

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.

Caution: 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

Sensepoint XCD Remote Flammable Sensor



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 While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation and you are strongly advised to obtain copies of the most recently issued regulations, standards and guidelines. This publication is not intended to form the basis of a contract.

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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 RFD 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.

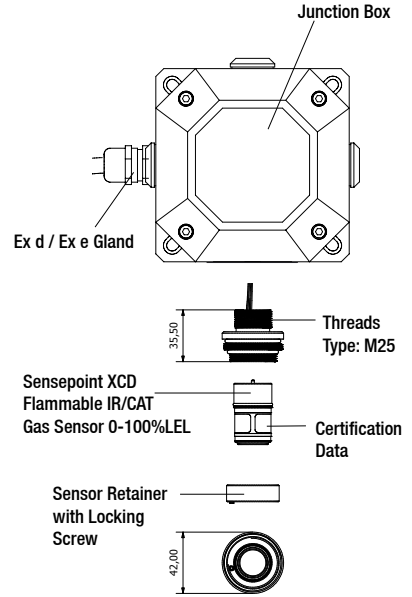
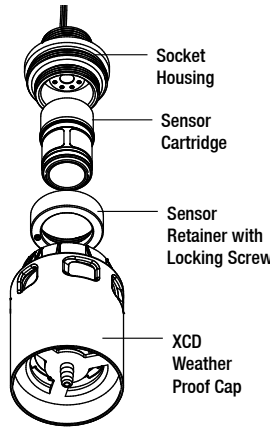
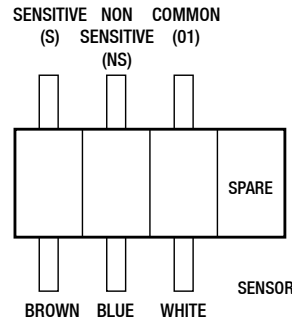
Install the sensor in a location free from direct heat sources. For optimum protection against water ingress ensure that the sensor is installed facing downwards. Mounting the sensor horizontally will impair IP rating and performance. The sensor must not point upwards.

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 RFD 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 RFD Technical 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 AWM2464 AWG20-AWG14 Shield.
8. Refit the junction box lid.
9. Fit the Weatherproof Cap.

3. Installation

Refer to the Sensepoint XCD RFD Technical Handbook for instructions on commissioning, calibration and maintenance of the sensor.

Wiring Connections



4. Accessories and Certification

Description	Part Number
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%VOL only • Methane IR 0-100%LEL	SPXCDXSFXSS* SPXCDXSPXS* SPXCDXSB1SS* SPXCDXSRXSS
Sensor Retainer with locking screw	SPXCDSRLS
XCD Weather proof cap	S3KWP
Junction Box	00780-A-0100

*Contact Honeywell for availability

5. EC Declaration of Conformity

Honeywell

EC Declaration of Conformity



The undersigned of
Honeywell Analytics Ltd
4 Stinsford Road
Poole, Dorset
BH17 0RZ
UK

For and on behalf of the importer
Life Safety Distribution AG
Wilstrasse II
CH-8610
Uster
Switzerland

Declares that 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 RFD transmitter

Are in conformity with the provisions of the following European Directive(s), when installed, operated, serviced and maintained in accordance with the installation/operating instructions contained in the product documentation:

2004/108/EC EMC Directive
94/9/EC ATEX Directive – Equipment for use in Potentially Explosive Atmospheres

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

EN 50270:2006 Electromagnetic Compatibility – Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen. (EMC Test Report: KTL 09-2342-0007)
IEC 60079-0:2007 Electrical apparatus for explosive gas atmospheres: General requirements
EN 60079-1:2007 Electrical apparatus for explosive gas atmospheres: Flameproof enclosures “d”
EN 61241-1:2004 Electrical apparatus for use in the presence of combustible dust: Protection by enclosures “ID”

Notified Body for ATEX:
Baseefa Ltd
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
Notified Body Number: 1180

Certificate Number
Baseefa08ATEX0316X

Quality Assurance Notification Number
Baseefa Ltd,
No. Baseefa 5989

Type Approval
II 2 GD Ex d IIC T6 (Ta -40°C to +65°C) Gb
Ex tb IIIC T85°C Db IP66 A21

Year of CE marking: 2010

Certification Label

CE Mark
- Conforms to all Applicable European Directives

Manufacturer's Trademark & Address
Honeywell Analytics Inc.
Lincolnshire, IL, USA 60069

Gas Type

Certification Number / Code
II 2 GD
Ex d IIC T6 (Ta -40°C to +65°C) Gb
Ex tb IIIC T85°C Db IP66 A21
Baseefa08ATEX0316X
IECEX BAS 08.0104X
WARNING : DO NOT SEPARATE WHEN ENERGISED

Product Name
Sensepoint XCD Disposable Sensor
Rev.

Revision Number
P/N :
S/N : SIIPPPYYWWNNNN

Year of Manufacture/ Serial Number

Caution

Signature:
Name: Steve Hamilton
Position: Regulatory Compliance Engineer
Date: 26 May 2010
Declaration Number: 2004Y0032_01/A03337
Declaration of Conformity in accordance with EN ISO/IEC 17050-1:2004