



The Safety Company

Mine Safety Appliances Company • 1000 Cranberry Woods Dr. • Cranberry Twp. PA 16066

Ultima X³ Technology - ATO Order Form

A-Ultima X3

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

1 Model Type

A = Nema 4X Plastic Enclosure
 E = 316 Stainless Steel Enclosure
Note: Subtract \$730 if no sensor selected
 G = 316 Stainless Steel, General Purpose
(except gas 38, 39)

2 Enclosure Type

0 = Plastic (North American Software)
 + 1 = Stainless Steel, UL approved, NPT threads
 • 2 = Stainless Steel, ATEX approved, metric threads
 • 3 = Stainless Steel, ATEX approved, NPT threads
 4 = Plastic, (European software)
 * 5 = Stainless Steel, CSA approved, NPT threads
 > 8 = Stainless Steel, FM Approved, NPT threads

3 Sensor Output

M = Modbus RTU

4 LED / Relay Option

0 = None
 1 = LEDs and No Relays
 2 = Relays and No LEDs
 3 = LED's and Relays

5 Power Supply Options

0 = None
 1 = Internal 85-256 VAC / 12 VDC
 2 = Internal 85-256 VAC / 24 VDC
 3 = External 85-256 VAC / 12 VDC (Bracket not included)
 4 = External 85-256 VAC / 24 VDC (Bracket not included)

6 Language Option

0 = English

7 Hardware / Software Options

0 = None
 1 = Push-button
 2 = PB w/ horn-reset
 3 = European Software

Plastic (A)	
Stainless Steel (G or E)	

~ Plastic (G)	
~ Stainless Steel (G or E)	

8 Signal Boost Option (US & Canada only)

0 = No
 1 = Yes

9 Sensor 1 Selection

See Sensor Selection Table

10 Sensor 1 Accessories

0 = Integral or Remote w/no conduit
 1 = Remote w/condulet, no signal boost
 no power supply
 2 = Remote w/condulet, signal boost &
 85-256 VAC supply
 3 = Remote w/condulet, signal boost, &
 7-30 VDC supply

11 Sensor 1 Installation Hardware

0 = None
 1 = Mounting Kit (XE only)
 2 = Duct Mount kit
 3 = Nema 4X Installation kit (XA only)
 4 = Mounting bracket with duct mount kit for XE
 5 = Nema 4X installation kit w/mounting bracket
 and Duct Mount Kit for XA
 6 = Duct Mount Kit, Metric only

12 Sensor 2 Selection

See Sensor Selection Table
 XA = Model Type A
 XE = Model Type E or G

XA	
XE	
XIR	

13 Sensor 2 Accessories

0 = Integral or Remote w/no conduit
 -- 1 = Remote w/condulet, no signal boost,
 no power supply
 -- 2 = Remote w/condulet, signal boost &
 85-256 VAC supply
 -- 3 = Remote w/condulet, signal boost, &
 7-30 VDC supply

14 Sensor 2 Installation Hardware

0 = None
 1 = Mounting Kit (XE only)
 2 = Duct Mount kit
 3 = Nema 4X Installation kit (XA only)
 4 = Mounting bracket with duct mount kit for XE
 5 = Nema 4X installation kit w/mounting bracket
 and Duct Mount Kit for XA
 6 = Duct Mount Kit, Metric only

15 Sensor 3 Selection

See Sensor Selection Table
 XA = Model Type A
 XE = Model Type E or G

XA	
XE	
XIR	

16 Sensor 3 Accessories

0 = Integral or Remote w/no conduit
 -- 1 = Remote w/condulet, no signal boost,
 no power supply
 -- 2 = Remote w/condulet, signal boost &
 85-256 VAC supply
 7-30 VDC supply

17 Sensor 3 Installation Hardware

0 = None
 1 = Mounting Kit (XE only)
 2 = Duct Mount kit
 3 = Nema 4X Installation kit (XA only)
 4 = Mounting bracket with duct mount kit for XE
 5 = Nema 4X installation kit w/mounting bracket
 and Duct Mount Kit for XA
 6 = Duct Mount Kit, Metric only

18 Custom

0 = None
 C = Custom
 T = Tagging, SS
 TC = Custom Tagging /
 Custom Operations Necessary
 CC = Certificate of Calibration request



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Sensor Selection Table

Table with 2 columns: Sensor ID and Sensor Name. Includes items like Carbon Monoxide, Oxygen, Hydrogen Sulfide, Chlorine, Nitric Oxide, Hydrogen Cyanide, Hydrogen Chloride, Chlorine Dioxide, Acetylene IR, Carbon Dioxide IR, Ammonia, Ethylene Oxide, Comb. Gas, Solvents, and Nitrogen Dioxide.

Selection Guide for Ultima X Combustible (Catalytic)

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

Table listing sensors for Category 31: Acetaldehyde, Acetylene, Butadiene, Carbon Monoxide, Ethane, Ethylene, Ethylene Dichloride, Hydrogen, MAPP Gas, Methane, Methanol, Methylene Chloride, Monomethyl Amine, Trigonox B.

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

Table listing sensors for Category 32: 1,1,1-Trichloroethane, Acetic Acid, Acetone, Acrolein, Cyclohexane, Dimethoxyethane, Dioxane, Epichlorhydrin, Pentane (n), Pentane (iso), Pentene, Propane.

Table listing various solvents and gases: Acrylonitrile, Allyl chloride, Benzene, Butane, Butanol, Butene, Butyl Acetate, Butylene, Chlorobenzene, Ethanol, Ether, Ethylene Oxide, Freon 152, Gasoline, Hexane, Isoprene, Methyl Acetate, Methyl Chloride, Methyl Propene, Methyl t-Butyl Ether, Propanol, Propylene, Propylene Oxide, Tetrahydrofuran, Toluene, Trichloroethylene, Triethylamine, Vinyl Acetate, Vinyl Chloride.

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

Table listing solvents: Amyl alcohol, Butanol, Butyl Acrylate, Cellosolve, Di isopropylamine, Diethylamine, Ethyl Acetate, Ethyl Acrylate, Ethyl Benzene, Heptane, Hexane, JP-4, Methyl Cellosolve, Methyl Ethyl Ketone, Methyl Iso. Ket., Methyl Methacrylate, Naphtha, Octane, Propyl Acetate, Styrene, 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 for Methane calibration: Controller Code 1, Cal Cylinder 2.5% Methane, Cylinder P/N 10028032, Cal Span Value 50% LEL.

CATEGORY 39: Non-Methane Calibration

Table for Non-Methane calibration: Lists Propane, Ethane, Butane, Pentane, Hexane, Cyclopentane, Ethylene with their respective controller codes, cal cylinders, and span values.

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 approved Ex d IIC T4, IP66
Available as custom product only
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
Not available on XPL
Not to be used in Helium or Argon backgrounds. Use #62 in its place.