

		Ref No: CQX/MTL/004-C/2020-21/01	
		BHARAT HEAVY ELECTRICAL LIMITED UNIT : JHANSI	
CONTACT PERSON'S NAME/DESIGN/PHONE NO./E-MAIL (FROM PURCHASE DEPTT.)		Enquiry No. :	
		Due Date :	
		Supplier Qtn. No.:	
		Date :	
SPECIFICATION FOR DEW POINT METER		Rev:00	Dtd: 21.04.2020
NOTE:-			
1. Vendor must submit complete information.			
2. The "Offered" Column and where applicable, the "Deviations" & "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.			
3. The offer and all documents enclosed with offer should be in English language only.			
NAME & ADDRESS OF THE SUPPLIER :		NAME & ADDRESS OF INDIAN AGENT :	
TELEPHONE NOS.:		TELEPHONE NOS.:	
FAX NOS.:		FAX NOS.:	
E-MAIL ADDRESS :		E-MAIL ADDRESS :	
SL. NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY VENDOR	OFFERED
1.0	GENERAL INTRODUCTION		
1.1	To determine Dew Point and moisture content of Nitrogen gas filled in cylinders & transformer tank. Dew Point determination of other gases Carbon Dioxide, Argon, Dry air etc. filled in cylinders.	Vendor to Confirm	
2.0	REQUIREMENT		
2.1	An Automatic Portable Digital Dew Point Meter which is easy to carry to various sites and manufacturing shops for measurement of Dew Point and Moisture Content of Nitrogen gas filled in transformers and in the cylinders of N ₂ , CO ₂ , Argon, Compressed / dry air as per ASTM D2029.	Vendor to Confirm	
2.2	Instrument Quantity Required	Vendor to Confirm	1 No.


 21.04.2020

Raman Kumar
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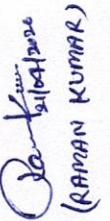
SL. NO.	DESCRIPTION FOR BHEL REQUIREMENT		SPECIFIED / TO BE CONFIRMED BY VENDOR	OFFERED	DEVIATIONS	REMARKS
3.0	MAJOR SPECIFICATIONS					
3.0.1	Moisture Measurement by sensor:	Capacitive thin film type	Vendor to Confirm			
3.0.2	Dew Point Measuring Range:	-80 to + 20 deg C or wider	Vendor to Confirm			
3.1	EQUIPMENT SPECIFICATIONS (Vendor to indicate the ranges)					
3.1.1	Range Selection	Automatic	Vendor to Confirm			
3.1.2	Moisture	0 to 20000 PPM or more	Vendor to Confirm			
3.1.3	Accuracy	±3°C or better for -80° C to +20° C (Please specify the accuracy in bands, if applicable)	Vendor to Confirm			
3.1.4	Resolution	0.1° C Dew Point or better	Vendor to Confirm			
3.1.5	Pressure at inlet	12 kg/cm ² or more	Vendor to Confirm			
3.1.6	Additional requirement: Minimum Pressure	2 psi	Vendor to Confirm			
3.1.7	Display	LCD Screen or better	Vendor to Confirm			
3.1.7	Display shall include	Dew Point in °C, Moisture Content in ppm or %	Vendor to Confirm			
3.1.8	In put Power	Rechargeable Batteries with charging circuit input of single phase 240V AC, 50Hz.	Vendor to Confirm			
3.1.9	Battery Back Up	24 hours or more	Vendor to Confirm			
3.1.10	Inlet Sample Port	1/4" OD Tubing	Vendor to Confirm			
3.2	ACCESSORIES / AUXILIARY ITEMS					
3.2.1	Pressure regulator & flow meter (if required) to control the inlet pressure. Indicate value of the pressure required for operating the instrument		Vendor to Confirm			
3.2.1	Pressure tube of 10 meters length for inlet and outlet during purging of gas of standard size		Vendor to Confirm			
3.2.3	Any other item specific to the manufacturer or model offered for satisfactory performance of dew point meter		Vendor to Specify			
3.2.3	Carrying Case to carry the dew point meter		Vendor to Confirm			

Amrinder Singh
21/04/2020
Sr. Tech. Insp.

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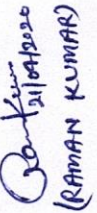
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4.0	CONSUMABLES & SPARES				
4.1	Supplier shall enclose the list of recommended spares along with unit prices to maintain the system.	Vendor to Specify			
4.2	All types of spares for total machine and accessories should be available with the vendor for at least ten years after supply of the machine. If machine and accessories are likely to become obsolete in this period, the vendor should inform BHEL sufficiently in advance and provide drawings of parts / details of spares & suppliers to enable BHEL to procure these in advance, if required.	Vendor to Confirm			
5.0	COMMISSIONING & DEMONSTRATION				
5.1	Commissioning and demonstration of all functions of the complete system shall be done by the vendor to the satisfaction of BHEL Engineers at BHEL, Jhansi without any price implication.	Vendor to Confirm			
6.0	SAFETY				
6.1	The test unit shall meet all the relevant safety specification standards	Vendor to Confirm			
6.2	Any special safety requirements shall be specified by the supplier.	Vendor to Specify			
7.0	GUARANTEE				
7.1	The equipment should be guaranteed with respect of design, material construction, operation and any manufacturing defects for a period of 24 months from the date of successful commissioning at BHEL Jhansi works. Free after sales service including spares is to be provided during the guarantee period at BHEL Jhansi.	Vendor to Confirm			
8.0	PACKING				
8.1	Rigid packing for all items of complete equipment, all accessories and other supplied items to avoid any damage / loss in transit shall be done.	Vendor to Confirm			
9.0	OPERATING CONDITIONS				
9.1	Operating temperature 0°C to 50°C or wider. Indicate value.	Vendor to Confirm			
9.2	Other operating conditions shall be specified by the supplier. Indicate value.	Vendor to Specify			
10.0	TRAINING				
10.1	BHEL Persons should be trained at BHEL Jhansi after commissioning for mutually agreed period in following areas :-	Vendor to Confirm			
10.1.1	Operation of machine and other supplied equipments	Vendor to Confirm			
10.1.2	Use of all features of machine	Vendor to Confirm			
10.1.3	Configuration of software, all features of software including data management	Vendor to Confirm			


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10.1.4	Trouble shooting and maintenance of machine	Vendor to Confirm			
10.2	Competent, English & Hindi speaking experts shall be arranged by the vendor during training for satisfactory & effective training of BHEL personnel.	Vendor to Confirm			
10.3	Demonstration of all functions of the complete system shall be done by the vendor to the satisfaction of BHEL Engineers at BHEL Jhansi.	Vendor to Confirm			
10.4	Expenditure of training cost if any shall be quoted as total consolidated training cost (Inclusive of travel Lodging & boarding of expert)	Vendor to Specify			
11.0	DOCUMENTS				
11.1	Instrument shall be calibrated at minimum two points. First point for calibration shall be laid between -80 to -60 deg C and another point between -30 to 0 deg C. Calibration Certificate shall be traceable to National/International Standards or from an ISO 17025 accredited laboratory. Furnish sample copy of calibration certificate.	Vendor to Confirm			
11.2	Two sets of Operation and Service Manual which shall comprise of operating procedure, calibration procedure, trouble shooting charts, circuit diagram and parts list etc.	Vendor to Confirm			
11.3	Two copies of Test certificates and Guarantee certificates are to be furnished	Vendor to Confirm			
12.0	GENERAL CONDITIONS				
12.1	The offer shall be submitted in two bids (Techno-commercial and Price Bid). The bidder's technical representative shall visit BHEL Jhansi for technical discussions and on the spot finalisation of technical issues, if needed, within two weeks after technical bid opening. Exact date will be confirmed to vendor by BHEL	Vendor to Confirm			
12.2	The system offered shall be complete in all respects. It shall contain all additional hardware / accessories/ software required for satisfactory operation of the system.	Vendor to Confirm			
12.3	The supplier shall ensure the provision of AMC (if required) after completion of guarantee period.	Vendor to Specify			
12.4	Supplier shall enclose the leaflets /Datasheet having detail specification, Model No. & Manufacturer's Name of items to be quoted.	Vendor to Confirm			
12.5	BHEL reserves the right to verify the information provided by vendor. If the information provided by vendor is found to be false/incorrect at any point of time, the offer shall be rejected.	Vendor to Confirm			
12.6	Equipment should meet all points of our above specification and bidders must furnish point to point replies against the points of our above specification failing which their offer may not be considered.	Vendor to Confirm			


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02.10.2020


SL. NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY VENDOR	OFFERED	DEVIATIONS	REMARKS
13.0	QUALIFYING CONDITIONS				
13.1	Vendor should be original equipment manufacturer (OEM) or authorized dealer/distributor of OEM having after sale service center in India. In case the party is dealer/distributor, they should furnish the details of OEM and valid authorization certificate from OEM.	Vendor to Confirm			
13.2	Only those vendors should quote, who or their principal have supplied and commissioned at least one number of offer model within last five years. Furnish unpriced PO copy.	Vendor to Confirm			
13.2	Min 01 No. performance certificate of offered model (in English language only) issued to OEM / Dealer with authorisation certificate, having satisfactory performance of at least one year mentioned cl. No. 13.2	Vendor to Confirm			
13.4	The vendor shall furnish the customer reference list / PO copies where all they have supplied offered instruments.	Vendor to Confirm			

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Prepared By:

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23.04.2020
Reviewed By:

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23.04.2020
Approved By