

## Honeywell BW Solo User Manual



## 1. Reading before use

This manual must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions. The user should understand how to set the correct parameters and interpret the obtained results.

## 2. Warnings

To reduce the risk of electric shock, turn off power before removing the monitor cover. Disconnect the battery before removing sensor modules for service. Never operate this monitor while the cover is removed. Remove monitor cover and sensor modules only in an area known to be non-hazardous.

Sensors are not interchangeable; use only RAE Systems sensor, and use only the sensor type specified for your monitor. Use only RAE Systems batteries. Use of non-RAE Systems components will void the warranty and can compromise the safe performance of this product.

Warning: Substitution of components may impair Intrinsic Safety.

Warning: Use only the RAE P/N 500-0160-000 battery.

Warning: Batteries must only be changed in a safe area free of hazardous gas.

Calibrate only in a safe area that is free of hazardous gas in an atmosphere of 20.9% oxygen.

Use only a sensor specially designed for the SOLO model.

**WARNING: DO NOT CHANGE BATTERY IN A HAZARDOUS LOCATION.**

**AVERTISSEMENT: AFIN DE PRÉVENIR L'INFLAMMATION D'ATMOSPHÈRES DANGEREUSES, NE CHANGER LES BATTERIES QUE DANS DES EMPLACEMENTS DÉSIGNÉS NON DANGEREUX**

## 3. Regulatory compliance

### Caution:

This device complies with Part 15 of the FCC Rules / Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable

protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

## 4. General information

BW Solo (product name) is single gas monitor, it includes 20 kinds of gas measurement gas sensor type which is described as below.

<b>Sensor List</b>	
<b>Target Gas Type</b>	<b>Brand</b>
CO	Whittle
CO	RAE
H2S	Whittle
H2S	CiTiceL
H2S	RAE
O2	Whittle
O2	CiTiceL
CL2	Sensoric
H2	CiTiceL

CO-H	Alpha
SO2	CiTiceL
HCN	Alpha
O3	Sensoric
ETO	Alpha
PH3	CiTiceL
NO2	CiTiceL
NO	Alpha
CLO2	Sensoric
NH3	Sensoric

## 5. Product outlines



Alarm indication LED  
Warning indication  
LCD  
Alarm indication Buzzer  
Sensor  
Button



## 6. Product Features

BW Solo specification:

1. Size: whittle version: 70\*66.5\*24mm, 4R version: 70\*66.5\*30mm;
2. Working Temperature: -40 °C to +60 °C;
3. Working Atmospheric Pressure: 80kPa to 120kPa

BW solo function provides:

1. Single gas measurement depends on installation sensor;
2. Alarm indication: Light Band (6 red LEDs) and 3 window indication at top of instrument, sound alarm with buzzer, vibration by internal vibrator;
3. Warning indication: Triangle symbol light beside LCD;
4. LCD display show sensor reading and information;
5. One button operation for setting, information check, calibration;

Communication: IR is interface to intelligox (calibration equipment name), BLE is interface to mobile and PC which provide data transfer and instrument configuration. For android systems application, BW Solo provide passive NFC for BLE pairing

## 7. Operation

## Hold and timeout duration preferences

This table provides the interaction pattern to be implemented globally across the Clydesdale software development. Any previously documented settings are overruled by the table below.

Setting	Duration
Timeout <i>Non-interaction by user, but not within automated process ie. Bump, Calibration...</i>	6000ms
Short press	250ms
Double press <i>Accessing menu structure from 'idle' screen</i>	250ms x2
Power on hold	2000ms
Power off hold	5000ms
Action hold <i>Bump test process, zero sensors process, calibration process, TWA reading reset, STEL reading reset, peak reading reset</i>	3000ms
Short hold <i>Menu entry, menu selection, digit entry...</i>	1000ms

## Information menu

Menu sequence, including how the settings parameters affect the content displayed for each entry within the information menu.

Title in menu	Settings parameter	Display in menu
<b>Battery</b>	N/A	Number of days/hours remaining
<b>Bump</b>	Alert interval assigned within 'Reminders'	Number of days/hours remaining
<b>Calibrate</b>	Alert interval assigned within 'Reminders'	Number of days/hours remaining
<b>Assigned</b>	Assigned entry	Replicate assigned entry
	Off	Do not display (hide)
<b>Location</b>	Assigned entry	Replicate assigned entry
	Off	Do not display (hide)
<b>Low alarm</b>	Setpoint assigned within 'Setpoints'	Replicate assigned entry
<b>High alarm</b>	Setpoint assigned within 'Setpoints'	Replicate assigned entry
<b>TWA</b>	Setpoint assigned within 'Setpoints' and option to reset reading within 'Readings'	Last recorded gas measurement
<b>STEL</b>	Setpoint assigned within 'Setpoints' and option to reset reading within 'Readings'	Last recorded gas measurement
<b>Peak</b>	Option to reset within 'Readings'	Last peak reading within the past 24-hours and recorded time
<b>Serial</b>	N/A	Serial number (font display always set at 12px)
<b>Firmware</b>	N/A	Firmware version
<b>Exit</b>	N/A	Exit

## Settings menu

Menu sequence, including information displayed on screen for each entry and the actions available to configure detector.

Title in menu	Display in menu	Actions
<b>Language</b>	Current selected language	Change language selection
<b>Time</b>	Current time based on user setting	Edit time and choose between 12 or 24-hour format display
<b>Date</b>	Current date based on user setting	Edit date and choose between DD.MM.YYYY, MM.DD.YYYY or YYYY.MM.DD format display
<b>Setpoints</b>	Title only	Assignment of setpoint for low and high alarm, TWA and STEL
<b>Readings</b>	Title only	Reset TWA, STEL readings, Enable/disable Peak reading reset and perform action
<b>Latching</b>	'On' or 'Off'	Turn latching on, or off. Turn mute option on, or off
<b>Reminders</b>	Title only	Turn alert and force on, or off and set alert interval (in days) for bump and calibration
<b>Data log</b>	Assigned interval (in seconds)	Turn data log on, or off and set frequency interval (in seconds) for data collection
<b>BLE</b>	'On' or 'Off'	Turn discovery on, or off. Discovery on by default
<b>Assigned</b>	Assigned name or 'Off'	Turn assignment on, or off. Rename or enter worker name
<b>Location</b>	Assigned name or 'Off'	Turn assignment on, or off. Rename or enter location name
<b>Intelliflash</b>	'On' or 'Off'	Turn visibility on, or off. Turn confidence beep on, or off and set interval (10, 30 or 60 seconds)
<b>Non-compliance</b>	'On' or 'Off'	Turn indicator to on, or off. Turn alarms for gas event, bump due and calibration due to on, or off. Turn buzzer on, or off and set interval (10, 30 or 60 seconds)
<b>Exit</b>	Title only	Exit to main menu