### APPENDIX A - SPECIFICATIONS

- **Temperature range**: see table 1.
- **Humidity range**: 20% to 80% RH continuous, 10% to 90% RH intermittent - non-condensing.
- **Pressure range**: 90 to 110 kPa.
- **Warm-up time**: see table 1.
- **Voltage range**: 18 to 30 V at sensor.
- **Power consumption**: 0.9 W Max.
- **Signal output**: 4 to 20 mA loop powered.
- **Calibration flow rate**: recommended between 1 and 1.5 l/min.
- **Expected operating life**: H₂S, CO, no less than 24 months. NH₃, Cl₂, SO₂, NO, NO₂, O₂, no less than 12 months.
- **IP rating**: IP65 standard. IP67 with weather protection.
- **Certification**: Ex tb IIIC Db IP67 T135°C, Ex d IIIC T135°C, CE mark - Conforms to all applicable European directives.

### APPENDIX B - EC DECLARATION

**Sensepoint Toxic and Oxygen Gas Sensors**

**EC Declaration of Conformity**

- **Ex tb IIIC Db IP67 T135°C**, **Ex d IIIC T135°C**, **CE mark - Conforms to all applicable European directives**

**Certification label**

- Manufacturer's trademark & address
- Certification number
- Certification code
- Ex/Ex d gland
- Plastic retainer
- **External Hydrophobic barrier**

**Replacement sensing elements (including hydrophobic barrier):**

- **Gas Type**
- **Replacement Cell**
  - O₂: 2106B1599
  - N₂H₃: 2106B1594
  - NO₂: 2106B1598
  - NO: 2106B1594
  - H₂S: 2106B1549
  - Cl₂: 2106B1546
  - CO: 2106B1548

**Weather protection**

- **Flow housing (standard)**: 02000-A-1635
- **Flow housing (for adsorbent gases)**: 02000-A-3120

**Junction box (standard)**: 00780-A-0100

To reorder a complete new sensor, see the label on the product leads, or contact Honeywell Analytics Ltd.

### APPENDIX C - MAIN FEATURES

- **Glossary**
  - Spare parts

### APPENDIX D - SPARE PARTS

- **Flow housing (for adsorbent gases)**
  - 02000-A-1645
  - 02000-A-1645

**Contact Honeywell Analytics:**

- **Europe, Middle East, Africa, India**
  - Life Safety Distribution AG
  - Jakostrasse 2
  - 8904 Pregarten
  - Switzerland

- **Americas**
  - Honeywell Analytics Inc.
  - 405 Stanley Blvd.
  - Lincolnshire, IL 60069
  - USA

- **Asia Pacific**
  - Honeywell Analytics Asia Pacific
  - #508, Akinen Science Valley
  - 157-10, Gun-Dong
  - Sung-Gun
  - Seoul, 152-090
  - Korea

**Technical Services**

- **EMEA**
  - honeywellanalytics@honeywell.com
  - +353 20 3258 369
  - analytics.ap@honeywell.com

- **Americas**
  - honeywellanalytics@honeywell.com
  - +1 847 955 8200
  - analytics.us@honeywell.com

- **Asia Pacific**
  - honeywellanalytics@honeywell.com
  - +82 (0)2 6909 0300
  - analytics.asia@honeywell.com

**Find out more**

- [www.honeywellanalytics.com](http://www.honeywellanalytics.com)

**We Save Lives**

**Please Note:**

- This publication is not intended to form the basis of a contract.
- The information has been drawn to the best of our knowledge, but we do not accept responsibility for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain the most recent standards, specifications, manuals, and guidelines. This publication is to be treated as the basis of all contact.
3. SAFETY

3.1 Warnings
- This apparatus is not suitable for use in oxygen enriched atmospheres (>21% V/V). Oxygen deficient atmospheres (<8% V/V) may suppress the sensor output.
- Refer to local or national regulations relating to installation at the site.
- The operator should be fully aware of the action to be taken if the gas concentration exceeds an alarm level.
- The ECC (electrochemical cell) contains a small quantity of NaCl.
- Installation should consider not only the best placing for gas detection related to potential leak points, gas characteristics and ventilation, but also where the potential of mechanical damage is minimized or the risk of electrostatic charging is reduced.
- Only assessed by ATEX for ignition hazards.
- Electrostatic risk - Do not rub or clean with solvents. Clean with a soft, high velocity air blower and dusty environments can cause hazardous electrostatic charges.

3.2 Cautions
- exposures to gas above the design range of the sensor may require the sensor to be re-calibrated.
- Do not modify or alter the sensor construction as essential safety requirements may be invalidated.
- Install Sensepoint using certified Ex d or Ex e junction boxes, connectors and glanding.
- Sensors should be disposed of in accordance with local disposal regulations. Materials used:
  - Sensors: (Fortune PPS/polyphthalamide sulfide)
  - Cell: (PPD modified polythylene oxide)
- This equipment is designed and constructed as to prevent ignition sources arising, even in the event of frequent disturbances or equipment operating faults.
- The unit requires a nominal 18 to 30V, 30mA supply.
- The temperature rating is -20°C to +50°C.

4. OPERATIONS

4.1 Installation
- The unit requires a nominal 18 to 30V, 30mA current-loop powered supply.
- Sensepoint for toxic gas detection is supplied pre-calibrated, however, for increased accuracy in specific applications, on-site calibration is recommended.
- Re-calibration should only be attempted by qualified service personnel. Calibration should only be attempted after the sensor has been installed and powered for a time exceeding the warm up time (Table 1).

4.2 Calibration
- Sensepoint for toxic gas detection is supplied pre-calibrated, however, for increased accuracy in specific applications, on-site calibration is recommended.
- Re-calibration should only be attempted by qualified service personnel. Calibration should only be attempted after the sensor has been installed and powered for a time exceeding the warm up time (Table 1).

4.3 Fault Finding
- Sensor reads zero regardless of gas present:
  - Gas could be present, ensure that there is no target gas in the atmosphere. Background or other volatile organic gases, e.g. solvents, can interfere with the operation of the sensor.
- Sensor reads zero regardless of gas present:
  - Gas could be present, ensure that there is no target gas in the atmosphere. Background or other volatile organic gases, e.g. solvents, can interfere with the operation of the sensor.
- Sensor reads low when gas is applied:
  - Check the sensor is not obstructed.
- Sensor reads high when gas is applied:
  - Check the sensor is not obstructed.
- Sensor reads zero when gas is applied:
  - Check the sensor is not obstructed.
- Cannot adjust span or zero at control card:
  - Refer to the technical handbook.

4.4 Maintenance

5.1 Changing Electrochemical Cell and Internal Filter
- Unscrew and remove the grey plastic retainer (or accessory if fitted) from the sensor.
- Remove the old internal hydrophobic assembly by pushing against the snap fit, once the retaining slots, with a flat-bladed screwdriver. The assembly will pop out. Do not attempt to lever the assembly out as this may damage the housing.
- Remove the internal metal gauze insert.
- Open the enclosure by unscrewing the sensor cap assembly from the sensor main body, ensuring that the electrochemical cell does not rotate with the cap.
- Check the old electrochemical cell from the pcb. (Dispose of this in accordance with the local regulations).
- Oxygen for oxygen Sensepoint, unscrew the old cell connections. Support the screw pillars during removal and refitting of the oxygen cell screws.
- Remove the new cell from its packaging and remove the old external hydrophobic barrier and replace with the new spares. Re-fit the plastic retainer.
- Fit the new internal metal gauze assembly.
- Fit the new internal hydrophobic assembly.

Note: The sensor should now be calibrated. See Section 4.4.