



**BHARAT HEAVY ELECTRICALS LIMITED**  
 (A Government of India Undertaking)  
 Ramachandrapuram, Hyderabad, 502032, A.P. India  
 Phone 040-23184526, 23182322 FAX:040-23021910, 1954

**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**  
 (भारत सरकार का उपक्रम)  
 रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत

PURCHASE DEPARTMENT  
 ENQUIRY  
 क्रय विभाग  
 जांच ई मेल : tenderbox@bhelhyd.co.in

HY17001 C REV.NO.0  
 Phone 091-40-23184526  
 091-40-23182322  
 FAX : 091-40-23021910  
 091-40-23021954  
 E Mail: tenderbox@bhelhyd.co.in

RFQ NO :  
 No.Of Items : 1  
 Eng. Date : 07.01.2015  
 DUE DATE OF QUOTATION : 27.01.2015

**Office Copy**  
 Please submit your lowest quotation in sealed cover superscribed with Enquiry No./Collective No.(RFQ No ..... ) and due date subject to our terms and conditions attached ,for the materials mentioned below. Your offer has to reach us on or before due date by 11.00 Hours (IST) and will be opened at 14.00 Hours.(IST).If our Enquiry No./Collective No.(RFQ No ..... ) and tender due date are not super scribed on the tender cover , your offer shall be summarily rejected. Whosoever desires to send offers on their own risk (complete in all respects) via e-mail have to send offers to the common e-mail address : tenderbox@bhelhyd.co.in . Incomplete offers and late offers will not be considered.

SL NO	Purchase Req.no	item no	Material Code	Drg no - Ver , Rev & Spec - Ver , Rev	Description	Unit	Qty	Delivery Date	Schedule Qty
1	1200018921	10	CG2080922025	, NA,	DIGITAL THICKNESS MEASURING INSTRUMENT	EA	1.000	04.04.2015	1.000

**Special Remarks**

- 1) TWO PART BID SYSTEM MAY BE FOLLOWED.
- 2) GCC & ITB ARE ENCLOSED.
- 3) SPECIFICATIONS ARE ENCLOSED.

**CheckList of Quality Interventions:**  
 BHEL reserves the right to enforce any or all of the following checks during execution of the order.  
 There is no additional cost to the vendor on account of these checks.

TEST CERTIFICATE REQD : N  
 GUARANTTEE REQ : N  
 SAMPLE REQD : N  
 BID TYPE : TWO PART

For and on-behalf of  
 Bharat Heavy Electricals Limited.  
 SREENIVAS  
 Pur. Officer/Pur/CMM




**BHARAT HEAVY ELECTRICALS LIMITED**  
 Heavy Power Equipment Plant, Ramachandrapuram,  
 Hyderabad - 502 032, INDIA.  
 Phones : 23182514  
 E-mail : asailoo@bhelhyd.co.in

Date : \_\_\_\_\_  
 Due Date : \_\_\_\_\_  
 Supplier Qtn. No.: \_\_\_\_\_  
 Date : \_\_\_\_\_


**TENDER DOCUMENTS TO BE FILLED BY THE SUPPLIER FOR SUPPLY OF  
 THICKNESS MEASUREMENT INSTRUMENT-01 No**


SI No.	Description of BHEL requirement	Offered	Deviation	Remarks
<b>1.0</b>	<b>Prequalification Requirement</b>			
1.1	The suppliers shall give a list of atleast two customers with contact numbers to whom similar instruments are supplied,preferably Govt./ public Sector			
<b>2.0</b>	<b>General requirements:</b>			
2.1	The instrument shall be capable of measuring coating thickness, plated electrolytically, on both ferrous and non-ferrous metal substrates(Common Probe for ferrous and non ferrous substrates) and shall be handheld type.			
2.2	The testing method shall be non-destructive			
	The instruments shall measure the following platings:			
	a Copper over Steel			
	b Zinc over steel			
	c Cadmium over steel			
	d Nickel over steel			
	e Anodizing on Aluminium			
	f Chromium over steels			
	g Tin over steel			
	h Zinc/Manganese Phosphating layer over steel			
	i Iron metallic coating over ferrous and non ferrous substrates			
2.3	The instruments shall be capable of working in the electro-plating environment			
2.4	The instruments shall be capable of working with the batteries. It is preferable if the supplier can give additional facility for working with 220V AC.			
<b>3.0</b>	<b>Technical data:</b>			
3.1	The instrument shall measure the coating thickness upto 2000 microns			
3.2	The accuracy of the instruments = ±1 micron			
3.3	The measurement parameter of the instrument = microns (10 <sup>-6</sup> mm)			
3.4	The instrument shall be capable of working with the batteries. It is preferable if the supplier can give additional facility for working with 220V AC. The batteries shall be available in India.			
3.5	The instrument shall be capable of measuring coating thickness of inner walls of cylindrical holes of diameter of 50 mm. The supplier shall indicate the minimum internal diameter on which the plating thickness can be measured.			
3.6	The instrument shall be capable of storing atleast 100 readings.			

  
 MANISH KUMAR  
 प्रबंधक / असिस्टेंट मैनेजर (08 ब्लॉक)  
 Manager/Common Work Shop (08 Block)  
 बी.एच.ई.प्लांट, BHEL, Hyderabad - 502 032

3.7	Response time of the instrument for indicating the value shall be indicated	
3.8	The instrument shall be capable of giving same values when tested at the same area.	
<b>4.0</b>	<b>Features:</b>	
4.1	The instrument should have large digital display and it shall be visible even in the darkness	
4.2	The measuring instrument/ probe shall withstand attack by solvents and other electroplating chemicals	
4.3	The probe shall be wear resistant.	
4.4	The probe shall be detachable and L type.	
4.5	The limitations of the probe shall be clearly indicated	
4.6	The instrument shall be portable (handy) and easy to move from one place to the other	
4.7	The instrument shall be capable of working in temperature range of -10°C to 60°C with the accuracy, precision, repeatability as indicated above.	
4.8	The instrument shall have provision for automatic setting of zero	
4.9	The length of the connector cable shall be minimum 500 mm. Provision shall be made for extension	
<b>5.0</b>	<b>Calibration:</b>	
5.1	The Supplier has to give calibration blocks/ standards for 10μ, 40μ, 100μ, 300μ, 500μ, 1000μ and 2000μ	
5.2	Calibration procedure shall be given.	
5.3	The supplier shall also quote for additional calibration blocks if any.	
5.4	The instrument should have National/International calibration procedures: ISO, SSPC, Swedish, Australian or Equivalent.	
<b>6.0</b>	<b>Spares</b>	
6.1	Essential spares shall also to be indicated that will be part of standard supply.	
<b>7.0</b>	<b>Documentation</b>	
7.1	The supplier shall also give calibration certificate traceable to national/ international standards/ bodies	
7.2	The suppliers shall give three copies of the operating manual along with the maintenance manual. The manual shall be in English Language	
<b>8.0</b>	He shall also indicate if any authorised servicing center in Hyderabad or India.	
<b>9.0</b>	The supplier's Service Engineer shall install and commission the instrument at BHEL and demonstrate its features and working to the BHEL technical Personnel	
<b>10.0</b>	The instrument shall be guaranteed for its satisfactory performance for atleast one year from the date of commissioning	
11.0	Delivery period to be indicated by supplier	

**B. RAMAKRISHNA**  
Sr.DGM/TD(M&S)

  
**MANOJ KUMAR SINGH**  
Sr.Engineer/CWS

  
**MANISH KUMAR**  
Manager/08 Shop