

Technical Specifications for Accelerometer

S.No	Description	Specifications
1	Sensitivity ($\pm 10\%$)	1000 mV/g
2	Measurement Range	± 5 g pk
3	Frequency Range ($\pm 5\%$)	0.06 to 450 Hz
4	Frequency Range ($\pm 10\%$)	0.05 to 750 Hz
5	Frequency Range (± 3 dB)	0.02 to 1700 Hz
6	Resonant Frequency	≥ 2500 Hz
7	Broadband Resolution (1)	0.000003 g rms
8	Non-Linearity	$\leq 1\%$
9	Transverse Sensitivity	$\leq 5\%$
10	Overload Limit (Shock)	± 300 g pk
11	Temperature Range	-26 to +80 °C
12	Base Strain Sensitivity	≤ 0.005 (m/s ²)/ $\mu\epsilon$
13	Excitation Voltage	18 to 30 VDC
14	Constant Current Excitation	2 to 10 mA
15	Output Impedance	<500 Ohm
16	Output Bias Voltage	7 to 12 VDC
17	Discharge Time Constant	5 to 15 sec
18	Settling Time	<100 sec
19	Spectral Noise (1 Hz)	2.9 ($\mu\text{m/sec}^2$)/ $\sqrt{\text{Hz}}$
20	Spectral Noise (10 Hz)	1.0 ($\mu\text{m/sec}^2$)/ $\sqrt{\text{Hz}}$
21	Spectral Noise (100 Hz)	0.4 ($\mu\text{m/sec}^2$)/ $\sqrt{\text{Hz}}$
22	Spectral Noise (1 kHz)	0.4 ($\mu\text{m/sec}^2$)/ $\sqrt{\text{Hz}}$
23	Sensing Element	Ceramic
24	Sensing Geometry	Flexural
25	Housing Material	Titanium
26	Sealing	Hermetic
27	Size - Diameter	25 mm
28	Size - Height	31 mm
29	Weight	50 gm
30	Electrical Connector	10-32 Coaxial Jack
31	Electrical Connection Position	Top
32	Mounting Thread	10-32 Female
33	Quantity	25 Nos.
34	Warranty	1 Year (Minimum)
35	Delivery	10 - 12 Weeks
36	Payment	Advance
37	Installation	Not Required
38	Estimation	17 Lakhs



Indian Institute of Technology Madras
DEPARTMENT OF OCEAN ENGINEERING

Ref.No.

Date : 12/02/2021

OE	2020	004	DEPT	VSRR
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Dear Sirs,

DUE DATE : 22/02/2021

Quotations are invited in duplicate for the various items shown below / overleaf / Enclosed list.

1. The **Quotations are to be in two parts as Technical Offer and as Commercial offer** : The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and superscribed with the reference No. and due date, and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
2. ***Fax and Email quotation are not acceptable***
3. Quotations should be valid for 60 days from the due date and the 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.
4. Imported supplies should be quoted for **CIF Chennai**.
5. Local firms to quote for free delivery to this Institute .If quoted for Ex-Godown delivery charges be indicated separately.
6. Relevant literature pertaining to the items quoted with full specifications(and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples/Machines/equipment if called for, should be submitted/demonstrated at free of charges, and collected back at the supplier's expenses. Compliancy certificate is to be provided indicating conformity to the technical specifications.
7. GST 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 any stage.
8. Goods should be supplied carriage paid and insured.
9. Goods shall not be supplied without an official supply order.
10. If the item is under DGS&D Rate contract No. and 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.
11. The guarantee period of the item may be indicated clearly.

12. The payment will be made after completion of the supply and satisfactory installation of the Equipment/item.
13. **Acceptance and Rejection**:- IIT.Madras has the 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.
14. The quotes should be addressed to

**The Head,
Department of Ocean Engineering ,
IITMadras,Chennai-600036.**