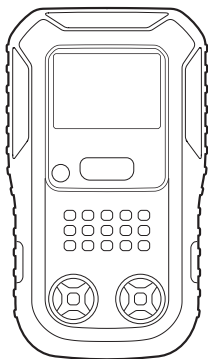**Honeywell**

BW Clip4

## Portable Gas Detector

Quick Start Guide

Safety Information

Four-gas detector, 24-month runtime

Use the detector only as specified in this Quick Start Guide and the Operator Manual, otherwise the protection provided by the detector may be impaired.

Read the following cautions before using the detector.
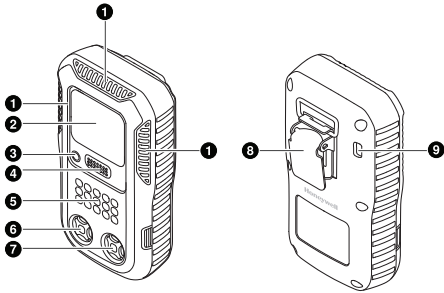
⚠ WARNING

- The BW Clip4 will not detect some combustible gases like Hydrogen or Acetylene. For detectable combustible gases, see **Detectable Combustible Gases** on page 7. If your application has one or more of these hazards, please consult Honeywell Analytics to determine the best solution.
- Substitution of components may impair Intrinsic Safety.
- Honeywell Analytics recommends performing a bump test prior to each day's use to confirm sensor response and alarm activation by exposing the detector to a concentration of target gas that exceeds the low alarm set point. Honeywell Analytics also recommends performing a bump test if the detector has been subjected to physical impact, liquid immersion, an Over Limit alarm event, custody changes, or anytime the detectors performance is in doubt.
- Special Condition of Safe Use: The BW Clip4 is provided with anti-static coating over the LCD window to minimize risk of ignition due to electro-static discharge. Periodic inspection of this coating is required to ensure no degradation, delamination, abrasions or other deformities to this surface. Care must be taken to avoid exposure to excessive heat, harsh chemicals or solvents, sharp edges and abrasive surfaces. Clean only with a damp cloth.
- The flammable sensor in BW Clip4 is infrared type sensor. The special care is needed: keep flammable sensor out of contact with aggressive substances e.g. acidic environments which can react with metals, as well as solvents which may affect polymeric materials. If BW Clip4's flammable sensor is suspected to be damaged by aggressive substances, please perform Bump Test and Calibration per this manual.
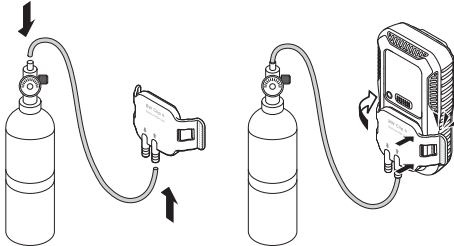
⚠ CAUTION

- Activate the detector before the activation date on the package.
- This product is a gas detector, not a measurement device.
- Ensure that the sensor grill is free of dirt, debris, and is not obstructed.
- Clean the exterior with a soft, damp cloth.

- For optimal performance, periodically zero the sensor in a normal atmosphere (20.9% v/v O_2) that is free of hazardous gas.
- Portable safety gas detectors are life safety devices. Accuracy of ambient gas reading(s) is dependent upon factors such as accuracy of the calibration gas standard used for calibration and frequency of calibration. Honeywell Analytics recommends performing a calibration at least once every 180 days (6 months).
- The combustible gas sensor is initially calibrated to 50% LEL methane. Only methane gas should be used to calibrate or bump test the combustible gas sensor.
- Only the combustible gas detection portion of this instrument has been assessed for performance.
- High off-scale readings may indicate an explosive concentration.
- Any rapid up scaling reading followed by a declining or erratic reading may indicate a gas concentration beyond the upper scale limit, which can be hazardous.
- Products may contain materials that are regulated for transportation under domestic and international dangerous goods regulations. Return product in compliance with appropriate dangerous goods regulations. Contact freight carrier for further instructions.
- Recycling: this instrument contains a lithium battery. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler.
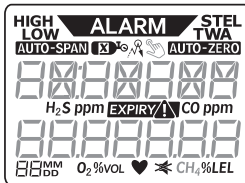
Appearance

1) Alarm indicators	2) Liquid crystal display
3) Beeper	4) Button
5) Combustible gas sensor	6) O$_2$ sensor
7) H$_2$S and CO sensors	8) Belt clip
9) Infrared transceiver	

Display Elements

4

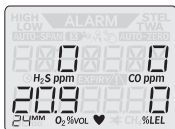|	
ALARM	This symbol is displayed when a gas alarm occurs.
HIGH	A gas concentration exceeds the high alarm threshold.
LOW	A gas concentration exceeds the low alarm threshold.
STEL	A STEL alarm occurs.
TWA	A TWA alarm occurs.
🖐	This is displayed when user's input is needed. It could be either a single press or a press-and-hold.
AUTO-SPAN	A span calibration is in progress or overdue.
AUTO-ZERO	A zero calibration is in progress.
🍼	A bump test or calibration is overdue.
🍼	A bump test or calibration fails.
₳	Peak readings are recalled.
⚠	A functional error occurs.
EXPIRY⚠	The remaining lifetime is less than 24 hours.
88ᴹᴹ	This is the remaining period of lifetime.
♥	This flashes as long as the detector works normally without any gas alarms and functional errors.
≽	Stealth mode is enabled. In stealth mode, the detector generates only vibration when a gas alarm occurs.

Activating the Gas Detector

Activate the gas detector in a place where the air is clean and free of hazardous gases. In normal air, the concentration of oxygen is 20.9%.

To activate the gas detector, press and hold the button until a 3-second countdown is displayed, and then continue to hold until the

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countdown is completed. While it is activated, the detector simultane-ously beeps, flashes and vibrates for a few seconds. Alarm thresholds are then displayed in turn. It may take the sensors up to one hour to stabilize. Finally, it displays all four gas concentrations and remain-ing life with the flashing heartbeat symbol ♥.

Gas Alarms

When a gas concentration is either over or under the specified limit according to the gas type, an alarm is generated. There are five types of gas alarms.

- Low-level alarm
- High-level alarm
- TWA alarm
- STEL alarm
- Over-limit alarm

NOTE

For more details on gas alarms, please refer to the full operator manual lo-cated on the Honeywell Analytics website.

Navigating the Menu

There are four main menu items:

- Information (I ΠFO HOLd)
- Bump test (tO bUMP HOLd)
- Zero (tO ZERO HOLd)
- Calibration (tO CAL HOLd)

Use the button to navigate the menu.

Get into the menu. Press the button twice in rapid succession, and the first menu item, I ΠFO HOLd is displayed.

Skip to the next menu item. Briefly press the button.

Choose a menu item. If the push symbol 👆 appears flashing, it means that the menu item on the display includes available user ac-tions. To choose the menu item, press and hold the button until a 3-second countdown is displayed, and then continue to hold until the countdown is completed.

Escape from the menu. Repeatedly press the button until $EXIt\ HOLd$ appears, and then press and hold the button. Alternatively, simply wait for 60 seconds until the timeout is over.

> **NOTE**
>
> For more details on each menu option, please refer to the full operator manual located on the Honeywell Analytics website.

Detectable Combustible Gases

Gas[1]	Expected response at 20% LEL target gas[2]
Methane	20% LEL
Propane	15% LEL to 45% LEL
Butane	15% LEL to 35% LEL
Pentane	15% LEL to 45% LEL
Hexane	8% LEL to 28% LEL
Methanol/Ethanol[3]	6% LEL to 26% LEL
Hydrogen	No response
Acetylene	No response

[1] For any gases not listed, please contact Honeywell Analytics to find the best solution for your application.

[2] The BW Clip4 LEL sensor is optimized to see methane. While the unit can detect and respond to the other combustible gases listed in the above table, the accuracy of the readings may be in-consistent. If the primary need is to detect a specific combustible gas other than methane, please contact Honeywell Analytics to discuss an alternative product.

[3] Please use caution when using the BW Clip4 around Methanol and/or Ethanol. The BW Clip4 CO sensor may become inhibited by prolonged exposure to concentrations of Methanol and/or Ethanol thus causing the unit to alarm. This condition can last up to 12 hours before the CO sensor recovers to normal levels.

Standard Certifications

The BW Clip4 gas detector is in conformity with the following standards:

    UL 913, 8th Edition
    UL 60079-0, 6th Edition
    UL 60079-11, 6th Edition
    CSA C22.2 No.152-M1984 (R2016)[1]
    CSA C22.2 No. 157-92 (R2012)
    CSA C22.2 No. 60079-0:15
    CSA C22.2 No. 60079-11:14

EN 60079-0:2012 +A11:2013
EN 60079-11:2012
IEC 60079-0:2011
EC 60079-11:2011

[1] BW Clip4's flammable sensor was evaluated for CSA C22.2 No.152-M1984 (R2016). In accordance with CSA C22.2 No. 152-M1984 (R2016), the adjustable alarm point shall not exceed 60% LEL.

UL (File Number E480011)
Classified by UL to both US and Canadian Standards as intrinsically safe for Class I, Division 1, Group A, B, C, D and Class I, Zone 0, Group IIC, –40°C ≤ Tamb ≤ +55°C.

ATEX (DEMKO 16 ATEX 1798X)
II 1G, Ex ia IIC T4 Ga, –40°C ≤ Tamb ≤ +55°C

CE
European Conformity

EU Declaration of Conformity
www.honeywellanalytics.com

IECEx (IECEx UL 16.0156X)
Ex ia IIC T4 Ga, –40°C ≤ Tamb ≤ +55°C

Honeywell

Keep this manual for later use.