

Dear Sir,

IIT Madras is one of the leading institutes in India imparting high quality technical education to students and extending research in major areas of science and technology.

As part of research and continuous development, we have developed a wave energy turbine testing system at Wave Energy and Fluids Engineering Laboratory, DOE - IITM. We are looking to buy a torque transducer as per the technical specifications mentioned below to suit our torque measurement requirement. The transducer will be coupled between turbine rotor and a generator in the test setup.

Broad Specifications: (Detailed Specification enclosed.)

1. Nominal Torque Range: 15 N-m.
2. Shaft should have keyway on both the sides of the torque transducer.
4. Should measure both torque and speed.

Technical Specification for Torque Transducer: Required Quantity - 1 No.

Parameter	Data	Units
Torque Range	0 – 15	N-m
Shaft Size(Diameter)	12 to 15	mm
Rotational Speed	Transducer must have maximum range of 5000.	RPM
Combined Non-Linearity & Hysteresis	± 0.25	% of Full Scale Reading
Maximum Measurable Load Limit	Minimum 100	% of Rated Torque
Measurement Accuracy	± 0.25	% of Full Scale Reading
Operating Temperature	20 to 40	$^{\circ}\text{C}$
Output Data Sampling Rate	5 to 10	KHz
Nominal Input Voltage	12 to 32	V_{dc}
Output Voltages	$\pm 5 / \pm 10$	V_{dc}
Output Currents	4-20	mA
Digital Output Connections	Through RS232 and USB Output Cables	
Output Signal	Direct Pulse Output and should not have any signal processing unit.	
Ripple Withstanding Ability	0.5	V

Commissioning: The torque transducer assembly must be commissioned at IITM on the proposed application by the qualified service engineer from the supplier end.

Guarantee: Minimum one year of guarantee should be provided for this item.


Operation & Maintenance Manuals: The vendor should supply one hard copy and one soft copy of operating and maintenance manuals along with the equipment. The manuals should have complete wiring circuit diagrams in addition to operational maintenance instructions and item details.

Other Requirements: The supplier must be an Original Equipment Manufacturer (OEM). In case of vendors, the dealership certificate of the OEM must be attached with the quotation. The vendor should submit the details of the government and private organization to whom they have supplied and installed similar items in the last three years along with the quote. The expected delivery period of the equipment along with all the information about taxes, packaging and delivery charges must be clearly indicated in the quotation.

Quotations should be sent by SPEED POST only or to be delivered directly concerned on or before 30th October, 2017 and must be addressed to:

Dr Abdus Samad
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Thanking You


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