





Wireless Gas Detection System

The Sensidyne SensCast Wireless Monitoring System consists of 1-32 battery-powered SensCast Transmitters and at least one 32 channel SensCast Receiver. Receivers take advantage our NRTL certified and field proven hardware and newly designed firmware. A single Receiver Multi-Interface option module is all that is required to add data logging, second wired and wireless Modbus port, plus a Wi-Fi port with web-server. The Wi-Fi feature is especially exciting since it allows remote HMI functionality via any web enabled device. This means our Receivers allow responders to view real time and historical data on smart phones and tablet devices prior to entering a hazardous area!

The battery powered or hard wired wireless Transmitters are compatible with existing systems. Transmitter features include power On/Off via the magnetic wand, dual sensors, easy battery replacement, and the ability to separate the sensor up to 15 feet using a 4 wire sensor separation kit.

The new SensCast Wireless Monitoring System is designed for simple deployment of both permanent and temporary monitoring sites.



FEATURES

Supports single or dual and local or remote "Smart" temperature compensated sensor modules

- Alarms, gas range and other parameters are stored in the Smart Sensor module and may be edited by the user. Changes are periodically broadcast to the SensCast Receivers to insure identical readings at all locations
- Allows restore of factory settings from Smart Sensor plus backup and subsequent restore of user settings if parameters are accidently lost
- Password protected with LOW and HIGH security levels
- Easy to change lithium battery
- Three adjustable independent alarm levels per sensor
- Readouts include E-units, bar graphs, 1-hour trends
- "Legacy" setting makes SensCast devices compatible with Sensidyne Model 7100, 7200, and 9000 Controllers
- Magnetic mount option available
- License free 900MHz or 2.4 GHz FHSS client and server network
- 5 front panel LEDs indicate alarms and communication status
- Suitable for Division 2 hazardous locations
- Available either in rugged cast aluminum or economical and durable UL-94 injection molded enclosure



FEATURES

- Displays monitored readings and alarms from 1 to 32 SensCast
 Detectors
- Requires little setup since all channel parameters are periodically received from SensCast Sensors via the wireless network
- Includes 8 programmable 5-amp relays to control annunciation and mitigation devices
- "Acknowledge" feature allows audible devices to be silenced
- Displays large E-units and bar graph for each active channels
- Clock / Calendar time and date stamps "Event Log" sensor items including Power-Up, Alarms, Calibration and Com Errors
- 100-240 VAC or 10-30 VDC standard power making it ideal for solar powered installations
- 900 MHz and 2.4 GHz FHSS models
- Touch & magnetic keypads are standard for non-intrusive operation
- Password protected with LOW and HIGH security levels

Multi-Interface Option

- Wi-Fi access point for web enabled devices to view SensCast embedded webpages including real time and historical sensor readings, channel parameters, and remote setup capability
- Data logger stores more than 1 year of readings and alarm history
- RS-485 and wireless Modbus Slave port for transmitting SensCast data to our Model 7100 Sixteen Channel & Model 7200 64 Channel Controllers

Receiver Enclosure Options



NEMA 4 Powder Coated Carbon Steel



NEMA 4X 316 Stainless Steel



NEMA 7 Aluminum

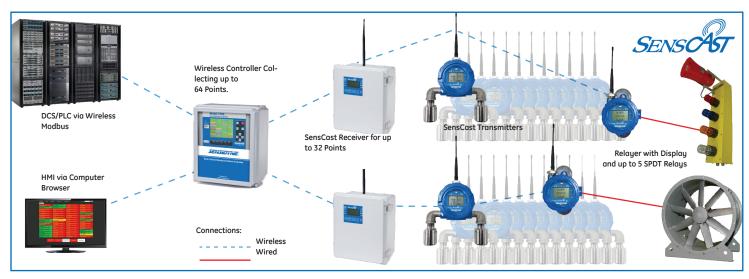


NEMA 4X Polyester

Example SensCast System Configurations



Drawing 1: SensCast Transmitters transmit wirelessly to the SensCast Receiver. The Receiver sends Transmitter output via wifi or Modbus (wireless or wired). The SensCast Relayer actively "listens" for alarm or fault conditions and activates annunciators or hazard mitigation systems connected to one of 5 relays.



Drawing 2: Two independent networks consisting of a Receiver and 32 SensCast Transmitters (or 16 Dual Head Transmitters) exist in one facility. A Sensidyne wireless-enabled controller (Model 7200 shown) collects all 64 outputs sending them to a DCS or PLC via wireless Modbus. A SensCast Relayer actively "listens" for alarm or fault conditions and activates annunciators or hazard mitigation systems.

SensCast Accessories

Sensidyne has an offering of plug-in options for configuring a fit-for-purpose system and easily changing components as requirements vary. Other accessories are also available.





30 Watt solar power supply with 55AH battery; Div 2



Four Light 10-30VDC Alarm Bar for Division 2 Hazardous Locations



Two Light 10-30VDC Alarm Bar for Division 2 Hazardous Locations



(Not Shown: Clear or Purple Strobes or Green Solid)



Tripod



Sun Shield for Improved LCD Readout Visibility



Two Light 10-30VDC

Ordinary Locations

Alarm Bar for



110 Decibel Horn Suitable for Division 2 Hazardous Areas



Stand, WaveCast Monitor



Antenna, 2 dBi Dipole, Division 2

Receiver Multi-function Option

SensCast Wireless System Components



1. SensCast Detector

2. SensCast Receiver

Single and Dual Head models for oxygen and toxic gas monitoring. Div 2 and GP enclosures options. Battery powered.

Monitors/displays up to 32 points. 8 on-board relays, and LCD display. Requires 100-240 VAC or 10-30 VDC for solar power applications. Can be fitted with





3. SensCast Relayer

annunciators.

"Listens" on network for alarm or fault condition signals from Transmitters activating one of five, 5 amp SPDT relays.

4. SensCast Bridge Repeater

Redistributes SensCast signal to extend range and overcome transmission obstacles.



Technical Specifications

Sensors

Gas Sensors	Electrochemical
Temperature	See Sensor Data Sheets
Humidity	

Controls

Magnetic Keypad	ACK, << (Go Back), ▲, ▼
SecurityP	assword Protected Configuration Menu

Displays

LEDs	Four (4) Red, cc	prresponding to	magnetic
k	eypad, and Alarr	m Relays when a	equipped
Graphic LCD		128 by 64 pi	kel screer

1. SensCast Detector

Approval Rating	Class I Div 2, Grps A, B, C, D
Temperature	-40°C to 60°C
Power	3.6 V 19AH Lithium D-cell battery
Memory	non-volatile

2. SensCast Receiver

Approval Rating	Class I Div 2, Grps A, B, C, D
Temperature	-25°C to 60°C
Humidity	0-90% RH, non-condensing
Power	10 - 30VDC or 100 - 240VAC
	8mA max 40W at 240VAC
	208mA max 5W @ 24VDC
Relays8	standard Form C dry contacts 5A 28VDC
	and 250VAC resistive loads

3. SensCast Relayer

Approval Rating	Class I Div 2, Grps A, B, C, D (Enclosure)
Power	
Memory	non-volatile

4. SensCast Bridge Repeater

Approval Rating Class I	
Temperature	-40°C to 60°C
Power	10 - 30VDC @ 10W max
Memory	non-volatile

WiFi 900MHz Transmission

- 2mA during "sleep" mode
- 40mA recieving
- Up to 1A transmit at 1W
- (transmit may be set from 10mW, 100mW, 400mW to 1W)
- 30dBm at 1W transmit
 -100 dBm recieve
- 902 928MHz hopping frequencies

WiFi 2.5GHz Transmission

- 2mA during "sleep" mode
- 170mA at 125mW transmit (fixed)
 - 21dBm at 125mW transmit
 - -95 dBm recieve
 - 2400 2483.5MHz hopping frequencies

Sensidyne SensCast Brochure Rev.B_022620



