



## Sensepoint XCD

### Flammable, toxic and oxygen gas detector for industrial applications

|                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------|----------------------------------------|-------------------|--------------------------|-------------|-------------------------------|--------------|------------------------------------|-------------|--|
| Use                                                                                                                                                                                                | 3 wire, 4-20mA and RS485 MODBUS output fixed point detector with in-built alarm and fault relays for the protection of personnel and plant from flammable, toxic and Oxygen hazards. Incorporates a transmitter with local display and fully configurable via non-intrusive magnetic switch interface. |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Electrical                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Input Voltage Range                                                                                                                                                                                | 12 to 32VDC (24VDC nominal)                                                                                                                                                                                                                                                                            |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Max Power Consumption                                                                                                                                                                              | Maximum power consumption is dependent on the type of gas sensor being used. Electrochemical cells = 3.7W, IR = 3.7W and catalytic = 4.9W. Maximum inrush current = 800mA at 24VDC                                                                                                                     |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Current Output Relays                                                                                                                                                                              | Sink or source<br>3 x 5A@250VAC. Selectable normally open or normally closed (switch) and energized/de-energised (programmable)<br>Alarm relays default normally open/de-energized. Fault relay default normally open/energized                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Communication                                                                                                                                                                                      | RS485, MODBUS RTU                                                                                                                                                                                                                                                                                      |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Construction                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Material                                                                                                                                                                                           | Housing: Epoxy painted aluminium alloy ADC12 or 316 stainless steel<br>Sensor: 316 stainless steel                                                                                                                                                                                                     |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Weight (approx)                                                                                                                                                                                    | Aluminium Alloy LM25: 4.4lbs<br>316 Stainless Steel: 11lbs                                                                                                                                                                                                                                             |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Mounting                                                                                                                                                                                           | Integral mounting plate with 4 x mounting holes suitable for M8 bolts. Optional pipe mounting kit for horizontal or vertical pipe Ø1.5 to 3" (2" nominal)                                                                                                                                              |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Cable Entries                                                                                                                                                                                      | ULcUL versions: 2 x ¾"NPT conduit entries. Suitable blanking plug supplied for use if only 1 entry used. Seal to maintain IP rating; ATEX/IECEx versions: 2 x M20 cable entries                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Environmental                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| IP Rating                                                                                                                                                                                          | IP66 in accordance with EN60529:1992                                                                                                                                                                                                                                                                   |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Certified Temperature Range                                                                                                                                                                        | 40°F to +149°F (-40°C to +65°C)                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Detectable Gases and XCD Sensor Performance                                                                                                                                                        |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Gas                                                                                                                                                                                                | User Selectable Full Scale Range                                                                                                                                                                                                                                                                       | Default Range | Steps  | User Selectable Cal Gas Range          | Default Cal Point | Response Time (T90) Secs | Accuracy    | Operating Temperature Min Max |              | Default Alarm Points A1 A2         |             |  |
| Electrochemical Sensors                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Oxygen                                                                                                                                                                                             | 25.0%Vol. only                                                                                                                                                                                                                                                                                         | 25.0%Vol.     | n/a    | 30 to 70% of selected full scale range | 20.9%Vol.         | <30                      | <±0.5%Vol.  | -20°C / -4°F                  | 55°C / 131°F | 19.5%Vol. ▼                        | 23.5%Vol. ▲ |  |
| Hydrogen Sulfide*                                                                                                                                                                                  | 10.0 to 100.0ppm                                                                                                                                                                                                                                                                                       | 50.0ppm       | 0.1ppm |                                        | 25ppm             | <50                      | <±1ppm      | -20°C / -4°F                  | 55°C / 131°F | 10ppm ▲                            | 20ppm ▲     |  |
| Carbon Monoxide**                                                                                                                                                                                  | 100 to 1,000ppm                                                                                                                                                                                                                                                                                        | 300ppm        | 100ppm |                                        | 100ppm            | <30                      | <±6ppm      | -20°C / -4°F                  | 55°C / 131°F | 30ppm ▲                            | 100ppm ▲    |  |
| Hydrogen                                                                                                                                                                                           | 1,000ppm only                                                                                                                                                                                                                                                                                          | 1,000ppm      | n/a    |                                        | 500ppm            | <65                      | <±25ppm     | -20°C / -4°F                  | 55°C / 131°F | 200ppm ▲                           | 400ppm ▲    |  |
| Nitrogen Dioxide***                                                                                                                                                                                | 10.0 to 50.0ppm                                                                                                                                                                                                                                                                                        | 10.0ppm       | 5.0ppm |                                        | 5.0ppm            | <40                      | <±3ppm      | -20°C / -4°F                  | 55°C / 131°F | 5.0ppm ▲                           | 10.0ppm ▲   |  |
| * Lowest Alarm Limit = 1ppm; Lowest Detection Limit = .5ppm<br>** Lowest Alarm Limit = 15 ppm; Lowest Detection Limit = 10ppm<br>*** Lowest Alarm Limit = 0.6 ppm; Lowest Detection Limit = 0.3ppm |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Catalytic Bead Sensors                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Flammable 1 to 8                                                                                                                                                                                   | 20.0 to 100.0%LEL                                                                                                                                                                                                                                                                                      | 100%LEL       | 10%LEL |                                        | 50%LEL            | <25                      | <±1.5%LEL   | -20°C / -4°F                  | 55°C / 131°F | 20%LEL ▲                           | 40%LEL ▲    |  |
| Infrared Sensors                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Methane                                                                                                                                                                                            | 20.0 to 100.0%LEL                                                                                                                                                                                                                                                                                      | 100%LEL       | 10%LEL |                                        | 50%LEL            | <30                      | <±1.5%LEL   | -20°C / -4°F                  | 50°C / 122°F | 20%LEL ▲                           | 40%LEL ▲    |  |
| Propane                                                                                                                                                                                            | 20 to 100%LEL                                                                                                                                                                                                                                                                                          | 100%LEL       | 10%LEL |                                        | 50%LEL            | <30                      | <±1%LEL     | -20°C / -4°F                  | 50°C / 122°F | 20%LEL ▲                           | 40%LEL ▲    |  |
| Carbon Dioxide                                                                                                                                                                                     | 2%Vol. only                                                                                                                                                                                                                                                                                            | 2%Vol.        | n/a    |                                        | 1%Vol.            | <30                      | <±0.04%Vol. | -20°C / -4°F                  | 50°C / 122°F | 0.4%Vol. ▲                         | 0.8%Vol. ▲  |  |
| NOTE: For Cat Bead and Infrared sensors, Lowest Detectable Limit is 5% LEL and Lowest Alarm Level is 10% LEL.                                                                                      |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              | ▲ - Rising Alarm ▼ - Falling Alarm |             |  |
| Certification                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| US, Latin America, Canada                                                                                                                                                                          | UL/c-UL - Class I, Division 1, Groups B, C and D, Class I, Division 2, Groups B, C & D, Class II, Division 1, Groups E, F & G, Class II, Division 2, Groups F & G. -40°C to +65°C                                                                                                                      |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| European                                                                                                                                                                                           | ATEX Ex II 2 GD Ex d IIC Gb T6 (Ta -40°C to +65°C) Ex tb IIIC T85°C Db IP66                                                                                                                                                                                                                            |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| International                                                                                                                                                                                      | IEC Ex d IIC Gb T6 (Ta -40°C to +65°C) Ex tb IIIC T85°C Db IP66                                                                                                                                                                                                                                        |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| EMC                                                                                                                                                                                                | CE: EN50270:2006 EN6100-6-4:2007                                                                                                                                                                                                                                                                       |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |
| Performance                                                                                                                                                                                        | UL508; CSA 22.2 No. 152 (flammable gasses, excludes infrared sensors); ATEX, IEC/EN60079-29-1:2007, EN45544, EN50104, EN50271; China: PA Pattern Measurement (for transmitter and toxic gas sensors) "CCCF" Shenyang for Flammable (fire dept approval)                                                |               |        |                                        |                   |                          |             |                               |              |                                    |             |  |

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