



SIVA BID 1000

BURIED
CABLE
INTRUSION
DETECTION
SYSTEM



www.sivanandaelectronics.com

SIVA BID 1000

COMPANY PROFILE

■ Established in 1970. ■ Continuous R&D is key reason to our growth ■ In house R&D unit, recognized by Department of Science & Industrial Research Development of India.
■ More than 300 innovative products introduced. ■ More than 3000 actual user customers. ■ Healthy and interesting working environment which continues to attract the best of the talents in the industry. ■ Modern manufacturing facility with all the necessary infrastructure.

BID 1000

It is a completely passive, perimeter intrusion detection system. It exactly meets the requirements of the defense & the security forces. The sensor cables are buried along the border or across pathways, passes, roads etc. where the detection of an armed intruder is required. There will be no alarms unless the target possesses the minimum alarm requirements. Hence there will be no false alarms due to the movements of animals etc. It provides complete security against intrusion with fully automated monitoring and alarm annunciation system.

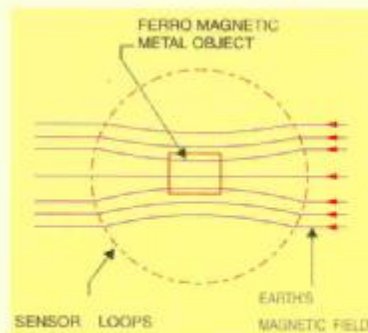
SYSTEM FEATURES

- Completely passive system
- Rugged field unit for underground installation.
- Variable & user selectable zone size. (75 mtr, 150 mtr. & 300 mtr.)
- Superior noise immunity.
- Local & Remote (RF) alarm annunciation & warning.
- Very low rate of false alarm.
- Effective operation under any type of Surface, viz Concrete, asphalt, roads, runways, vegetation, between trees & under water.
- Detects intruders moving at slow & high speeds, whether crawling or running.
- Detection of direction of intrusion with optional sensor loops.
- Built in redundancy for alarms.
- All weather operational reliability.
- Modular & scalable.
- Wide input power supply range 10-27Vdc or 90 V Ac - 300 V Ac. (Can also be powered by Generators or Solar power panels.
- Operates from - 30 Deg C to +60 Deg. C.
- Not affected by stray animals, birds etc.
- Lightning protected.
- All connections are with military grade connectors.
- Highly competitive price.

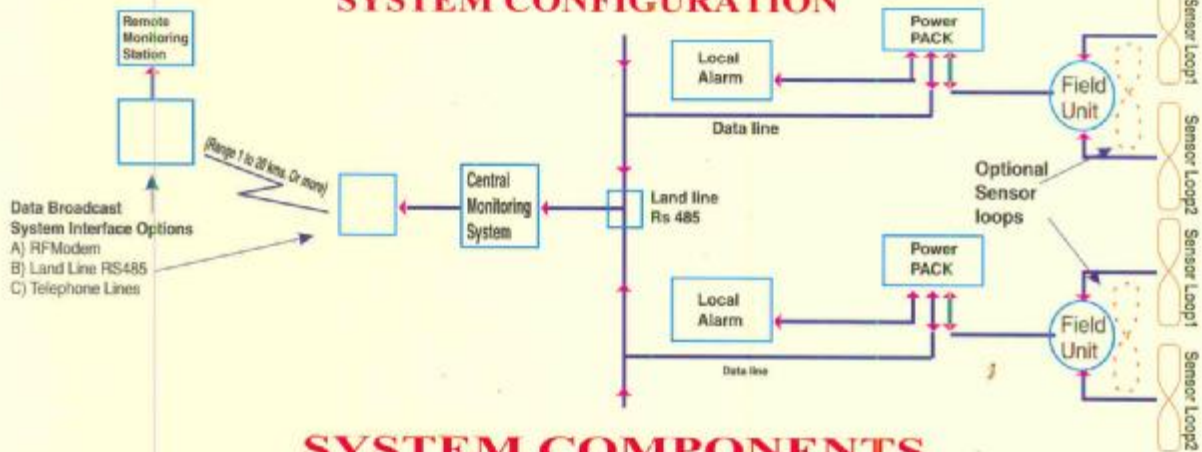
PRINCIPLE OF OPERATION

It uses the principle of "Magnetic Anomaly Detection (MAD)". The sensor loops are buried under the earth. The sensor loops are connected to the microprocessor based field units which are also buried nearby. Data cables are run from the field units to local alarms and also a central monitoring system. On any armed intrusion, change in the earth's magnetic field results in changes in the currents flowing in the sensor loops. These changes are picked up by the field units. The signals are processed by the microprocessor & sent to the local alarm units and the central monitoring system as digital data.

Two sensor loops can be connected to each field unit, to provide two zones of detection. Multiple field units can be used in cascade to effectively monitor the complete border. Since the buried sensor cables do not affect the aesthetics of the terrain and due to the invisible nature of the detection field, intruders are completely unaware of the presence of the BID. Therefore it is very difficult to locate, tamper or avoid BID. Add to this the flexibility & advanced capability of the microprocessor based acquisition & control system, BID stands out as the best outdoor sensor system with the lowest vulnerability.



SYSTEM CONFIGURATION



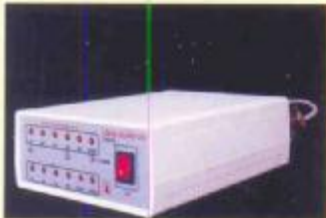
SYSTEM COMPONENTS

INTELLIGENT FIELD UNIT

- Microprocessor based
- Low noise amplification & signal conditioning modules to amplify signal an a nano volt level
- EMI & Spike protected
- Digital Interface for PC.
- Functions also as a stand alone unit without PC control in conjunction with local alarm.
- Detects cuts in the sensor cable.
- One field unit controls two sensor cable loops.
- Field programmable with the hand held programmer.
- Water proof, sealed & corrosion proof housing.
- Programmable sensitivity in 8-100 levels.
- Lightning protected.



LOCAL ALARM



- This feature is available only in Siva's BID system.
- Generates Local Audio-Visual alarm in nearby sentry post or local control room.
- Can individually control a field unit without a central controller or PC.
- It has trigger out puts to switch on lamp's, CC-TV Cameras, Trip flares, Sirens etc.
- It has latched or normal (Unlatched) output's. (In latched mode alarm continues until someone acknowledges it.)
- There are additional indicators for the following conditions a) Low battery b) Communication failure. C) Arm/Disarm. D) Cut in sensor loop.
- Alarm is also generated if the field units are tampered.
- Special arm/disarm feature makes it possible to trigger electrically detonated 'Claymore Mines', automatically on detection of an intrusion.
- Provides local redundancy in case of failure of Central Monitoring System or failure of communication with Central Monitoring System.
- Optional interfaces for RF connectivity is also available.

RF LINK, RF MODEM & TELEPHONE LINK

Interfaces available to link system to a) Standard RF Communication systems like Radio sets / Walkie talkies etc. (Range 1 to 100 Kms.) b) RF modems (Range 1 to 2.5 Kms. or More) c) Telephone modems for using existing Telephone networks.



INTELLIGENT LOCAL ALARM

- Can control 3 field units.
- Can be interfaced to RF/landline communication system for broadcasting alarm data.
- Capability to automatically detect ID of field units.
- Convenient LCD display indicating alarm conditions & other Details.

CENTRAL MONITORING SYSTEM

- Mimic Panel with LED/LCD display provided for standalone operation.
- VGA monitor can connected optionally.
- Laptop or field PC can also be supplied optionally.
- Remotely monitors all the field units.
- Continuous polling for the data.
- Logs data from the field units with time and date stamp.
- Has in built Redundancy for power failure.
- Detects wire cuts in the data cable or failure in RF-Broadcast.
- Generates alarms.
- Connects to a telephone / Communication system & can automatically broadcast intrusion data either by modem or RF-links to remote locations.
- Has RS 232 / RS 485 interface.



REMOTE MONITORING SOFTWARE

- Win -XX Version
- Intuitive menu driven software & consistent GUI
- Modular & Scalable
- Flexible Configuration
- Programmable alarm options.
- Customized intrusion data report (Option)
- Statistics & trend management (Option).
- Run's on either PC or Laptop with RS485 / RS232/ RF-Modem / Telephone modem. (Industrial PC also can be used).

HAND HELD PROGRAMMER

- Can program ID & sensitivity of Field units.
- Has diagnostic features to check the system & locate faults.
- Can be connected directly to the field unit or in parallel with the local alarm during both set up as well as diagnostic mode.
- Works on 4 AA cells.
- Built in battery low indicator.
- Light weight.



SENSOR CABLE

- Copper wire sensors.
- Broader loop design, for high sensitivity.
- -30°C to + 60°C Operation.
- Optional third loop for sensing the direction of intrusion.
- Other temperature ranges optional.

POWER PACK

- Built in Rechargeable battery.
- Built in charger can work from 90V-300V AC input
- Also suitable to be connected to supply from Generators.
- Has spare connectors to facilitate easy system layout & installation.
- Optional Solar power based charger is also available



SIVANANDA ELECTRONICS

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