



NTPC Limited  
Corporate Operation Services EOC, Noida

Ref: 01: OS: C&amp;I: Enlistment: QR

Date: 18.08.2020

**Sub: QR for Vendor Enlistment for supply of E-P / I-P Converter.**

|   |  |                      |
|---|--|----------------------|
| A | MEG Details  |                      |
|   | 1.0 MEG No.  | 94MEG-03             |
|   | 2.0 MEG Description  | <b>E-P Converter</b> |
|   | 3.0 Responsibility Centre  | CC                   |
| B | <p><b>Technical Criteria of QR:</b></p> <ol style="list-style-type: none"> <li>1. The applicant should be manufacturer of E-P/ I-P Converters.</li> <li>2. The applicant should have supplied E-P or I-P Converters (Input- 4 to 20mA, Output – 0.2 to 1.0 kg/sq. cm) to power plants having 200MW and higher size units during last 5 Years from the date of application.</li> </ol>  |                      |
| C | <p><b>Documents required in support of meeting Qualifying Requirements (QR):</b></p> <ol style="list-style-type: none"> <li>1. QR-1: Documents in support of manufacturing facility: Valid ISO certificate/NSIC/ Catalogue /any other suitable document as a proof of being manufacturer of the required material. Brief details of manufacturing facilities for E to P / I to P Converters are also to be given.</li> <li>2. QR-2: PO / Contract / Work order copies and their Invoices/completion Certificates etc. in support of supply.</li> </ol>   |                      |
| D | <p><b>Other Documents to be submitted:</b></p> <p>In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the Applicants applying for enlistment:-</p> <ol style="list-style-type: none"> <li>1. Three POs of the highest executed values of similar work (see definition at point E-Note below) during previous five years from the date of application. Copy of Invoice / Completion certificate from the concerned buyer/s in support of successful execution of supply against the POs to be submitted. These will be required for calculation of Execution capability</li> <li>2. Audited balance sheet including Profit &amp; Loss statement for the previous three completed financial years reckoned from the date of application. In case the audited documents are not ready / available, then certified copy by a registered practicing Chartered accountant may be submitted.</li> <li>3. Latest annual report OR NSIC / SSI / MSME registration certificate / BIS license / ISO certificate/ Certificate of registration from the concerned excise department / any other statutory document as a proof of being manufacturer of the required material.</li> <li>4. Any other documents in addition to the above which the applicant wants to submit.</li> <li>5. NTPC can ask other documents as necessary during the course of evaluation.</li> </ol> |                      |
| E | <p><b>Note-1</b> Similar works means: Supply of E to P / I to P Converters or Instrumentation and Control items to any Power Plants / Petroleum Refinery / Steel / Fertiliser Plants / Aluminium Industry within last 5 (five) years from the date of application for enlistment.</p> <p><b>Note-2</b> The executed value means Basic value of quantity of similar works executed/supplied against the reference PO (also applicable to partly executed POs as on date of application). Where PO value is composite (i.e. including Taxes etc.), the applicant to give item-wise break-up of Composite PO value mentioning Basic Value, Taxes etc.</p>   |                      |

### 3. E-P Converter

E-P converters and associated accessories shall be furnished in accordance with the specifications given below:

#### A. Fail Freeze Type E/P Converters

|    |                            |   |  |
|----|----------------------------|---|--|
| 1  | Air supply Pressure        | : | 2 kg/sq. cm.   |
| 2  | Input signal               | : | 4-20mA DC  |
| 3  | Output signal              | : | 0.2 to 1.0 kg/sq. cm   |
| 4  | Linearity                  | : | 0.5% of span or better.  |
| 5  | Span/Zero Adjustment       | : | To be provided   |
| 6  | Hysteresis                 | : | 0.5% of span or better.  |
| 7  | Fail Freeze Feature        | : | Stay put at last position on failure of 4 –20mA signal.  |
| 8  | Allowable drift rate       | : | Maximum 2% set point/ hour.  |
| 9  | Ambient Temperature Effect | : | Less than 0.02% of span per deg C between -20 to +60 deg C.  |
| 10 | Mounting                   | : | Surface/Pipe/Bracket Mounting.   |
| 11 | Protection class           | : | IP 65.   |
| 12 | Connection Port Sizes      | : | ¼ inch NPT (F)   |
| 13 | Electrical Cable Entry     | : | ½ inch NPT   |
| 14 | Output Pressure Gauge      | : | 1/4 Inch NPT connection, 2 Inch dial.  |
| 15 | Accessories                | : | All accessories like mounting brackets, fittings etc. required for installation is to be supplied. |
| 16 | Test Certificate           | : | Factory test certificate for Current v/s output air pressure to be provided.                       |

#### B. Fail Safe Type E/P converters

|    |                            |   |  |
|----|----------------------------|---|--|
| 1  | Air supply Pressure        | : | 2 kg/sq. cm.   |
| 2  | Input signal               | : | 4-20mA DC  |
| 3  | Output signal              | : | 0.2 to 1.0 kg/sq. cm   |
| 4  | Linearity                  | : | 0.5% of span or better.  |
| 5  | Span/Zero Adjustment       | : | To be provided.  |
| 6  | Hysteresis                 | : | 0.5% of span or better.  |
| 7  | Fail Safe Feature          | : | Output shall drive to minimum on failure of either 4-20mA signal or air supply.                    |
| 8  | Mounting                   | : | Surface/Pipe/Bracket Mounting.   |
| 9  | Ambient Temperature Effect | : | less than 0.02% of span per deg C between -20 to +60 deg C.  |
| 10 | Protection class           | : | IP 65.   |
| 11 | Connection Port Sizes      | : | ¼ inch NPT (F)   |
| 12 | Electrical Cable Entry     | : | ½ inch NPT   |
| 13 | Output Pressure Gauge      | : | 1/4 Inch NPT connection, 2 Inch dial.  |
| 14 | Accessories                | : | All accessories like mounting brackets, fittings etc. required for installation is to be supplied. |
| 15 | Test Certificate           | : | Factory test certificate for Current v/s output air pressure to be provided.                       |