

SENSEPOINT XCD

Flammable, toxic and O₂ gas detector for industrial applications



The Sensepoint XCD range provides comprehensive monitoring of flammable, toxic and oxygen gas hazards in potentially explosive atmospheres, both indoors and outdoors. Users can modify detector operation using the LCD and magnet switches without ever needing to open the unit. This enables one-man, non-intrusive operation and reduces routine maintenance time and costs.

A tri-color backlit LCD clearly indicates the unit's status at a glance, even from a distance. A steady green backlight indicates normal operation, flashing yellow indicates fault and flashing red indicates an alarm.

All detectors are supplied pre-configured and include 2 programmable alarm relays, 1 programmable fault relay as well as an industry standard 4-20mA output (sink or source selectable) and MODBUS.

The scale, range, relay operation, alarm set point and electronic tag number of the detector can be adjusted using the transmitter's LCD and non intrusive magnetic switches. Outputs are automatically inhibited during adjustment, thereby reducing the risk of false alarm at the control panel during maintenance.

Sensepoint XCD has an integral mounting plate for surface mounting or can be mounted to a horizontal or vertical pipe using the optional pipe mounting bracket. Electrical installation can be made using either conduit or cable with suitable mechanical protection. Two M20 or 3/4" NPT entries are provided (depending on certification). A weather-

proof cap is also included for use in the harshest outdoor conditions. Other optional accessories include a sunshade/deluge protection, duct mounting kit, collecting cone and remote mounting sensor socket.

Sensepoint XCD ensures easy installation and the fastest routine operation by removing the need for hot work permits in hazardous areas. Using easy to replace plug-in sensors, downtime is also reduced and on-going costs are minimised through the use of poison resistant flammable sensors, poison immune infrared Hydrocarbon sensors and patented Surecell toxic sensors.

READY, STEADY, GO!

Sensepoint XCD uses three instantly recognizable "traffic light" colors to indicate its status. The large tri-color backlit LCD is steady green to indicate normal operation, flashes yellow to indicate a fault/warning and flashes red to indicate an alarm. This allows anyone in the area to clearly see at a glance the status of any detector. This can be particularly useful to identify detector status if the detector is located in a difficult to access area or if a number of detectors are located in the same area.

KEY FEATURES

- Industrial Manufacturing Facilities
- Power Plants
- Waste Water Facilities
- Utilities
- Food and Beverage Production
- Refineries and Chemical Plants
- Onshore Oil and Gas Terminals
- Production Platforms
- Exploration and Drilling



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DETECTABLE GASES AND XCD SENSOR PERFORMANCE

Gas	User Selectable Full Scale		Range Default	Steps	User Selectable Cal Gas Range		Default Cal Point	Response Time (T90)	Accuracy	Operating Temperature		Default Alarm Points	
	Min	Max			Min	Max				A1	A2		
Electrochemical Sensors													
Oxygen	25% Vol only		25% Vol	n/a	20.9% Vol		20.9%Vol	<30	<±0.04% Vol	-20°C / -4°F	55°C / 131°F	19.5%Vol ↓	23.5%Vol ↑
Hydrogen Sulfide*	10 to 100ppm		50ppm	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 to 50ppm		10ppm	5ppm			5ppm	<40	<±3ppm	-20°C / -4°F	55°C / 131°F	5ppm ↑	10ppm ↑
* Lowest Alarm Limit = 1ppm; Lowest Detection Limit = .5ppm ** Lowest Alarm Limit = 15 ppm; Lowest Detection Limit = 10ppm *** Lowest Alarm Limit = 0.6 ppm; Lowest Detection Limit = 0.3ppm													
Catalytic Bead Sensor													
Flammable 1 to 8 LEL	20 to 100%		100% LEL	10% LEL	30 to 70% of selected full scalerange		50% LEL	<25	<±1.5%LEL	-20°C / -4°F	55°C / 131°F	20% LEL ↑	40% LEL ↑
Infrared Sensors													
Methane LEL	20 to 100%		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

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SPECIFICATIONS Specifications subject to change without notice

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.
Input voltage range	12 to 32 VDC (24 VDC nominal)
Max power consumption	Maximum power consumption is dependant 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. 3 x 5A@250VAC. Selectable normally open or normally closed (switch) and energized/de-energized (programmable). Alarm relays default normally open/de-energized. Fault relay default normally open/energized.
Communication	RS485, MODBUS RTU
Material	Housing: Epoxy painted aluminium alloy ADC12 or 316 stainless steel Sensor: 316 stainless steel
Weight (approx)	Aluminium alloy LM25: 2kg 316 stainless steel: 5kg
Mounting	Integral mounting plate with 4 x mounting holes suitable for M8 bolts. Optional pipe mounting kit for horizontal or vertical pipe 1.5" to 3" (2" nominal)
Cable entries	UL/cUL versions: 2 x 3/4"NPT conduit entries. Suitable blanking plug supplied for use if only 1 entry used. Seal to maintain IP rating; ATEX/IECEX versions: M20 cable entries
IP rating	IP66 in accordance with EN60529:1992
Certified temperature range	-40°C ~ +65°C
Certification	US, Latin America, Canada & Europe UL/c-UL - Class I, Division I, 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 ~ +65°C ATEX Ex II 2 GD Ex d IIC Gb T6 (Ta-40°C ~ +65°C) Ex tb IIIC T 85°C Db IP66. IEC Ex d IIC gb T6 (Ta-40°C ~ +65°C), EX tb IIIC T85C Db IP66
EMC	CE: EN50270:2006 EN6100-6-4:2007
Performance	UL508; CSA 22.2 No. 52 (Flammable gases, excludes infrared sensors); ATEX, IEC/EN60079-29-1:2007, EN50104, EN45544, EN5027; China: PA Pattern Measurement (for transmitter and toxic gases) "CCCCF" Shenyang for Flammable (fire dept. approval)



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