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**ANALOGUE ADDRESSABLE FIRE ALARM SYSTEM &  
INTEGRATED VOICE EVACUATION SYSTEM**



## THE COMPANY

The Group's lifeline had its origin way back in 1986. An ISO9001:2015 certified company and one among the Ravel Group of Companies, Ravel Electronics Private Limited., since its inception in 1996 has quickly moved to the forefront as a leading manufacture and supplier of Microprocessor based Fire Alarm Control Panels.

Ravel also provides customized products and services, pursuing Quality Management systems in compliance with international Standards.

RAVEL ELECTRONICS PVT. LTD., is still the first and only Indian manufacturer and the second in Asia to obtain UL Certification for Fire Alarm Panels.

RAVEL takes great pride to announce that they have been adjudged as one among the top 26 most innovative companies in India for 2014 by CII (Confederation of Indian Industries)

## OUR VISION

To position Ravel as one of the reputed brand in domestic and international market with full range of product in fire protection industry.



## Analogue Addressable Panel

Avani



- UL listed 9<sup>th</sup> edition as per NFPA - 72 standards.
- Operating Voltage 120 - 220V AC  $\pm 10\%$ .
- Switch Mode Power Supply.
- TCP/IP connectivity for centralized monitoring and control.
- Compatible with Integrated Voice Evacuation system-Ekonics / e` Scape.
- On board RS 485 output for Peer to Peer Network & GSM connectivity.
- BMS integration thru MODBUS connectivity.
- Graphics software compatible.
- 32 bit processor - Arm Cortex M3.
- 160 Characters LCD display with Touch Keypad.
- Maximum 4 loop cards configurable as Class A or Class B wiring.
- Maximum 254 devices per loop.
- Up to 192 Grouping Facility.
- 2000 Event Storage with Real Time Clock.
- Onboard USB 2.0 Interface for PC Connectivity.
- 32 Nodes on TCP / IP Network.
- Onboard Two no's of Programmable Inputs.
- Onboard three Programmable Form C relay for Fire, Fault and Supervisory.
- 100 % Configuration on Front Panel.
- Avani is available in White, Black & Red color.

## Repeater Panel

Avani RP(PASSIVE)



- Operating Voltage 24V DC.
- 160 character LCD display with touch keypad.
- 2000 events log with RTC.
- USB 2.0 Interface for PC connectivity.
- RS 485 inbuilt connectivity.

## Addressable Detectors

RE - 317 Series



- Polarity free wiring
- Dual blinking LEDs at 360° visibility.
- Inbuilt drift compensation facility.
- Sensitivity setting based on Day/Night mode.
- Three level sensitivity settings high/medium/low.
- Smoke Sensitivity :  $(2.12 \pm 0.61) \% / ft$   
High : 1.1% ft | Middle : 1.4% ft  
Low : 2.3% ft | Air Velocity : 0 - 4000 fpm.
- Fixed Temperature : 59°C (138°F)
- Rate of Raise of Temp : 11.1°C / min (20°F/min)
- **Availability** Multi / Smoke / Heat detectors with base.

## Addressable Modules

RE - 717 Series



- Module status by RED LED indications.
- Analogue communications with Panel.
- Module Addressing by 8 way DIP switches.
- All Modules are loop powered.
- **Availability** Control / Monitor / Relay Module.

## Addressable Manual Pull Station

RE - 716P Series



- UL Listed 9<sup>th</sup> edition.
- Resettable type.
- Single gang mounting.
- Painted Die cast housing.
- **Availability** Single /Dual action.



### Sounder

RE - 716 SO



- UL listed 9<sup>th</sup> edition.
- Operating voltage 16-33VDC.
- Current rating: 25mA.
- 2 Audible Tones Settings : Continuous and Temporal 3.
- Sounder output  $\geq 85$  dB at 24volt.
- Flush/Ceiling mountable.

### Sounder Cum Strobe / Strobe

RE - 716 SS / RE - 716 ST



- UL listed (UL 1971,ULC-S525,UL 464,ULC-S526)
- 4 candela settings:15/30/75/110cd output
- 2 audible tone settings: Continuous/Temporal 3
- High power cool white LED
- Max Current Draw(mA) : 67-93mA
- Flash Rate : 1 flash per second
- Operating Voltage : 24VDC(16-33VDC) / FWR

### Addressable Special Modules

RE - 717 Series



- Module Status by RED LED.
- Analogue communication with the panel.
- Module Addressing by 8 way DIP Switches.
- Blinking red LED for Normal condition.
- Steady red LED for Active condition.
- Low Standby Current.
- **Availability** Zone/ Isolator / Input Output Modules.

### Addressable Manual Call Point

RE - 717M



- Type A Indoor use MCP.
- Module Status by RED LED.
- Resettable by an element kit.
- Suitable for flush or surface mounting.
- Module Addressing by 8 way DIP Switches.
- Low standby current.

### Isolator Base

RE - 314BI



- Bidirectional protection device.
- Yellow color LED indication on active condition.
- Auto resettable while short rectified.
- Non addressable.
- Low standby current.
- Aluminum plated screw terminals.

### Response Indicator

RE - RI



- Operates on 12VDC.
- Dual LED's Indication.
- Alarm status is indicated by Red color LED.
- Flush / Ceiling / Wall Mount(optional Back Box)

### Addressable Ethernet Module

**RE - 517 ME**



- 10/100 auto sensing Ethernet mini card for embedded device networking
- Ready- to- Use TCP / IP firmware for fast integration
- TCP server & UDP driver operation modes
- Easy configuration with web browser, serial console, Telnet console or windows utility
- Low Power Consumption

### Graphical Software

**Avani SOFT**



- User friendly windows based software.
- Facility to monitor & control status of the FACP from the single windows.
- Visual and sound alerts for the fire and fault conditions.
- Instant pop up's for any event.
- For alarm management as well as system maintenance.
- All information available on a single screen allowing quick assessment & action.
- Facility to "zoom in & zoom out" for better clarity while Identifying the alarm location.
- The event log details with complete history of the fire alarm system.
- Three level multi user access.

### GSM Module

**RE - 517 MG**



- 24V DC operation.
- Quad band GSM / GPRS:850/900/1800/1900 MHZ.
- Built in SIM (subscriber identity module) card holder.
- Notification of exact fire location as in FACP.
- Maximum 10 numbers can be configured via RE - 517MG.

### Modbus Converter

**RE - AMB**



- Gives full status of all devices, outputs and inputs of FACP.
- Two types of interrogation with Master & Slave devices.
- Configurable for 4 different baud rate.

### Power Supply Panel

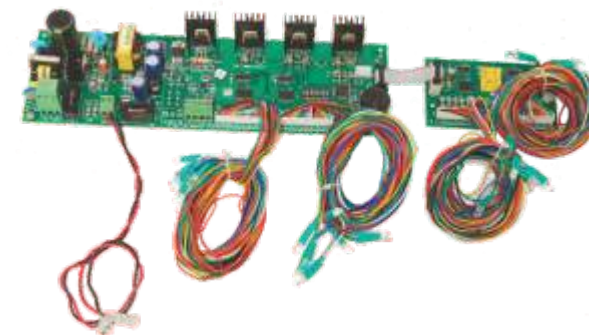
**RE - 2APS & RE - 5APS**



- Operates on 220V, A.C supply.
- Battery backup with built in charging.
- Low battery visual warning with audible tone.
- 24 VDC Output.

### Minic Card

**RE - 517MMC**



- Operates on 120-220 V AC.
- Provision for battery backup 24 V Dc with Built in Charger.
- RS 485 Communication.
- Compatible with AVANI.
- 16 Zone Outputs for mimic LED'S (Expandable upto 64 Zones).
- DIP Switch addressing.
- Operates with respect to Zone grouping of FACP.

## Gas Detectors

### RE - 386 Series

- 24V DC operation.
- Internal Buzzer.
- 4 wire system operation.
- Detector auto reset once gas level fall below alarm threshold levels.
- N/O alarm relay output.
- Connects to Zone Module for addressable control and indicating equipment.



#### Availability

Natural Gas (Methane) Carbon Monoxide(CO) Propane Gas (LPG)

## Beam Detector

### RE - 428 Series



- Inbuilt Laser Light For Easy Alignment.
- Infrared transmitter & receiver located in single housing.
- Sensitivity threshold 18%, 30% and 50%.

**Availability** 50m and 100m Range

## Duct Detector

### RE - 428 DU -S

- Easy To Install.
- One - Pipe Air Sampling System.
- Patented Venturi Pipe And Duct housing.
- Test Hole On Cover.
- Sampling tube Available 2/5/9 ft.



## Integrated Voice Evacuation System

### Ekonics



- 4 Audio inputs can configure to any combination of 8 or multiple of 8 outputs.
- 19", 3U Rack Mountable.
- All - Call or Zone wise paging.
- Built - in - 12 Programmable DVA / Alarm Messages.
- 40 x 4 LCD display.
- USB 2.0 Interface for PC connectivity.
- Interface with AVANI via RS - 485.
- 3 Levels of Password Protection.
- RS 485 communication facility.
- Event log with RTC.
- User selectable volume level for audio inputs.
- Zone wise input priority level.
- All Field circuits are supervised.
- Inbuilt 250 W Amplifier
- Zone wise selection through keypad.
- Programmable one form C relay.
- Zone Selection, Fault status in unambiguous colored LED indication.
- Maximum 64 Zones can be configured with 8 Zone grouping for a single Zone.

## Expander

### EK - 701 to EK - 707



- 2 audio input from Ekonics
- 8 zone audio outputs
- common fault, communication fault status power indication in LED indication
- 19", 2U Rack mountable
- zone wise selection with LED indication
- All field circuits are supervised

## Digital Amplifier

### EK - 722



- Better Sound Quality in Digital format
- 19", 2 u rack mountable
- low power consumption
- power on, audio level indication
- class D amplifier
- Low Heat dissipation
- compact size
- designed for quick and simple plug in type connection
- integrated self protection circuit

## P.A Main Console

e`Scape



- 19" , Rack Mountable.
- System ON, Power Fault, Common Fault indication.
- Membrane Keypad for user friendly operation.
- Inbuilt 250 watts amplifier.
- Additional amplifier can expand upto 250W.
- One inbuilt microphone for announcement.
- Zone wise ( Speaker Line) Selection facility with LED indication.
- Voice / Alarm / All call Selection Facility.
- MIC mode selection facility.
- Programmable Mode ( Alarm, Mic, Music DVA). Selection Facility.
- 100 V audio output for Speaker.
- Alarm activated on automatically announcing mode.
- Compatible with AVANI Via RS 485 Communication.
- Voice recording option available only with 250w amplifier combination.
- DVD input Facility.
- Zone expansion in Multiples of 16.
- Maximum 64 Zones can be configured with 8 Zone grouping for a single Zone.

## P.A Expander

RE - EX Series



- 24 VDC input voltage.
- 19" 2U rack mountable.
- power ON, communication, fault indications.
- RS -485 Communication, fault indications.
- Membrane Keypad for user friendly operation.
- Zone wise / zone group ( Speaker Line ) Selection facility with LED indication.
- 100V audio output for speaker.
- Plug type connector for easy wiring.
- Alarm activated on automatically announcing mode.
- Zone expansion in multiple of 16.

## Accessories - Remote Paging System

EK - 714



- Gooseneck Microphone.
- All call, announcement, acknowledge status LED indications.
- System on, Communication Fault, Busy & Fault Status LED indications.
- Maximum 64 Zone wise selection keys.
- Interface with public address system via RS - 485.

## P.A Ceiling Speakers

RE - LS6C



- Flush mount ø15cm dynamic cone speaker.
- Three field selectable power taps.
- ABS plastic grill with metal punched net.
- Easy to install with spring catch mount.
- Connectors with screw for hooking up the wires tightly.
- Protective dust cover at rear.
- The white color of the grill has been selected to be obtrusive in virtually all interiors.

## P.A Wall Speakers

RE - LS6W / LS20W



- Wall Mounted with 12.5 cm cone speaker for announcement and paging.
- Attractive, Stylish ABS white plastic box.
- The specially designed slim speaker is obtrusive in all interiors.
- Equipped with the transformer to provide 100V line.
- Ideal for office work stations, classrooms, shops, malls etc.
- Optional volume control.



### PA Horn Speaker

RE - LU100XT



- Horn type speaker.
- 2.5W, 5W, 7.5W, 10W, 12.5W, 15W watts.
- 275 - 7000Hz Frequency.
- ABS Plastic.
- Tap changing by Rotary Switch.
- Wall / Ceiling mountable.

### BI - Directional Projection Speaker

RE - LS30B



- Two 10 CM Dynamic cone speakers fitted at both the ends of the unit suitable for both speech and music providing quality sound for all requirements.
- Three field selectable power taps.
- Fitted with an adjustable U bracket for easy installation.
- Ideal for installation in covered areas which are not susceptible to rain or excessive dampness.
- Better sound quality for paging, announcement and background music.
- ABS Plastic grill at both the ends finished with matt grey.

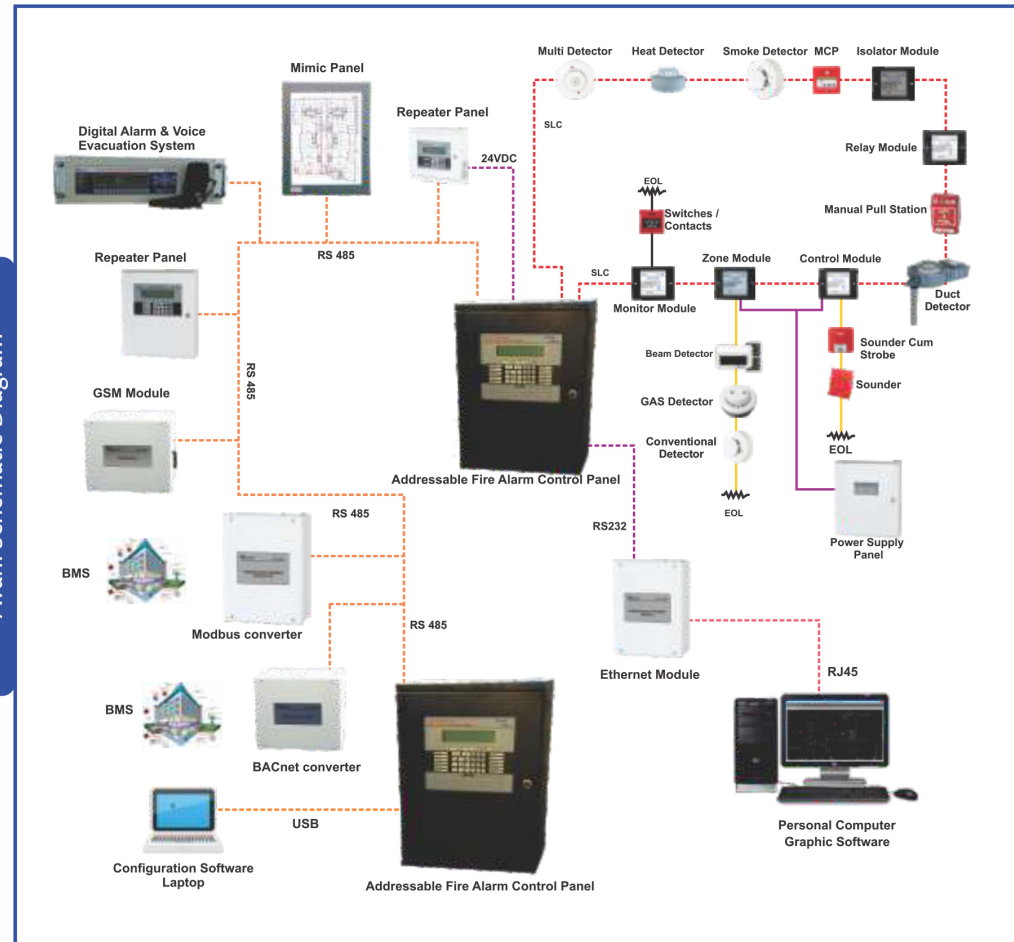
### Volume Controls

RE - 30VC



- Rotary Control.
- ABS type.
- 100v speakers compatible.
- Wall mountable with back box.

### Avani Schematic Diagram



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