

# BW ULTRA

## HAND-HELD GAS DETECTOR



### Key Features

- Monitor up to 5 different gases with one unit
- Water-resistant design in an integral concussion-proof enclosure
- Large LCD allows for easy-to-read monitoring
- Integral motorized pump for remote sampling and fast response
- Rechargeable lithium polymer battery
- 95 dB alarm tone, bright LED alarm bars, & internal vibrating alarm
- Auto backlight activates in low light & when in alarm
- Four alarm levels: instantaneous Low Alarm, High Alarm, TWA, and STEL
- Records TWA, STEL, and max gas exposures (displays readings on command)
- Datalogger with programmable sampling intervals

## The new full-featured Ultra 5-gas portable

The BW Ultra utilizes up to 5 sensors for monitoring and detection of a variety of gases. The sensors can be custom selected with a maximum of 5 gases per unit. This allows the ULTRA to be configured for a multitude of applications.

With preset and user adjustable alarm setpoints, dangerous gas levels are instantly made aware by audible and visual alarms, as well as vibration; ensuring that personnel are aware of potential hazards.

A standard configuration for a facility requiring both confined space and ammonia detection would be comprised of the following sensors:

O<sub>2</sub> (Oxygen) | 0-25%  
 % LEL | 0-100% LEL  
 H<sub>2</sub>S (Hydrogen Sulfide) | 0-100 ppm  
 CO (Carbon Monoxide) | 0-2,000 ppm  
 PID set for NH<sub>3</sub> (Ammonia) | 0-1,000 ppm

This would be the 5-Gas PID listed below under Popular Configurations.

### Ordering Information

The ULTRA can be configured with up to 5 sensors to accommodate a variety of applications. Use the configurator tables to determine compatibility and configure the correct part number. For assistance and pricing, please contact CTI.

Each BW-Ultra is shipped calibrated with the following accessories: AC charger, 3' sample tubing, filter kit, quick start guide, and certificate of calibration.

### Optional Accessories

**BW-M5-PROBE** (Sample Probe)  
**BW-ULTRA-CC** (Carrying Case, hard shell)  
**BW-ID-ULTRA** (IntelliDock)  
**BW-ID-ENABL** (IntelliDock Enabler Kit)

### Popular Configurations:

**BW-ULTRA-XWHM00** (Confined Space)  
**BW-ULTRA-XWHMQ1** (5-Gas PID)  
**BW-ULTRA-XWHMA1** (5-Gas NH<sub>3</sub>)  
**BW-ULTRA-XWHMB1** (5-Gas CO<sub>2</sub>)

The IntelliDox automatically tests the gas detector and sensors while transferring data to the docking station. The Enabler Kit has all of the power and tubing hardware needed. These two products are necessary for auto-calibration and transfer of the data from the Ultra. Call for more information.



## Configurator Tables

**Step 1:**  
Select 1<sup>st</sup> sensor

Sensor	Range	Code
None	n/a	0
O <sub>2</sub> Oxygen	0-25%	X

**Step 2:**  
Select 2<sup>nd</sup> sensor

Sensor	Range	Code
None	n/a	0
% LEL, Filtered	0-100% LEL	W

**Step 3:**  
Select 3<sup>rd</sup> sensor

Sensor	Range	Code
None	n/a	0
H <sub>2</sub> S Hydrogen Sulfide	0-100 ppm	H
CO Carbon Monoxide	0-2000 ppm	M

**Step 4:**  
Select 4<sup>th</sup> sensor

Sensor	Range	Code
None	n/a	0
H <sub>2</sub> S Hydrogen Sulfide	0-100 ppm	H
CO Carbon Monoxide	0-2000 ppm	M

**Step 5:**  
Select 5<sup>th</sup> sensor

Sensor	Range	Code
None	n/a	00
*PID for NH <sub>3</sub>	0-1000 ppm	Q1
IR for %LEL	0-5 %	W4
IR for CO <sub>2</sub> Carbon Dioxide	0-50000 ppm	B1
SO <sub>2</sub> Sulfur Dioxide	0-100 ppm	S1
NH <sub>3</sub> Ammonia	0-100 ppm	A1
H <sub>2</sub> Hydrogen	0-2000 ppm	R1
Cl <sub>2</sub> Chlorine	0-20 ppm	C1
NO <sub>2</sub> Nitrogen Dioxide	0-50 ppm	D1
HCN Hydrogen Cyanide	0-100 ppm	Z1
NO Nitrogen Monoxide	0-200 ppm	N1
CO Carbon Monoxide (H <sub>2</sub> Resistant)	0-1000 ppm	M2

\*PID sensor programmed with correction factor for NH<sub>3</sub> unless specified otherwise

All CTI Configurations have black housing and the part numbers begins with BW-ULTRA. Sensor selections shall be placed in sequential order using the Configurator tables.

Example order number for a typical Confined Space configuration:

BW-ULTRA-	X	W	H	M	00
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## SPECIFICATIONS

Due to ongoing research and product improvement, specifications are subject to change

**Battery:**

18 hours (14 hours with PID or IR sensor) @ -4°F

**Pump Draw:**

Sample from up to 75 ft

**Data Logging:**

45 days based on 8 hour shifts every 15 seconds logging

**Calibration Due Date:**

Days remaining until next calibration displayed on start-up

**LCD:**

Continuous, alphanumeric gas readout and status display advises

**Tests:**

Activated Detectors automatically perform one internal diagnostic test every 24 hours

**Operating Temperature:**

-4 to +131F / -20 to +50C

**Humidity:** 5 - 95% RH (non-condensing)

**Dimensions:** 5.8 x 3.3 x 1.6 in

**Weight:** 14.5 oz (with clip)

**Alarm Indicators:**

**Visual alarms:** Flashing alarm bars visible from all angles. LCD indicates gas present and alarm levels encountered

**Audible alarm:** Typically 95 dB at 1 ft. / 30 cm variable pulsed audible alarm

**Vibrator alarm:** Pulses warning in gas alarm conditions, or for any status alarms

**Status alarms:** Low battery, over range, multiple gas, pump, and failed or missing sensor

**Alarm Levels:**

Instantaneous Low Alarm; Instantaneous High Alarm; TWA (time-weighted average), and STEL (short-term exposure limit)

**Alarm setpoints:** Displayed on activation and on demand.

**Gas concentration:**

Simultaneously and continuously displays gas concentration(s) for all sensors (in ppm or % LEL). Peak (max)/STEL/TWA ppm or %: Records exposures and displays on demand.

**Enclosure:**

Rugged, composite material; two-shot molded polymer case with integral anti-shock boot. IP66/68 water resistant and dust proof.

**User field options:**

Adjust STEL period (5-16 minutes in 1 minute intervals), Calibration span levels, Calibration interval, Bump test interval, Select combustible gases measurement: 0-100% LEL or Methane gas 0-5%LEL and PID correction factors, Calibration due date (1 to 365 days, or set to zero for off), Individual sensor enable/disable, Latching alarms, Stealth mode, Languages: English, French, German, Portuguese, Spanish, Simplified Chinese and Russian

**Certifications:**

**UL:** Class 1, Div 1, Group A, B, C, D  
Class 1, Zone 0, Group IIC

**ATEX:** II 1G Ex ia IIC T4 Ga

**IECEX:** Ex ia IIC T4 Ga

**CE:** European Conformity

**Warranty:**

Instrument: 3 years  
Sensors: 3 years (2 years NH<sub>3</sub>, 1 year PID and Cl<sub>2</sub>)  
Battery: 2 years