

	<b><u>BHARAT HEAVY ELECTRICAL LIMITED</u></b>				<b>Enquiry No. :</b>
	<b>UNIT'S ADDRESS:</b>				<b>Due Date :</b>
	<b>UNIT'S PHONE NO.:</b>				<b>Supplier Qtn. No.:</b>
	<b>CONTACT PERSON'S NAME/DESGN./PHONE NO./E-MAIL (FROM PURCHASE DEPT.)</b>				<b>Date :</b>
<p align="center"><b><u>SPECIFICATION CUM COMPLIANCE CERTIFICATION FOR PRESSURE MEASUREMENT SYSTEM</u></b></p>					
<b>NOTE:-</b>					
<p>1. Vendor must submit complete information against all Clauses. Clause no. 4. The offer meeting this clause would only be processed.</p>					
<p>2. The "Offered" Column and where applicable, the "Deviations" &amp; "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.</p>					
<p>3. The offer and all documents enclosed with offer should be in English language only.</p>					
<b>ADDRESS OF THE SUPPLIER :</b>			<b>ADDRESS OF LOCAL (BHOPAL/MP) AGENTS :</b>		
<b>TELEPHONE NOS.:</b>			<b>TELEPHONE NOS.:</b>		
<b>FAX NOS.:</b>			<b>FAX NOS.:</b>		
<b>E-MAIL ADDRESS :</b>			<b>E-MAIL ADDRESS :</b>		
<b>SCOPE: SUPPLY OF PRESSURE MEASUREMENT SYSTEM AS SPECIFIED BELOW</b>					

SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
<b>1.0</b>	<b>PURPOSE :</b>				
1.1	Purpose : Measurement Of Water Pressure During Hydro Turbine Model Testing and feeding signal directly to Data Acquisition System				
<b>2.0</b>	<b>SCOPE OF SUPPLY</b>				
<b>2.1</b>	<b>Transducers to specification as per clause no. 3.1:</b>				
2.1.1	Pressure Measuring Range : 0-100 psi (Absolute) 03 Nos.	Vendor to confirm			
2.1.2	Pressure Measuring Range : 0-200 psi (Absolute) 02 No	Vendor to confirm			
2.1.3	Pressure Measuring Range : 0-300 psi (Absolute) 01 No	Vendor to confirm			
<b>2.2</b>	<b>Digital Display to specification as per clause no. 3.2:</b> 05 Nos. ( To acquire and display signals from the above transducers)	Vendor to confirm			

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<b>3.0</b>	<b>SPECIFICATION</b>				
<b>3.1</b>	<b>Transducers:</b>				
3.1.1	Type : Oil filled Stainless Steel Buffer/capillary Tube for Water Pressure/level Measurement.	Vendor to confirm & specify			
3.1.2	Sensing Element : Quartz Crystal based.				
3.1.3	Accuracy : better than $\pm 0.01\%$ FS	Vendor to confirm			
3.1.4	Overpressure : 1.2 times rated full scale	Vendor to confirm			
3.1.5	Resolution : better than $\pm 0.0001\%$	Vendor to confirm			
3.1.6	Repeatability : better than $\pm 0.005\%$ FS	Vendor to confirm			
3.1.7	Hysteresis : better than $\pm 0.005\%$ FS	Vendor to confirm			
3.1.8	Acceleration Sensitivity : better than $\pm 0.004\%$ FS/g	Vendor to confirm			
3.1.9	Operating Temp.Range : 4 to + 50 deg. C	Vendor to confirm			

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3.1.10	Output signals : Separate digital square wave signals of 4V peak to peak for Pressure and temperature. Freq. Band of 30 KHz to 42 KHz for pressure signals	Vendor to confirm			
3.1.11	Pressure Output Signals : 10 % frequency change with full scale pressure.	Vendor to confirm			
3.1.12	Temperature Output Signal :	Vendor to specify			
3.1.13	Power Requirement : from 5 to 24 V DC	Vendor to confirm & specify			
3.1.14	Housing : Installed in shock mount housing	Vendor to confirm			
<b>3.2 Display:</b>					
3.2.1	Type : LCD	Vendor to confirm			
3.2.2	Display Parameters : Pressure value, Pressure unit, Over-pressure warning, Pressure update indicator	Vendor to confirm			
3.2.3	Communication Port : RS-232 along with cables	Vendor to confirm			
3.2.4	Software / Hardware for Configuring Calibration coefficients	Vendor to confirm			

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3.2.5	Input Power : 220 V AC $\pm$ 10 %, 50 Hz	Vendor to confirm			
3.2.6	Output Power : Suitable output power rating to energize the Transducer	Vendor to confirm			
3.2.7	Cables & Connectors : the Cables and connectors for Transducers will be installed proper operation. at 8m distance from display unit	Vendor to confirm			
<b>4.0</b>	<b>QUALIFICATION</b>				
4.1	The supplier should have supplied earlier atleast 5 numbers of similar Pressure Transducer of the Range between 0-300 psi to atleast one customers . A list of customers is to be given by supplier with offer.	Vendor to Confirm			
4.2	Copy of purchase order (P.O.) of Pressure Transducer from atleast one Customer listed in clause 4.1, with date of purchase order within last three years has to be attached with offer.	Vendor to Specify			
<b>5.0</b>	<b>OVERALL DIMENSIONS</b>	Vendor to specify			

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<b>6.0</b>	<b>TESTING</b>				
6.1	Testing/Calibration Certificates as per the national/international standards are to be supplied	Vendor to Confirm			
<b>7.0</b>	<b>DOCUMENTATION</b>				
7.1	Technical Documents and operating manual - 4 Sets.	Vendor to Confirm			
7.2	One copy of relevant technical documents along with the drawings must be submitted along with the offer.	Vendor to Confirm and Submit			
<b>8.0</b>	<b>GUARANTEE :</b>				
8.1	Supplier should give guarantee of smooth and trouble free operation for at least 12 months from the date of acceptance. Any defect during this period will be rectified by the supplier free of cost.	Vendor to confirm			
<b>9.0</b>	<b>STANDARDS</b>				
9.1	National/International standards or any other equivalent standards must be applied for Any material, method and quality for items.	Vendor to confirm			
<b>10.0</b>	<b>METRIC UNITS</b>				
10.1	Dimensions, Drawings and Documents shall be in metric units.	Vendor to confirm			