



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

## Ultima Gas Monitors - ATO Order Form

**B-ULTIMA**

<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"/>
0	1	2	3	4	5	6	7	8	9	10

- 1 Gas Type**
- 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
  - \*\* 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 = Combustible IR 0-100% LEL - Category 34
  - 35 = Combustible IR 0-100% LEL - Category 35
  - 36 = Carbon Dioxide IR 0-2%
  - 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 = H2 0-1000 PPM
  - ^ \* 50 = Eto 0-10 PPM

- 2 Sensor Output**
- ++ A = Frequency
  - ++ B = Milliamp Output 4-20, 2 wire toxic and oxygen sensors or 3 wire combustible
  - C = Multiplex Output
  - D = Digital
  - E = Milliamp Output 4-20, 3 wire toxic and oxygen sensors
  - W = Wireless

**Caution:** All Milliamp Output Combustible or Toxic/Oxygen sensors with any accessory modules or pump modules must be a three wire connection.

- Key:**
- + Explosion-proof versions are UL approved for Class I, Div. 1, Groups B, C, and D
  - ++ Can be installed Intrinsically Safe per control drawing (Does Not Include IR Combustible)
  - \* Not Available in Explosion-proof
  - \*\* Refer to Selection Guide
  - ~ Not Available with Auto Calibration Module
  - ⌘ Requires Controller
  - » Remote sensor only with duct mount kit & relays
  - ^ 10 ppm SO2 cal gas = 4 ppm Eto

- 3 Enclosure Type**
- G = General Purpose Enclosure(s) (GP)
  - + X = Catalytic Combustible Versions (Gas Type 31, 32, & 33)
  - + X = IR Combustible Versions (Gas Type 34, 35, & 36)
  - + X = Explosion Proof Enclosure(s) (XP)
- 4 Sensor Mounting Style**
- S = Single Condulet
  - D = Dual Condulet (Remote)
- 5 Gas Sampling**
- 0 = Diffusion
  - ~ 1 = Pump, General Purpose
  - ~ 2 = Pump, Explosion Proof
  - ~ 3 = Aspirator, General Purpose
  - ~ 4 = Aspirator, Explosion Proof
- Note: If sensor XP, pump must be XP (rated Class 1, Div. 1, Group C&D only.)

- 6 Power Supply**
- 0 = None Required
  - 1 = 120/220 VAC - 50/60 Hz/12 VDC
  - 2 = 120/220 VAC - 50/60 Hz/24 VDC
- Caution: Three wire sensors are required if common power supply is being considered. See Power Supply Capacity Guide.

- 7 Accessory Modules**
- 0 = None
  - ⌘ 1 = Relay - General Purpose - Explosion Proof
  - ⌘ 2 = Auto Cal. - General Purpose - Explosion Proof
  - ⌘ 3 = Relay/Auto Cal. - General Purpose - Explosion Proof
  - ~⌘ 4 = Internal Relays
- Caution: No accessory modules can be added to Frequency or Milliamp output sensors if Ultimas are installed as Intrinsically Safe.

Note: For digital network relays, see Ultima Plus/DAN section.

- 8 Calibration Options**
- 0 = None
  - 1 = Calibrator
  - 2 = Controller
  - 3 = Calibrator and Controller

- 9 Installation Hardware**
- 0 = None
  - 1 = Strap Assembly (P/N 697281)
  - 2 = Hanger Assembly (P/N 814513)
  - » 3 = Duct Mount Kit



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**Custom Features**

- 0 = None
  - C = Custom Material
  - T = Tagging - Aluminum Tag
    - Stainless Steel Tag
  - L = Less Sensor
- Maximum 10 characters @ 1/8" height  
See wiring guide in manual for wiring size & length.