

Model 1550

SPEC SHEET

SentriMax is a powerful full-featured, industrial voice and page alarm system. Users can monitor and control up to 64 digital inputs/outputs and 8 analog inputs via telephone or radio. Upon sensing an alarm condition, SentriMax automatically alarms through a user programmable list of phone or radio sources with specific user recordable voice messages stored in solid state memory or optional alphanumeric text messages. This provides a friendly interface that doesn't require special training for system operation.

The SentriMax comes in a rugged, waterproof NEMA 4X fiberglass case with integrated battery backed operation for reliable performance. Conventional and trunked mobile type radios can be easily mounted within the SentriMax enclosure. The SentriMax has been carefully designed for easy installation and setup. Programming can be done via a PC running the included configuration program, over the phone with DTMF or from the keypad on the front panel.

Expandable Digital Inputs/Outputs

The SentriMax comes standard with 16 digital inputs that may be user programmable as outputs for control purposes. Up to three additional 16 digital input/output expansion cards may be added to an individual unit giving a total capacity of 64 digital inputs/outputs.

Pulse Counters

The first 16 digital I/Os have the ability to keep track of the number of alarm events detected on that input. If the input is set up as normally open, a transition from high to low causes the counter to increase by one, but a transition from low to high does not. For example, this can be used with a water meter that outputs a pulse every 10,000 gallons of water that flows through a pipeline. The counter allows the user to keep track of the total flow through the pipeline and alarm when the flow reaches a programmable level.

Run Time Recording and Alerting

SentriMax comes equipped in the standard unit with 8 analog inputs. These analog inputs allow SentriMax to alarm according to changes in flow, temperature, pressure etc. The SentriMax directly supports transducers with 0 to 5 Volt or 4 to 20 mA outputs. The values of the transducers may be scaled according to the application. For example, a water level sensor might output 0 Volts when the water tank level is at 5 feet, and 5 Volts when the level is at 80 feet. SentriMax can alarm and report according to the values being monitored.

Scalable Analog Inputs

SentriMax comes equipped in the standard unit with 8 analog Inputs. These analog inputs allow SentriMax to alarm according to changes in flow, temperature, pressure etc. The SentriMax directly supports transducers with 0 to 5 Volt or 4 to 20 mA outputs. The values of the transducers may be scaled according to the application. For example, a water level sensor might output 0 Volts when the water tank level is at 5 feet, and 5 Volts when the level is at 80 feet. SentriMax can alarm and report according to the values being monitored.



FEATURES

- Alarm via Radio and Telephone
- Voice, Paging and Alphanumeric alarm messages
- Up to 72 Alarm inputs
- 8 Analog inputs with programmable levels
- 1 minute of factory prerecorded voice messages
- Up to 4 minutes of user recordable voice alarm messages
- Rugged NEMA 4X enclosure
- Space for 2-way radio
- Back-up battery and charger
- Backlit display and status keypad
- Remote access via telephone or radio
- User controlled outputs
- Programmable via PC, DTMF and front panel

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Remote Control and Status Inquiry

Users can access the SentiMax via telephone or radio equipped with a DTMF pad to control outputs connected to the system. The current status of an alarm or the status of an input is also available by accessing the system. Responses to status inquiries can range from the standard factory prerecorded voice messages to customized user recordable status messages. Users can choose to use a default message such as "digital input 1 ON" with the standard factory voice prompts or record "lower bay door open" with the user recordable prompts.

System Monitor Alarms

SentiMax features these additional system alarms that can help ensure worker safety and verify proper operation. A panic button is provided on the front panel of the SentiMax that can be used to summon help to a site in the event of an emergency. Discrete alarms for AC Power Loss, Low Battery condition and Internal High Temperature are included in the standard unit. An "All's Well" message can be enabled so that the SentiMax periodically notifies a list of people that the system is properly functioning.

Alarm Notification: SentiMax Gets the Word Out

Alarm messages for each input are sent by text page or natural recorded voice over phone, radio or intercom. Ten call lists are available with up to 15 calls included in a call list. By using the optional Real Time Clock & Printer Interface, alarms can be directed to one of three different call lists dependent upon the time of day and day of the week (including holidays). For example, building or process alarms can be directed to the appropriate users off premise during evening hours versus local radio alarms during the day.

TAP Paging: SentiMax's Gateway to Wide-Area Paging

Teletocator Alphanumeric Protocol (TAP) is a standard format for sending text paging information to a paging terminal from a computer or other intelligent machine. This option allows the SentiMax to send text messages associated with an alarm condition through an on-site paging terminal or paging service. Individual alarm messages can be up to 40 characters long, allowing a detailed description of each alarm condition to be transmitted. These text pages can be freely mixed into a call list along with regular voice alarms.

Radio Paging Formats: Voice Message and Alphanumeric Display Paging

SentiMax can be equipped with the Radio Paging Option which enables it to directly generate and key a radio for paging. This option allows the SentiMax to support Two-Tone and POCSAG tone only, tone and voice, numeric and alphanumeric formats. Paging calls can be mixed into a call list along with regular voice alerts over the phone and radio.

Flexible Alarm Call Lists and Time Stamped Messages

The Real Time Clock option provides two effective features to the SentiMax: Call List Scheduling and Time Stamped Event Printing. These features give the SentiMax an even greater versatility to satisfy alarm requirements. Call List Scheduling allows the SentiMax to process alarm calls based upon the time of day, day of week, and whether or not the date is a holiday.

When installed, up to three call lists can be associated with each alarm source. When an alarm occurs, SentiMax compares the current time and date with the setting for each of the three call lists. If it finds a call list that is enabled, it uses that list to make the alert calls for the alarm.

SentiMax provides the powerful combination of time of day alerting with the flexible ability to mix both telephone and radio alarm messages. Time Stamped Event Logging enables SentiMax to send text descriptions of system events out the RS-232 serial port. The port can be connected to either a serial printer for a hard copy record or can be collected by a computer for later analysis

Second Telephone Line

SentiMax can be equipped with an optional second telephone line that allows an operator to call in and take control even if SentiMax is busy with a call on the primary phone line or the radio. The second telephone line is never used by the system to make alert phone calls; it is used only to process user commands. This option helps ensure that complete control of the system is maintained at all times

Integrated Microphone and Speaker

SentiMax includes an integrated Microphone and Speaker on the front panel to allow for programming of voice messages and verification of the alarm announcements. The microphone can also be used to monitor activity around the unit. For example, a building intrusion alarm might also include instructions to call the SentiMax and listen for activity in the area to confirm that someone has broken in to the facility or site.

Applications

Industrial

Machinery Monitoring
Environmental Remediation
RF Tower Site Monitor
Voice Fire System
Voice Security System
HVAC Systems
Telephone Switch Monitor
Cellphone Sites
Computer Room Monitor
Boilers

Fresh Water

Lift Stations
Pump/Tank Control
Tank/Reservoir Level
Well Monitoring
Leak Detection
Food Processing
pH Monitoring

Agriculture & Food Processing

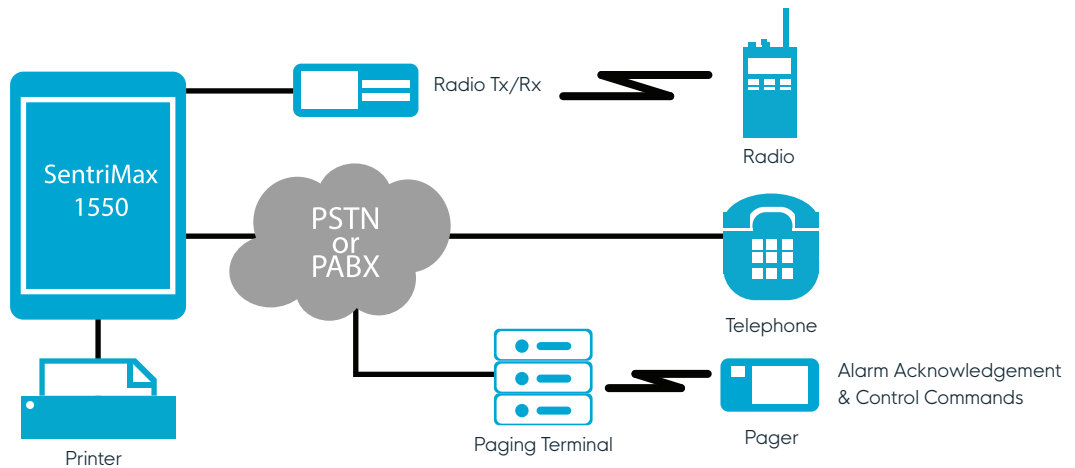
Greenhouses
Irrigation Control
Poultry, Swine & Stock
Housing
Refrigerated Storage
Fish Hatcheries

Oil, Gas, & Utilities

Electrical Substations
Pumps, Valves & Compressors
Petroleum Production Fields
Engine Monitoring
Hydro Stations
Environmental Compliance

UP TO 72 PROCESS INPUTS

8 Analog Inputs
16 Digital Inputs/Outputs
16 Pulse Accumulators
16 Run Time Meters



Specifications

GENERAL

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|---------------------------|---|
| Inputs/Outputs: | 16 discrete input/outputs, expandable to 64 & 8 analog inputs |
| Voice Capacity: | 1 min. of prerecorded messages & 1 min. user recordable voice standard 3 minutes optional voice storage with up to 100 user recordable messages |
| Communication Interfaces: | PSTN telephone interface standard expandable to two telephone lines Radio interface standard |
| Programming Interfaces: | Front panel keypad and display RS-232 port via easy to use PC configuration software DTMF compatible radio PSTN phone |
| Enclosure: | NEMA 4X fiberglass/polyester |
| Approvals: | FCC part 15 and part 68 Industry Canada |

Communication Specifications

| | |
|----------------------|--|
| Radio Interface: | PTT, COR, flat RXAUD & ground Input levels from 20mV to 3Vpp Input impedance > 30Kohms at 1KHz Output level 3Vpp maximum with 10K load Output impedance < 1Kohm at 1KHz Flat audio in and flat audio out COR adjustable from .1 to 4.5VDC PTT output relay to ground < 300mA max, NO or NC position DTMF signaling capable DTMF signal: 100msec on/ 100msec off |
| Telephone Interface: | 2-wire (Tip/Ring) RJ11 connector Ringer equivalents .45B Automatic line seizure Maximum voice power output to PSTN, -10dBm DTMF power output to PSTN, -1dBm max DTMF signal: 100msec on/100msec off Tone or pulse dialing |

RS-232 Interface: Tx, Rx & ground (Zetron or PC compatible)
4800 baud
8 bit with one stop bit and no parity

TTY: No hardware or software flow control

Electrical Specifications

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|------------------------|---|
| Limits: | 45VDC max input into any input |
| Discrete Input Levels: | < 0.8V low > 2V high |
| Discrete Outputs: | Open collector type 100mA typical sink current |
| Analog Input Levels: | 0-5V or 4-20mA 20mV or 80uA resolution 45VDC max collector voltage |
| Battery: | 12V, 7-amp-hr, lead-acid gel-cell |
| Charger: | 500mA float charge, 2amp max fast charge Short circuit protected, low battery voltage cutoff |
| AC Power: | 115VAC, 0.8-amp typical (20-amp in rush current) |
| DC Power: | 12W max at 13.8VDC |

Physical Specifications

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|---------------|---|
| Size: | 15.5" x 13.4" x 6.5" |
| Inside radio: | 10" x 7" x 3" |
| Weight: | < 22 lbs. |
| Temperature: | Operating 0-60°C without battery and charger 0-40°C with battery and charger |

Options

Expansion modules 16 input/output (limit of 3)
Real-time clock/printer
1 minute of user programmable voice storage (limit of 4 minutes)
2nd PSTN line
Radio cable for Motorola RNET radio
Radio cable for Motorola Radius radios
Paging option: 2-tone, POCSAG through radio and TAP/IXO for phone
DeadBolt Phone Line Lighting Arrestor
International power supply

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Always on, always ready