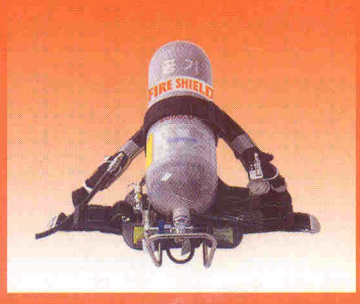
FIRE SHIELD



ADVANCING SAFETY W RLDWIDE

FIRE SHIELD

Conventional Fire Alarm & Detection System

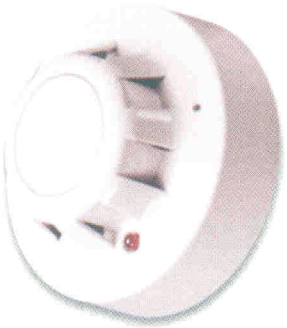
- *Proven detection performance*
- *Wide operating voltage with flashing-LED*
- *Usable with security systems*

Fire Detectors

The detection of fire is the first and the most important step in order to initiate the process of extinguishing any fire. Fire Detectors detects the fire through smoke or heat and signles the Control Panel by electronic impulses about the alarm-state.

IONISATION Smoke Detector

As smoke enters the detector, it reduces the current flow in the low activity radioactive foil of Americium 241, increasing the voltage, monitored by electronic circuitry, which triggers the detector into alarm-state.



OPTICAL Smoke Detector

As smoke enters the detector the light pulse from LED gets scattered, which is registered by the photo-diode, changing the detector into alarm-state.

HEAT Detector

In the event of fire, the temperature of the exposed thermister increases rapidly, resulting in an imbalance, causing the detector to change into alarm-state.

BASE

The base have been designed to enable detectors to be plugged in without any need for force, particularly useful while fitting to the suspended ceilings.

Hooter

Provides a distinct audible alarm in the state of fire, after receiving an electronic impulse from the Control Panel.

Response Indicator

Indicator LED produces red light in alarm-state, providing a visual signle.

Manual Call Point

An optional component providing an added advantage of manually signleing the Control Panel about the alarm-state.

FIRE SHIELD

Analogue Addressable Fire Alarm & Detection System

- *Digital protocol • Automatic address with patented XPERT card*
- *Alarm address provides for fast & exact location of fire*
- *Aesthetic appearance with intelligent devices*

Addressing & communication :

Each device responds to interrogation & command from central control equipment. It communicates to the panel – information on status, command bits, type, location and other informations that allows an alarm to be raised even when the device is not itself being interrogated. Message error checking is also provided. The detectors provide an alarm facility that automatically puts an alarm flag on the data stream & reports its address when the pre-set EN54 thresholds are exceeded. All the electronic components are in the detector but the location – information is held in the base with the help of a patented XPERT card, which eliminates, the risk of addressing-errors during maintenance and service.

System configuration :

The choice of detectors from our range follows, well established principles of system design, that is, the optimum detector type will depend on the type of fire risk and fire load, and the type of environment in which the detector is sited.

OPTICAL Smoke Detector

TEMPERATURE Detector

IONISATION Smoke Detector

MULTISENSOR Detector

Intelligent Fire Detectors :

For general use, smoke detectors are recommended since these provide the highest level of protection. Smoke detectors from our range may be Ionisation, Optical or Multisensor types. It is generally accepted that Ionisation types have a high sensitivity to flaming fires, widely used for property protection whereas Optical detectors have high sensitivity to smouldering fires, widely used for life protection.

The Multisensor is basically an Optical smoke detector and will therefore respond well to the smoke from smouldering fires. This detector also senses air temperature. This temperature sensitivity allows the Multisensor to give a response to fast burning (flaming) fires, which is similar to that of an Ionisation detector. The Multisensor can therefore be used as an alternative to an Ionisation detector.

Where the environment is smoky or dirty under normal conditions, a Heat detector may be more appropriate. It must be recognized, however, that any Heat detector will respond only when the fire is well established, generating a high heat output.

MOUNTING BASE

There are four double terminal and one single terminal to isolate and provide continuity of an earth or shield.
These are Zero Insertion Force Bases, particularly useful while fitting on suspended ceilings.

20D ISOLATING BASE

It senses and isolates short circuit faults on loops & spurs. The base is loop powered, polarity sensitive and accepts the XPERT card to set the associated device address.

XPERT CARD

A unique patented XPERT card provides simple, user friendly and accurate identification of detector location whereby a coded card, inserted in the base, is read by any detector once it is plugged in.

MANUAL CALL POINT

When operated it interrupts the polling cycle and reports its address in less than a second.

ISOLATORS

'Stand-alone' isolators, which have their own bases, may be used instead of isolating bases. The isolators are wired to a loop between detectors or other devices.

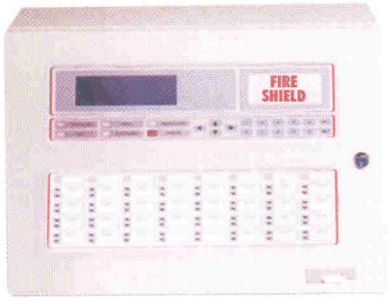
LOOP-POWERED SOUNDERS

There are two types of loop powered sounders available, one ceiling-mounted (85dB) and one stand-aone (100 dB).

Note : A comprehensive range of interfaces are also available for Intelligent Systems.

FIRE SHIELD

MICROPROCESSOR BASED CONVENTIONAL/ANALOGUE ADDRESSABLE FIRE ALARM CONTROL PANELS



After receiving electronic impulses from the detectors or MCP it declares the emergency state of fire by sounding the hooters.

- 2 – 16 zones/2 or 4 loop & 2 to 16 loop capacity.
- Upto 26 devices per zone/126 devices per loop.
- User friendly controls with clear, unambiguous screen.
- Battery back-up with built-in charging.
- Public address system with two-way communication.
- Automatic test mood with cross-zoning facility.
- Compliant with IS : 2189 & EN54 parts 2 & 4.
- Extensive mode change options by day/night and special group allocation.
- Windows-based, fully upload/download PC software package.
- User definable text messages.
- Compatible with Auto-Dialers to intimate fire-emergency.

BEAM DETECTORS

Principle : It consists of three main parts – the transmitter, which projects a modulated infra-red light, the receiver, which registers the light and produces an electrical signal and the interface, which processes the signal and generates alarm or fault signals.

Coverage : The transmitter and receiver are designed to be fitted on opposite walls approximately 30 to 60 cm below the ceiling, to protect an area upto 100 m long and 15 m wide, a total of 1500 m2.

Applications : It has been designed to protect large open spaces such as museums, churches, warehouses, factories, shopping malls etc.

FLAME DETECTORS

Principle : An infrared sensor, designed to detect specific types of flames, making it immune to solar radiation and other nuisance sources of infrared. It is sensitive to low-frequency, flickering infra-red radiation, emitted by flames during combustion.

Applications : It is designed for use in large areas that require a detector to give a fast response in potentially dusty or highly flammable environments, such as textile factories, aircraft hangars etc.

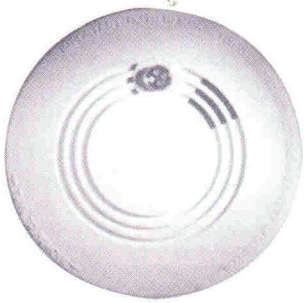
BATTERY OPERATED DETECTOR

Easy installations, No wiring / ducting

Applications :

It is operated on battery, meant for use in small areas like home, small offices, workshops etc.

- Easy testing facility by depressing the button.
- Easy installation with convinient clamps.
- Low battery signal is indicated when it beaps about once a minute.



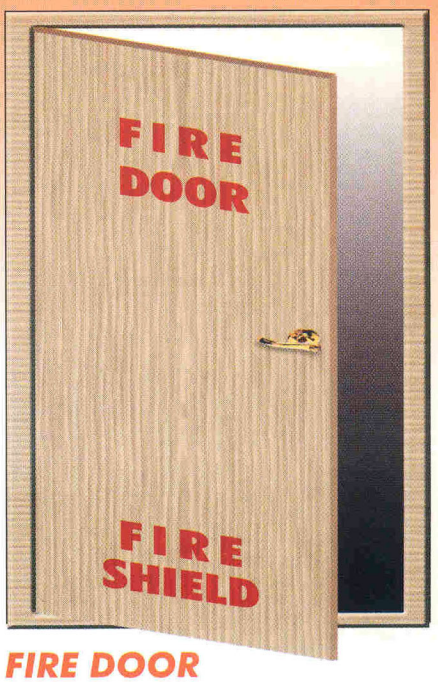
AUTO-GLOW

- **Water & Corrosion proof**
- **Long Maintainance-free Life**
- **No External or Internal Wiring/Electricity or Battery power required**

Auto-glow is a modern and novel entrant in the field of illumination of Emergency EXIT/FIRE EXIT Signs that mark the life saving paths for emergency evacuation. When accidents, power outages or fire occurs, electricity goes off or is cut-off, leaving an area a total black-out. Auto-glow directional signage system emits a clear and visible glow that helps the users to locate exits in such events.

Principle : Upon exposure to light, natural or artificial, this photo luminescent material absorbs and stores light energy and then in the absence of light, this captivated light is released to give off a luminous glow by its non-toxic chemicals.

Applications : Public buildings, hospitals, factories, auditoriums, theatres, hotels, subways, banks, guarages, offices, schools, restaurants, ships, aircrafts, warehouses, power plants etc.



FIRE DOOR

These are composite Fire Doors made to resist the fire beyond intended point for specific time-period.

- Fully insulated, non-combustible.
- Asbestos free.
- Light weight & sturdy design
- Elegant finish with asthetic looks.
- Fire rating : Available in half to four hour rating.

CHEMICAL SUITS

It is made of polyamide fabric coated with viton and butyl rubber on the outside with a polymer barrier laminated inside. It is impact/chemical resistant having a transparent visor with a ventilator valve.

ALUMINIZED FIRE PROXIMITY AND ENTRY SUITS

These are multilayered, aluminized, fibre glass fire suits, developed with guidence and assistance from DIFR and approved by them. The inner-most layer is made from Flame-retardant fibre. FRP helmett and wises in the hood has gold vapourized polycarbonate mica sheets. It consists of hood, a pair of hand gloves, pouch for possessioning of BA sets and a pair of shoes with antiskid soles.

LIGHT-WEIGHT FIRE SUITS

These are multilayered fire suits, specially designed in light-weight for comfortability. The outer layer is tough and first defence against flame lick and heat. The second layer is the moisture barrier, protecting against water and chemicals, and the inner layer is the thermal barrier, protecting against heat.

COMPRESSED AIR BREATHING APPARATUS

- *Easy breathing, Light weight.*
- *Conforms to IS:10245.*

Applications : Meant for fire fighting, rescue, and industrial applications. Excellent for working in smoke/gaseous contamination of any degree or oxygen deficient areas.

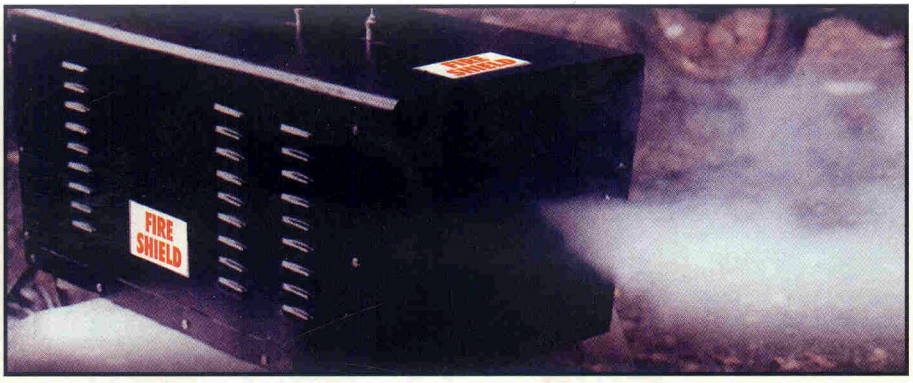
Cylinder Assembly : Seamless, high pressure steel cylinders, duly tested for pressure, fitted with valve.

Face Mask : Full face mask has reflex-edges for perfect face seal. Optically clear polycarbonate lens with Impact resistance, Anti-scratch coating. Adjustable head harness with excellent fit, no hair pulling.

Back plate assembly : Ergonomical design of sturdy back plate ensures equal weight distribution. Cylinder retaining strap with large, easy-to-grip catch lock is fitted for it's quick tightning.

Service Time : Available in 30, 45 & 60 minutes duration. Other models also avilable on request.

- Adjustable waist belt offers easy and quick fastening.
- Low-air warning-whistle
- Easily readable Pressure Guage indicating cylinder pressure even during working, due to free swiveling.



SMOKE GENERATORS

- **Compact & Light-weight**

It's a portable device, producing large volumes of dense, white, non-toxic, non-iritant, non-flammable, odorless oil-based smoke.

Applications : Fire fighters and Damage Control Schools use these to produce fake smoke for use with fire effects, creating a trauma scene for rehearsing emergency situations. Since its introduction, water soluble fog effects have become among the most commonly used special effects in all aspects of entertainment, including stage, film, television and theme parks etc.

THERMAL IMAGING CAMERA

- **Reliable & Efficient**

These are portable & light-weight devices with optional wireless transmission & receiving system with transmitting capability of upto 1.5 km. range, providing a clear vision to fire fighters to see through dense zero visibility smoke & darkness to locate the seat of fire, search the trapped casualties and initiate rescue operations.

ISO 9001 : 2000
FM 79011

FIRE SHIELD

ENGINEERING EQUIPMENTS

ISO 14001 : 1996
EMS 79011

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