institute may accept or reject any or all the bids in part or in full without assigning any reason and does not bind him to accept the lowest bid. The Institute at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the Purchase Order.
- (21) In case of any dispute, the decision of the Registrar of this Institute shall be final and binding on the Bidders.
- (22) For any query pertaining to this Bid document correspondence may be addressed to :-

Professor Amal Kumar Das, Department of Physics
Indian Institute of Technology, Kharagpur - 721302 [Ph.: 91-3222-283824]

N.B.: In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however remain unchanged. Please Note that the Institute remains closed on Saturday & Sunday.