Senstar 100/Sennet

Alarm Monitoring & Control System



Senstar® 100 is a PC-based alarm management system that displays, records and controls Senstar-Stellar's outdoor perimeter security sensors and integrates a variety of outdoor and indoor security sensors and CCTV systems. It uses a simple yet powerful interactive graphic presentation designed for applications where speed and simplicity are paramount. The speed, a touch screen interface and easy-to-follow site-customized prompts enable an unsophisticated operator with little training to respond quickly and accurately to alarms, even if several alarms occur at once.

Alarm data are received on Senstar-Stellar's Sennet® Network. Each Sennet network consists of a Network Controller (NC) and up to 62 network devices. These devices include Transponder Units (TU), Large Transponder Units (LTU) and Senstar-Stellar's line of smart outdoor perimeter sensors, including Perimitrax® and Intelli-FLEX $^{\text{TM}}$. These devices also accept contact closures from any auxiliary sensors and provide contact closure outputs for control of auxiliary devices. Connections between remote devices and the NC are via redundant RS-485 copper wire data paths, fiber optic cable or coax cable (Perimitrax). The NC monitors all the devices, checks network integrity, and reports diagnostic information to the Senstar 100.

Sennet's powerful data protocol and redundant hardware ensure that intrusions are always reported. Dual physical data paths increase reliability. Powerful data error detection algorithms enable alarm messages to get through even in the presence of noisy or intermittent data paths. Sabotage or tampering with the messages or the hardware enclosures is detected and reported.

The Senstar 100 operates under QNX®, a mission critical, true real-time, multi-tasking operating system. It has no known viruses. It allows for simultaneous operations by the operator and the supervisor/maintenance technician from separate workstations. Operators can be assigned passwords and can be restricted to certain menus and functions.

The data are displayed on up to 128 customdrawn graphic site maps. All zone and sensor locations are displayed and color-coded to indicate their status at any given time. Operators respond to alarms or prompts by touching the screen. The activation of alarms or the touching of an icon on the screen can also initiate other responses, such as sounding a siren, turning on a light, activating a VCR or switching a series of CCTV cameras. Enhanced alarm processing allows scheduled zone access times, securing a zone after a predefined access time, timed alarm delay for entry or exit, and the combining of up to eight inputs to produce multiple condition (AND/OR) (joint-domain) alarms.

Senstar 100 provides full diagnostic support and central calibration of Perimitrax, Intelli-FLEX and IntelliFIBERTM from the Maintenance Station, to ensure optimum performance, minimum downtime and reduced costs.

Senstar 100 is flexible enough to suit any site requirements. The features include full redundancy, multi-stations for sharing operator workload, video switcher control and multiple language capability. The system can be expanded, upgraded or modified at any time.

Touch Screen Control

Color Maps

Real-Time Alarm Annunciation

Separate Operator and Supervisor/Maintenance Stations

Remote Diagnostics and Calibration of Senstar-Stellar Smart Sensors

Password Protection

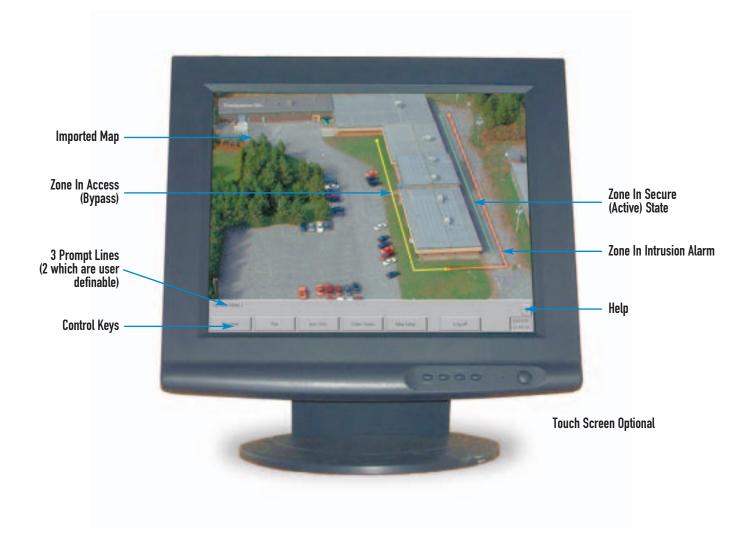
Multilingual Menus

Redundancy and Multi-Station Options

CCTV Integration and Video Switcher Control

Joint-Domain Alarm Processing





OPERATOR FUNCTIONS

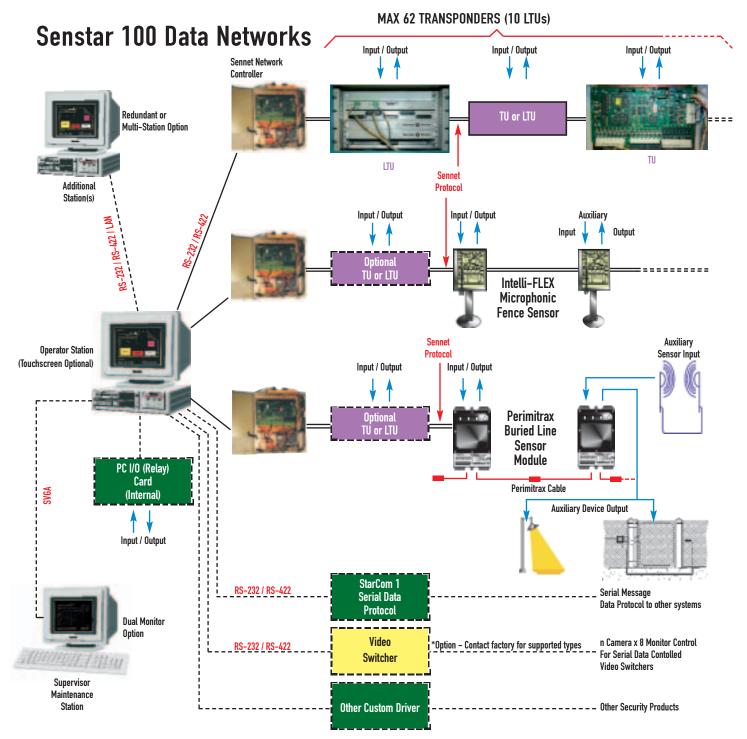
- Respond and Process Alarms
- Review Checklist from Supervisor
- Test Sensors
- Access/Secure a Sensor
- Clear Equipment Alarms
- Automatic Map Step Review Maps
- Automatic CCTV Video Step

SUPERVISOR FUNCTIONS

- Setup Individual User Menu Access
- Schedule Access Control of Display Zones
- Create a Checklist for Operators to Review
- Customize Alarm Prompts for each Display Zone
- Customize Alarm Causes List
- Control Maps Displayed on Multi-Stations
- Review Activity Archive
- Generate Statistical Alarm Activity Reports
- Simulate Alarms (Operator Training)

MAINTENANCE/SETUP FUNCTIONS

- Generate I/O Device Status reports
- Generate I/O Device Test reports
- View Equipment and Database Configuration
- Set Sensor Equipment Detection Parameters
- Generate Perimitrax Sensor Response Plots
- Setup Color Monitor
- Setup System Options (such as Event Log On/Off)
- Set Device Communications Parameters
- Backup and Restore Site Data and User Data
- Shutdown System



INCLUDED FEATURES

Redundancy - duplicate display and control functions on two computers, immediate control from the second computer if the first should fail (hot standby)

Multi-Station - 2 to 16 operator/display consoles to allow operator workload sharing (serial port for 2 consoles or Network option for 2 to 16 consoles)

Video Switching - direct RS-232 serial control of a video switcher and display of camera icons on maps

Site Creation - create and edit your site database, including maps and input to output logic and control

Custom Serial Device Drivers & Interfaces - consult factory for list of devices supported



SENSTAR 100 CONFIGURATION SUMMARY

System			
Max. Number of Networks (*)	34	Maps per System	128
Max. Input Points	9728	Zone Groups per Map	16
Max. Output Points	17408	Zones per Map	64
Max. Display Points	12288	Sensors per Zone	3
States per Point	3		

(*) A Sennet Network Controller SN-CN1 manages each network

Sennet Transponder Types (up to 62 per network)					
Model	Name	Stnd. Inputs	Aux. Inputs	Stnd Outputs	Aux. Outputs
SN-TXO	Transponder	16	0	0	0
	Unit (TU)				
SN-TX8	Transponder	16	0	8 Form C	0
	Unit (TU)			Relay	
SM100-1	Sensor Module	2 leaky coax	8	2 Sensor zones	4 Form A or
SM100-2	(Perimitrax)	Sensor zones			Form B Relay
IFL-06, 09	Intelli-FLEX	2 Fence	2	2 Sensor zones	2 Form C Relay
IFB-04, 08	IntelliFIBER	Sensor zones			
SN-T128*	Large	Max 128	0	Max 128	0
	Transponder				
	Unit (LTU)				
SN-T256**	Large	Max 256	0	Max 256	0
	Transponder				
	Unit (LTU)				

NOTE: Any one network can support up to 10 LTUs (not 62) PLUS 52 TUs or sensor processors (*) The SN-T128 LTU requires one or two I/O cards. (See next table.) (**) The SN-T256 LTU requires one or four I/O cards. (See next table.)

Large Transponder Unit (LTU) I/O Cards			
Model	Name	Inputs	Outputs
SN-LD	Lamp Driver Card	64	64 open collector
SN-R32	Relay Output Card	64	32 dry contact closure
SN-R64	Relay Output Card	64	64 dry contact closure

Optional Alarm Input/Output Devices for the System Computer			
Model	Name	Inputs	Outputs
IBI-16	16 isolated input PC card	16	0
101-16	16 isolated input, 16 relay output PC card	16	16
RB1-16	16 relay output PC card	0	16
RB1-32	32 relay output PC card	0	32
StarCom I Serial RS-232/422 link to an alarm collection system			1024

Serial/Parallel Port Support (Max. 40 Serial Ports)			
Primary	Secondary	Parallel Ports	
Serial Devices	Serial Devices*	For Printers	
36	8	2	

(*) Secondary Devices are: Touch Screen, Mouse, Modem, Printers, Event Input

Sennet Network Controller Model SN-CN1

Quantity - one per network

Host interface - RS-232 or RS-422

serial data link, to Senstar 100, up to 9600 baud, using StarCom II protocol

Controls

- DIP switch for setting host baud rate
- reset switch
- diagnostic test switch

LED indicators

- network transmit and receive
- host transmit and receive
- self-test status

Temperature - 0°C to 55°C (32°F to 131°F) Relative humidity - 5-95%, non-condensing Enclosure - Indoor, lockable with tamper switch

Sennet Transponder Unit (TU)

Models - See Transponder Types Table Quantity - 1 to 62 transponders per network **Inputs** - 16 supervised inputs with single-or dual-resistor line supervision

Input point status - secure, alarm or tamper

Input point definition - can be programmed to be NO or NC, supervised or non-supervised

Outputs - 8 dry contacts

Output point definition - can be programmed to be NO or NC, flashing, pulse, or steady state

Output switching - 250 mA max. Up to 100 Vdc to a maximum of 8 VA.

Controls

- DIP switch for network node address
- reset switch

LED indicators

- diagnostic test switch
- network transmit and receive
- input point state
- output point state
- self test status

Temperature Options

 -40° C to $+70^{\circ}$ C (-40° F to 158° F)

Relative humidity - 5-95%, non-condensing

Enclosure - Indoor or outdoor NEMA 4, lockable with tamper switch

Sennet Large Transponder Unit (LTU)

Models - See Transponder Types Table

Quantity - up to 10 per network

Configuration - 19" rack or wall surface mount Inputs/Outputs - According to selected Model and I/O cards. See Transponder Types and LTU I/O tables.

Temperature - 0° C to 55° C (32° F to 131° F) **Humidity** - 5-95%, non-condensing Mounting - 48 cm (19 in.) rack or on wall

* Specifications subject to change without prior notice.



Certificate 95711

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