

## **Tender document**

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

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### **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     | <p><b>NO<sub>x</sub> Sensors (4 Electrodes)</b></p> <p>Range (ppb): 0 - 500 ppb<br/>           Min detection limit: 1 ppb<br/>           Accuracy of Factory calibration:<br/>           &lt;±0.008 ppm 0-0.1 ppm<br/>           &lt;±10% 0.1-0.5 ppm</p> <p>Resolution: 1 ppb<br/>           Response time: 1sec to 60 secs (max)<br/>           Operating conditions:<br/>           Temp: 0 to 50 c<br/>           RH: 0 to 100%</p>   | 32       |
| 2     | <p><b>O<sub>3</sub> Sensors (4 Electrodes)</b></p> <p>Range (ppb): 0 - 500 ppb<br/>           Min detection limit: 1 ppb<br/>           Accuracy of Factory calibration:<br/>           &lt;±0.008 ppm 0-0.1 ppm<br/>           &lt;±10% 0.1-0.5 ppm</p> <p>Resolution: 1 ppb<br/>           Response time: 1sec to 60 secs (max)<br/>           Operating conditions:<br/>           Temp: 0 to 50 c<br/>           RH: 0 to 100%</p>  | 32       |
| 3     | <p>Sensor Interface Circuit Board (ISB equivalent)</p> <p>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, H<sub>2</sub>S, SO<sub>2</sub> and NO) and reducing (O<sub>3</sub> and NO<sub>2</sub>) gases. The ISB should be configured for specific sensors: NO, NO<sub>2</sub>, O<sub>3</sub> and CO/ H<sub>2</sub>S/ SO<sub>2</sub> . Designed for low power applications, the ISB should require 3.5 to 6.4 stable DC supply at only 1mA.</p> | 56       |

