

Government of India
Bhabha Atomic Research Centre
Electromagnetic Application & Instrumentation Division

OFFICE COPY

Ref: EmA&ID/2021/SSR/52 / 18746

Date: 9/12/2021

-----To whom so ever it may concern-----

Sub: Development, testing and supply of multichannel fiber-optic vacuum pass through assembly

Dear Sir/Madam,

1. Quotations are invited for development, testing and supply of multichannel fiber-optic vacuum pass through assembly conforming to technical specification no: EmA&ID/SCM/2021/52 dated 7.12.21
2. Bidder shall quote for raw material along with engineering support as per the tender technical specification.
3. Taxes and Excise Duties shall be quoted separately. Form AF / H whichever is applicable shall be provided, if required.

The quotation must reach The Head, Electromagnetic Application & Instrumentation Division by 22.12.21 and must be sent in a sealed envelope super scribed with the reference number & the due date given above only through India Ordinary Post/Speed Post.

4. The address on the envelop should read: The Head,
Electromagnetic Application & Instrumentation
Division,
RCnD Bldg., North Site
BARC, Trombay,
Mumbai - 400 085.
(Kind Attn: S.Sundar Rajan, SO/G)
5. The bidder shall complete the job within 2 months from the date of firm work order issued to the bidder.
6. Head, Electromagnetic Application & Instrumentation Division reserves the rights to accept / reject any or all quotations without assigning any reason.
7. Quotation must also indicate the validity of offer. Quotation must also indicate the GST No and PAN number of the supplier.
8. The quotation has to be signed by authorized person with company seal.
9. Payment will be made by EFT only after satisfactory completion of work on production of bill, delivery challan and advance stamped receipt. Income tax as applicable will be collected at the time of payment.
10. In case of any technical clarifications, the supplier may kindly contact the indenting officer through email only (Email ID:sundara@barc.gov.in)

Encl.: Technical Specification Sheet no: EmA&ID/SCM/2021/52 dated 7.12.21

S.Sundar Rajan
S.Sundar Rajan
SO/G, EmA&ID

Tender enquiry No: EmA&ID/2021/SSR/52/18746 dated:7.12.21

Specification no.	Revision no.	Date of Issue	No of pages
EmA&ID/SCM/2021/52	0	7.12.21	3

Development, testing and supply of multichannel fiber optic vacuum pass through assembly

1.0 SCOPE

This tender document specifies the requirements for development, testing and supply of multichannel fiber optic vacuum pass through assembly. The development shall be strictly carried out as per the specifications and standards details in this document. In this document, BARC shall be referred as purchaser and fabricator/company who will be executing job is mentioned as the supplier.

Supplier shall arrange required raw material/ facilities as per the requirement for development of rods and tubes. The supplier shall be qualified as per the Para 11.0. The brief description of contents of this tender specification document is as described below.

Para 2.0 gives the deliverables

Para 3.0 gives the job description

Para 4.0 gives the general description

Para 5.0 gives the requirements of inspection and testing

Para 6.0 gives the requirements of packaging and safe delivery

Para 7.0 gives the suppliers qualification

Para 8.0 gives the confidentiality clause

2.0 DELIVERABLES

<u>Description</u>	<u>Qty</u>
Development , testing and supply of 8-Channle fibre optic vacuum pass through assembly along with its test certificate	2 Sets

3.0 Job DESCRIPTION

3.1 A vacuum feed through assembly is required for transfer of optical light signal from vacuum chamber to the amplifier and fibre optic cables which are located externally.

3.2 The vacuum pass through consist of a 25mm diameter fused fiber optic glass rod which is used to pass the sensors light signal through the vacuum chamber bulk head. The fused fiber element shall be a solid glass rod manufactured from fibers that are drawn together with heat and pressure.

3.3 The rod shall contain no impurities or voids and shall transfer images with zero rotation and distortion allowing sensor lights signals to be accurately transferred from ambient to vacuum environments.

3.4 These rods shall be held using a swagelok ultra –torr compression fitting welded to the centre of the feed through which holds the vacuum. The fitting shall use a Viton O-Ring in compression to seal up to 10^{-7} torr.

3.5 The feed through shall be compatible with M/s Philtech based fibre optic sensors. Each feed through shall have 8 fibre optic elements. The system must be qualified for operation upto 10^{-7} torr and shall be leak tested to 10^{-9} torr.l/sec

4 GENERAL REQUIREMENTS

4.2 The supplier shall workout a detailed design to meet fabrication requirements and work description, quantity and main fabrication material. He shall submit along with the offer dimensional drawing giving all the salient features, material details of individual items and assembly view of the fixtures.

4.3 The Supplier shall indicate in detail the standards adopted for the materials and processes and the quality control procedures followed by them.

4.4 Supplier can suggest the color, aesthetics, and other details as suitable. Supplier must offer best quality/IS certified material only.

4.5 Supplier should have similar work experience and along with the offer, shall submit the details of past experience with documentary proof.

4.6 Materials, tools, manpower etc required for the above work will not be supplied by the user. Supplier has to arrange the above on his own (No free issue material).

4.7 The supplier shall incorporate minor changes in the design as required at the time of execution of work at no extra cost.

5 INSPECTION AND TESTING

The helium leak through testing of the feed through shall be carried out in the presence of BARC engineers.

6 REQUIREMENT OF PACKAGING AND SAFE DELIVERY

6.2 Protective covers: Supplier shall make necessary arrangements for all components using a suitable PVC cover or molded thermocol. Proper care should be taken while handling the component during fabrication, inspection, testing and packing.

6.3 Packaging: After completion of all testing and identifying the components, the components shall be packed suitably for shipment, so that no damage occurs in transit. The purchaser shall subject the packing procedure to prior approval. At least one copy of packing list shall be kept in the package for quick and easy verification.

7 REQUIREMENTS OF SUPPLIER QUALIFICATIONS

7.2 Human resources: The supplier must give the details of human resources including Engineers, Draftsman, Electrical, Welder, assembly mechanic, quality control inspector, machinist etc.

7.3 Infrastructure: The supplier must give the details of infrastructure suitable for this job such as Manufacturing Machines, welding machining, electrical testing equipment, winding machine, Assembly room and other tools & tackles, Inspection facilities etc.

7.4 Past experience: The supplier must give their past three-year turnover and job executed by them with reference, volume of work and completion schedule, present commitments and anticipated commitments inside and outside India.

7.5 Sub contract: Supplier should list the jobs, which they want to sub-contract. They should also produce the list of sub-contractors and their infrastructures and facilities.

7.6 Supplier shall have experience of development fibre optic sensors for vacuum applications for the past 2 years. Proof of document of the same shall be provided.

8 CONFIDENTIALITY CLAUSE

8.2 No party shall disclose any information to any third party concerning the matters under this Contract generally. In particular, any information identified as "Proprietary" in nature by disclosing party shall be kept strictly confidential by the receiving party and shall not be

disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to sub-contractors, consultants, advisors or the employees engaged by a party with equal force.

8.3 "Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "Official secrets" under section 5 of the Official Secrets Act, 1923: Any contravention of the above mentioned provisions by any contractor / sub-contractor, consultant, advisor or the employees of the contractor will invite penal consequences under the aforesaid legislation.

8.4 Prohibition against the use of BARC's name without permission for publicity purpose. The contractor or sub-contractors, consultants, advisors or the employees engaged by a party shall not use BARC's name for publicity purpose through any public media like: press, radio, TV or Internet without any prior approval of BARC (wide circular ref.: 2/Misc-9/Lgl/2001/92 date 30/04/2001)