

Sensepoint XCL

Fixed Gas Detector



UL 2075 Installation Manual

About This Manual

This manual describes how to install and use the Sensepoint XCL gas detectors for UL 2075 application and should be read by anyone who installs, operates, or maintains these products.

Read and understand this manual in full before you install the product.

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Contents

About This Manual	2
Contents	3
1 Introduction	5
1.1 Features	5
1.2 Appearance	6
1.3 Detectable Gases	6
1.4 Analog (mA) Output	6
1.5 Relay Output	7
1.6 Specifications	8
Dimensions and Weight	8
Power Supply	8
Outputs	9
Maximum Power Consumption	9
Operating Environment	9
Recommended Wall-Mounting Screws	9
Cable Gland	10
Gas Test Tubing	10
2 Installation	11
2.1 Safety Information	11
2.2 Installation Layout	12
2.3 Detector Module	13
2.4 Wiring of mA Output	13
Power Connection	13
Inhibit Level Selection	14
Current Source/Sink Selection	14
2.5 Securing the Back Box to a Wall	16
2.6 Cable Connections	17
2.7 Ground Connections	19
2.8 Securing the Detector Module to the Back Box	20

2.9 Remote Gassing Connection	21
3 Commissioning	22
3.1 Commissioning the Detector	22
3.2 Status Indicator	24
4 Maintenance	26
4.1 Using the Control Buttons	26
4.2 Maintenance Status Indicator	27
4.3 Calibration Cap	28
4.4 Calibration	29
4.5 Bump Test	31
4.6 Replacing the Sensor	32
4.7 Resetting Alarms and Faults	34
5 Mobile App	35
A Troubleshooting	36
A.1 Warning	36
A.2 Fault	36
B Warranty	37
C Safety Information for Wireless Devices	38
D Certification	40
E Contact Information	41

Chapter 1

Introduction

1.1 Features

Sensepoint XCL is a single-sensor fixed gas detector, which supports the following interfaces dependent on the model:

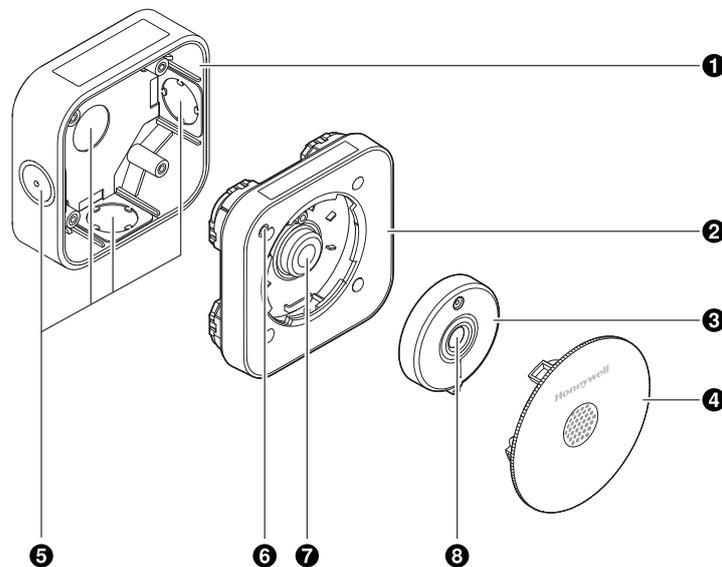
Analog output: Sensepoint XCL features current loop output, supporting signals in the range 0 to 22 mA. Typically this interface is referred to as 4 to 20 mA.

Relay output: Sensepoint XCL provides two change-over relays for signaling to external control systems or controlling external alarming devices, for example audible and visual alarm indicators.

Mobile app: A mobile app is available to commission and maintain the Sensepoint XCL gas detector.

Sensepoint XCL can be used either indoor or outdoors. If used outdoors, a sheltered location should be chosen, which is protected from direct sunlight and rain.

1.2 Appearance



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|------------------|-----------------------------|
| 1) Back box | 2) Gas detector module |
| 3) Sensor cover | 4) Front cover |
| 5) Cable entries | 6) Status indicator |
| 7) Gas sensor | 8) Dust protection membrane |
-

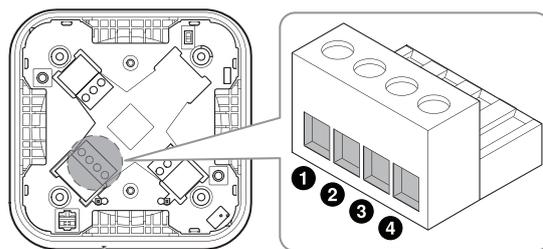
1.3 Detectable Gases

Sensepoint XCL is available for the detection of the following gases:

- Carbon monoxide (CO)
CO alarms between:
 - 60 to 240 min at 70 ppm
 - 10 to 50 min at 150 ppm
 - 4 to 15 min at 400 ppm
- Combustible gases
Methane alarms: less than 25%LEL

1.4 Analog (mA) Output

The 4-way terminal(s) block provide connection for both the gas detector output and the power supply.

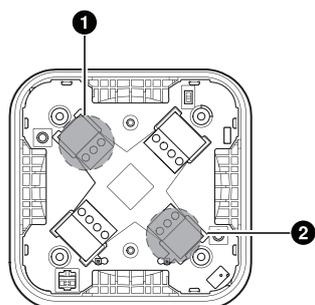


1) +24 V DC or 24 V AC
3) 4 to 20 mA

2) 0 V or 24 V AC
4) Common

For details on wiring for the analog output version, see Wiring of mA Output on page 13 and also Current Source/Sink Selection on page 14.

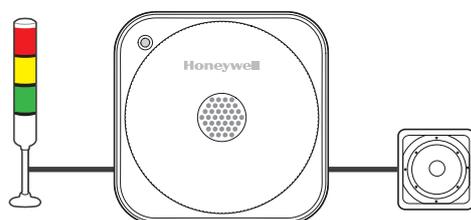
1.5 Relay Output



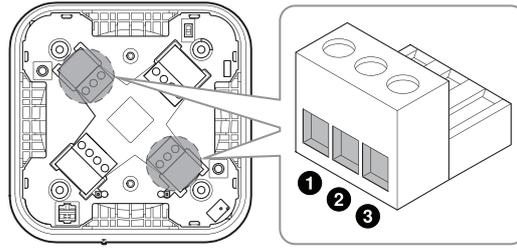
1) Relay No. 1

2) Relay No. 2

Where fitted, there are two configurable relays which can be used to control or signal to external devices, such as audible and visual alarms and other control systems.



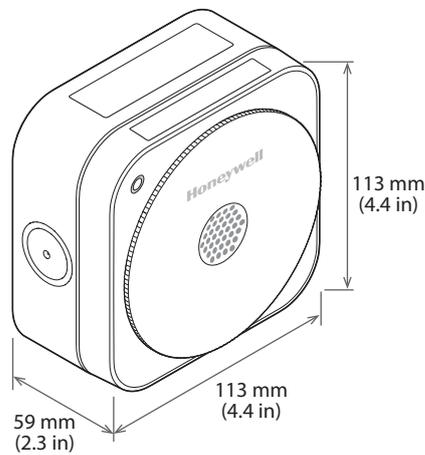
Connection to these relays are made through the two 3-way terminal blocks.



- | | |
|-------------------------|-----------|
| 1) Normally closed (NC) | 2) Common |
| 3) Normally open (NO) | |

1.6 Specifications

Dimensions and Weight



Length	113 mm (4.4 in)
Width	113 mm (4.4 in)
height	59 mm (2.3 in)
Weight	500 g (1.1 lb)

Power Supply

Sensepoint XCL requires an isolated power supply unit that is certified by a national or international standard, such as UL.

Nominal DC input voltage	24 V DC ¹
Nominal AC input voltage	24 V AC ² , 50/60 Hz
Inrush current	Less than 850 mA

¹11 to 32 V DC

²20 to 27 V AC

Outputs

Analog output	0 to 22 mA sink or source (configurable)
Relay output	5 A, 250 V AC, 24 V DC

The two relays can be used for fault signalling (normally energized) and for alarm signalling. The relay assignments and operation are configurable using the mobile app.

Maximum Power Consumption

The power consumption varies, depending on output version and sensor type. The additional maximum power consumption for the relay output version is 0.6 W.

Analog Output Version

	In normal state	During an alarm
Electrochemical-cell-type sensors	0.5 W	1.2 W
Catalytic-type sensors	1.0 W	1.7 W
Infrared-type sensors	1.0 W	1.7 W

Operating Environment

Operating temperature	-20 to 50 °C (-4 to 122 °F)
Storage temperature	0 to 30 °C (32 to 86 °F)
Humidity	0 to 100% (non-condensing)
Atmospheric pressure	90 to 110 kPa
Installation category	II (UL/CSA/IEC/EN 61010-1)
Pollution degree ¹	2 (UL/CSA/IEC/EN 61010-1)

¹Sensepoint XCL conforms to IP65, Type 4 (in accordance with NEMA 250) making it suitable for use in Pollution Degree 3 environments.

NOTE

Install Sensepoint XCL in a sheltered location away from direct UV light and rain.

Recommended Wall-Mounting Screws

Type	Countersunk, pan head
Size	4 mm (No. 8) diameter × 25 mm (1 in) min.

Cable Gland

Inner knockout	M20 or ½ NPT
Outer knockout	M25 or ¾ NPT

Gas Test Tubing

For a bump test, use urethane tubing with one of the below dimensions. Select tubing appropriate for the gas being detected and length of tubing. See Remote Gassing Connection on page 21.

Inner diameter	Outer diameter
4 mm (0.16 in)	6 mm (0.24 in)
6 mm (0.24 in)	8 mm (0.31 in)

Chapter 2

Installation

2.1 Safety Information

 **CAUTION**

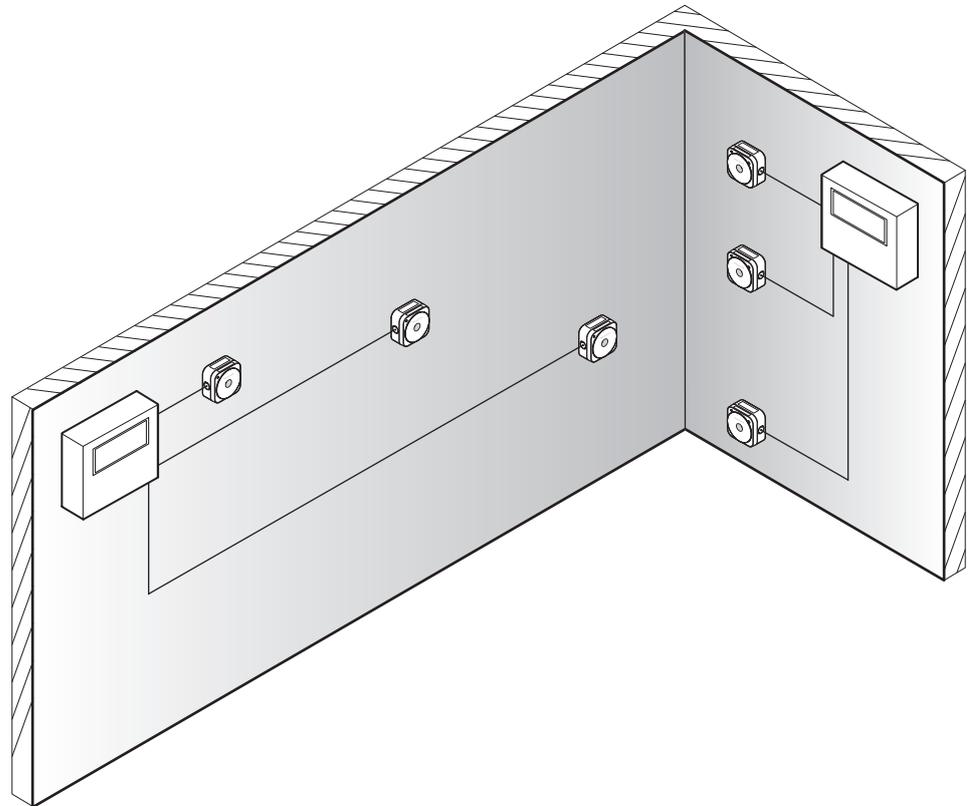
Failure to observe the precautions described in this section can cause injury to persons or damage to property.

Observe these precautions:

- To minimize the risk of electrostatic charge, provision shall be made for adequate grounding and equipment shall be installed in such a manner so that accidental discharge shall not occur.
- When Sensepoint XCL reaches the end of its life, it should be disposed of in accordance with local regulations.
- Do not use cleaning solvents or abrasives to clean the gas detector.
- Do not attempt to modify the product in any way from the manufacturer's design or specification. Warranty will be void and malfunction of the gas detector may result.
- Use only genuine spare parts and accessories with Sensepoint XCL. Malfunction may result if non-standard parts are used.

Sensepoint XCL is suitable for ordinary locations only and must not be installed in hazardous locations. Installation must be in accordance with the recognized standards of the appropriate authority in the country concerned. For Europe, see EN60079-14, EN60079-29-2, and EN61241-14. For installations in North America, the National Electrical Code (NFPA 70) should be strictly observed. All the appropriate local and national regulations should be observed.

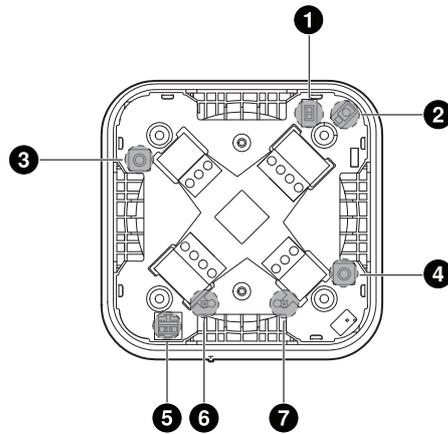
2.2 Installation Layout



A gas detector system uses analog current loop principle. Each detector is individually wired to the controller on its own cable.

Final positioning of gas detectors should be indicated by the characteristics of the gas being detected and other environmental factors. Seek advice from experts where necessary.

2.3 Detector Module

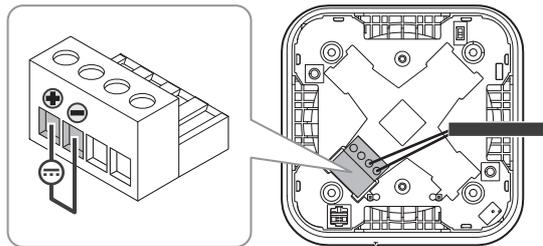


- 1) Inhibit switch
- 2) Status indicator
- 3) UP button
- 4) DOWN button
- 5) Current sink/source selection switch
- 6) Negative voltage output
- 7) Positive voltage output

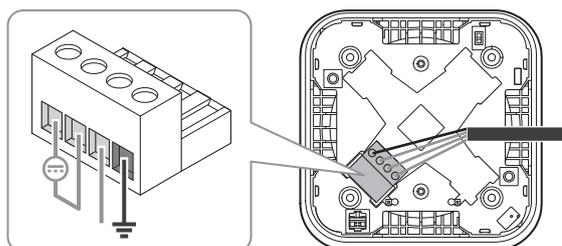
2.4 Wiring of mA Output

Power Connection

When connecting to DC power, make sure that the polarity is correct.

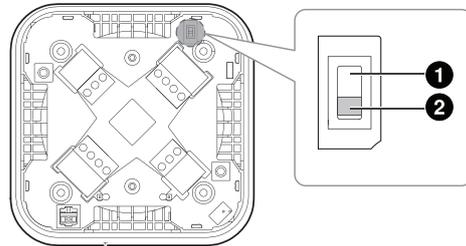


If an external power source is used, make sure that the fourth terminal is properly grounded for the analog output.



Inhibit Level Selection

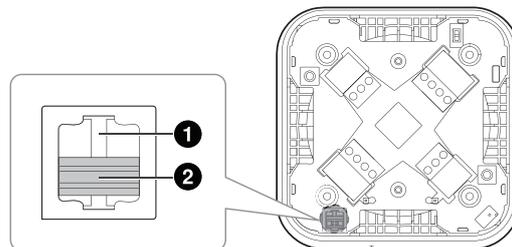
Use the inhibit switch to set the level of current which is required when inhibit is active.



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- 1) With this switch in the upper position, a current of 4 mA is output in inhibit mode.
 - 2) With this switch in the lower position, a current of 2 mA is output in inhibit mode on all versions.
-

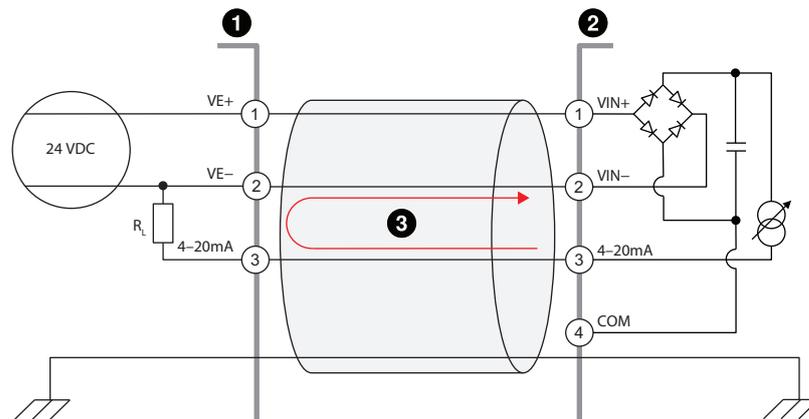
Current Source/Sink Selection

Use the current source/sink switch to choose between source mode and sink mode.



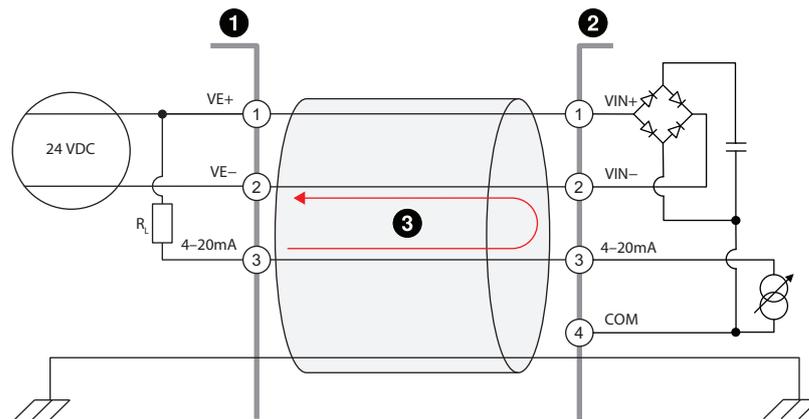
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- 1) Detector sink mode: With this switch in the upper position, the analog output drives current through the controller sensing circuit.
 - 2) Detector source mode: With this switch in the lower position, the analog output draws current through the controller sensing circuit.
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Detector Source Mode with DC Power



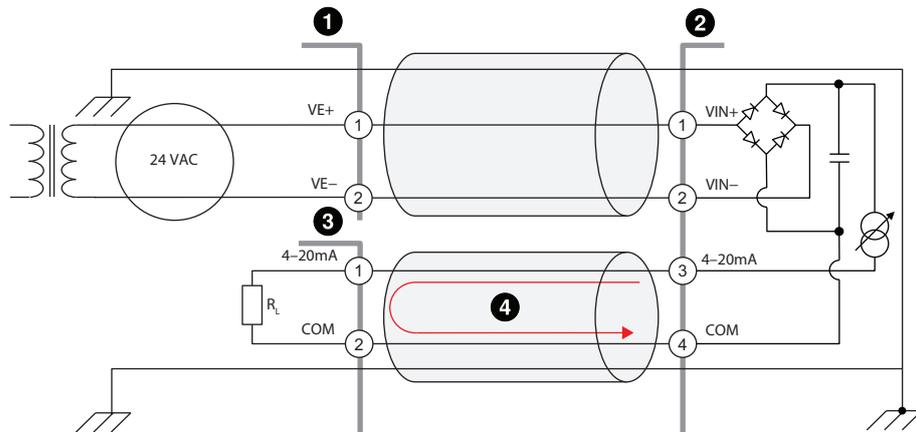
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| 1) System controller | 2) Sensepoint XCL detector |
| 3) Current flow | |
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Detector Sink Mode with DC Power



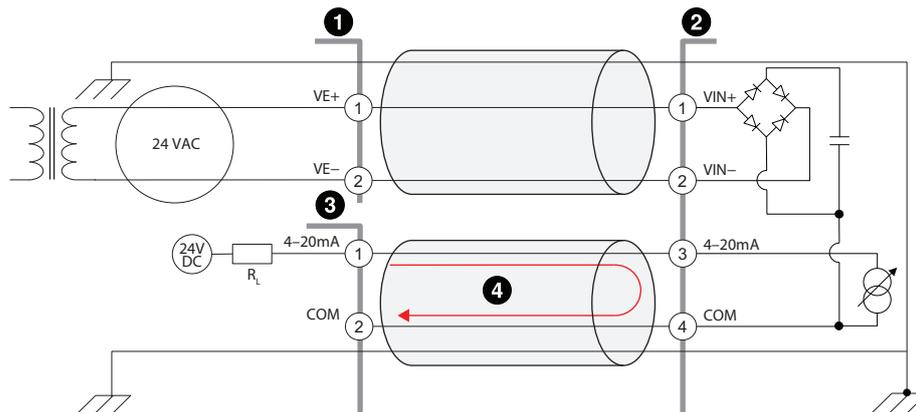
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|----------------------|----------------------------|
| 1) System controller | 2) Sensepoint XCL detector |
| 3) Current flow | |
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Detector Source Mode with AC Power



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|--------------------------|----------------------------|
| 1) External power supply | 2) Sensepoint XCL detector |
| 3) System controller | 4) Current flow |

Detector Sink Mode with AC Power

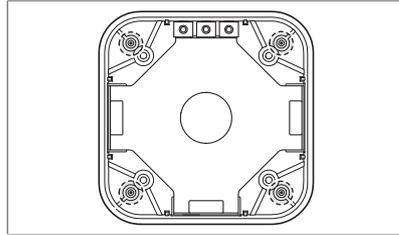


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|--------------------------|----------------------------|
| 1) External power supply | 2) Sensepoint XCL detector |
| 3) System controller | 4) Current flow |

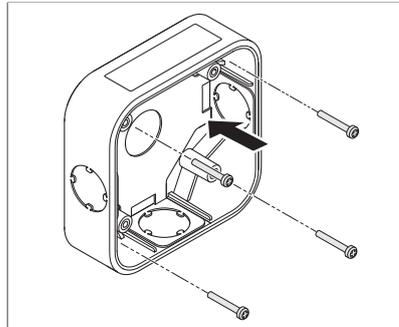
2.5 Securing the Back Box to a Wall

⚠ CAUTION

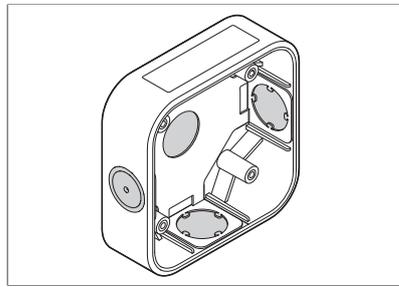
Before starting installation, make sure that the system controller or external power source is switched off.



1. There are four screw positions in the rear of the back box for mounting purposes. Punch the required screw positions or drill using a 4 mm drill.

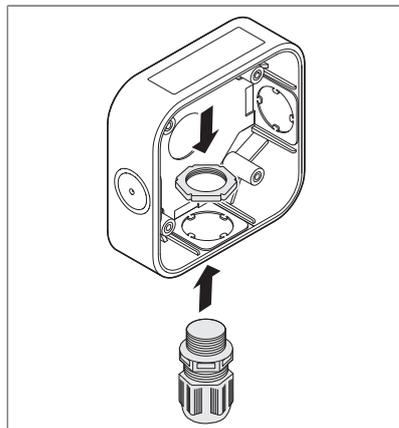


2. Secure the back box in its mounting position with suitable fixings appropriate to the mounting surface. Do not over-tighten.

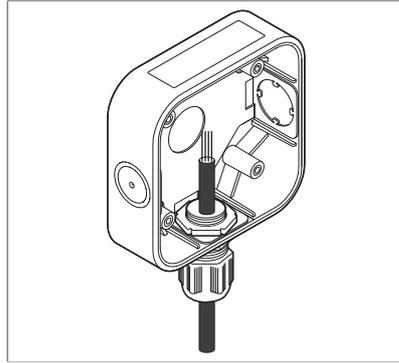


3. There are four cable entry knock-outs on three sides of and on the rear face of the back box. Drill or punch the entries as required.

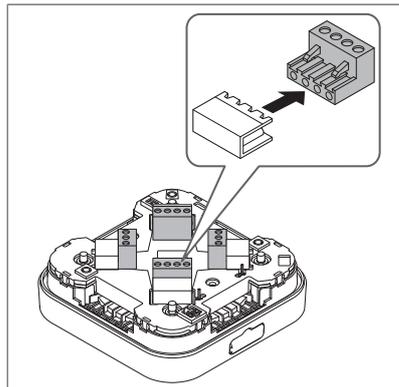
2.6 Cable Connections



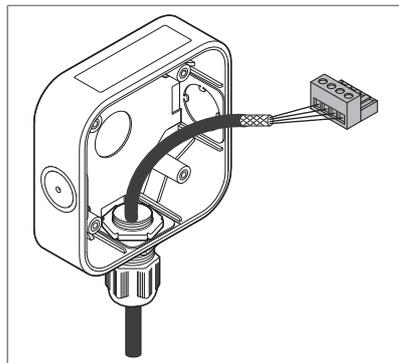
1. Fit suitable cable glands appropriate to the application and type of cable being utilized to the opened cable entries.



2. Feed the cable through the cable gland.



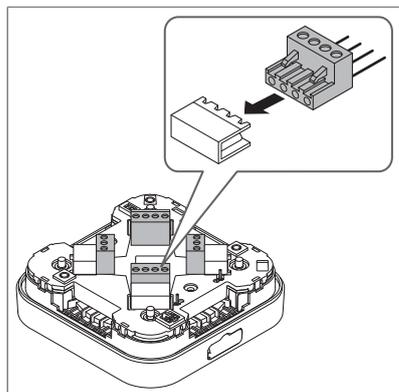
3. Turn over the detector module and locate the terminal blocks on the back. Remove the terminal blocks by pulling them toward the center of the module.



4. Connect the cable to the appropriate terminal block, referring to the relevant wiring diagram. Strip and insert the end of each wire into the corresponding terminal hole. Using a flat-blade terminal screwdriver, tighten the terminal screw until the wire is secured. Use a ferrule on the wire where necessary.

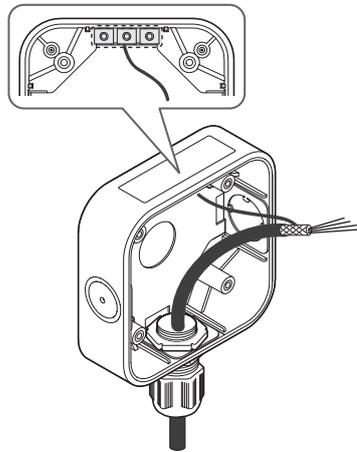
⚠ CAUTION

Do not over-tighten the terminal screw.



5. Replace the terminal blocks in their correct positions.

2.7 Ground Connections



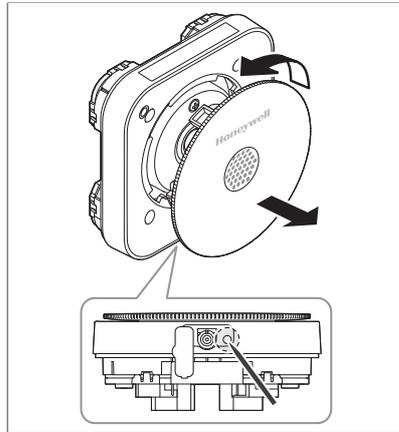
Effective grounding is crucial to ensure stable communications and to limit the effects of radio frequency interference. Ground points are provided inside the back box. In order to prevent false readings or alarms as a result of ground loops, ensure that the shield of all cables are grounded at a single point, preferably at the controller.

Consideration should also be given to how conduit, glands and the internal earth plate are also grounded.

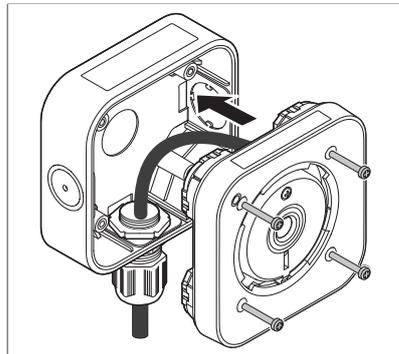
NOTE

Any earth regime must avoid earth loops.

2.8 Securing the Detector Module to the Back Box



1. Remove the front cover from the detector module to expose the four retaining screws as follows:
 - a) Pull the flap on the bottom side to expose the remote gassing port and front cover locking feature.
 - b) To unlock the front cover, insert a thin, straight tool, such as a small screwdriver, into the hole to the right of the remote gassing port.
 - c) Apply slight pressure to the tool and at the same time turn the cover counterclockwise until it stops. Lift the front cover clear of the module.



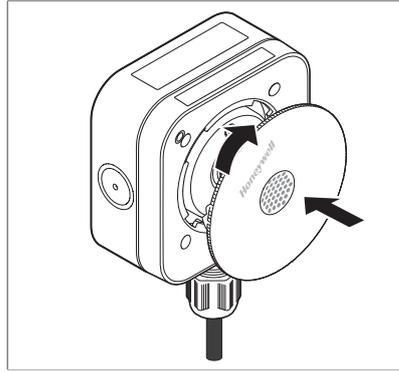
2. Position the detector module onto the back box ensuring that the status indicator is in the top left-hand corner when viewed from the front. Tighten the four retaining screws using a No. 2 Phillips screwdriver to secure.

⚠ CAUTION

Do not over-tighten the screws. If required, the current sink/source selection switch can be set at this point.



3. Where used, tighten the sealing nut of the cable gland to secure the cable.

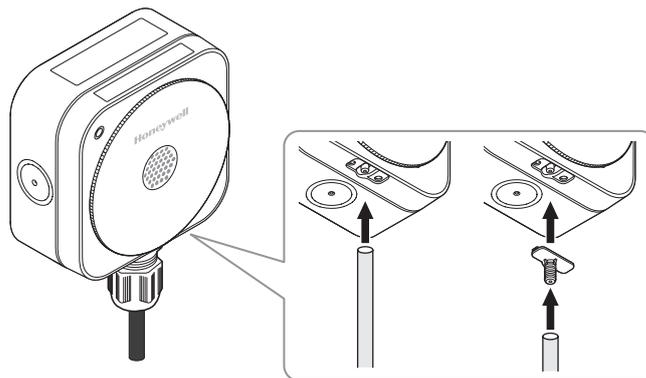


4. Replace the front cover. Place the front cover into the detector module in the position shown and rotate it clockwise until it locks into position.

2.9 Remote Gassing Connection

NOTE

Use the remote gassing connection for bump test only. Perform calibrations using the calibration cap accessory.



If the gas detector is installed in a difficult-to-access location, such as overhead on a ceiling, the remote gassing connection can be used to apply a test gas from a convenient location. Connect a tube appropriate for the type of gas being detected to the gas detector for bump test.

- For a temporary connection, open the flap on the bottom side and connect suitable tubing to the remote gassing port.
- For a permanent connection, remove the flap, clip in the tube connector accessory to the remote gassing port, and then connect a tube to the tube connector. Secure the tube using a cable tie or small jubilee clip, taking care not to over-tighten it.

Chapter 3

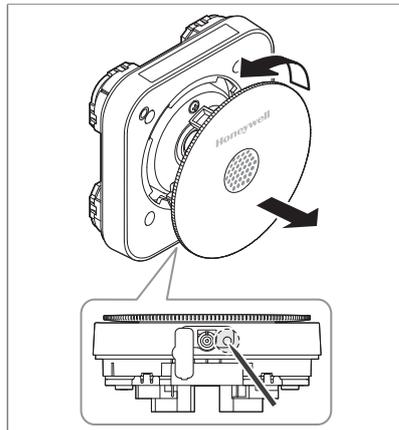
Commissioning

NOTE

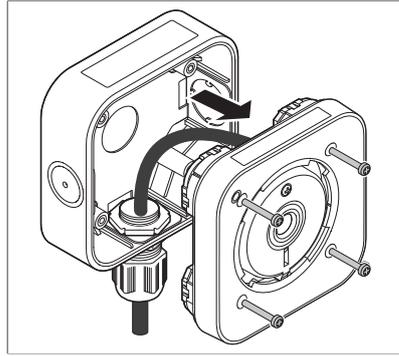
The Sensepoint XCL gas detector is supplied from the factory pre-calibrated. However, it is strongly recommended that the detector response is checked and if necessary, re-calibrated before placing it into service. Refer to Calibration on page 29 for details on the correct calibration procedure.

3.1 Commissioning the Detector

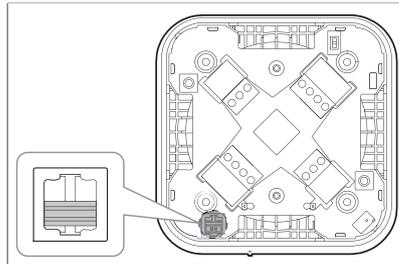
The following procedure should be followed carefully and only be performed by suitably-trained personnel.



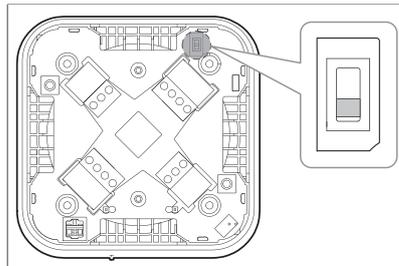
1. Remove the front cover.
 - a) Pull the flap on the bottom side to open it.
 - b) Insert a thin, straight tool, such as a small screwdriver, into the hole to the right of the remote gassing port.
 - c) Apply slight pressure to the tool, turn the cover counterclockwise until it stops. Lift the cover clear of the electronics module.



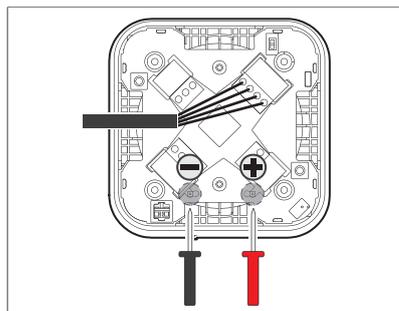
2. Remove the detector module of Sensepoint XCL.



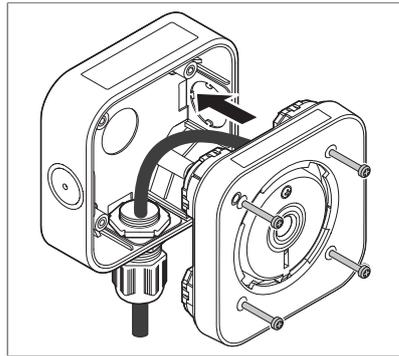
3. Configure the sink/source mode of the detector. Refer to Current Source/Sink Selection on page 14 on details of how to do this.



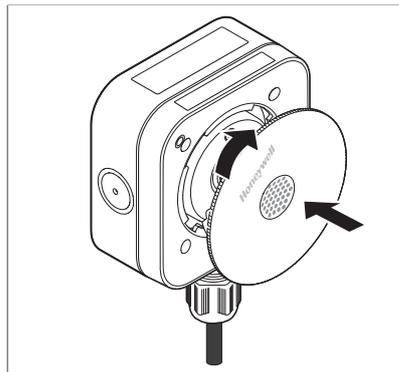
4. Configure the required inhibit level of the detector. Refer to section Inhibit Level Selection on page 14 on details of how to do this.



5. Check that all electrical connections are terminated correctly according to the connector terminal assignments shown on 7.
6. Switch on the power supply to the Sensepoint XCL.
 - a) For DC operation, use a voltmeter set to measure DC voltage at the detector. Check that the power supply voltage between terminals 1 (+V) and 2 (0 V) is between 9 V DC and 32 V DC for Modbus versions and 11 V DC and 32 V DC for analog versions.
 - b) For AC operation, use a voltmeter set to measure AC voltage to check that the power supply voltage between terminals 1 and 2 is between 20 V AC and 27 V AC.



7. Remove power and refit the detector module to the back box.



8. Refit the front cover.

9. Apply power. The Sensepoint XCL will enter a warm-up mode during which time the status indicator will be steady yellow and the output (mA version) will be held in an inhibited state.

10. After the warm-up has been completed, the Sensepoint XCL will enter its normal operating state.

3.2 Status Indicator

There is a status indicator on the face of the gas detector. The operating state of the detector is indicated by one of four colors, either steady or flashing.



- **Normal:** The indicator is on steady green when the concentration of the target gas is within normal range.

NOTE

Using the mobile Sensepoint app, you can change how the green indicator behaves during normal operation. Select between steady green (default setting), confidence flash every 20 seconds or off.

-  **Warning:** The indicator alternatively flashes green and yellow when the gas detector is in a warning state.
-  **Fault:** The indicator flashes yellow when the gas detector is in a fault state.
-  **Inhibited:** The indicator is on steady yellow when the user has placed the detector into the inhibit state for maintenance or repair.
-  **Alarm:** The indicator flashes red when the gas concentration is beyond the alarm-level threshold.
-  **Out-of-range alarm:** The indicator rapidly flashes red when the gas concentration is beyond the full scale deflection of the detector.
-  **Bluetooth pairing:** The indicator flashes blue when Bluetooth pairing between the gas detector and an Android device is in progress.
-  **Bluetooth connected:** The indicator is on steady blue when a Bluetooth connection is established and the detector is in a normal condition.

Chapter 4

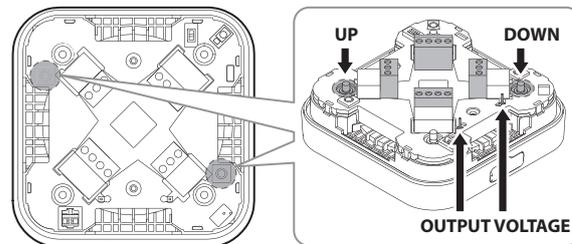
Maintenance

4.1 Using the Control Buttons

It is possible to perform basic maintenance functions on the Sensepoint XCL gas detector without the use of the mobile app. This is achieved through the use of two control buttons inside the detector. Familiarize yourself fully on the operation of these buttons before attempting to use them.

NOTE

Make sure that the inhibit level is set to the desired level. See Inhibit Level Selection on page 14.



To inhibit the detector output: Press and hold the UP button for 2 seconds.

To increase the output voltage: Briefly press the UP button. Pressing once increases by 0.01 V. To increase by 0.1 V, press and hold the button.

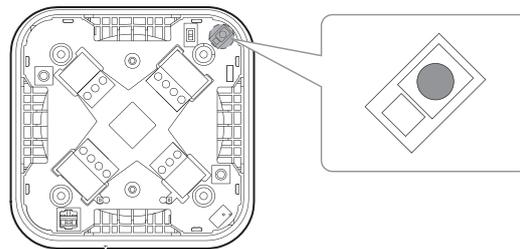
To decrease the output voltage: Briefly press the DOWN button. Pressing once decreases by 0.01 V. To decrease by 0.1 V, press and hold the button.

To move to the next stage: Press and hold the UP button for 2 seconds. If a change has been made, it is saved automatically before proceeding to the next stage.

To escape and discard all changes: This escape function can be used at any time during the procedures detailed in the following sections. Press and hold the DOWN button for 5 seconds.

4.2 Maintenance Status Indicator

There is another indicator on the rear of the detector module for easier maintenance. When performing maintenance, such as calibration or sensor replacement, using the control buttons, refer to the indicator to determine the status of the detector.



Inhibit mode

While in inhibit mode, the indicator is on steady yellow ●.

Sensor replacement mode

While in sensor replacement mode, the indicator slowly flashes yellow ☀. When in warm-up, the indicator is on steady yellow ●.

Zero calibration

During zero calibration, the indicator flashes long yellow ☀ followed by two short yellow flashes ☀. First short yellow flash indicates zero status and second flash indicates span status. The indicator flashes long yellow ☀ followed by short green flash 🌱 and short yellow flash ☀ when the zero calibration is successfully completed, but flashes long yellow ☀ followed by short red flash 🌶 and short yellow flash ☀ if it fails.

Span calibration

During span calibration, the indicator flashes yellow ☀. The indicator flashes green 🌱 with two short pauses when the span calibration is successfully completed, but flashes red 🌶 with two short pauses if it fails.

Calibration gas purge

While the calibration gas is purged, the indicator is on steady yellow ● .

Cancel

When a task is cancelled, the indicator flashes yellow ☀ with three short pauses.

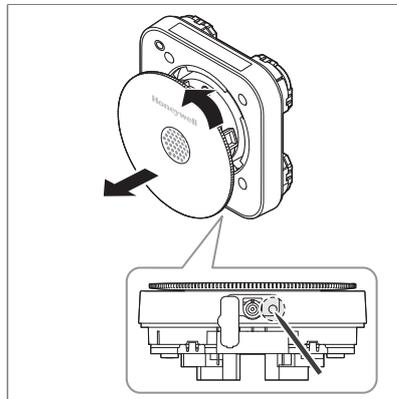
4.3 Calibration Cap

NOTE

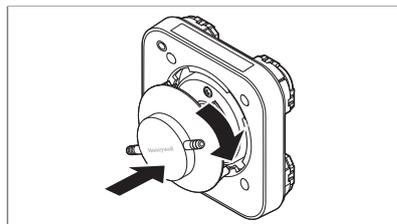
Always use a flow regulator, tubing and fittings appropriate for the type of gas being applied.

Use remote gassing connection for bump test only. Perform calibrations using the calibration cap accessory.

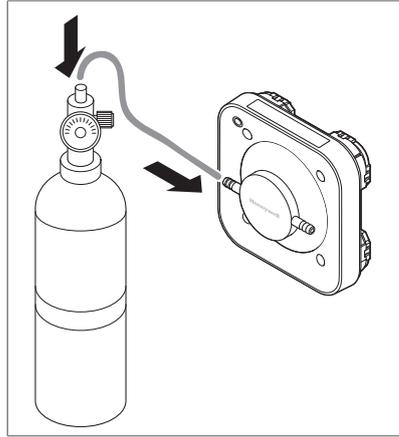
A calibration cap accessory is available for the application of reference gas for the purpose of calibration. To fit the calibration cap, follow the steps below.



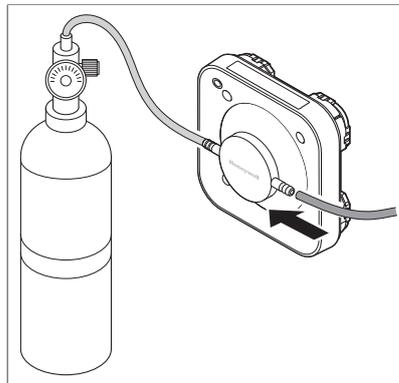
1. Remove the front cover.
 - a) Pull the flap on the bottom side to open it.
 - b) Insert a thin, straight tool, such as a small screwdriver, into the hole to the right of the remote gassing port.
 - c) Apply slight pressure to the tool, turn the cover counterclockwise until it stops. Lift the cover clear of the electronics module.



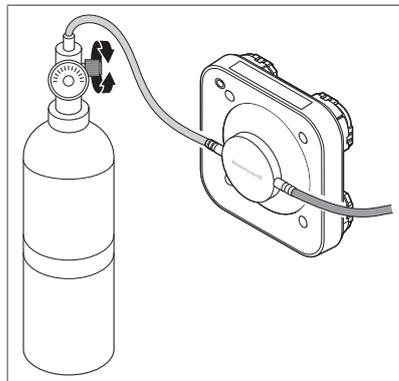
2. Attach the calibration cap to the detector. Insert the calibration cap into the front of the detector as shown, and turn it clockwise until it locks into place.



3. Connect a tube from a cylinder of calibration gas to either of the cap's gassing ports.



4. Connect another tube to the other gassing port, and place the end of this tube in a position so that gas can exhaust safely away from the work area and other personnel.



5. Refer to the regulator manufacturer for instructions on how to start and stop the gas flow from the cylinder.

⚠ CAUTION

Always use a gas cylinder that is within its expiration date.

4.4 Calibration

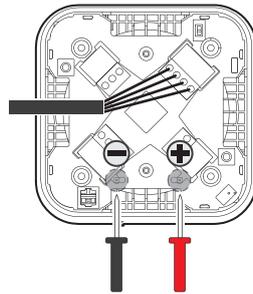
NOTE

On versions that feature the Bluetooth® link, it is preferential to use a smartphone running the app to perform maintenance tasks.

This section describes how to perform a calibration using the setting buttons and the internal maintenance status indicator. Before starting

calibration, make sure that the gas detector is powered on.

1. Activate inhibit mode by pressing and holding the UP button for 2 seconds. Make sure that the yellow indicator is on.
2. Connect the positive probe of a voltmeter to the positive terminal, and connect the negative probe to the negative terminal of the output voltage monitor.



3. Move to the next stage perform a zero calibration.
 - a) Move to the next step by holding the UP button for 2 seconds.
 - b) If there is any doubt of the quality of the atmosphere, connect a cylinder of fresh air to the detector using the installed tube or the calibration cap. For details about how to use a calibration cap, see Calibration Cap on page 28.
 - c) Apply fresh air to the detector, and wait for a few minutes until the reading is stable.
 - d) Using the UP and DOWN buttons, adjust the output voltage so that the voltmeter is reading slightly above zero, and then decrease the reading slowly so that it reads zero.
 - e) When the output voltage is adjusted close to zero, accept the zero calibration by holding UP button for 2 seconds.
4. If a span calibration is required, after successful zero calibration it will move to span calibration automatically. If a span calibration is not required, exit from calibration by holding DOWN button for 5 seconds. This will cancel a span calibration while zero calibration result sustains.
 - a) Move to the next step by holding the UP button for 2 seconds.
 - b) Connect a cylinder of span gas to the detector. Where the greatest accuracy is required, the cylinder concentration should be usually around the alarm set point or 50% of the range of the detector.

- c) Apply the span gas to the detector, and wait for a few minutes until the reading is stable.
- d) Using the UP and DOWN buttons, adjust the output voltage until it reaches the target value. Use the formula below to calculate what the correct voltage should be.

$$V_{\text{out}} = \text{Gas concentration} \div \text{detector range}$$

For example, if you are applying 45% LEL gas with a 100% LEL detector range, you would need to adjust the voltage output so that the reading on the voltmeter shows:

$$45 \div 100 = 0.45 \text{ V}$$

5. Purge the gas sensor.
 - a) Move to the next step by holding the UP button for 2 seconds.
 - b) Remove the span gas from the detector.
 - c) Make sure that the reading voltage out returns to zero. If there is any doubt that the detector is not in fresh air, apply cylinder air. Otherwise, an alarm may occur.
6. Use the cancel function to return to normal monitoring mode.

If repeated calibration attempts continue to fail, replace the gas sensor with a new one, and then try again. See Replacing the Sensor on page 32.

4.5 Bump Test

This section describes how to perform a bump test. For details about the mobile app, see Mobile App on page 35.

Bump testing is the process of exposing the gas sensor to a known concentration of reference gas that is greater than the low alarm threshold in order to verify the proper operation of the gas detector.

1. Connect your smartphone with the target gas detector via Bluetooth.
2. Place the detector in inhibit mode by using the inhibit control on the mobile app.
3. Connect a cylinder of reference gas to the target detector using a suitable tube connected to the gassing port or the calibration cap.

For details about how to use a calibration cap, see Calibration Cap on page 28.

4. Connect your smartphone with the target detector via Bluetooth.
5. Apply the bump test gas to the detector.

NOTE

For CO versions operating in UL 2075 alarm mode, apply 100 ppm of carbon monoxide at a flow rate of 300 ml/min for 3 minutes.

6. If the detector fails the bump test, check and if necessary, calibrate the detector.

NOTE

Perform a bump test at least twice a year.

4.6 Replacing the Sensor

⚠ WARNING

Use only genuine replacement sensors specifically for use with Sensepoint XCL. Attempting to use non-genuine sensors could result in malfunction of the product.

NOTE

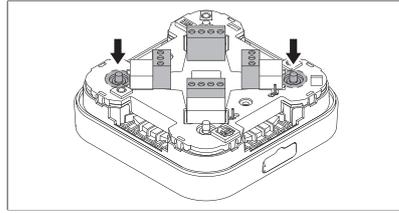
The operating lifetime of the CO sensor is 6 years.

⚠ CAUTION

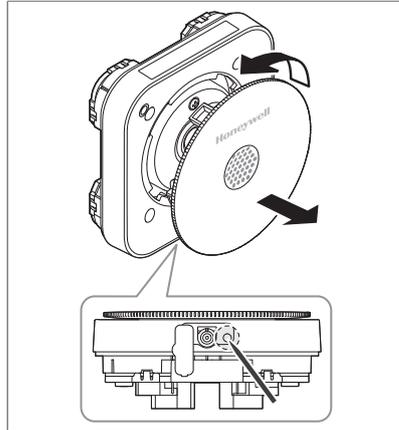
Do not replace the sensor without first a) removing power to the Sensepoint XCL OR b) placing the sensor into the sensor maintenance mode.

Connect your smartphone to the Sensepoint XCL via Bluetooth. Tap the Maintenance button and select Change Sensor. Follow the on-screen instructions.

In cases where a smartphone running the mobile app is not available, follow the steps below:

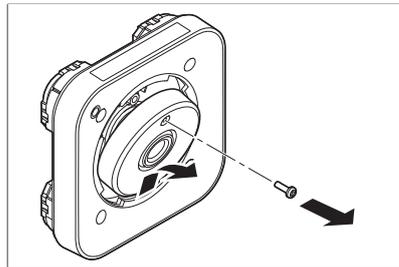


1. Press and hold the UP button for 10 seconds to switch to sensor replacement mode. In this mode, the detector output is inhibited and the sensor circuits are internally isolated.



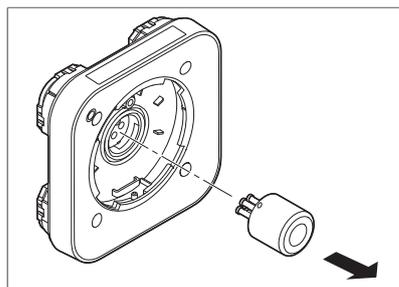
2. Remove the front cover to expose the sensor cover.

- a) Pull the flap on the bottom side to open it.
- b) To unlock the front cover, insert a thin, straight tool, such as a small screwdriver, into the hole beside the remote gassing port.
- c) Apply slight pressure to the tool, turn the cover counterclockwise until it stops. Lift the front cover free from the sensor module.



3. Remove the sensor cover.

- a) Loosen the screw on the top of the sensor cover.
- b) Holding the screw, tilt it downwards from the upper edge of the cover.

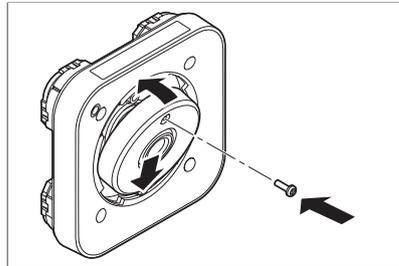
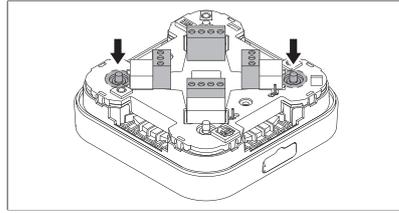


4. Pull out the gas sensor to remove it.

5. Ensuring that the sensor pins are correctly aligned, insert a new sensor into the sensor socket.

⚠ CAUTION

Do not force the sensor into the socket, otherwise it may be damaged.



6. Press and hold the UP button for 2 seconds to activate warm-up mode. In this mode, the output continues to be held in its inhibit state.
7. Replace the sensor cover and secure with the screw, taking care not to over-tighten it.
8. Switch to normal monitoring mode by holding the DOWN button for 5 seconds.
9. Perform a calibration in accordance with Calibration on page 29.

4.7 Resetting Alarms and Faults

When there is latched gas alarm or faults, reset them by pressing the UP or DOWN button shortly. This will reset latched alarms and faults, and initiate a self diagnostics to make sure there is no warning or fault in the detector.

Chapter 5

Mobile App

Use the Sensepoint App to allow your smart device to connect to Sensepoint XCL. This mobile app makes it much easier to configure and maintain Sensepoint XCL detectors. The general procedure of using the mobile app is as follows:

1. Download **Sensepoint App** from Google Play Store. Install and launch the app.
2. Create and register a user account, and log on with the created account information.
3. To associate with one or more gas detectors, scan the QR code on the sheet included in the box or enter its Activation Key and Device Serial Number.
4. Complete the installation of the detectors.
5. On the app's home screen, tap **DETECTORS** to scan for available detectors.
6. Select a detector from the detector list to pair with it.
7. Look for the detector whose Status Indicator is flashing blue.
8. Tap **Confirm Detector** to pair with that detector. Otherwise, tap **Return to list** to select one of the others.
9. To connect to detectors that are not added to your user account, you will need registration sheet containing the device QR code. This can also be found on a label on the rear of the electronics module.

When a Bluetooth connection is established, the detector's reading is displayed on the app interface with the gas type. For details how to use the mobile app, refer to the Sensepoint XCL app manual.

Appendix A

Troubleshooting

A.1 Warning

Description	Troubleshooting
Warning 1 Calibration Overdue	Calibrate the unit
Warning 3 BLE failure (BLE version only)	Power-cycle the unit. If same warning occurs again, contact manufacturer
Warning 4 Time/date not set (RTC not set) / RTC reset abnormally	Configure unit time. If same warning occurs again, contact manufacturer
Warning 5 Log memory corrupted (CRC not matched)	Power-cycle the unit. Event log might be lost.
Warning 6 Certificate is corrupted or missing certificate	Contact manufacturer
Warning 7 Over-range warning	Calibrate the unit.
Warning 8 Under-range warning	Calibrate the unit.

A.2 Fault

Description	Troubleshooting
Fault 1 Internal communication failure	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 2 Cell failure	Check the sensor connection. If same fault occurs again, replace sensor
Fault 3 Cell is producing a negative reading	Calibrate the unit
Fault 4 EEPROM is corrupted	Reconfigure the unit by using mobile app. If same fault occurs again, contact manufacturer
Fault 5 MCU operating voltage failure	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 6 RAM read/write fault	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 7 Flash memory corrupted	Reconfigure the unit by using mobile app
Fault 8 Code memory failure	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 9 mA output failure (mA output version only)	Check whether loopback resistor is connected correctly
Fault 10 Supplied voltage failure	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 11 Internal HW Fault	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 12 Internal SW Fault	Power-cycle the unit. If same fault occurs again, contact manufacturer
Fault 13 Calibration Overdue	Calibrate the unit.

Appendix B

Warranty

Honeywell Analytics warrants the Sensepoint XCL gas detector against defective parts and workmanship.

This warranty does not cover consumable, batteries, fuses, normal wear and tear, or damage caused by accident, abuse, improper installation, unauthorized use, modification or repair, ambient environment, poisons, contaminants or abnormal operating conditions.

This warranty does not apply to sensors or components that are covered under separate warranties, or to any 3rd-party cables and components.

In no event shall Honeywell Analytics be liable for any damages or injury of any nature or kind, no matter how caused, that arise from incorrect handling or use of this equipment.

In no event shall Honeywell Analytics be liable for any equipment malfunction or damages whatsoever, including (without limitation) incidental, direct, indirect, special, and consequential damages, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss, resulting from the incorrect installation or use of this equipment.

Any claim under the Honeywell Analytics Product Warranty must be made within the warranty period and as soon as reasonably practicable after a defect is discovered. Please contact your local Honeywell Analytics Service representative to register your claim.

This is a summary. For full warranty terms please refer to the Honeywell Analytics' *General Statement of Limited Product Warranty*, which is available on request.

Appendix C

Safety Information for Wireless Devices

This device complies with part 15 of the FCC Rules. 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.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

⚠ CAUTION

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

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This device has very low levels of RF energy that it is deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body.

Sensepoint XCL Gas Detector		Contains FCC ID: 2A1SERMBLEMS Contains IC ID: 21613-RMBLEMS		Made in South Korea	
Read and understand the manual completely before operating or servicing the equipment.		ETL CLASSIFIED		CE 0984	
Lire et comprendre le manuel avant de faire fonctionner ou entretenir du matériel.		  		Vin = 24 Vdc, or ~ 24 Vac, 50/60 Hz, Normal 1.3W, Max 2.3W	
 		LISTED E486180 Inspection Equipment Intertek 4006991		Honeywell Analytics Asia Pacific Co., Ltd 7F, SangAm IT Tower, 434 Worldcup Buk-ro, Mapo-gu, Seoul 03922, South Korea	
Mod 1 2 3 4 5 6		Conforms to UL STD 2075 Carbon Monoxide or Methane Detector			

Appendix D

Certification

Electrical Safety

- UL 61010-1

Electromagnetic Compatibility

- EN 50270:2015

Radio

- FCC
- BT SIG

Enclosure Protection

- IP65
- Type 4 in accordance with NEMA 250

Gas Performance

- UL 2075 (CH₄ and CO)

Appendix E

Contact Information

For more contact information, visit www.honeywellanalytics.com.

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