

**GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
CHEMICAL TECHNOLOGY GROUP
Control System Development Division**

NOTICE INVITING TENDER

Tender Ref. No. CSDD/SP/2022/175

Date : 12/4/22

Sealed quotations are invited on behalf of President of India by Head, CSDD/BARC, CEL-V, Mumbai-400096 for the following work from contractors;

Name of work: Fabrication and Supply of Custom Built Advanced Controller With Micro Controller Boards as per attached specification in Annexure-I

Parties who have done similar works of similar magnitude and quality for BARC or any other unit of DAE may only quote with proper credentials. Any bid without substantiation of this information will be summarily rejected.

1. Period of completion: 180 days from the date of issue of work order.
2. Sealed Quotations should be submitted only through speed post through Indian Postal Service.
Hand delivery of quotation will not be accepted.
3. Since BARC is a protected area, the party shall arrange **Police Verification Certificate** for their engineers and workmen as per the security guidelines of BARC before the issue of work order.
4. Enquiries will be issued to the eligible vendors from 14/4/2022 onwards between 10:30 hrs to 16:00 hrs (only on working days).
5. Sealed quotations will be received upto 12:00 hrs on 25/4/2022 and will be opened on 26/4/2022 14:30hrs.

The Head, Control Measurement & Drives Section, BARC reserves the right to accept or reject any or all quotations without assigning any reason.

Custom Built Controller Housing With Micro Controller Boards

Description:

The Custom Built Controller Housing is as shown in Fig.1. And the size will be as shown in the table. The housing will be made of Aluminium, powder coated with proper structure to make it sturdy. (HE 30 Hindalco S1 Grade Aluminium Front Back Sides Anodized, Top Bottom Powder Coated)

The controller box is table top mounting type. The controller box will be housing 2 electronic cards with high speed switching circuits so proper care should be taken in case of internal wiring to reduce EMI/EMC. The mounting rails shown in the diagram will be housing the PCB boards. The supplier will have to provide all the internal hardware required for wiring the controller cards (supply of controller cards is not in the scope of the supplier). The box design along with all the internal wiring will have to be approved by the user before fabrication.

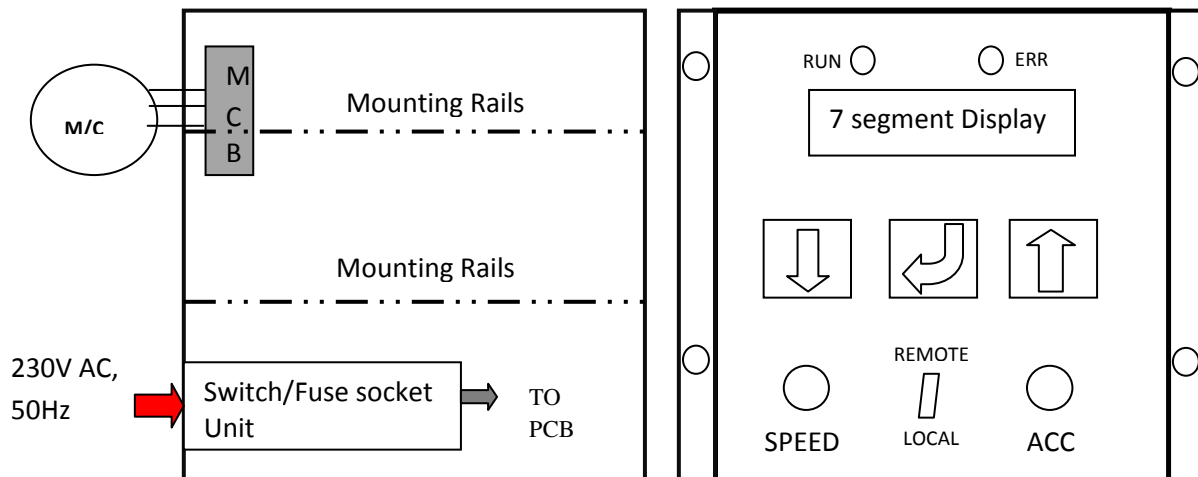


Fig. 1

The front display will be as shown in the diagram. The arrows are push button switches to be interfaced with the controller cards. The speed/acceleration buttons are resistive pots for setting the speed and acceleration. They are also interfaced with the controller cards. The Local /Remote switch is a toggle switch. The PCB required for interfacing all these switches to the controller cards are to be supplied and mounted at the back of the display front board.

Controller Box With Internal Hardwares:

Sr No.	Components	Tasks	Ratings
1.	Controller Box	Housing the internal hardware	
2.	Isolated DI O/P	DI O/P ISOLATED CKT Mounted inside the Controller Box	Output will be a square wave 0-24V/5V DC of same frequency as the input from micro controller board
3.	Micro Controller Board	DSP TMS320F28335	Micro Controller Board based on TMS320F28335PTPS micro controller. The board should have programming facility. J tag programming port to be given on the board itself. All the pins of the micro controller to be brought on the terminal strip. The detailed circuit diagram to be approved by the user before making the final PCB.
			Size: 7.3cm x7.3cm (Size bigger than this will not be acceptable)

1.	Controller Box Dimensions	Height (4U) x 210mm Width x 350mm Depth(Size bigger than this will not be acceptable)
2.	Ventillation /Protection	Back Sides /IP32

Scope of Supply Details:

Sr No.	Hardware components	Requirements	Scope of Work
1.	Controller Box	With all internal hardwares	Design ,fabrication ,wiring, drawing approval
2.	Isolated DI O/P	To be interfaced with controller boards	Design ,fabrication ,wiring, drawing approval
3.	Micro Controller Board	To be interfaced with controller boards	Design ,fabrication ,wiring, drawing approval

Sr. No.	Items	Quantity
1.	Controller Box	6
2.	Isolated DI O/P	6
3.	Micro Controller Board	14

General Terms and Condition:

1.The designing and implementation of the above hardware to be done in close consultation with the user. Approval of each of the components to be taken from the user group. The final Hardware will be tested with actual Motor in our lab. All problems occurring at the time of running should be promptly attended by the supplier. **The supplier may also have to visit our premises for sorting out issues. It may please be noted visiting our premises require strict security scrutiny and PVC Certificate .The working hours for visitors 10:00a.m.-5:00p.m.**

2.The product will only be accepted if it is found running as per the given specification up to full speed in our lab. **The supplier will have to give the design details of the final hardware. The product will only be accepted if all the necessary circuit details are provided.**

3. Incomplete /Partial and Bulk quotations are liable to be rejected.

4.The bidder should mention details of similar works executed in their quotation.

