Under Certificate of Posting

Department of Physics, Indian Institute of Technology IIT.P.O. Madras-600 036

Ref. No. Date. 17.10.13

PHY | 2013 | 017 | STORES

To

Dear Sir, DUE DATE: 07.11.13

1. Quotations are invited in duplicate for the item shown below/overleaf/ enclosed list.

- 2. The quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
- 3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
- 4. If the item is under DGS &D RATE CONTRACT, RC No.and the price must be mentioned. It may be also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the RC (Please note that we are not Direct Demanding Officers)
- 5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
- 6. **Local Firms**: Quotations should be for free delivery to this Institute. If Quotations are for Ex-godown . delivery charges should be indicated separately.
- 7. **Firms outside Chennai**: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train/lorry transport must be indicated. If Ex-godown, packing, forwarding and freight charges must be indicated.
- 8. The rate of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim, for Sales/General taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales tax Certificate will be issued at the time of final settlement of the bill.
- 9. Goods should be supplied carriage paid and insured.
- 10. Goods shall not be supplied without an official supply order.
- 11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

Specification enclosed- Please indicate compatibility with specifications

Yours Sincerely

Dr. Manu Jaiswal

HEAD/CO-ORDINATOR

Minimum Specifications for <u>CRYOGENIC TEMPERATURE</u> <u>CONTROLER AND ACCESSORIES</u>:

- 1. Two (or more) sensor inputs.
- 2. Two (or more) adjustable PID controlled loops with 50W/25W and 1W/75W ranges to cover wide range of cryogenic systems.
- 3. Autotuning ability for estimating PID parameters. Additional manual PID control option.
- 4. Autosensor switch for continuous operation from 500 mK to 1000 K
- 5. Digital LED display and control via front-panel keypad.
- 6. GPIB IEEE488 and USB interfaces. Labview compatible.
- 7. Pre-stored standard calibration sensor curves and provision for user provided sensor curves
- 8. Compatible with Diode (Si, GaAlAs), RTDs in 4-terminal and 2-terminal mode (e.g. Platinum-100) and Thermocouple sensors.
- 9. Option for set-point ramping.
- 10. Heater output resolution 1 % or better.
- 11. Cable assembly for both sensors and heaters.
- 12. Pt-100 temperature sensor for flat mounting for use with temperature controller.

Any accessories, cables, connectors, cords, matching connectors for cable assembly, user manual needed for complete and satisfactory operation of temperature controller.

Statement of Warranty must be clearly included.

Optional Accessories (to be listed separately):

- 1. Cryogenic Tape.
- 2. 4-lead resistive sample holder.
- 3. Cartridge Heater 25 Ohm, 25 W.
- **4.** Heat Sink Chips (1 unit)

Please indicate compatibility with specifications.