

SATELCODE 8i Local Area Radio Alarm Transmitter

SATELCODE 8i is a versatile VHF radio transmitter from SATEL's extensive selection of radio modems. Together with its counterpart, the SATELNODE X8S receiver, it provides the easiest way of setting up a wireless alarm transfer connection between two points.

The powerful SATELCODE 8i, having output power of 4 Watts, transmits a message that includes both address and alarm information. The number of possible different messages amounts to several tens of thousands.

The configuration of a SATELCODE 8i /SATELNODE X8S system is straightforward and the installation quick and easy. The user benefits from minimum time spent in planning and materialisation of an alarm system. The radio modems are extremely reliable. The operation costs of alarm transfer systems are low, as there are practically no network service charges.

By means of the SATELCODE 8i / SATELNODE X8S alarm transfer equipment, SATEL has drastically lowered the threshold of setting up a local area alarm transfer.



Multi-purpose Alarm Transmitter

The SATELCODE 8i is a one-way radio transmitter equipped with 8 programmable inputs and a synthesised transmitter.

Its radio module represents the highest quality of technology, with extreme frequency stability and marginal amount of spurious transmission.

The SATELCODE 8i is used to transmit alarms related to the control of production machinery, or to the safety and security of people and property. 8 alarm inputs operate as resistance controlled loops. Activating a separate switch will make it possible to by-pass the pre-configured inputs. It is also possible to program a short delay to any of the inputs.

Either closing or opening of an alarm loop activates an alarm. The inputs are edge triggered. Once an edge occurs, SATELCODE 8i adds the input into its alarm register and sends the alarm message several times until the configured number of retry sending is done. A message consists of an address and an alarm data part.

Alarm System

An alarm transfer system usually consists of a SATELNODE X8S receiver and a number of SATELCODE 8i transmitters. Securing the safety and integrity of public or private property is the most important application area of the SATELCODE 8i. The application relates to industrial and office buildings, banks, service stations, etc.

The cause of an alarm varies from fire and water to burglary and mischief. Remote control of isolated field instruments e.g. pumping stations in municipal waterworks systems is another important application area of the SATELCODE 8i. In recent years, a great number of SATELCODE/SATELNODE radio modem systems have been delivered for a variety of applications in Europe and elsewhere.

Support from your radio modem supplier

SATEL possesses one of the world's widest selections of VHF and UHF radio modems and also extensive and profound knowledge of their applications.

Starting from the specification of your problem and the configuration of a wireless alarm transfer solution, the local SATEL application expert can help you proceed swiftly, with minimum headaches.

The installation and start-up of a SATELCODE/SATELNODE alarm transfer system is easy and straightforward. Our local representatives are competent and available to answer any technical questions you may have.

SATEL Oy is a Finnish electronics and telecommunications company that specialises in wireless data communications. It designs, manufactures and markets radio modems for data communications and alarm transfer systems. The main user groups include security companies, industrial companies, public organisations, banks, chain stores and harbours.

SATEL is a leading supplier of radio modems in Europe. The SATEL radio modems are type approved in most European countries and elsewhere.

SATELNODE X8S Local Area Radio Alarm Receiver

Characteristics

SATELNODE X8S provides alarm detection. It is equipped with two different output types - there are eight (8) continuously monitored open contact relays and an RS-232 interface. The relays can be used to monitor the SATELCODE 8i transmitters, and the RS-232 is for monitoring transmitters together with a sophisticated PC-program. The messages can even be conveyed further as SMS-messages to a GSM-phone.

SATELCODE 8i sends a diagnostic (i.e. "transmitter alive") message in user selectable time intervals. SATELCODE 8i attaches its current status information (the status of alarm inputs, battery etc.) to the diagnostic message.

This built-in feature enables you to verify the condition of your alarm

system easily. The SATELNODE X8S receiver can process practically any number of alarms. Simply by increasing the number of SATELCODE 8i transmitters the SATELCODE/ SATELNODE alarm transfer system can be extended.

In order to reduce the probability of collisions between simultaneously arriving signals in large systems it is, however, advisable to group the radio modems in "cells" including a receiver and thousands of transmitters.

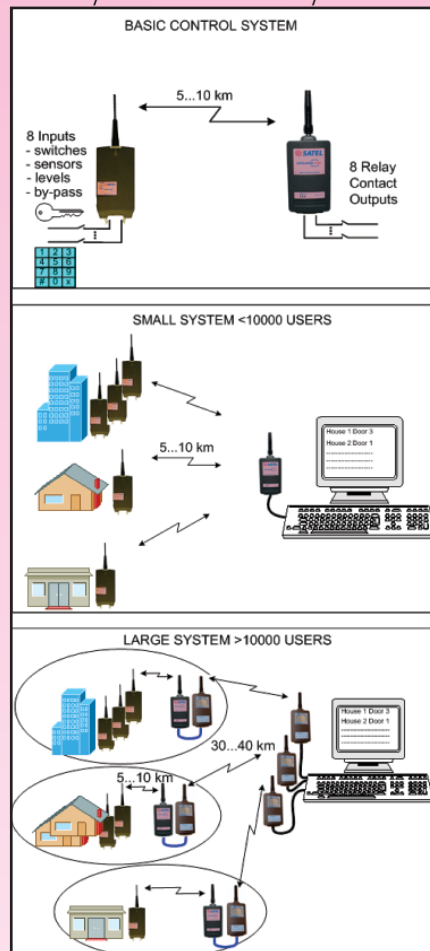
Easy to set up, simple to use

The configuration of the SATELCODE 8i is straightforward. The basic operation parameters, including the address, status and the sequence of diagnostic message as well as the output power and radio channel, are normally set at the factory. When necessary, most of them can be changed by the user.

When installing a SATELCODE/ SATELNODE system, special care should be taken in selecting the

location of the antennas. The common solution is a 1/4 wave antenna installed at any elevated spot with clear space around.

In a city environment, the transmission range in local area transfer of alarms is about 5-10 kilometres. In rural areas, ranges up to 15-20 kilometres can be easily achieved. By using directional high gain antennas, the range can be increased.



Technical Specifications

SATELCODE 8i and SATELNODE X8S complies with the international standard EN 300 113

	SATELCODE 8i	SATELNODE X8S
Frequency range	140 ... 170 MHz	
Channel spacing	12.5 / 25 kHz	
Frequency stability	± 2.5 ppm	± 5 ppm
Output power	0.5, 1, 2 or 4 W	
Method of modulation	FSK	
Operating voltage	+10 ... 14 Vdc	
Current consumption	1.7 A	350 mA
	100 mA standby	
Interface connector	DIN41651-16 male	D15 female
Inputs	8 programmable alarm	
	1 by-pass	
Outputs		8 programmable relay contacts
		open/closed or opto-isolated
		RS-232
Programming interface	RS-232	
Temperature range	-25 ... +55 °C	
Antenna connector	SMA 50 ohm, female	TNC, 50 ohm, female
Size H x W x D	125 x 57 x 16 mm	137 x 67 x 29 mm
Weight	125 g	250 g

Manufacturer:

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