# Ultima® X Series Gas Monitors – ATO Order Form

<table>
<thead>
<tr>
<th>A-ULTIMA X-GP</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
</table>

## Model
- G = General Purpose Stainless Steel, w/display
- W = General Purpose Stainless Steel, w/out display
- J = X Series junction box (No electronics)

## Gas Code – see list for gas type
- NOTE: Gas Code = 00 will include Enclosure (s), electronics and sensor body. No sensor assembly included.

## Configuration
- 0 = North American, NPT threads
- 1 = European / International, w/metric threads
- 2 = European / International, w/NPT threads

## Sensor Output
- 1 = 2-Wire mA output
- 2 = 2-Wire (mA + HART) output
- 3 = 3-Wire mA output
- 4 = 3-Wire (mA + HART) output

## Sensor Mounting Style
- S = Sensor mounted on control unit
- D = Sensor mounted on general purpose remote housing

## Relays and LEDs
- 0 = No relays and no LEDs
- 1 = LEDs, no relays (Required if Model = W)
- 2 = Relays and LEDs

## Display Language/Features
- 0 = English
- S = Spanish
- H = English with custom horn software

## Optional Power Supply
- 0 = None
- 1 = 12 VDC Internal
- 2 = 24 VDC Internal
- 3 = 12 VDC External (Brackets not included)
- 4 = 24 VDC External (Brackets not included)

## Gas Sample Selection
- 0 = None – Standard diffusion method
- 1 = Flow cap assembly
- XE
- XIR

## Integrated Accessories
- 0 = None
- 1 = HART Port (requires cable P/N 10081441)
- 2 = Pushbutton switch
- 3 = Both HART port & pushbutton switch
  - Note: Option 3 requires use of a HART module

## Installation Hardware
- 0 = None
- 1 = Bracket
- 2 = Duct Mount Kit
- 3 = Brackets + Duct Mount Kit

## Manuals – alternate quantities can be ordered separately
- 0 = Standard
- 1 = Hardcopy + CD

## Custom Features
- 0 = None
- C = Custom operation necessary
- T = Custom Tagging, SS
- TC = Custom Tagging/CUSTOM operations necessary
- CC = Certificate of calibration request

## Sensor Selection Table

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Carbon Monoxide 0-100 PPM</td>
<td>11</td>
</tr>
<tr>
<td>Carbon Monoxide 0-500 PPM</td>
<td>12</td>
</tr>
<tr>
<td>Oxygen 0-10%</td>
<td>13</td>
</tr>
<tr>
<td>Oxygen 0-25%</td>
<td>14</td>
</tr>
<tr>
<td>Hydrogen Sulfide 0-10 PPM</td>
<td>15</td>
</tr>
<tr>
<td>Hydrogen Sulfide 0-50 PPM</td>
<td>16</td>
</tr>
<tr>
<td>Hydrogen Sulfide 0-100 PPM</td>
<td>17</td>
</tr>
<tr>
<td>Chlorine 0-5 PPM</td>
<td>18</td>
</tr>
<tr>
<td>Nitric Oxide 0-100 PPM</td>
<td>20</td>
</tr>
<tr>
<td>Hydrogen Cyanide 0-50 PPM</td>
<td>22</td>
</tr>
<tr>
<td>Hydrogen Chloride 0-50 PPM</td>
<td>23</td>
</tr>
<tr>
<td>Chlorine Dioxide 0-3 PPM</td>
<td>24</td>
</tr>
<tr>
<td>Hydrogen Sulfide 0-500PPM</td>
<td>25</td>
</tr>
</tbody>
</table>
Selection Guide for Ultima X Combustible (Catalytic)

**CATEGORY 31: NATURAL GAS & H2**  
Span is set at 25% LEL with 0.6% Propane

- Acetaldehyde: Ethylene, Methanol
- Acetylene: Ethylene Dichloride, Methylene Chloride
- Butadiene, 1, 3: Hydrogen, Monomethyl Amine
- Carbon Monoxide: MAPP Gas, Trigonox B
- Ethane: Methane

**CATEGORY 32: PETROLEUM VAPORS**  
Span is set at 40% LEL with 0.6% Propane

- 1, 1, 1-Trichloroethane: Cylohexane, Pentane (n)
- Acetic Acid: Dimethylethylene, Pentane (iso)
- Acetone: Dioxane, 1, 4, Pentene
- Acrolein: Epichlorhydrin, Propane
- Acrylonitrile: Ethanol, Propanol (n)
- Allyl chloride: Ether, Diethyl, Propylene
- Benzene: Ether, Dimethyl, Propylene Oxide
- Butane (n): Ethylene Oxide, Propylene Oxide
- Butane (iso): Freon 152°, Tetrahydrofuran
- Butanol (iso): Gasoline, Toluene
- Butene – 1: Hexane, Trichloroethylene
- Butene – 2: Isoprene, Triethylamine
- Butyl Acetate (n): Methyl Acetate, Vinyl Acetate

**Butyne**  
Methyl Chloride, Vinyl Chloride

**Butynaldehyde**  
Methyl Propene (2)

**Chlorobenzene**  
Methyl-1-Butyl Ether

**CATEGORY 33: GENERAL SOLVENTS**  
Span is set at 55% LEL with 0.6% Propane

- Butanol (n): Ethyl Benzene, Methyl Methacrylate
- Butyl Acrylate: Heptane, Naphtha, VM&P
- Cellulosolve: Hexene, Octane (iso)
- Diisopropylamine: JP - 4, Propyl Acetate
- Diethylamin: Methyl Cellosolve, Styrene
- Ethyl Acetate: Methyl Ethyl Ketone, Xylene

If application includes gases in more than one category, specify highest number category.

**SELECTION GUIDE FOR**  
**ULTIMA XIR COMBUSTIBLE**

**CATEGORY 38: Methane Calibration**

<table>
<thead>
<tr>
<th>Controller Code</th>
<th>Cylinder Cal Value</th>
<th>Cylinder Cal P/N</th>
<th>Span Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane</td>
<td>2.5% Methane</td>
<td>10028032</td>
<td>50% LEL</td>
</tr>
</tbody>
</table>

**CATEGORY 39: Non-Methane Calibration**

<table>
<thead>
<tr>
<th>Controller Code</th>
<th>Cylinder Cal Value</th>
<th>Cylinder Cal P/N</th>
<th>Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>29% LEL</td>
</tr>
<tr>
<td>Ethane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>25% LEL</td>
</tr>
<tr>
<td>Butane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>28% LEL</td>
</tr>
<tr>
<td>Pentane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>33% LEL</td>
</tr>
<tr>
<td>Hexane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>41% LEL</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>0.6% Propane</td>
<td>10028034</td>
<td>30% LEL</td>
</tr>
<tr>
<td>Ethylene</td>
<td>0.1% Propane</td>
<td>711054</td>
<td>28% LEL</td>
</tr>
</tbody>
</table>

For sensing multiple gases always calibrate for the least sensitive gas or vapor expected to be measured (highest response factor within category).

All other combustible gas span values available upon request.

**Key:**

- UL approved, Class I, Div 1 & 2, Groups A, B, C, D;
- Class II, Div. 1, Groups E, F, G for IR, Groups F, G for E-chem and catalytic; Class III
- FM approved Class I, Div. 1 & 2, Groups A, B, C, D for oxygen, catalytic and IR
- CSA approved Class I, Div. 1, Groups A, B, C & D for E-chem and catalytic, Groups B, C & D for IR
- $530 for Ultima XL only
- ATEX or IEC approved Ex d IIc T4, IP66
- Available as custom product only
- XP Stainless Steel only
- X1R must have conduit
- Available with intrinsically safe barrier and ATEX approval or UL Div. 2 approval
- Not available as XL model
- Not available as XT model
- Not available on XPL
- Not to be used in Helium or Argon backgrounds. Use #62 in its place.