1. Introduction

The Sensepoint XCD Remote Flammable Sensor is a sensor for the detection of flammable gases, which is designed for use with the Sensepoint XCD RFD transmitter. It consists of two parts, the XCD sensor cartridge and the socket housing.

Two types of sensor are available:

- Catalytic bead (CAT) - uses a catalytic pellistor sensor device
- Infrared (IR) – uses infrared technology. Versions for Methane, Propane and Carbon Dioxide are available.

All sensors provide a mV output which is used as part of a bridge measuring circuit.

The sensor must be fitted into a suitably approved Ex e or Ex d junction box fitted with an approved cable gland for external wiring.

Sensepoint XCD Remote Flammable Sensor is certified for hazardous areas to EN60079 / EN61241 and is protected against water and dust ingress to IP66 (with the weatherproof cap fitted). The sensor is available in M25 thread versions. The sensor accepts accessories from a specified range (see Accessories & Spare Parts).

Information notices

The types of information notices used throughout this handbook are as follows:

**WARNINGS**

Indicates hazardous or unsafe practice that could result in severe injury or death to personnel.

**CAUTIONS**

Indicates hazardous or unsafe practice which could result in minor injury to personnel, or product or property damage.

**Note**

Provides useful/helpful/additional information.

If more information outside the scope of this technical handbook is required please contact Honeywell Analytics.

Associated Documents

SPXCDHMRFEN - Sensepoint XCD RFD Technical Manual

2. Safety

**WARNINGS**

1. This unit is intended for use at normal, or reduced, levels of atmospheric oxygen and pressure only, i.e. less than 21% oxygen and less than 1.1 bar. Oxygen deficient atmospheres (less than 10%V/V) may suppress the CAT sensor output.

2. Refer to local or national regulations relative to installation at the site. For Europe see EN60079-29-2, EN60079-14 and EN61241-14.

3. Operators should be fully aware of the action to be taken if the gas concentration exceeds the alarm level.

4. Installation should consider not only the best placing for gas leakage related to potential leak points, gas characteristics and ventilation, but also where the potential of mechanical damage is minimized or avoided.

5. Only assessed for ATEX for ignition hazards.

**CAUTIONS**

1. Atmospheres above 100% LEL may suppress the CAT sensor reading.

2. Do not modify or alter the sensor construction as essential safety requirements may be invalidated.

3. Install using suitably approved and certified Ex e or Ex d junction box, connectors and glands.

4. Dispose of in accordance with local disposal regulations. Materials used - Stainless Steel.

5. This equipment is designed and constructed as to prevent ignition sources arising, even in the event of frequent disturbances or equipment operating faults.

Note: The control card must have a suitably rated fuse.
### 3. Installation

The Sensepoint XCD Remote Flammable Sensor should only be used with a Sensepoint XCD RF Transmitter. The sensor can be located up to 30m (100 feet) from the transmitter. It must be fitted into a suitably approved Ex e or Ex d junction box fitted with an approved cable gland for external wiring.

Only a qualified installation engineer should install the sensor.

Install the sensor in a location free from direct heat sources. For optimum protection against water ingress ensure that the sensor is installed facing downwards. Mounting the sensor horizontally will impair IP rating and performance. The sensor must not point upwards.

1. Isolate all associated power supplies and ensure that they remain OFF during the installation procedure. Ensure a gas free atmosphere.
2. Install the junction box.  
   See the manufacturer’s instructions.
3. Remove the junction box lid.
4. Fit the Sensepoint XCD Remote Flammable sensor to the junction box.  
   Ensure that the junction box thread and the sensor thread are compatible. Push the sensor wires through the cable entry in the junction box and screw the sensor body firmly home into the entry. Lock the sensor in place with a suitable lock-nut.
5. Fit the ferrite filter (supplied with the XCD RF Transmitter).  
   Open the ferrite filter, wind the sensor leads 2 turns round the ferrite filter and close the ferrite filter. Refer to the Sensepoint XCD RF Transmitter Handbook for more detail.
6. Connect the sensor wiring to the junction box terminal strip.  
   See the subsequent wiring diagram.
7. Fit a suitable gland to the box, secure the control system cable and connect the field wiring to the terminal strip.  
   See the subsequent wiring diagram. Use multicore cable, three wire minimum, of conductor size 0.5 to 2.0mm² max. Recommendation is AWG24/6 AWG20~AWG14 Shield.
8. Refit the junction box lid.
9. Fit the Weatherproof Cap.

### 4. Accessories and Certification

**Description**  
Complete replacement sensor Cartridge:  
- Flammable CAT 0-100%LEL  
- Propane IR 0-100%LEL (20.0 to 100.0% LEL)  
- Carbon Dioxide IR 0-2.00%OL only  
- Methane IR 0-100% LEL

- Sensor Retainer with Locking Screw  
- XCD Weather Proof cap  
- Junction Box

- Locking Screw
- Weatherproof XCD (01)

**Part Number**
- SPXCDXSFXXS
- SPXCDXSPXXS
- SPXCDXB1SS
- SPXCDXRXXS
- SPXCDSRRLS
- SPXCDSRUS
- SPXKWP
- 00780-A-0100

*Contact Honeywell for availability*

### 5. EC Declaration of Conformity

**EC Declaration of Conformity**

The undersigned of  
Honeywell Analytics Ltd  
4 St Albans Road  
Poule, Dorset  
B47 1DR  
UK

For and on behalf of the importer  
Life Safety Distribution AG  
Winklerstrasse 8  
CH-6011  
Zurich  
Switzerland

Declares the products listed below

**SENSEPOINT XCD Remote Flammable Sensor**

The Sensepoint XCD Remote Flammable Sensor is a sensor for the detection of flammable gases, which is designed for use with the Sensepoint XCD RF transmitter

2004/108/EC  
EMC Directive  
94/9/EC  

And that the standards and other technical specifications referenced below have been applied or considered:

EN 50070-2006  
Electromagnetic Compatibility – Requirements for the protection of electric equipment from the interference caused by radio networks, industrial, scientific or medical (ISM) equipment.

EN 50167-1-2007  
Electrical apparatus for explosive gas atmosphere: General requirements

EN 61491-1-2004  
Electrical apparatus for use in the presence of flammable dust. Protection by explosion-proof enclosures “I”

Notified body for ATEX:  
Beehive Ltd  
Beehive Business Park  
Brick Lane  
Burnham  
Buckinghamshire  
MK18 9ZL

Certificate Number  
Beehive/ATEX/05166X

Notified BODY:  
TUV Nord  
Werkstr 37  
Postfach 150  
31340  
Bad Oeynhausen

Certificate Number:  
2622 TUV  
Ex d IIB T6  
Ex e IIC T5 T6

Certificate Number:  
1190  
Ex ia IIC T5  
Ex d IIA T6

Year of CE marking: 2014

Signature:  
Steve Hamilton  
Position:  
Regulatory Compliance Engineer  
Date:  
20 May 2010

Declaration Number:  
2004/6632_O1/63337  
Declaration of Conformity in accordance with EN ISO/IEC 17050-1:2004