**Please provide the following information to help us provide a system that exactly suits your requirements.**

**Please don’t hesitate to contact us if you have any questions or if you need help filling out this questionnaire.**

|  |  |  |
| --- | --- | --- |
| **CUSTOMER:**  **Company**  **Contact name**  **Address**  **City, State, Zip code** | Email: | **your email address** |
|  |
| Phone: | **your phone number** |
|  |
| Date: | **Date** |

|  |  |  |
| --- | --- | --- |
| **Industry:** |  | ***Others \*1*** |

**Please select the sensors that you will need from the list below (maximum are 6 Sensors).**

|  |  |  |  |
| --- | --- | --- | --- |
| **What gases do you want to monitor**  **Electro chemical Sensors** | O2 | range 0 to 21 % |  |
| CO | range 0 to 4,000 ppm | **\*2** overload up to 10,000 ppm |
| CO high | range 0 to 4 % | **\*2** overload up to 10 % |
| NO | range 0 to 1,000 ppm | **\*2** overload up to 5,000 ppm |
| NO2 | range 0 to 200 ppm | **\*2** overload up to 1,000 ppm |
| SO2 | range 0 to 2,000 ppm | **\*2** overload up to 5,000 ppm |
| H2 **\*1** | range 0 to 1 % | **\*2** overload up to 2 % |
| H2S **\*1** | range 0 to 50 ppm | **\*2** overload up to 500 ppm |

**\*1 – choose either H2 or H2S – both are not possible. / \*2 – max. overload for a short time only.**

**Please choose one of the NDIR Benches below.**

|  |  |  |
| --- | --- | --- |
| **What gases do you want to monitor**  **Infrared Bench** | **single gas CO2 NDIR** | range 0 to 20 % overload 40% |
|  |  |
| **CO**  **CO2**  **CxHy as CH4 (calibrated with CH4 = methane)** | 0 – 3% (min range) up to 10%  0 – 3% (min range) up to 30%  0 – 1% (min range) up to 3% |
|  |  |
| **CO**  **CO2**  **CxHy as C3H8 (calibrated with C3H8 = propane)** | 0 – 3% (min range) up to 10%  0 – 3% (min range) up to 30%  0 – 5,000 ppm |
|  |  |
| **CO**  **CO2**  **CxHy as CH4 (calibrated with CH4 = methane)** | 0 – 30,000 ppm  0 – 3% (min range) up to 30%  0 – 10,000 ppm (min range) |

**OPTIONS for SYNGAS APPLICATIONS.**

|  |  |  |
| --- | --- | --- |
| **SYNGAS** | **CO**  **CO2**  **CxHy as CH4 (calibrated with CH4 = methane)** | 0 – 10% / 30% / 100%  0 – 10% / 30% / 100%  0 – 10% / 30% / 100% |
| **H2 Thermal conductivity detector (TCD)** | 0 – 10% / 30% / 100% |
| **Portable Syngas treatment (washing) device** | (Note: requires heated sampling line) |

**Available options - please choose below.**

|  |  |
| --- | --- |
|  | Stack gas flow velocity measurement including flow Calculation. Requires PITOT Tube from the selection that follows. |
|  | PITOT TUBE, 12” x 0.2” ID |
|  | PITOT TUBE, 20” x 0.2” ID |
|  | PITOT TUBE, 30” x 0.2” ID |
|  | PITOT TUBE, 40” x 0.3” ID |
|  | Interface for MMC (SD) card, incl. MMC card 1GB |
|  | RS 232 / RS 485 converter for long distance data transfer |
|  | RS 232 to USB converter for data transfer to notebook (function depends on type of PC/notebook ) |
|  | 8 Analog outputs, 4 – 20 mA |
|  | Analyzer heating device (antifreeze device) |
|  | External NiMh battery (12V, 9Ah) – provides additional 4 hours of battery operation. Includes fast battery charger. |
|  | External 12Vdc power supply cable for 12Vdc outlet. 16’ |
|  | Robust aluminium frame transport case with trolley and wheels |
|  | Stack draft probe, length 10”, with 40” silicone hose (REQUIRED for industrial gas sample probe with heated filter) |
|  | Combustion air temperature probe, 12” |
|  | Handheld remote control with 33’ transmission cable |
|  | Hand soot pump with soot scale (Bacharach) and soot filter paper |

**Please choose from the available Probes below.**

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **INDUSTRIAL PROBES HEATED or unheated** | **HIGH TEMPERATURE PROBES**  **HEATED or unheated** | **LOW Cost probe**  **for clean combustion** |

**INDUSTRIAL GAS SAMPLE PROBES**

**Includes exchangeable probe tube, gas temperature measurement using K-Type thermocouple, and heated, easy to change glass wool filter**

|  |  |
| --- | --- |
|  | **Gas sample probe handle with 9’ unheated sample line not suitable for NO2/SO2 long term measurement** |
|  | **Gas sample probe handle with 16’ unheated sample line not suitable for NO2/SO2 long term measurement** |
|  | **Gas sample probe handle with 10’ heated sample line +250°F regulated needed for NO2 / SO2** |
|  | **Gas sample probe handle with 16’ heated sample line +250°F regulated needed for NO2 / SO2** |
|  | Probe tube 12” x 0.5” **(up to 1200°F)** |
|  | Probe tube 30” x 0.5” **(up to 1200°F)** |
|  | Probe tube 40” x 0.5” **(up to 1200°F)** |
|  | Probe tube 60” x 0.5” **(up to 1200°F)** |
|  | Probe tube 80” x 0.5” **(up to 1200°F)** |
|  | Probe tube 30” x 0.5” INCONEL **(up to 2000°F)** |
|  | Probe tube 40” x 0.5” INCONEL **(up to 2000°F)** |
|  | Probe tube 60” x 0.5” INCONEL **(up to 2000°F)** |

**HIGH TEMPERATURE PROBES**

**Includes exchangeable probe tube, gas temperature measurement using K-Type thermocouple, and heated, easy to change glass wool filter**

|  |  |
| --- | --- |
|  | Gas sample probe handle with 9’ unheated sample line **not suitable for NO2/SO2 long term measurement** |
|  | Gas sample probe handle with 10’ heated sample line **needed for NO2 / SO2** |
|  | Gas sample probe handle with 16’ heated sample line **needed for NO2 / SO2** |
|  | Ceramic probe tube 40” x 0.4” ID with “S” type thermocouple **(up to 3000°F)** |

**LOW COST GAS SAMPLE PROBES**

**Include exchangeable probe tube, continuous stack draft measurement, gas temperature**

**measurement.**

**FOR CLEAN COMBUSTION ONLY (natural gas, light oil).**

|  |  |
| --- | --- |
|  | **Gas sample probe handle with 9’ unheated sample line not suitable for NO2/SO2 long term measurement** |
|  | **Gas sample probe handle with 16’ unheated sample line not suitable for NO2/SO2 long term measurement** |
|  | Probe tube 30” x 0.4” **(up to 930°F)** w/sintered metal filter at the probe tube tip |
|  | Probe tube 40” x 0.4” **(up to 930°F)** w/sintered metal filter at the probe tube tip |
|  | Probe tube 60” x 0.4” **(up to 930°F)** w/sintered metal filter at the probe tube tip |
|  | Probe tube 12” x 0.4” **(up to 1200°F)** |
|  | Probe tube 30” x 0.4” **(up to 1200°F)** |
|  | Probe tube 40” x 0.4” **(up to 1200°F)** |
|  | Probe tube 60” x 0.4” **(up to 1200°F)** |
|  | Probe tube 80” x 0.4” **(up to 1200°F)** |
|  | Probe tube 40” x 0.4” IICONEL **(up to 2000°F)** |
|  | Probe tube 60” x 0.4” IICONEL **(up to 2000°F)** |

|  |  |
| --- | --- |
| **Other requirements** |  |

**Please email this questionnaire to: info@mru-instruments.com**