



Department of Applied Mechanics

Indian Institute of Technology Madras

Chennai – 600 036, India

Prof. Satyanarayanan Seshadri

PROJECT COORDINATOR

Ref: No. APM/SATN/001

DATE : 10th Oct. 2017
DUE DATE : 20th Oct. 2017

Dear Sir,

1. Quotations are invited in duplicate for “Long Distance Microscope Objective” as per the technical specification shown below/overleaf/**enclosed document**.
2. The quotations are to be in two parts as “**Technical Offer**” and “**Commercial offer**”.
The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in one bigger envelope duly sealed and super scribed with reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. Fax and Email quotations are not acceptable.
4. Quotations should be valid for 60 days from the due date and period of delivery required, warranty terms etc. should also be clearly indicated. A minimum of one-year warranty is required from the date of commissioning.
5. Imported supplies should be quoted **CIF Madras**.
6. Local firms to quote free delivery to this Institute. If quoted for Ex-Godown delivery charges be indicated separately.
7. Relevant literature pertaining to the items quoted with full specifications (and drawings, if any) should be sent along with the Quotations, wherever applicable. Samples / machine/ equipment if called for should be submitted / demonstrated free of charges, and collected back at the supplier’s expenses.
8. Compliancy certificate is to be provided indicating conformity to the technical specifications.
9. GST if applicable and such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. If this is not indicated no such claim will be admitted at a later stage.
10. Goods should be supplied carriage paid and insured.
11. Goods shall not be supplied without an official Purchase order.

12. If the item is under DGS&D Rate Contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so, please send copy of the RC.
13. The Warranty period of the item may be indicated clearly.
14. In case of LC. Payment, 90% of the payment will be made after completion of the supply. The balance 10% of the payment will be made after satisfactory installation of the equipment.
15. **Acceptance and Rejection:** - I.I.T. Madras has the sole right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.
16. For all other information or technical clarifications, please contact Mr. P. Goheth (kunal2278@gmail.com, mobile: +91 8320108700).

Yours faithfully



Project coordinator

Technical Specifications: Long Distance Microscope:

Overall Specification:

1. Microscope assembly with dual port control box.
2. Beamsplitter.
3. 16mm Eyepiece with Graduated Cross Hair Reticle with atleast 100 divisions horizontal axis & cross-line vertical.
4. Eyepiece Diopter Adapter.
5. Motorised Focus.
6. Suitable hard case.
7. Warranty for 1 year

Optical Specification:

1. Cassegrain reflective type long-distance optical microscope
2. Primary Mirror: Aluminum coated.
3. Standard Secondary Mirror: Aluminum coated.
4. Front Lens Protective Optically Flat Window, AR Coated.
5. Baffling: All interior surfaces black anti-reflection coated.
6. BK7/MgF2 correcto

Performance Specification:

1. Working distance: Minimum working distance atleast 15cm.
2. Optical Resolution: 3 microns or better at appropriate working distance.
3. Format: Diffraction Limited Field 12mm diameter.
4. Smallest field of view of 2mm x 2mm
5. Field of View (2/3" format): 0.375mm (0.0148 inches) to 8mm (0.315 inches).
6. Operating temperature: up to 40 degrees C ambient temperature
7. Standard spectral response: 330nm to 2.3 microns, optional systems with wider spectral response available.

Terminal Specification:

1. Thirty key hand control unit, with four line twenty character backlit supertwist display.
2. Keypad audible beep, switchable on/off.
3. Communications RS-422 standard, 9600 baud.
4. Distance from terminal to instrument can be up to 1000 meters.
5. Selection of Focal Length available.
6. Selection of Filter available.
7. Bidirectional turret drive.
8. Last position and motion parameters saveable as power up defaults.

Mechanical Specification:

1. Barrel Material: Aluminium hollow bar.
2. Barrel Section: Machined, aluminium, black anodised.
3. Cover: Aluminium black anodised form.
4. Control Box: Corrosion resistant.
5. Focus: Variable speed DC servo motor with position feedback to terminal.
6. All functions driven by at least 2 degree step motor with microprocessor control.
7. Finish/Hardware: All exterior surfaces black anodised.
8. Mounting: M6 x 1, or M10 x 1.5 mounting holes on bottom of plate.
9. Power Supply: 220VAC at 50Hz.

Mounting Specification:

1. Pan/Tilt and Elevation Mount Head, and Pier or Tripod.
2. Camera Cradle to mount a CCD camera.
3. Positioning stage with Manual fine geared control of movements in x, y and z directions.