**Tender document**

Department of Civil Engineering

Indian Institute of Technology Kanpur

Kanpur (UP) 208016 India

Enquiry date: July 19, 2019

Last Date: July 29, 2019

Enquiry No: IITK/NAF/2019/011

Sealed Quotations are invited for Gas Sensors and ISB boards. The detailed specification of the sensors and boards are described below.

**Dr. S.N. Tripathi,**

**Civil Engineering Department,**

**Indian Institute of Technology Kanpur**

**Email: snt@iitk.ac.in**

**Phone: 0512-259 7845**

**Terms and Condition**

* + - 1. Minimum one year service/replacement warranty from the date of delivery.
      2. Quotations must be valid for a minimum of 90 days.
      3. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
      4. GST @ 5% is applicable for domestic goods against exemption certificate provided by the institute.
      5. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
      6. The Institute reserves the right of accepting or rejecting any quotations without assigning any reason thereof

**Technical Specifications of the Gas Sensors and ISB boards:**

|  |  |  |
| --- | --- | --- |
| S.NO. | Item | Quantity |
| 1 | **NOx Sensors (4 Electrodes)**  Range (ppb): 0 - 500 ppb  Min detection limit: 1 ppb  Accuracy of Factory calibration:  <±0.008 ppm 0-0.1 ppm  <±10% 0.1-0.5 ppm  Resolution: 1 ppb  Response time: 1sec to 60 secs (max)  Operating conditions:  Temp: 0 to 50 c  RH: 0 to 100% | 32 |
| 2 | **O3 Sensors (4 Electrodes)**  Range (ppb): 0 - 500 ppb  Min detection limit: 1 ppb  Accuracy of Factory calibration:  <±0.008 ppm 0-0.1 ppm  <±10% 0.1-0.5 ppm  Resolution: 1 ppb  Response time: 1sec to 60 secs (max)  Operating conditions:  Temp: 0 to 50 c  RH: 0 to 100% | 32 |
| 3 | Sensor Interface Circuit Board (ISB equivalent)  The Individual Sensor Board (ISB) is designed for use of four-electrode gas sensors. This potentiostat should provide a dual channel voltage output. A low noise bandgap provides the bias voltage for NO sensors and the ISB should measure both oxidising (CO, H2S, SO2 and NO) and reducing (O3 and NO2) gases. The ISB should be configured for specific sensors: NO, NO2, O3 and CO/ H2S/ SO2 . Designed for low power applications, the ISB should require 3.5 to 6.4 stable DC supply at only 1mA. | 56 |