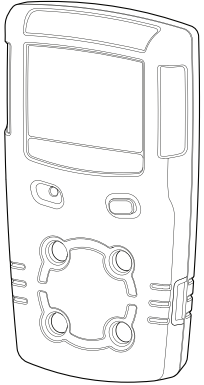


QUICK REFERENCE GUIDE



HONEYWELL BW™ MICROCLIP SERIES

1, 2, 3, and 4 Gas Detector

Honeywell

Intro

The Quick Reference Guide provide basic information for the Honeywell BW™ MicroClip X3 and Honeywell BW™ MicroClip XL.

For complete operating instructions, refer to the Honeywell BW™ MicroClip User Manual provided in <https://safety.honeywell.com>. The Honeywell BW™ MicroClip (‘the detector’) warns of hazardous gas at levels above user-defined alarm setpoints. The detector is a personal safety device. It is your responsibility to respond properly to the alarm.

What’s in the box

- Detector
- Calibration Cap
- Battery Charging Adapter
- QRG + Certificate

Safety Info – Read First

Use the detector only as specified in this manual and the reference guide, otherwise the protection provided by the detector may be impaired.

⚠ WARNING

This instrument contains a lithium polymer battery.

Dispose of lithium cells immediately. Do not disassemble and do not dispose of in fire. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler.

⚠ AVERTISSEMENT

Cet appareil contient une batterie au lithium polymère.

Mettez immédiatement au rebut les piles au lithium usagées. Veuillez à ne jamais les démonter ou les jeter au feu.

Ne les mélangez pas aux autres déchets solides. Les piles usagées doivent être éliminées par un centre de recyclage agréé ou par un centre de traitement de matières dangereuses.

⚠ CAUTION

- Substitution of components may impair Intrinsic Safety.
- For safety reasons, this equipment must be operated and serviced by qualified personnel only.
- Charge the detector before first time use. Honeywell recommends the detector be charged after every workday.
- Before using the detector, refer to Sensor Poisons and Contaminants in the User Manual.
- Calibrate the detector before first-time use and then on a regular schedule, depending on use and sensor exposure to poisons and contaminants. Honeywell recommends calibrating at least once every 180 days (6 months).
- The combustible sensor is factory calibrated to 50% LEL methane. If monitoring a different combustible gas in the %LEL range, calibrate the sensor using the appropriate gas.
- Only the combustible gas detection portion of this instrument has been assessed for performance by CSA International.
- Calibrate only in a safe area that is free of hazardous gas and in an atmosphere of 20.9% oxygen.
- It is recommended that the combustible sensor be checked with a known concentration of calibration gas after any exposure to contaminants/ poisons such as, sulfur compounds, silicon vapors, halogenated compounds, etc.
- Honeywell recommends to bump test the sensors before each day’s use to confirm their ability to respond to gas by exposing the detector to a gas concentration that exceeds the alarm setpoints. Manually verify that the audible and visual alarms are activated. Calibrate if the readings are not within the specified limits.
- Caution: 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.
- Extended exposure of the Honeywell BW™ MicroClip to certain concentrations of combustible gases and air may stress a detector element that can seriously affect its performance. If an alarm occurs due to a high concentration of combustible gases, calibrate the detector. If necessary, replace the sensor.
- Protect the combustible sensor from exposure to lead compounds, silicones, and chlorinated hydrocarbons.
- Sensor exposure to certain organic vapors (such as leaded gasoline and halogenated hydrocarbons) may temporarily inhibit sensor performance. After exposure, a bump test or calibration is recommended.
- For use only in potentially explosive atmospheres where oxygen concentrations do not exceed 20.9% (v/v).
- 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.

⚠ MISES EN GARDE

- Avertissement : Le remplacement d’un composant de l’appareil peut compromettre la sécurité intrinsèque du détecteur. Mise en garde: Pour des raisons de sécurité, cet appareil doit être utilisé et entretenu par du personnel qualifié uniquement. Lisez attentivement le manuel avant d’utiliser l’appareil ou d’en assurer l’entretien et assurez-vous d’en avoir bien compris les instructions.
- Chargez le détecteur avant sa première utilisation. Honeywell recommande de recharger le détecteur après chaque journée d’utilisation.
- Avant toute utilisation du détecteur, reportez-vous à la section.
- Étalonnez le détecteur avant sa première utilisation, puis de manière régulière, en fonction de l’utilisation et de l’exposition du capteur aux poisons et autres contaminants. Honeywell recommande d’effectuer un étalonnage au moins une fois tous les 180 jours (6 mois).
- Le capteur de gaz combustibles est étalonné en usine au méthane, à une concentration de 50 % de la LIE. Si le contrôle porte sur un autre gaz combustible dans la plage de % LIE, étalonnez le capteur en utilisant le gaz approprié.
- Sur cet appareil, seule la détection de gaz combustibles a fait l’objet d’une évaluation des performances par CSA International.
- Veillez à effectuer l’étalonnage dans une zone sûre, exempte de gaz dangereux, et dans une atmosphère contenant 20,9 % d’oxygène.
- Si le capteur de gaz combustibles a été exposé à des contaminants/poisons (composés de soufre, vapeurs de silicium, produits halogénés, etc.), il est conseillé de vérifier son bon fonctionnement en le mettant en présence d’une concentration connue d’un gaz.

- Avant chaque utilisation quotidienne, Honeywell recommande d’effectuer un test fonctionnel des capteurs afin de vérifier qu’ils réagissent bien aux gaz présents, en exposant le détecteur à une concentration de gaz supérieure aux seuils d’alarme. Vérifiez manuellement que les alarmes sonore et visuelle sont activées. Étalonnez l’appareil si les relevés ne sont pas conformes aux limites spécifiées.
- Mise en garde : Des relevés élevés hors échelle peuvent indiquer la présence d’une concentration explosive.
- Toute mesure en rapide augmentation suivie d’une diminution ou d’une mesure fantaisiste peut indiquer une concentration de gaz au-delà de la limite d’échelle supérieure, risquant donc d’être dangereuse.
- Une exposition prolongée du Honeywell BW™ MicroClip à certaines concentrations de gaz combustibles et dans certaines atmosphères peut nuire à l’élément de détection et altérer gravement ses performances. Étalonnez le détecteur après toute exposition à des concentrations élevées de gaz combustibles ayant déclenché son alarme. Si nécessaire, remplacez le capteur.
- Protégez le capteur de gaz combustibles contre toute exposition aux composés de plomb, aux silicones et aux hydrocarbures chlorés.
- L’exposition du capteur à certaines vapeurs organiques (comme l’essence au plomb ou les hydrocarbures halogénés) peut altérer temporairement son bon fonctionnement. Il est recommandé de procéder à un test fonctionnel ou à un étalonnage après toute exposition.
- Cet appareil est destiné uniquement à une utilisation dans des atmosphères potentiellement explosives, dans lesquelles la concentration d’oxygène ne dépasse pas 20,9 % (v/v).
- Les produits peuvent contenir des matériaux qui sont réglementés pour le transport en vertu des règlements nationaux et internationaux de marchandises dangereuses. Retourner le produit conformément à la réglementation sur les marchandises dangereuses appropriées. Contactez transporteur de fret pour plus d’instructions.

Parts of the Honeywell BW™ MicroClip

Item	Description
1	IntelliFlash
2	Visual alarm indicators (LEDs)
3	Alligator clip
4	Charging connector / IR interface
5	Pushbutton
6	Carbon monoxide (CO) sensor
7	Hydrogen sulfide (H ₂ S) sensor
8	Oxygen (O ₂) sensor
9	Combustible (LEL) sensor
10	Audible alarm
11	Liquid crystal display (LCD)

Display Elements

Item	Description
1	Alarm condition
2	Automatically span sensor
3	Gas cylinder
4	Gas identifier bars
5	Battery life indicator
6	Stealth mode
7	Numeric value
8	Automatically zero sensor

Calibration

Procedure	Display	Procedure	Display
⚠ Caution Calibrate only in a safe area that is free of hazardous gas in an atmosphere of 20.9% oxygen. 1. Press and hold O as the detector performs the OFF countdown. Continue holding O when the LCD briefly deactivates.		4. When AUTO-SPAN is displayed and flashes, connect the gas cylinder and apply gas at a flow rate of 250 to 500 ml/min. After a sufficient amount of gas has been detected (approximately 30 seconds), the detector beeps. is displayed, and AUTO-SPAN flashes while the detector completes the calibration.	
2. The LCD then activates again and performs the CAL countdown. Continue holding O until the countdown is complete to enter calibration.		5. The LCD displays CAL DUE . Next, a screen displays showing the number of days remaining before calibration is due for each sensor. The LCD then displays the earliest calibration due date, as some sensors require more frequent calibrations.	
3. AUTO-ZERO flashes while the detector zeroes all of the sensors and calibrates the oxygen sensor. If a sensor fails to auto zero, it cannot be calibrated. When auto zero is complete, the LCD displays APPLY GAS .		Note: Only use the calibration cap during the calibration span process and for bump tests. Wind currents may cause false readings and poor calibrations. Do not calibrate the detector during or immediately after charging is complete.	

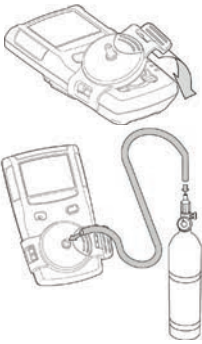
Bump Test

Use a premium-grade gas. Use gases approved by the National Institute of Standards and Technology.

Do not use a gas cylinder that is past its expiration date.

Note: To perform an automated bump test, refer to the IntelliDoX User Manual.

1. Connect the calibration hose to the 0.5 l/min regulator on the gas cylinder. For use with the IntelliDoX, use a demand flow regulator.
Note: Cylinders that are used with a demand flow regulator must meet the following maximum inlet pressure specifications:
 - Disposable cylinders 0-1000 psig/70 bar
 - Refillable cylinders 0-3000 psig/207 bar
2. Connect the calibration hose to the calibration cap.
3. Attach the calibration cap to the detector.
4. Apply gas. Verify the visual and audible alarms activate.
5. Close the regulator and remove the calibration cap from the detector.
Note: The detector will temporarily remain in alarm until the gas clears from the sensors.
6. Disconnect the hose from the calibration cap and the regulator.
Note: Only use the calibration cap during calibration and bump test.



Alarms

If **Stealth** mode is enabled, the audible and visual alarms are disabled. Only the vibrator alarm activates.

Alarm	Display	Alarm	Display
Low Alarm • Slow siren • Slow alternating flash • ALARM and gas bar flash • Vibrator alarm activates		TWA Alarm • Slow siren • Slow alternating flash • ALARM and gas bar flash • Vibrator alarm activates	
High Alarm • Fast siren • Fast alternating flash • ALARM and gas bar flash • Vibrator alarm activates		STEL Alarm • Fast siren • Fast alternating flash • ALARM and gas bar flash • Vibrator alarm activates	
Multi-Gas Alarm • Alternating low and high alarm siren and flash • ALARM and gas bars flash • Vibrator alarm activates		Over Limit (OL) Alarm • Fast siren and alternating flash • ALARM and gas bar flash • Vibrator alarm activates • OL displays	
Sensor Alarm • During startup Error [sensor name] displays • During normal operation Err displays		Confidence Beep and IntelliFlash • One beep and flash every second Note: Confidence Beep and IntelliFlash automatically deactivate during low battery alarm, self-test fail, calibration fail, bump test fail, or an alarm event.	
Low Battery Alarm • Sequence of 10 rapid sirens and alternating flashes with 7 seconds of silence in between (continues for 15 minutes) • and ALARM flash, LOW BAT displays, and the vibrator alarm activates • After 15 minutes of the Low Battery alarm, the Automatic Shutdown Alarm sequence begins • OFF displays before deactivating		Automatic Shutdown Alarm • Sequence of 10 rapid sirens and alternating flashes with 1 second of silence in between (sequence reactivates seven times) • LOW BAT and ALARM display, and vibrator alarm activates • OFF displays before deactivating	
		Note: Alarms can be set to latching or non-latching. To enable/disable latching, select/disable Latching Alarms in software menu. Local regulations may require a latching alarm. If Low Alarm Acknowledge is enabled and a low alarm occurs, press O to disable the audible alarm. The visual and vibrator alarms remain activated. If the alarm escalates to a high, STEL, or TWA alarm, the audible alarm reactivates.	

Charging the Rechargeable Battery

⚠ WARNING

Only the manufacturer can replace the rechargeable battery. Failure to adhere to this caution can lead to fire and/or explosion.

Charge only in a safe area that is free of hazardous gas and within temperatures of 32°F to 113°F (0°C to 45°C).

The charging adapter is specific to your region. Use of the charging adapter outside your region will damage the charger and the detector.

Do not calibrate during or immediately after charging.

To charge:

1. Deactivate the detector. Insert the charging adapter plug into an AC outlet.
2. Connect the charging adapter to the detector IR interface.
3. Charge the battery.
4. Charge the battery after each workday
5. Normal charge: 5-6 Hours

First-time charge:

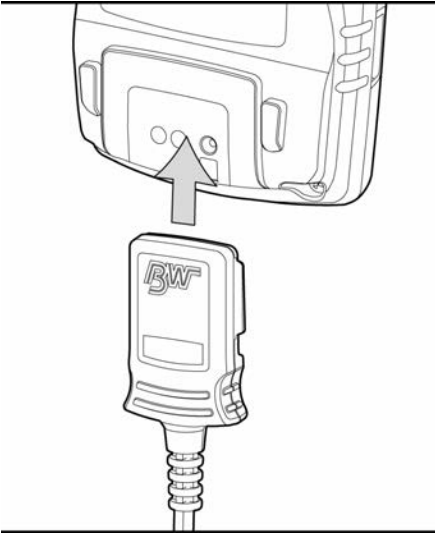
- XL-X3: 5-6 hours

Normal charge:

- XL-X3: 5-6 hours

Warranty:

- XL: 2 years including sensors.
- X3: 3 years including sensors.



Specifications

Instrument dimensions:

- XL-X3: 11.25 x 6.00 x 3.22 cm (4.4 x 2.4 x 1.2 in.)

Weight:

- XL: 190 g (6.7 oz)
- X3: 179 g (6.3 oz)

Operating temperature: -4°F to +122°F (-20°C to +50°C),

Storage temperature: -40°F to +122°F (-40°C to +50°C)

Operating humidity: 0% to 95% relative humidity (non-condensing)

Alarm setpoints: May vary by region and are user defined. All setpoints automatically display during the startup self-test.

Detection range:

- H₂S: 0 - 100 ppm (1 / 0.1 ppm increments)
- CO: 0 - 500 ppm (1 ppm increments)
- O₂: 0 - 30.0% vol. (0.1% vol. increments)
- Combustible (LEL): 0 - 100% (1% LEL increments) or 0 - 5.0% v/v methane

Indication Error: LEL: ± 5% FS; H₂S: ± 5x10-6; CO: ± 10%; O₂: ± 3% FS. 1ppm =1 ‘mol/mol

Sensor type: H₂S, CO, O₂: Single plug-in electrochemical cell Combustibles: Plug-in catalytic bead

O₂ measuring principle: Capillary controlled concentration sensor or oxygen pump.

Alarm conditions: TWA alarm, STEL alarm, low alarm, high alarm, multi-gas alarm, over limit (OL) alarm, low battery alarm, confidence beep, automatic shutdown alarm.

Audible alarm: 95 dB at 30 cm (1 ft.) (100 dB typical) variable pulsed beeper

Visual alarm: Red light-emitting diodes (LED)

Display: Alphanumeric liquid crystal display (LCD)

Backlight: Activates for 5 seconds when the pushbutton is pressed and during an alarm condition unless stealth mode is enabled.

Self-test: Initiated during activation

Calibration: Automatic zero and automatic span

Oxygen sensor: Automatic span on activation (enable/disable)

Typical Battery Life*:

- XL-X3: 18 hours. Recharges in less than 6 hours
- *Approximately 20% capacity loss is normal with lithium polymer batteries after 750 charge cycles. Refer to the Operator’s Manual for additional information.

Cold Weather Battery Life:**

- XL-X3: 12 hours at -4°F / -20°C

**Battery is guaranteed to have 12 hour runtime during warranty period under normal operating temperature of -4°F / -20°C to 122°F/50°C.

Approvals

Approved by CSA to both U.S. and Canadian Standards

CAN/CSA C22.2 No. 157 and C22.2 152

ANSI/UL - 913 and ANSI/ISA - 12.13.01 Part 1

CSA: Class I, Division 1, Group A, B, C, and D

ATEX: CE 0539 II 1 G Ex da ia IIC T4 Ga

DEKRA 19ATEX0025, EN IEC 60079-0:2018,

EN 60079-1:2014, EN 60079-11:2012

IECEx: Ex da ia IIC T4 Ga IECEx CSA 05.0015

IEC 60079-0:2011, IEC 60079-1:2014,

IEC 60079-11:2011

ANZEx: Ex da ia IIC T4 Ga ANZEx 08.3057X

UKCA: XXXXX Sir a 21

Manufacturers

RAE Systems Inc. (MicroClip XT/XL)

990 East Huiwang Road, Jiading

District, Shanghai, China 201815

Tel: = +86-21-69522616

BW Technologies by Honeywell (MicroClip XL/X3)

4411 6th Street S.E., Calgary, Alberta,

Canada T2G 4E8

Ademco de Juarez (MicroClip XL/X3)

Ave. Val Del Cedro 1681,

Parque Industrial Intermex

Ciudad Juarez, Chihuahua 32574, Mexico

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 and ICES-003 Canadian EMI requirements. 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.

Factory Calibration Certificate

We are committed to providing quality product. This instrument has undergone rigorous testing throughout its manufacture. This is the final report by the people that take pride in the products they build.

This instrument has been factory inspected, tested, and calibrated in accordance with the conditions and requirements of our registered Quality System, Operating Standards, and Sales Agreements.

All calibration gases are traceable to a known national standard.

Refer to your product user manual to determine the recommended calibration frequency.



Limited Warranty and Limitation Liability

Honeywell Analytics warrants the product to be free from defects in material and workmanship under normal use and service for a period of two years, beginning on the date of shipment to the buyer. This warranty extends only to the sale of new and unused products to the original buyer. Honeywell’s warranty obligation is limited, at Honeywell’s option, to refund of the purchase price, repair or replacement of a defective product that is returned to a Honeywell authorized service center within the warranty period. In no event shall Honeywell’s liability hereunder exceed the purchase price actually paid by the buyer for the Product.

- This warranty does not include:
- a. fuses, disposable batteries or the routine replacement of parts due to the normal wear and tear of the product arising from use;
 - b. any product which in Honeywell’s opinion, has been misused, altered, neglected or damaged, by accident or abnormal conditions of operation, handling or use;
 - c. any damage or defects attributable to repair of the product by any person other than an authorized dealer, or the installation of unapproved parts on the product; or the obligations set forth in this warranty are conditional on:
 - d. proper storage, installation, calibration, use, maintenance and compliance with the product manual instructions and any other applicable recommendations of Honeywell;
 - e. the buyer promptly notifying Honeywell of any defect and, if required, promptly making the product available for correction. No goods shall be returned to Honeywell until receipt by the buyer of shipping instructions from Honeywell; and
 - f. the right of Honeywell to require that the buyer provide proof of purchase such as the original invoice, bill of sale or packing slip to establish that the product is within the warranty period.

THE BUYER AGREES THAT THIS WARRANTY IS THE BUYER’S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HONEYWELL SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR BASED ON CONTRACT, TORT OR RELIANCE OR ANY OTHER THEORY.

Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of this warranty is held invalid or unenforceable by a court of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.

Contact

Europe, Middle East, Africa

Life Safety Distribution GmbH
Life Safety Distribution GmbH
Javastrasse 2
8604 Hegnau
Switzerland
Toll-Free 00800 333 222 44
Middle East +971 4 450 5800
Middle East +971 4 450 5852
(Portable Gas Detection)
gasdetection@honeywell.com

Technical Services

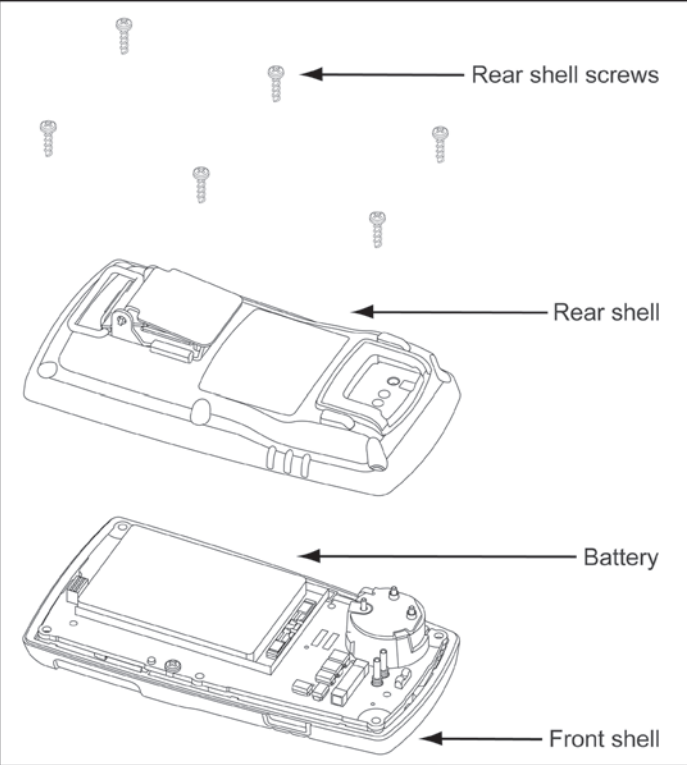
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India Tel: +91 124 4752700
analytics.ap@honeywell.com
https://safety.honeywell.com



Item	Description	Item	Description
1	Rear shell screws	3	Battery
2	Rear shell	4	Front Shell

Supplementary Booklet

Conformity Declarations



EU Declaration of Conformity

In accordance with EN ISO / IEC 17050-1:2010

GASALERTMICROCLIP XL, GASALERTMICROCLIP X3

Declaration Number: 2004Y0059_09

Description: Portable multi-gas detector
Intended Use: Monitoring of toxic gas, Oxygen and combustible gas concentrations.

Manufacturer: BW Technologies by Honeywell - 4411 6th Street SE, Calgary, Alberta T2G 4E8 Canada

Trading Company: Life Safety Distribution GmbH, Z.A. La Piece 16, 1180 Rolle, Switzerland

We hereby declare that the product identified above meets the requirements of the following EU Directives and therefore qualifies for free movement within markets comprising the European Union (EU) and the European Economic Area (EEA). This declaration is issued under the sole responsibility of the manufacturer.

ATEX Directive 2014/34/EU

ATEX Hazardous

Notified Body: DEKRA Certification BV - Meander 1051, 6825 MJ Arnhem, Netherlands
Notified Body Number: 0344
EC Certificate Number: DEKRA 19ATEX0025

Conforms to:
EN IEC 60079-0:2018 Explosive atmospheres - Part 0: Equipment - General requirements
EN 60079-1:2014 Explosive atmospheres: Equipment protection by flameproof enclosures "d"
EN 60079-11:2012 Explosive atmospheres: Equipment protection by intrinsic safety "i"

Type Approval: II 1 G Ex da ia IIC T4 Ga

Production Quality Assurance

Notified Body: UL International Demko A/S - Borupvang 5A, 2750 Ballerup, Denmark
Notified Body Number: 0539
QA Notification Number: 10 ATEX Q133296 (Calgary) 10 ATEX Q142995 (Juarez)
16 ATEX 7788Q (Shanghai)

Conforms to:
EN ISO/IEC 80079-34:2020 Explosive atmospheres: Application of quality systems for equipment manufacture

ECN00003587

2004Y0059



EMC Directive 2014/30/EU

Conforms to:
EN 50270:2015 Electromagnetic compatibility: Electrical apparatus for the detection and measurement of combustible gases, toxic gases and oxygen

RoHS Directive 2015/863/EU

Consideration given to
EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Signature:

Name: Steve Ulasz
Quality Engineer

Date: 1st October 2021

For and on behalf of BW Technologies by Honeywell, 4411 6th Street SE, Calgary, Alberta T2G 4E8 Canada

https://sps.honeywell.com

