

Ultima® X Series Gas Monitors – ATO Order Form

A-ULTIMA X-XP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬

- ① **Model**
E = Explosion proof, with display
I = XI (IR sensor with no display)
L = Explosion proof, no display
 Catalytic & Electrochemical Infrared
 Infrared
J = X series junction box (No electronics)
- ② **Gas Code** – See list for gas type
NOTE: The following codes will provide enclosure and electronics only. No sensor components.
01 = “Standard” toxics and oxygen
02 = Catalytic
03 = IR
04 = “Reactive” toxics (ex. Cl, HCl, ClO₂, NH₃, HF, EtO)
- ③ **Configuration**
 - A = ATEX w/metric threads
 - B = ATEX w/NPT threads
 - * C = CSA approval w/NPT threads
 - > F = FM approval (cFM_{us}) w/NPT threads
 - + U = UL approval w/NPT threads
 - I = IEC approval w/metric threads
- ④ **Sensor Output**
0 = No PCBA, (use when ordering sensor body & sensor only)
1 = 2-Wire mA output
2 = 2-Wire (mA + HART) output
3 = 3-Wire mA output
4 = 3-Wire (mA + HART) output
- ⑤ **Sensor Mounting Style** –
S = Sensor mounted on control unit
D = Sensor mounted on remote housing
N = No conduit
- ⑥ **Relays and LEDs**
0 = No relays and no LEDs
1 = LEDs, no relays (Required if Model = L)
2 = Relays and LEDs
- ⑦ **Display Language/Features**
0 = English
S = Spanish
H = English with custom horn software
- ⑧ **Optional Power Supply**
0 = None
1 = 12 VDC Internal
2 = 24 VDC Internal
3 = 12 VDC External
4 = 24 VDC External

- ⑨ **Gas Sample Selection**
0 = None – Standard diffusion method
1 = Flow cap assembly
 XE
 XIR
- ⑩ **Integrated Accessories**
0 = None
1 = XP HART port
2 = Reset/Cal switch – approved for Div. 1, Gr. B-D only
3 = Both XP HART port and Reset/Cal switch
 Note: option 3 requires use of a HART module
- ⑪ **Installation Hardware**
0 = None
1 = Brackets
2 = Duct Mount Kit
3 = Brackets + Duct Mount Kit
- ⑫ **Manuals – alternate quantities can be ordered separately**
0 = Standard
1 = Hardcopy + CD
- ⑬ **Custom Features**
0 = None
C = Custom operation necessary
T = Custom Tagging, SS
TC = Custom Tagging/Custom operations necessary
CC = Certificate of calibration request
CF = Certificate of conformance request
CB = Both Certificates



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
- ATEX approved Ex D IIC T4, IP66



The Safety Company

Mine Safety Appliances Company • P.O. Box 427 • Pittsburgh, PA 15230

Sensor Selection Table

- 0 None
- 11 Carbon Monoxide 0-100 PPM
- 12 Carbon Monoxide 0-500 PPM
- 13 Oxygen 0- 10%
- 14 Oxygen 0-25%
- 15 Hydrogen Sulfide 0-10 PPM
- 16 Hydrogen Sulfide 0-50 PPM
- 17 Hydrogen Sulfide 0-100 PPM
- “ ~ 18 Chlorine 0-5 PPM
- 19 Sulfur Dioxide 0-25 PPM
- 20 Nitric Oxide 0-100 PPM
- 21 Nitrogen Dioxide 0-10 PPM
- 22 Hydrogen Cyanide 0-50 PPM
- “ ~ 23 Hydrogen Chloride 0-50 PPM
- “ ~ 24 Chlorine Dioxide 0-3 PPM
- 25 Hydrogen Sulfide 0-500PPM
- “ ~ 26 Hydrogen Fluoride 0-10 PPM
- 27 Sulfur Dioxide 0-100PPM
- “ ~ 28 Chlorine 0-10 PPM
- 31 Combustible gas 0-100% LEL - Natural Gas & H₂
- 32 Combustible gas 0-100% LEL – Petroleum Vapors
- 33 Combustible gas 0-100% LEL – Solvents
- } ” ^ 34 Acetylene IR 0-2.5%
- } ” 35 Carbon Dioxide IR 0-0.5%
- } ” 36 Carbon Dioxide IR 0-2%
- } ” 37 Carbon Dioxide IR 0-5%
- 38 IR combustible 0-100% LEL- Methane
- 39 IR combustible 0-100% LEL – Propane
- 41 Phosphine 0-2 PPM
- 42 Arsine 0-2 PPM
- 43 Silane 0-25 PPM
- 44 Germane 0-3 PPM
- “ ~ 45 Diborane 0-50 PPM
- “ ~ 46 Bromine 0-5 PPM
- “ ~ 47 Flourine 0-10 PPM
- “ ~ 48 Ammonia 0–100 PPM
- 49 Hydrogen 0-1000 PPM
- “ ~ 50 Ethylene Oxide 0-10 PPM
- 51 Comb. Gas 0-100% LEL - ATEX - 4.4% CH₄
Natural Gas and H₂
- 52 Comb. Gas 0-100% LEL - ATEX - 1.7% Propane
Petroleum Vapors
- 53 Comb. Gas 0-100% LEL - ATEX - 1.7% 1.7% Propane
Solvents
- “ ~ 54 Ammonia 0-1000 PPM
- } ” x 55 Solvent Tolerant O₂
- 57 Carbon Monoxide 0-1000 PPM
- 58 Comb Gas IR – Methane 0-100% LEL –
ATEX - 4.4% CH₄
- 59 Comb Gas IR - Non Methane 0-100% LEL – ATEX
1.7% Propane
- “ ~ 61 Chlorine 0-20 PPM
- } ” x 62 Solvent & CO₂ Tolerant Oxygen
- } ” x 63 Low oxygen
- } ” x 64 Low solvent tolerant oxygen

**SELECTION GUIDE FOR
ULTIMA XIR COMBUSTIBLE**

CATEGORY 38: Methane Calibration

	Controller	Cal	Cylinder	Cal
	Code	Cylinder	P/N	Span Value
Methane	1	2.5% Methane	10028032	50% LEL

CATEGORY 39: Non-Methane Calibration

	Controller	Cal	Cylinder	Cal
	Code	Cylinder	P/N	Span Value
Propane	2	0.6% Propane	10028034	29% LEL
Ethane	3	0.6% Propane	10028034	25% LEL
Butane	4	0.6% Propane	10028034	28% LEL
Pentane	5	0.6% Propane	10028034	33% LEL
Hexane	6	0.6% Propane	10028034	41% LEL
Cyclopentane	7	0.6% Propane	10028034	30% LEL
Ethylene	8	0.1% Propane	711054	28% LEL

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
- ** Selections 3 – 11 must be zero
- ATEX approved Ex d IIC T4, IP66
- ^ Available as custom product only
- x XP Stainless Steel only
- X³IR 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