**CUSTOMER APPLICATION QUESTIONNAIRE**

Company: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Analyzer Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e-mail: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fax: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Project:**

Plant/Method/Process: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Humidity Application: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Required Analytical Specifications:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Analyte to be Quantified |  | Sample Gas Composition (background) |  | LDL\*  (Lower Detectable Limit) |  | Detection Range\* |  | Accuracy |  | Response Time |
| 1. |  |  |  |  |  |  |  |  |  |  |  |
| 2. |  |  |  |  |  |  |  |  |  |  |  |
| 3. |  |  |  |  |  |  |  |  |  |  |  |
| 4. |  |  |  |  |  |  |  |  |  |  |  |
| 5. |  |  |  |  |  |  |  |  |  |  |  |

***\* Units in ppbv, ppmv, Vol%, etc****.*

**Sampling Conditions:**

Min: Normal: Max: Units:

Sample Gas Temperature: \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (°C, °F, °K)

Sample Gas Pressure: \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (psi, kPa, Pa, etc.)

Ambient Temperature (sample point): \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (°C, °F, °K)

Ambient Temperature (sample lines): \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (°C, °F, °K)

Ambient Temperature (analyzer): \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (°C, °F, °K)

Ambient Relative Humidity: \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (%)

Sample Gas Dew Point: \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ (°C, °F, °K)

Sample Outlet: No Outlet:\_\_\_\_\_\_ Vent to Atmosphere:\_\_\_\_\_\_\_ Vent to Vacuum:\_\_\_\_\_\_ Return to Process:\_\_\_\_\_\_\_

Does / may Gas Condense? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Detailed Gas composition: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solid Particles in Gas? (Y/N): \_\_\_\_\_\_ Particle density \_\_\_\_\_\_\_\_\_ mg/m3 Particle Size:\_\_\_\_\_\_\_\_\_\_\_\_\_

Filtration Required? (Y/N): \_\_\_\_\_\_\_\_\_ Flow Range: \_\_\_\_\_\_\_\_\_\_\_\_ Flow Control: \_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Additional Sensor Requirements** | | | |
| **Transmitter Environmental & Mounting Questions (circle requirements)** | | | |
| Indoor / Outdoor | 2” pipe mount | Panel Mount | Surface Mount |
| Table-Top | Portable | Integrated sensor/transmitter | NEMA 4X enclosure |
| Transmitter Temperature Range |  | Sensor Transmitter Range |  |
| Distance between Sensor and Transmitter |  | Area Classification  Sensor:  Transmitter: |  |
| Instrument Configuration: |  | Cable Length: |  |
| Power Requirements & Connections | | | |
| 4-wire/100 – 250VAC 50/60Hz | 24VDC OR 12 VDC | 2-wire Loop Powered | Battery Powered |
| Display Requirements: | Local | Remote | None |
| Alarm Relays | How many? | Purpose of each | Contact Current? |
| Signal Output Requirements: | Analog: 4-20mA OR 0-24mA | 0-1V 0-2.5V 0-10V | RS232 |
| Approvals Required: | UL, FM, CSA, CENELEC, Other? | | |
| Certificate Requirements: | *ISO17025 Calibration, NIST certificate, minimum 8 points. Any special dew point range? Re-certification period?* | | |
| **Special Requirements:** | *Audible alarm – NFPA Breathing Air, Self-calibrating/validating, Self-wakeup, Datalogging, other?* | | |
| ISO17025 Calibration? |  | Factory Calibration? |  |
|  |  |  |  |

Additional details (include all known impurities and concentration levels, and any other pertinent information): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_