



FIRE SYSTEM TECHNOLOGY



- **FIRE SUPPRESSION/FIRE FLOODING SYSTEM**
- **KITCHEN/VEHICLE FIRE SUPPRESSION SYSTEM**
- **ADDRESSABLE/CONVENTIONAL FIRE ALARM SYSTEM**
- **ASPIRATING SMOKE DETECTION & GAS DETECTION SYSTEM**
- **FIRE DOOR/FIRE WALL, CABLE COATING, AUTOMATIC FIRE CURTAIN**
- **CCTV, ACCESS CONTROL, PA SYSTEM, EPABX, GATE AUTOMATION.**

ABOUT US

ASHA ENTERPRISE is a dynamic and innovative enterprise established in 2013 to bring the latest fire safety system & electronics security system to India. It started with the vision to cater the pharma sector, banking sector, hotels sector, government sector, automobile sector, and other sectors like mining & all types of industries to provide the best quality of fire safety system & electronics security system with satisfaction.

The company is engaged in training, product support and designing activities. It has a history of delivering value to the customers through engineering expertise, efficient operations and quality systems.

The company has demonstrated its ability to handle projects successfully in the domain of manufacturing and other sectors. Flexibility to adapt to varying needs of the customers coupled with the extensive knowledge of the industry has ensured delivery of quality products consistently.

Over the years, ASHA ENTERPRISE has provided its clients products which are import substitutes as well as customized products developed endogenously. The products have been certified for quality, functionality and acceptability by the regulatory authorities of the Indian government.

In the past three years, the company has embarked on bringing forth environmentally friendly clean agent gases, equipment & systems and today we can proudly say that we are one of the leading suppliers for FM 200, HFC 227EA, HFC 236FA, HFC 123, HFC 125, NOVAC 1230 and FK-5-1-12. ASHA ENTERPRISE is proud to offer FirePro Aerosol Base Fire Suppression brand 50+ international standard certified systems.

Vision

To Become A Green Company That Supplies The Latest Environmentally Friendly Clean Agent Gases And Systems Meeting The Highest International Standards. We believe in using the latest technology and information with our dynamic staff. We are working with Specialist Engineers and qualified staff in our technical and commercial applications to reduce the fire risk to minimum in living spaces and industrial areas. We want to improve the understanding of Fire Security to the level of developed countries.

Mission

To Become A Preferred Partner To Manufacturers And Integrators Of Clean Agent Fire Suppression Systems In India And Overseas. We are committed to deliver high quality goods and services which fully meet our customers' needs for quality assurance together with requirements and we constantly seek ways to improve our quality continuously and ensure its continuity.

Goal

To be the number one in our field by providing best in class products and world class services in the field of fire protection equipments and safety accessories, with high customer satisfaction.



CO₂



Inert



Clean Agent



Tubing System



Aerosol Generator

CLEAN AGENT FIRE SUPPRESSION/FLOODING SYSTEM

HFCS/FK-5-1-12 are pure gases that leave no residues, they have minimal environmental impact and having no depleting effect on the ozone layer. HFC227EA and FK-5-1-12 are over-pressurized with nitrogen to 25/42 bar.

The HFC gases and FK-5-1-12 are dielectric, clean, and safe for humans and delicate equipment and precious objects. HFCS extinguisher partly by physical means, by subtracting thermal energy from the fire, and partly by chemical action, releasing into the space small quantities of substances that release free radicals and inhibit the combustion chain reaction.

At design concentrations, HFCS and FK-5-1-12 are safe for protecting closed areas and flooding produces only a negligible decrease in the oxygen level after discharge, the extinguishing agent can be dispersed by simple aeration. HFC/FK-5-1-12 extinguishing systems guarantee not only a technically advanced solution but also savings on space, thanks to the small overall dimensions of the compact system, and on the weight bearing on the structures. These savings continue through the life of the system, making periodic maintenance of the valves and the cylinders easier and less costly.

The integrity of any volume protected by a total flooding system must be checked to locate and seal any significant air leaks. Leaks can result in failure to maintain the concentration level of the extinguishing agent for the significant period of time. Verification of leaks must be conducted via the "Door Fan Test."

When it comes to protecting critical and valuable assets, nothing comes close to UL recognized clean agent gases systems. Heptafluoropropane or HFC 227EA is a liquefied compressed colorless, odorless and electrically non-conductive gas suitable for use in total flooding and local application fire suppression systems.

The HFC/FK-5-1-12 extinguishing system is designed-using dedicated software for calculating the cross-section diameters of the nozzle passages-to discharge the extinguishing gas into the environment in 10 seconds. Discharge time is defined as the time needed to reach 95% of minimum design concentration.

Full discharge within 10 seconds is clearly advantageous with respect to technologies that provide discharge times-and consequently, extinguishment times-in excess of one minute. Use of the HFC/FK-5-1-12 extinguishing agents guarantee fast fire suppression and therefore less damage both to the protected spaces and objects and people present in the areas.

The system cylinders conform to DOT/BIS/PESO standards. The components meet the requirements of the TPED 2010/35/UE, of the Construction Products Directive (CPD - 89/106/CE), and of the EN 12094-series standards and are VdS approved. The clean agent HFC/FK-5-1-12 is UL recognized

System design conform to various international standards, including:

- NFPA 2001 Standard on Clean Agents Fire Extinguishing Systems
- VdS 2381 Fire Extinguishing Systems Using Halocarbon Gases

Advantages

- Low cylinder installation space requirement
- Suitable for protection of occupied areas
- Fast extinguishment thanks to rapid
- Extinguishing agent discharge
- Low installation and maintenance costs
- Does not conduct electricity
- Leaves no residues after discharge
- No potential for ozone layer depletion
- Low global warming potential

Applications

- Art gallery, Museum, Archives
- Computer
- Control Room
- Record & Storage Facilities
- Petrochemical Installations
- Pharmaceutical & Medical Facilities
- Electronics & Data Processing Warehouses
- Flammable liquids
- Areas normally occupied by personnel
- Engine Rooms on Ships

FIREPRO AEROSOL TECHNOLOGY



FPC
Solid Compound

Core Technology

FirePro systems use the latest generation of the patented FPC solid compound at their core. When activated the FPC solid compound is transformed into a rapidly expanding extremely effective and efficient fire extinguishing condensed aerosol. The generated aerosol is propagated and evenly distributed in the enclosure under protection using its own momentum. Fire extinguishing is accomplished by the interruption of the chemical chain reactions occurring in the flame and not by oxygen depletion and / or cooling as suggested by the traditional triangle of fire

FirePro Aerosol Technology

It is an effective and economical solution for users in special hazard fire protection area. FirePro aerosol technology saves up to 35% in equipment and lifecycle costs compared to traditional systems mention above. This is due to lower initial expense plus minimal ongoing service costs.

| | | | |
|-------------------------------|-------------------|--------------------------------|---|
| Certified 15-year shelf-life | Non-Pressurized | Non-Oxygen Depleting | Non-Conductive |
| Non-Corrosive | Non-Toxic | HFC-free | CFC-free |
| Zero Global Warming Potential | Halon Alternative | Zero Ozone Depletion Potential | Manufactured Under ISO 14001 / 9001 Standards |

FirePro Efficiency

4x more efficient than Halon 1301

6x more efficient than FM-200

7.5x more efficient than FE-13

15.5x more efficient than CO₂

40x more efficient than inert gases

| | |
|--|--------------------------------|
| | FirePro. |
| | Halon 1301 |
| | FM-200 |
| | FE-13 |
| | CO ₂ |
| | Argotec Argonite Inergen |

At FirePro we design and manufacture flexible, efficient and effective fire suppression systems with an innovative compound at the core of their technology. FirePro systems are ideal for both traditional and non-conventional applications. Moreover, they find use in applications once considered to be technically or financially challenging for other technologies.

We currently protect key assets in more than 110 countries.

Application Areas

DG Rooms, UPS Rooms, Battery Rooms, Electrical Rooms, Electrical Panel, Warehouses, Historic Buildings, Museums, Document Rooms, Marines, Oil & Gas, Mines, Strong Rooms, Defence Vehicles, Automobiles, Clean Rooms, Solvent Rooms, Telecom, Data Centre and many more....

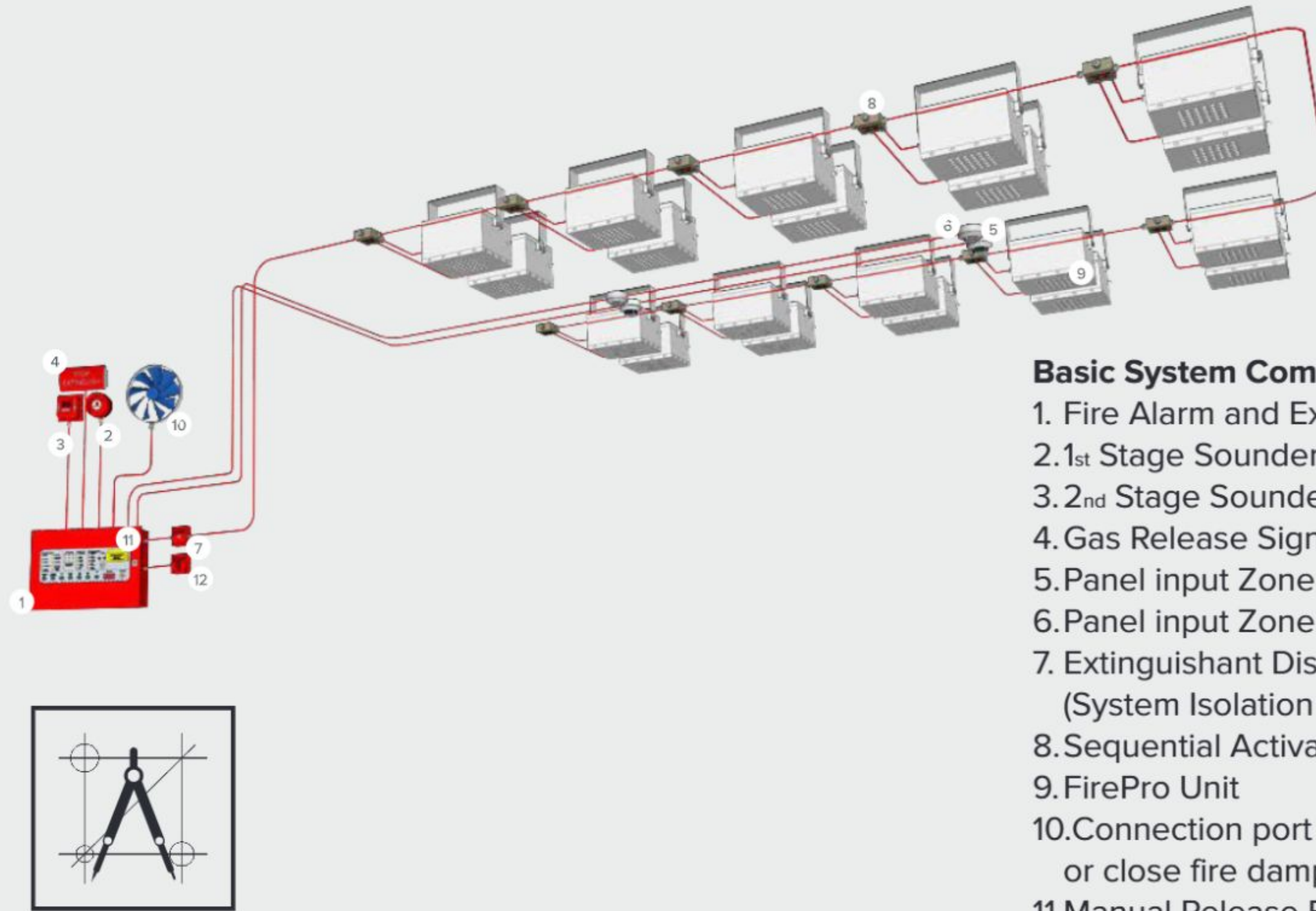
Certifications



Clients



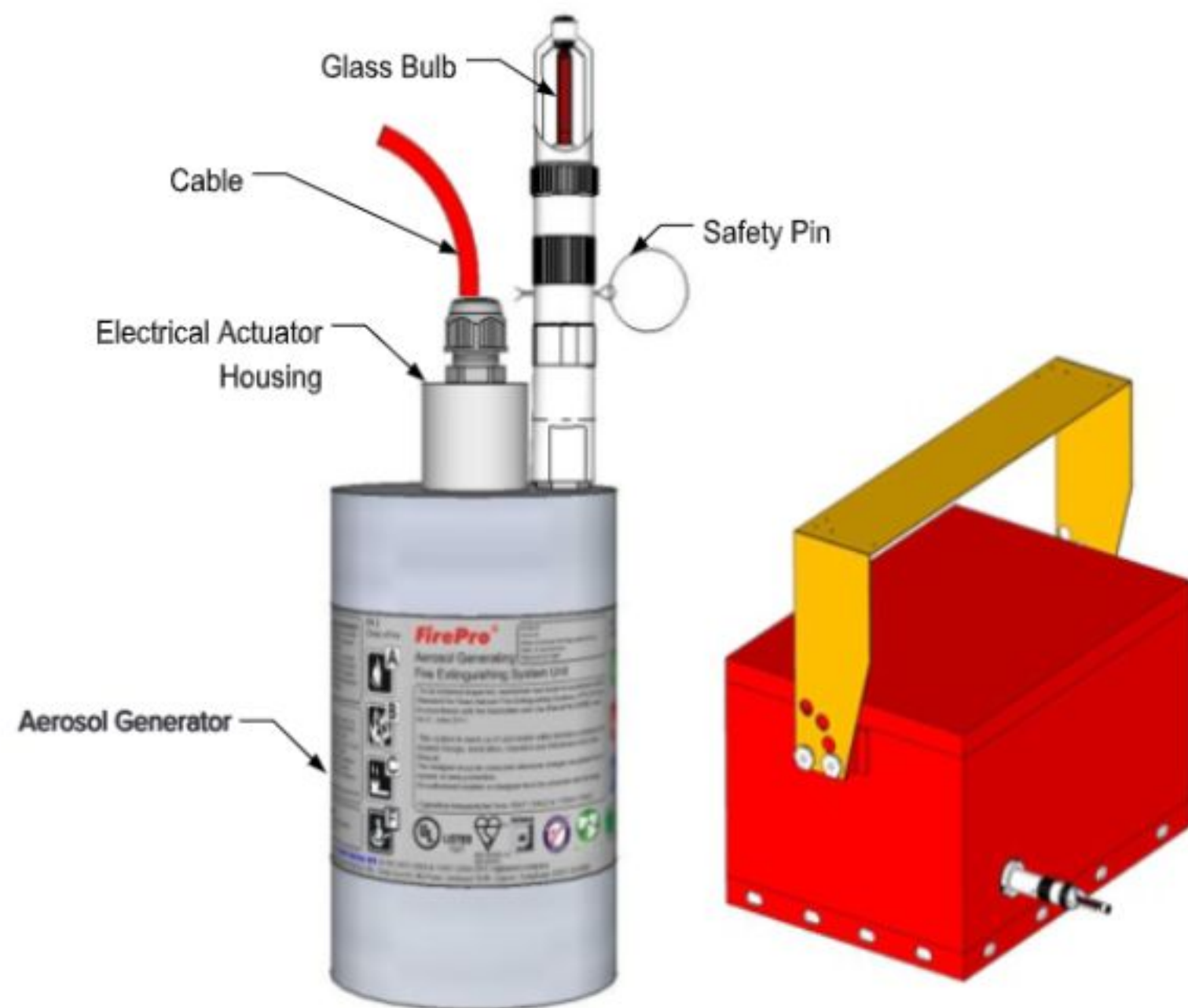
AEROSOL BASE FIRE SUPPRESSION SYSTEM



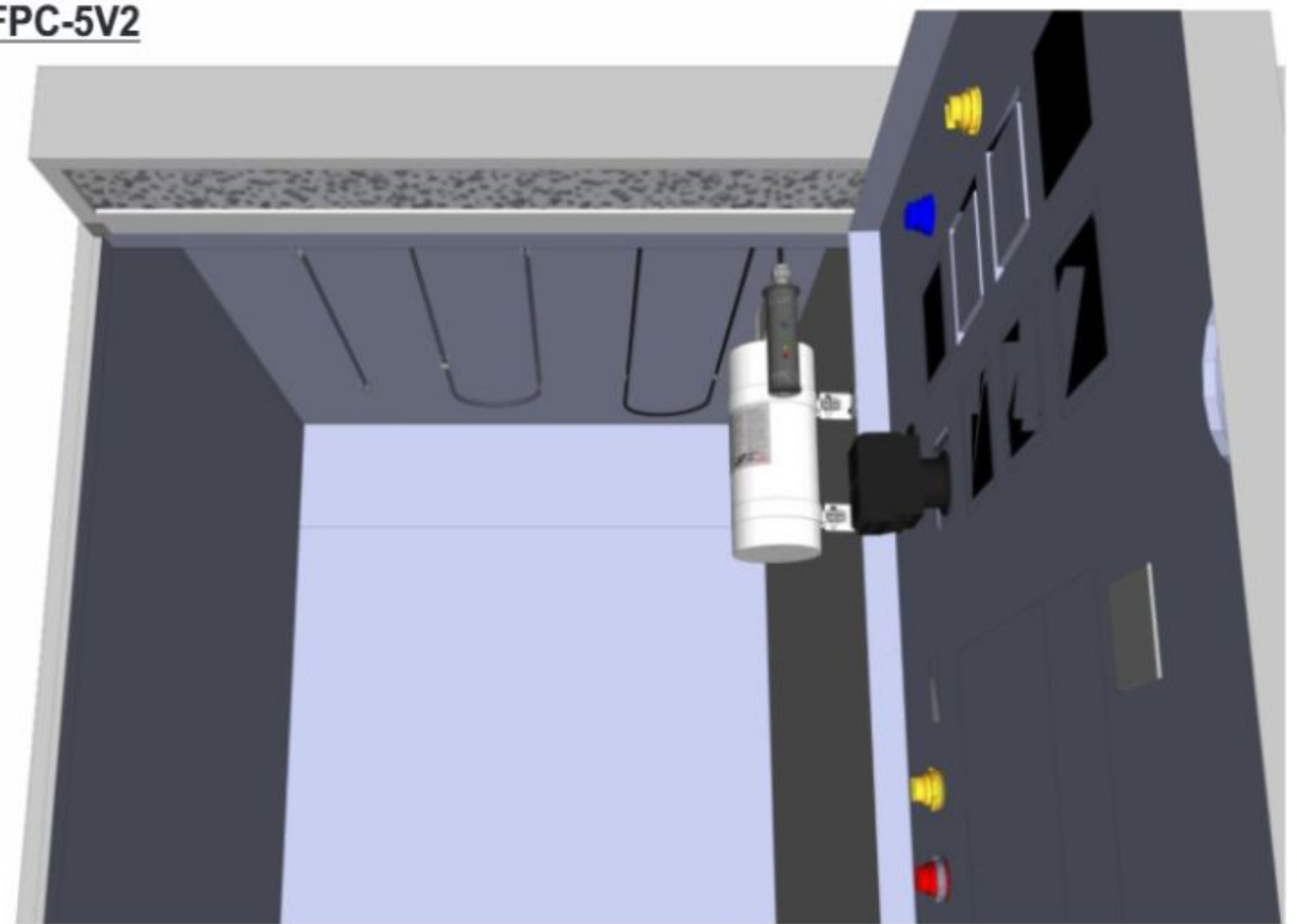
Basic System Components Required

1. Fire Alarm and Extinguishing Panel
2. 1st Stage Sounder (Bell)
3. 2nd Stage Sounder/Beacon (Horn/Strobe)
4. Gas Release Sign
5. Panel input Zone 1, Smoke Detector
6. Panel input Zone 2, Heat Detector (RoR)
7. Extinguishant Disablement Switch (System Isolation Switch)
8. Sequential Activator
9. FirePro Unit
10. Connection port to shut off extractor fan or close fire dampers
11. Manual Release Button
12. System Abort (Hold) Switch

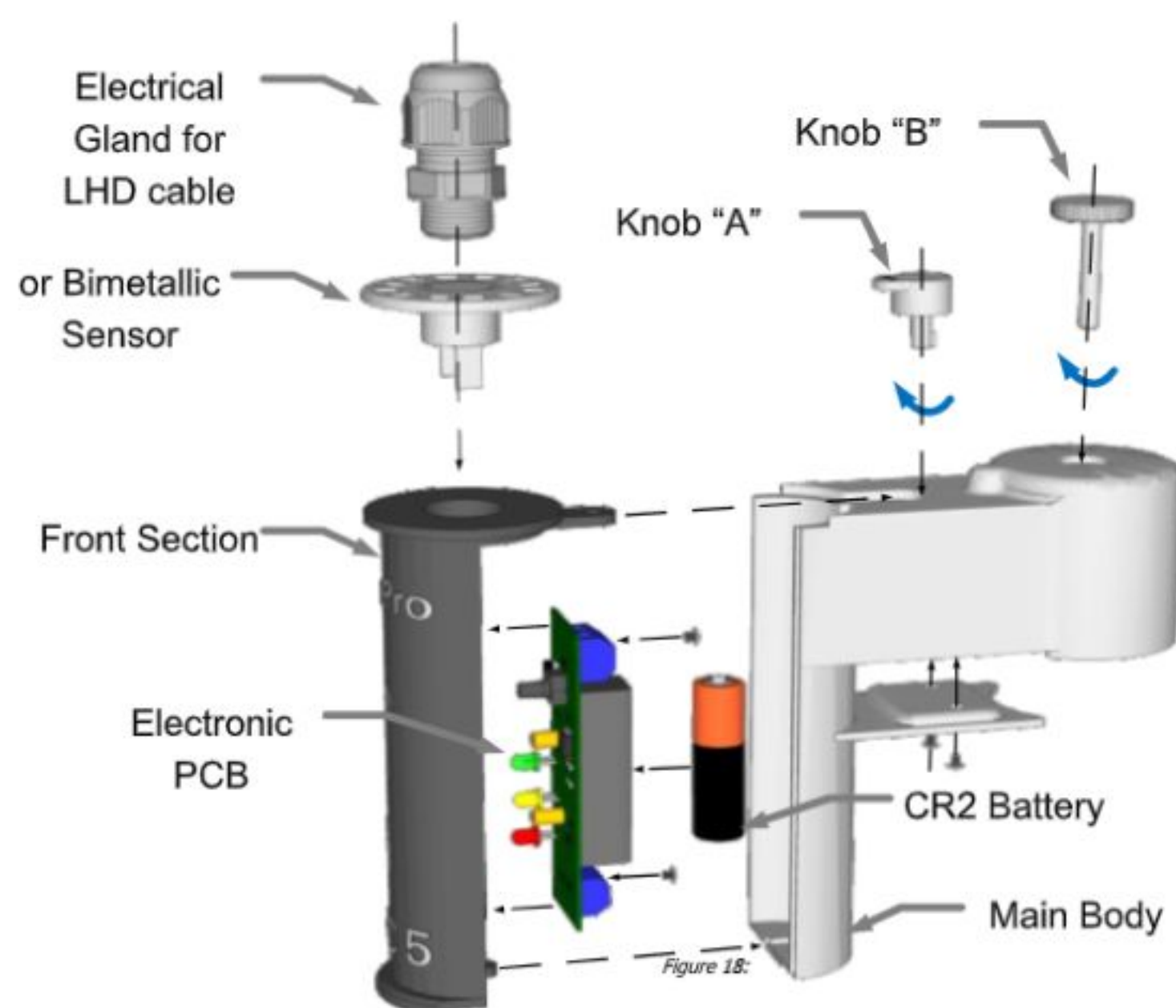
BULB THERMAL ACTUATOR



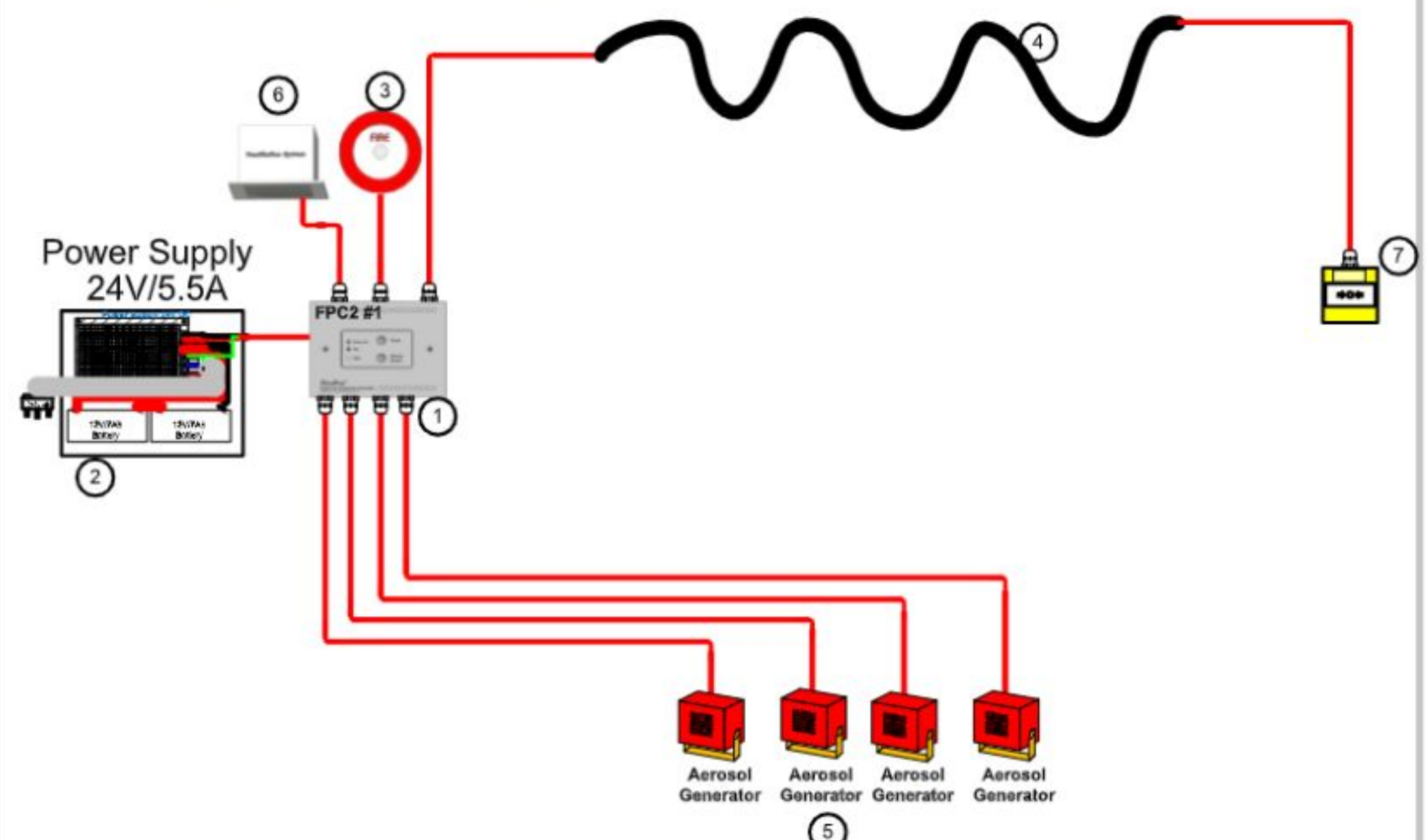
FPC-5V2



BI-METAL TEMPERATURE SENSOR



SMALL AREA EXTINGUISHING SYSTEM



AUTOMATIC CLEAN AGENT TUBING SYSTEM

We are pleased to introduce ASHA ENTERPRISE automatic Clean Agent Tubing System is an innovative automatic fire suppression system designed to provide a fast and reliable solution to extinguish panel & cabinet fires and help protect electrical panels. With the modern dependency on systems required being live, any interruptions in operations can involve huge financial costs and impact businesses severely. Therefore it is essential that special attention is paid to effective fire protection for these electrical installations ensuring you can achieve ideal protection for your equipments.

ASHA ENTERPRISE automatic Clean Agent Tubing System provides ideal protection ensuring the fire will be extinguished in the first critical moments of their occurrence works fully independently. The system is connected to a monitoring panel which provides necessary indication upon operation of the system and can be connected with the existing BMS/SCADA panels to ensure proper monitoring of the systems.

**Environmentally
Friendly &
Non Toxic**

**Cost Effective
Solution**

**Automatic
Operation &
leaves no Resid**

**Compatible with
Fire Detection
/ VESDA System**

**Easy to Install &
Zero
Maintenance**

**German
Pressure
Gauge**

**Cylinders
as per
BIS Standard**

**UL Listed
Clean Agent**

The system uses clean and green UL Listed, globally recognized non-toxic fire extinguishing agent (FM200/HFC227ea), (FE36/HFC236fa) and (Novec1230/FK-5-1-12) to provide quick and reliable suppression to combat the fire and suppress it before it can spread within the cabinets minimizing potential fire damage. The system is manufactured in two versions when used with Clean Agents:

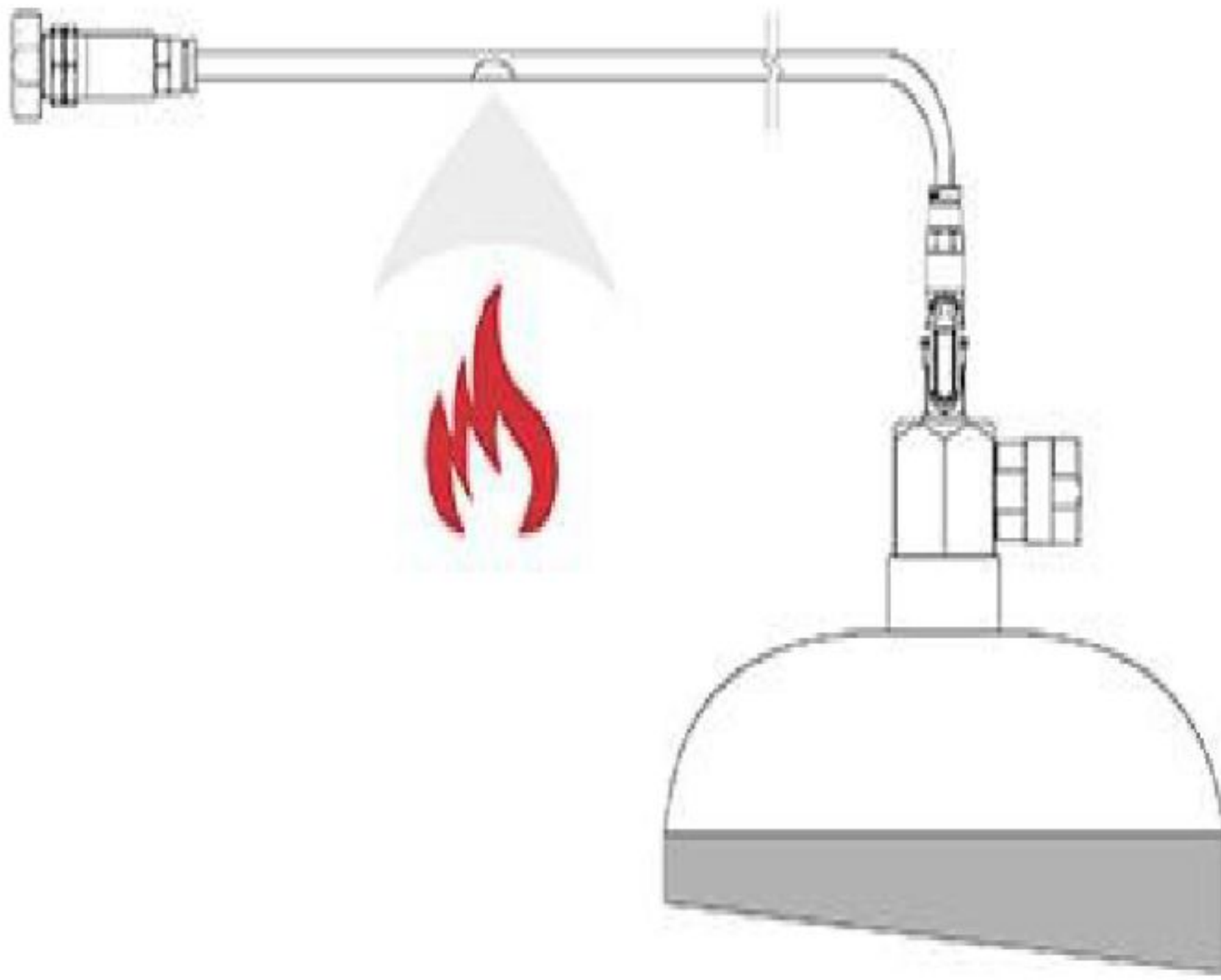
- **Direct Low Pressure System [DLP]**
- **Indirect Low Pressure System [ILP]**

Use of each version is determined by the type and size of the enclosure.

The benefits of a Clean Agent Fire Extinguishing System are speed in suppressing fires, reducing damages, saving on floor space and allowing visibility. It leaves no residue and doesn't require costly clean-up, unlike sprinklers and other fire protection systems. Our systems are designed to extinguish a fire quickly and effectively thus allowing businesses to continue operating with minimal interruptions. Clean Agent Fire Extinguishing Systems are great in applications ranging from telecommunications and data processing to switch gear rooms, military applications and cell sites to high-tech medical applications.



DIRECT LOW PRESSURE SYSTEM



This system is referred to as direct, which means that the activation and distribution of the clean agent (HFC227ea, HFC236fa & FK5-1-12) is secured by the detection tube.

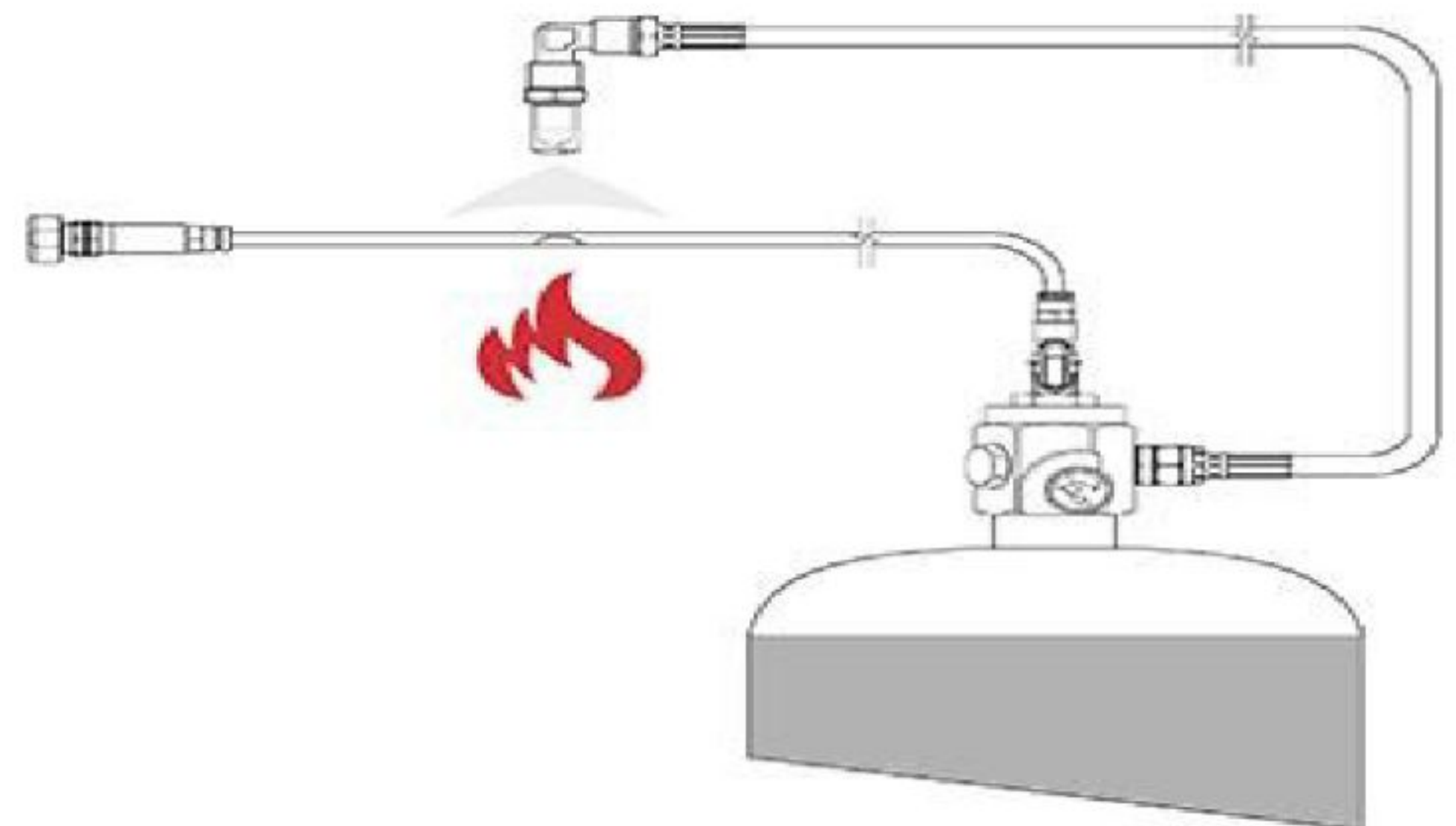
The fire suppression system operates by detecting fire and applying the agent using a detection tube connected to the cylinder valve. The detection tube is placed in the protected enclosure and is under constant pressure. In case of fire the detection tube degrades by the effect of fire or high temperature. When the detection tube is disrupted, the agent is released through the created hole. The detection system is independent of any electrical supply and operates.

INDIRECT LOW PRESSURE SYSTEM

This system is referred to as indirect, which means that it is activated by disruption of the detection tube and the agent is distributed via separate distribution tubes to the nozzles.

The fire suppression system operates by detecting heat with a detection tube connected to the valve of the cylinder. The tube is placed in the protected enclosure and is under constant pressure, whereby keeping the valve piston of the cylinder closed.

The indirect system is suitable for larger environments or where specific application of the agent is required. This system also enables various modifications by adding optional components such as manual actuation, control panels for enhanced operation and control of the system.



SYSTEM ADVANTAGES

- Fast, reliable fire detection.
- Clean agents — safe for people, equipment and the environment, no cleanup required.
- Installs in new or existing cabinets.
- No interference with installation or maintenance of equipment.
- System do not affect IP ratings.
- System Detection Tubing is electrically non-conductive. System Detection Tubing follows cable routes to penetrate cabinets (no need to drill holes).
- System Detection Tubing allows suppression directly at source of fire unlike other systems that have to build up an extinguishing concentration which can be difficult with Internal airtight sub enclosures.
- System can be integrated with fire control systems
- System requires no power and is completely self System
- contained is accepted / endorsed by leading MCC and VFD panel manufacturers.

APPLICATIONS

- Electrical and electronic cabinets.
- Telecommunication areas.
- Data Processing areas and cabinets.
- Other high value assets.
- Laboratory fume/exhaust cabinets
- Pump enclosures
- UPS units
- Flammable Chemicals storage cabinets
- Generator Enclosures
- Transformer Cabinets
- Computer/Data Storage Cabinets
- CNC & VMC Machining centers

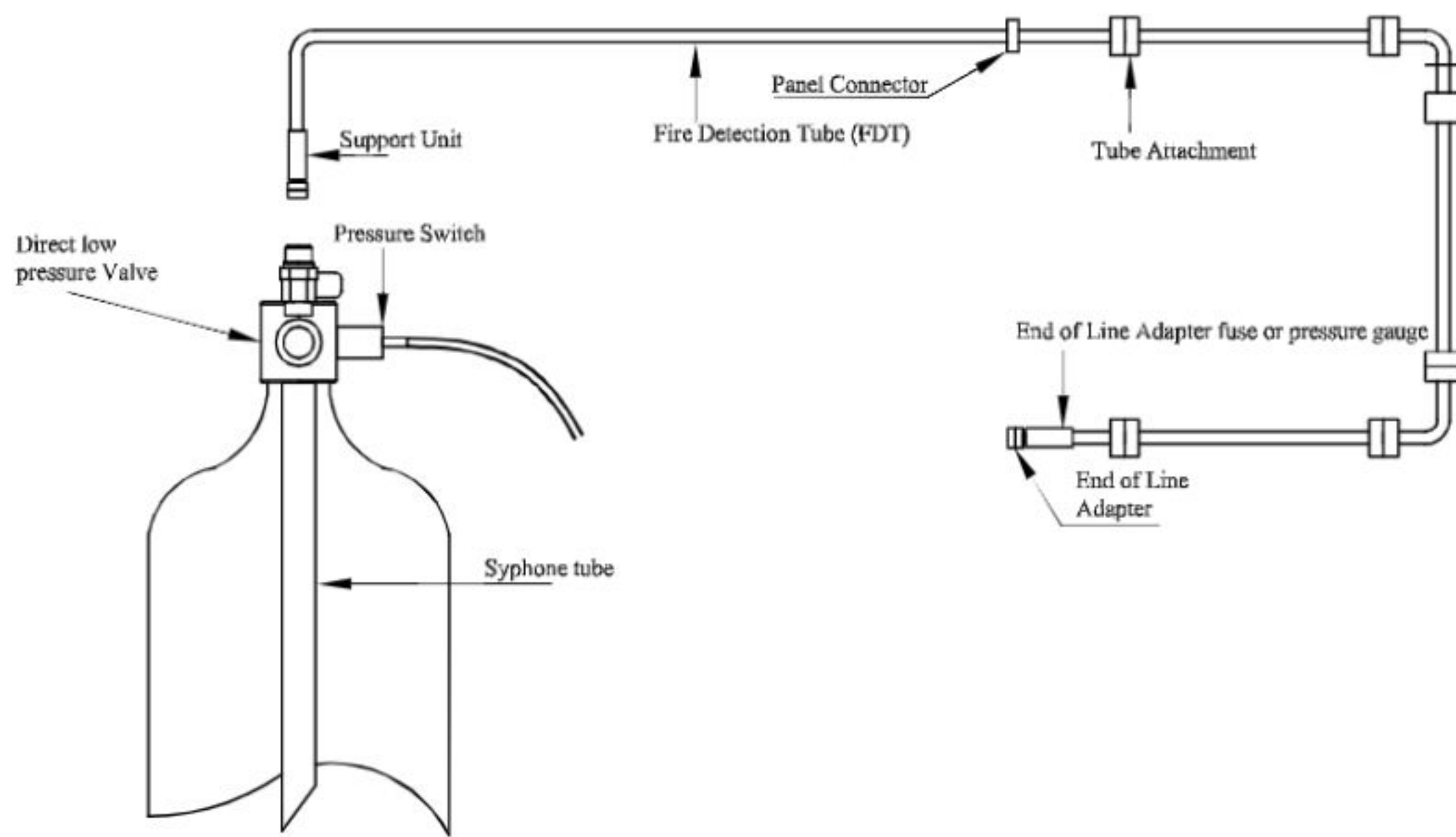
Co2 FIRE SUPPRESSION/FLOODING SYSTEM

Co2 is a colorless gas with a density about 60% higher than that of dry air. Considered as best extinguishing gas. It suppress oxygen by eliminating heat, co2 is most effective as a fire extinguishing agent. NFPA-12 rules and BIS 6382 codes for design of such system are used as standard for co2 extinguishing or flooding system. Co2 gas generally stored in high pressure seamless steel cylinders is in liquid form with maximum filling ratio of 0.667 kg/ltr of cylinder volume. In order to the fire hazard co2 cylinders quantity varies. On large hazards where several cylinders are required a manifold is used to connect each other by means of flexible hose and check valve. The cylinder's master valve is electronically operated and the slave valve is pressure actuated. The master valve can be automatically or manually operated. Flow rate of co2 is controlled.

Note : Co2 Use in Unman area for total Flooding.

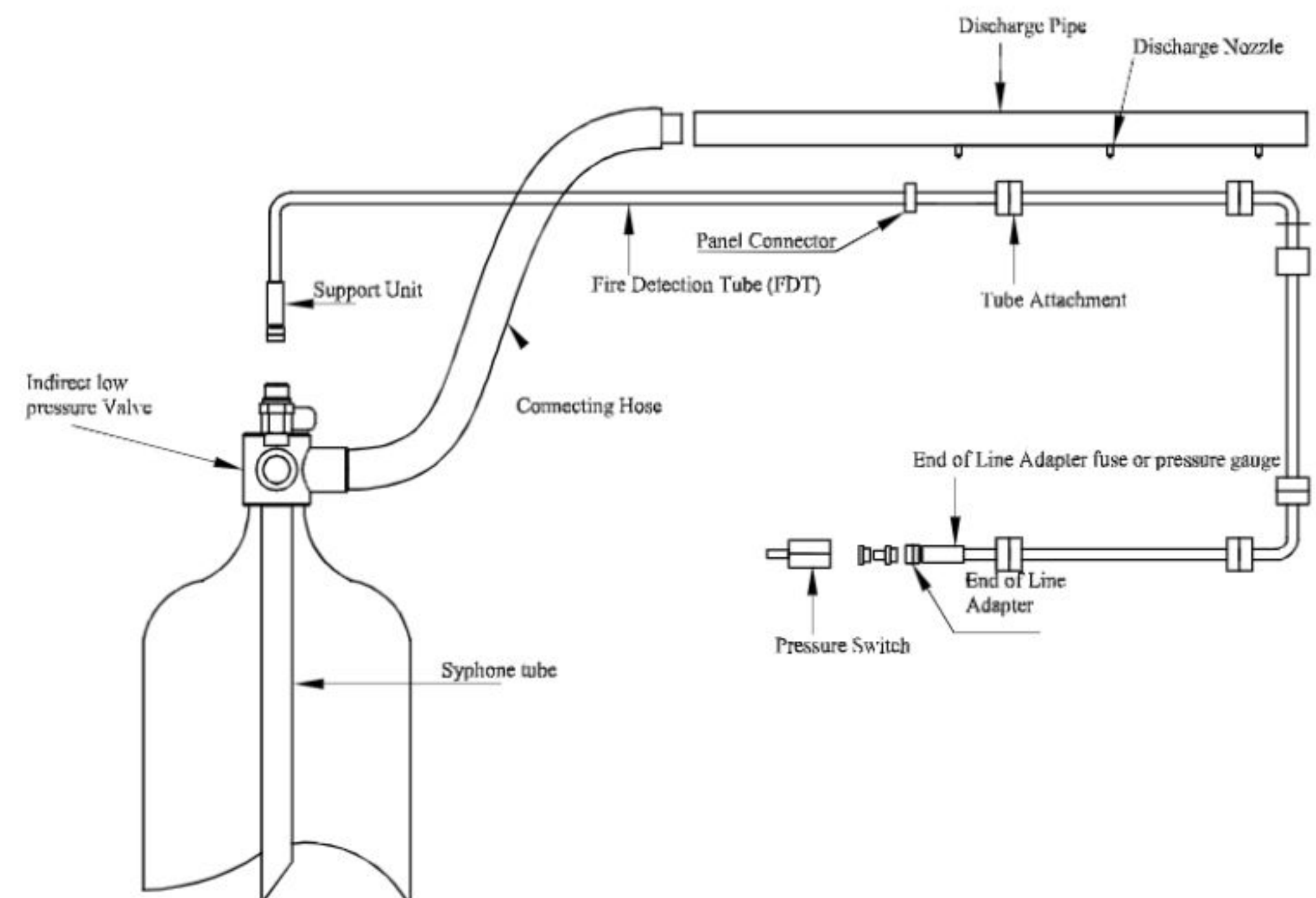


DIRECT HIGH PRESSURE [DHP]



This system is referred to as direct, which means that the activation and distribution of the co2 agent is secured by the detection tube. The fire suppression system operates by detecting fire and applying the agent using a detection tube connected to the cylinder valve. The detection tube is placed in the protected enclosure and is under constant pressure. In case of fire the detection tube degrades by the effect of fire or high temperature. When the detection tube is disrupted, the agent is released through the created hole. The detection system is independent of any electrical supply and operates.

IN DIRECT HIGH PRESSURE [IHP]



The detection tube just triggers the valve when it detects a fire. The extinguishing agent discharges through a conventional outlet port. A fixed supply of co2 is permanently connected to a fixed co2 piping and discharge nozzles are arranged to discharge co2 into the protected space. The detection is through the sensor/detection tube and discharge is through a separate delivery nozzle. It is the most effective suppression configuration. It covers a large area. It allows quicker discharge of extinguishing agent.

Applications

Most ideal for protecting paint and varnish manufacturing process area. For LT panels, Control Rooms (power plant), powder coating and paint booths, transformers and sub-stations, rolling mills and turbines, false floors and cable shafts, etc...

GENERAL PRACTICE FOR APPLICATION / INSTALLATION SCHEME FOR FIRE STOP MORTAR SEAL & FIRE RETARDANT CABLE COATING COMPOUND

- A) Fire barriers using fire stop mortar seal shall be installed at following locations. The thickness of fire barrier shall be sufficient to achieve 3 hrs. Fire rating.

Control room/cable vaults and in plant area

- 1) Panel bases in control room shall be sealed (wherever any other type of fire sealing system is not already installed and wherever it is structurally and maintenance wise feasible to install)
- 2) All wall openings and floor openings in control room / cable vaults shall be sealed.
- 3) All cable entry openings from trenches or overhead cable trays racks shall be sealed.

Trenches

- 1) Barriers shall be installed inside the trenches at every intersection or tee joints and bends at every 2 meters from centre line of cable rack inside the trench.
 - 2) Barriers shall be installed at every 15 meters in straight runs of trenches.
- B) Fire protective coating shall be applied at following locations. The average thickness of the coating shall be 2 min.

WOODKOT

RECOMMENDED USE : Applied on doors, windows, wall paneling, false ceilings, fiber board tiles to render them fire resistant to class 1 surface spread of flame as per BS-476 part 7.

PHYSICAL DATA

COLOUR: White/off white (any shade can be matched by adding desired stainer) **FINISH** Glossy/Semi glossy

COVERAGE:

Soft Wood -3 Sq mtr/Ltr
Plywood, Particle Boards etc-3.5 Sq mtr/Ltr
Hard Wood, Teak Wood- 4.0 Sq mtr/Ltr
Fiber insulation board, Plaster board, Gypsum board- 6.0Sq mtr./Ltr.

DRYING CHARACTERISTICS :

Touch dry: 2Hours Hard dry: 8 Hours
Full cure: 7 Days
(At 30 degree C and 65% Relative humidity)

APPLICATION: By Brush / By spray

THINNER: SI - 441

RECOMMENDED DFT: 60microns per coat

OVERCOATING INTERVAL MIN: 8 hours; **MAX:** 24 hours If exceeds, the surface should be roughened by emery scuffing.

FABKOT

National Building Code Part IV, para 11.6.1 states: "For assembly buildings, all fabrics and stage settings made of combustible materials should be treated with flame of proofing materials" After the application of Fabkot on fabric it becomes Flame Proofed Fabric. This flame proofed fabric when in contact with fire, will only char but will not spread flame, thereby stopping propagation of fire completely. Flame proofing is either Durable or Non-Durable. Flame proofing properties remain unaffected with washing in the case of durable treatment. In the case of Non-Durable treatment the flame proofing treatment has to be repeated after every water wash.

Usage: Makes cotton & non-synthetic fabrics like curtains, furnishing cloth, carpets including jute/choir carpets, grey canvas, cardboard, paper & similar material flame proof

Consumption:

Furnishing fabrics:
3sq.mt/ltr Grey Canvas: 2 sq.mt/ltr

Application: Dip or spray the material that has to be treated, must be soaked and squeezed in such a manner that after drying, the weight of the material increases by about 15 to 18%. Ordinarily this can be achieved by dipping or spraying on the material till fully wet as required for the duration of 2 to 10 minutes. Grey canvas should be soaked for 1 hour to 24 hours depending upon its weight.

CYLINDER LESS AUTOMATIC FIRE SUPPRESSION SYSTEM

The system consists of a heat sensitive tube made of special plastic which is closed by a stainless steel fitting on each end. The tube has both storage and detection function which means that the extinguishing agent is stored directly in the tube and no additional storage device such as cylinder is needed. The tube ruptures between 90°C - 100°C temp for panels and max 120° for vehicles.

| Type of system | Extinguishing Agent | Amount of extinguishing agent (kg) | Length of the system (cm) | Outside diameter of the tube (mm) | Max. volume of the protected enclosure (m ³) | Operation Temperature (°C) |
|----------------|---------------------|------------------------------------|---------------------------|-----------------------------------|--|----------------------------|
| AE100FA | HFC-227ea/FK-5-1-12 | 0.25 | 110 | 18 | 0.22 - 0.35 | -40°C to 90°C |
| AE200FA | HFC-227ea/FK-5-1-12 | 0.50 | 212 | | 0.43 - 0.70 | -40°C to 90°C |
| AE300FA | HFC-227ea/FK-5-1-12 | 0.75 | 316 | | 0.65 -1.04 | -40°C to 90°C |
| AE400FA | HFC-227ea/FK-5-1-12 | 1.00 | 419 | | 0.86 -1.40 | -40°C to 90°C |
| AE500FA | HFC-227ea/FK-5-1-12 | 1.25 | 500 | | 1.08 —1.74 | -40°C to 90°C |

FEATURES

- 🚒 Universal use : highly flexible tube having capability to douse A, B, C and electrical fires
- 💰 Highly cost-effective : zero maintenance, long working life, automatic detection and suppression
- 🚫 No cylinder for storage of extinguishing agent needed : the whole system can be placed inside the enclosure
- 🔧 Option to connect the pressure switch and other additional components like signaling unit to perform further functions
- ☢️ Clean and effective extinguishing agent : worldwide known and accepted HFC gases HFC-227ea/FK-5-1-12
- 🔥 No pressurization needed : the system works by increasing of the extinguishing agent when heated
- 🚗 Automatic operation based on increased temperature : ideal for non-occupied spaces or spaces out of sight
- 🚫 Fully independent : system is operational 24/7 without any power supply
- 🚫 No maintenance during entire working life = zero maintenance costs
- 🕒 Long working life : shelf life of 5 years
- 🛡️ No harm to protected enclosure and people when discharged
- ✂️ Very simple installation : no training required for installation
- 📏 Pressure gauge to monitor the pressure at any time
- 🌡️ Low operation temperature : up to -40°C
- 🔥 Activation temperature : up to 120°C for engine fires in vehicles



Vehicles



Server Racks



System Uses HFC-227ea And FK-5-1-12 Extinguishing Agents. Both Extinguishing Agents Are Known And Accept Suppression. They Are Highly Effective, Zero Ozone Depletion And Safe For People And Electronic Components. It Is The Agent Any Residue Would Not Cause Harm To The Protected Sensitive Devices.

Fire Class Rating



A CLASS A: ordinary combustibles (creating flames)



B CLASS B: flammable liquids



C CLASS C: burning gases



LIVE ELECTRICAL equipment

VEHICLE FIRE SUPPRESSION SYSTEM



CYLINDER SIZE:

| CAPACITY | AVAILABLE IN | OPERATING PRESSURE |
|----------|---------------|--------------------|
| 1 KG | POWDER & FOAM | 15 Bar |
| 2 KG | POWDER & FOAM | 15 Bar |
| 5 KG | POWDER & FOAM | 15 Bar |
| 10 KG | POWDER & FOAM | 15 Bar |
| 18 KG | POWDER & FOAM | 15 Bar |
| 45 KG | FOAM | 15 Bar |
| 106 KG | FOAM | 15 Bar |

Includes :-

- Fire Detection.
- Fire Indicator & Control Panel.
- Manual Actuation Mechanism.
- Fire Alarm & Visual Indicator.
- Fire Extinguishing Agent Container.
- Discharge Pipe Work And Nozzles.

COMMON FIRE HAZARDS IN LARGE MINING & QUARRYING VEHICLES

THE PROBLEM

ENGINE COMPARTMENT - Critical components such as Turbo Charger, Exhaust manifold and fuel lines due to leakage of oil or fuel, grease etc can ignite on high temperatures and cause fire.

HYDRAULIC LINES & MANIFOLD - Accidentally Leak or Rupture of Fuel or Oil lines under extreme pressures can cause atomised fuel sprays onto superheated components that ignites and causes trailing fires.

ELECTRIC MOTORS, PUMPS & BATTERY - Components such as alternator, starter motors, battery etc. Due to presence of debris or moisture on prolonged use while in operation, can cause electrical short circuits leading to fires.

HYDRAULIC PUMPS, COOLING MOTORS & PUMPS - Failure of the hydraulic pumps and cooling motors due to over heating/rigorous use lead to short circuit fires.

BELLY PAN, BRAKING & DRIVE TRAIN - Most heat emitting components like Transmissions, Torque converters, and brakes under stress and overuse cause ignition of accumulated oil/fuel spray that leads to fires.

SOLUTION

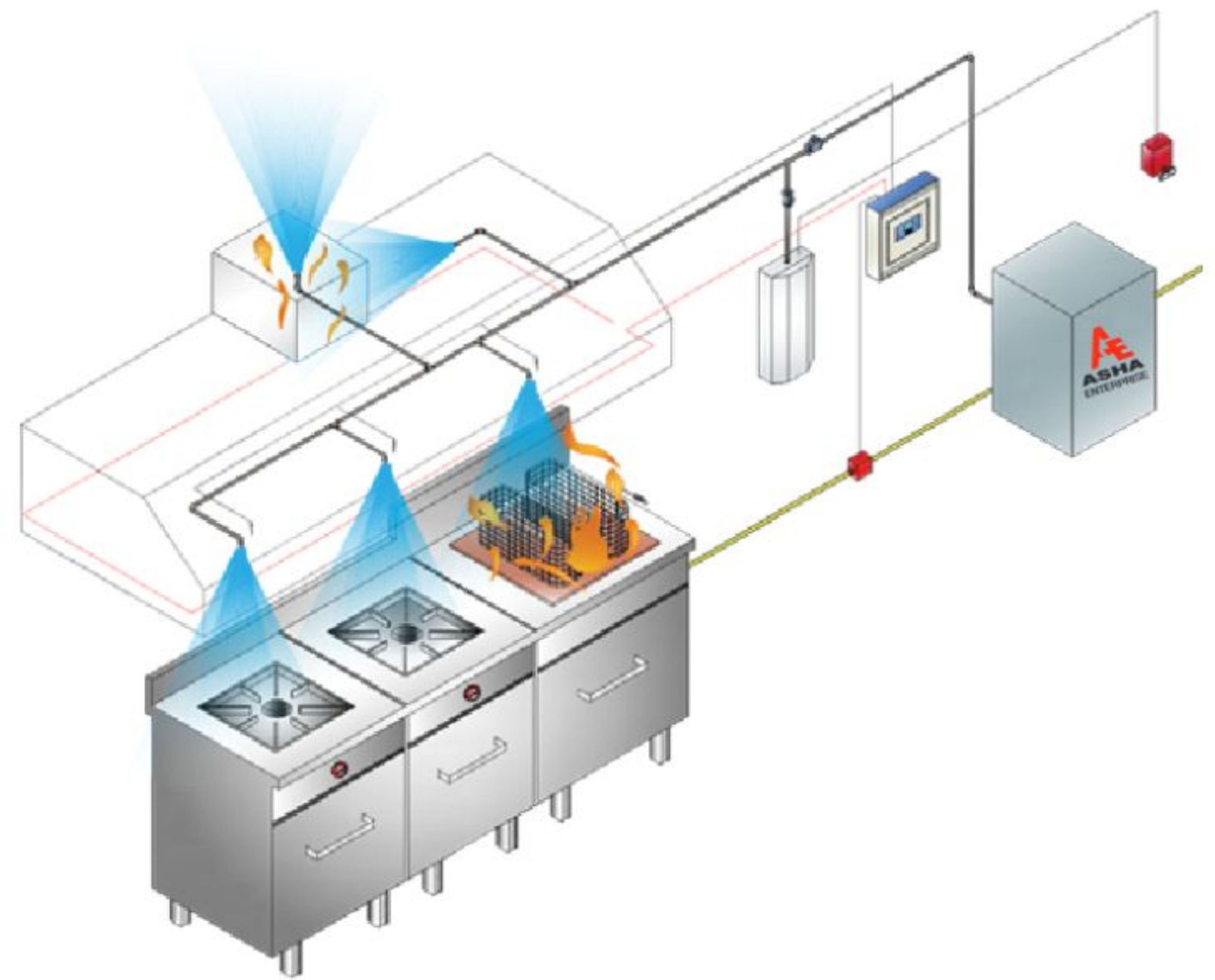
- Fast and reliable Automatic detection & suppression of fire in seconds, reducing equipment damage and downtime.
- Linear heat detection via Pneumatic tube that requires no external power to detect and activate.
- Reliable, 24 x7 system that combines the rapid flame knockdown of ABC dry powder with the cooling & blanketing properties of Wet Chemical.
- Designed and tested for harsh & demanding working environments.
- Pre-engineered, Low weight, compact with easy installation, ideal for OEM and Retrofit.
- High quality, long-life, corrosion free stainless-steel components.
- CE marked and utilising UL listed Fire suppression agents.
- Versatile detection options of UL listed Linear Heat Sensing Cables or Pneumatic Linear Heat Detection Tube.
- Option of Manual Operation and automatic annunciation at the operator's cabin. Fast-Detection & Suppression.
- No "False Alarm" or discharges systems only activate in the event of an actual fire/heat Impingement.
- Low Maintenance & Cost-Effective Service-can be quickly and cost effectively serviced and recharged after a fire.

KITCHEN FIRE SUPPRESSION SYSTEM

KITCHEN - WET CHEMICAL BASED

Kitchen fires are some of the fiercest and most difficult fire to fight and diminish. Fire hazard risk is very dangerous in commercial kitchen. Kitchen fire is generally due to burning of oil. In any kitchen there are inflammables like LPG on the premises, this aggravates the danger considerably. Kitchen be it of a small café or a large industrial Kitchen Fire Suppression System is equipped & ready to protect. Our fire extinguishers are wet chemical based and are specially designed to fight cooking oil fire arising in the kitchen with no flooding related collateral damage.

The Kitchen Fire Suppression System is designed for fire protection in hoods & ducts of cooking appliances & commercial kitchen and restaurants. Kitchen Fire enclosed in S.S mounting box, temperature rated sensors, linear heat sensing cable, control panel, nozzles & piping. The system can be provided with automatic actuation or manual actuation through a remote manual pull station. As the fire is detected, the control panel activates the system and the when the liquid agent is discharged onto a cooking appliance fire, it cools the grease surface, and reacts with the hot grease (saponification) forming a layer of soap-like foam on the surface of the fat. Upon actuation, agent is discharged onto the hazard area. Immediately following discharge, the waterline system is activated and it allows water to flow onto the same hazard areas. Continually refurbishing the foam blanket and cooling the hot appliance to prevent reignition.



SYSTEM DESIGN & OPERATION

- The system consists of wet agent tank enclosed in S.S. box, Heat sensing cable, Nozzles, and Piping.
- Optional (Temperature Sensor, Temperature Controller)
- The system consist of automatic as well as manual actuation.
- On actuation system starts spraying low PH-liquid fine suppressant on plenum area, cooking surface, exhaust duct system with predetermined flow rate. On contact with hot grease, it forms a layer of soap like foam on the surface (saponification), acting an insulation between hot grease and atmosphere; thus cutting down oxygen supply. Immediately waterline system is activated and allow
- water to flow onto the same hazard area, continuously refurbishing foam blanket and cooling the hot appliances to prevent reignition. The system is capable of shutting down other
- appliances on system actuation, if require additional equipments such as gas shutoff valves, alarm, warning lights etc. can be integrated with the system.

FEATURES

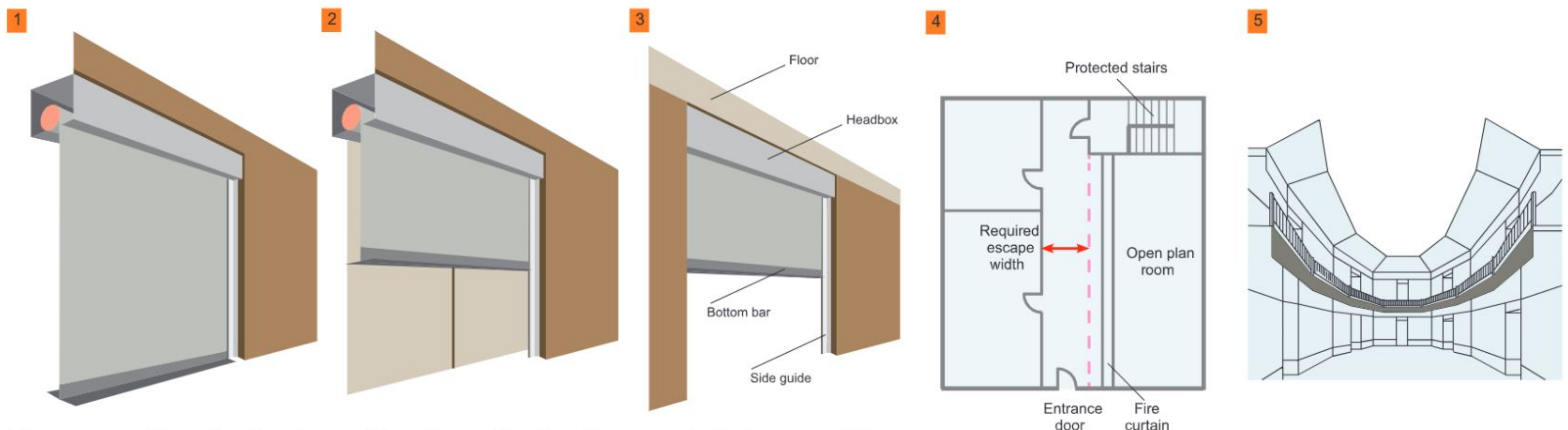
- Pre-Activation Alarm
- Fast fire detection
- Automatic and manual operation.
- It is the only system capable of giving an alarm approx 30 degree before activation temperature of the system can be integrated to BMS as well. > Dual suppression action for appliances and energy supply (Gas and EC)
- Maximum extinguishing coverage
- Exception design
- Easy kitchen cleanup following discharge
- Stainless steel friendly fire suppressant agent
- Water-based environmental friendly agents
- Cost effective

AUTOMATIC FIRE CURTAIN

Purpose: Fire Curtains are used where, if there is a fire, it is necessary to create a temporary barrier within an opening which seals off the area on fire. The curtain descends automatically and prevents fire and smoke from spreading from one area to another, and also allows people access to protected escape routes without any loss of fire resistance.

Applications: Fire Curtains can be installed in nearly every kind of building, from residential to retail to industrial.

Features: Fire Curtains lightweight and compact, which enables them to be installed easily in a place with space constraints such as a false ceiling. They have been tested as fire barriers in accordance with EN 1634-1, providing protection for a defined period and at a defined maximum temperature.



There are five typical applications that a fire curtain is used for:

(1) The obvious application for a fire curtain is as a direct replacement for a fire door or a fire shutter. It does not mean to say that the curtain will be used as a door in everyday use, but it would normally be intended to keep it open most of the time and just to close it in emergency or under test conditions.

(2) Fire curtains are also quite often used to protect lift doors. There is an application where the lift doors themselves are not fire rated but a fire rating is needed at that location, then simply dropping in a fire curtain in front of the lift doors is a common way of providing this.

(3) Where there is a relatively large void being used as a smoke shaft, then that void can be closed off using a fire curtain. In normal circumstances such a shaft would be closed off using a damper or ventilator of some type, if the opening is too big for a ventilator or damper, a fire curtain could be employed to close off the shaft on the levels where there is no fire.

(4) Another common application is in an open plan dwelling. If in the case of a fire people are trying to escape from the upper floors, then they might well have to pass by the fire to get to an exit. In such circumstances it is quite common to have fire curtains which will drop in case of fire to provide a protected route through from the upper floors to the final exit. Another common use is just as small curtains, basically replacing fire shutters across counters, serveries, service shafts and so on. The main reason that people would use a fire curtain rather than a fire shutter is simply that it tends to be smaller and neater and less expensive.

(5) If there is a narrow atrium balcony then it is quite common to be required to use a fire curtain rather than a smoke curtain for that particular application.

ANALOGUE ADDRESSABLE FIRE ALARM SYSTEM & INTEGRATED VOICE EVACUATION SYSTEM

Analogue Addressable Panel

Avani



- UL listed 9th 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 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 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 Manual Pull Station

RE - 716P Series



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

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

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

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.

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)



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.

CONVENTIONAL FIRE ALARM SYSTEM

2 Zone / 4 Zone Panel

- ★ Operates on 120-220V, 50 Hz, AC. Mains power supply.
- ★ 16 X 2 Dot Matrix LCD Display.
- ★ Tactile Keypad for easy panel operation.
- ★ Switch Mode Power Supply.
- ★ Low Battery visual warning with audible tone.
- ★ Relay output for actuators for Fire and Fault.
- ★ Lamp Test & Drill facility.



RE-102/RE-104

12 Zone upto 128 Zone Panel

- ★ Complies with UL -864 and NFPA-72.
- ★ 20 x 4 Dot Matrix LCD Display.
- ★ Touch Keypad for user friendly operation.
- ★ 1000 Event storage with RTC.
- ★ Peer to Peer network facility through RS 485.
- ★ Maximum 16 panels can be connect in a Single Network.
- ★ TCP/IP module and PC software (optional).
- ★ MODBUS for BMS integration (Optional).
- ★ External Zone Wise Sounder/Contact via RS 485 (Optional).
- ★ Facility to connect Public Address System (PA) through RS 485 Communication.
- ★ Zones available: 12, 16, 20, 24, 32, 48, 64, 96 & 128 Zones.



RE-900 Series

2 Zone with one Agent Release Panel

- ★ Operates on 220VAC supply.
- ★ Evacuate and Keypad Enable, Disable Facility.
- ★ Gas Inhibit and Instant release facility.
- ★ Manual Gas Release with or without timer.
- ★ Actuator pressure low sensing facility.
- ★ Programmable Solenoid Output with ON and OFF Timer.
- ★ Programmable Main / Standby Cylinder output Facility.
- ★ 3 Sounder Output 24v (Fire, after Cross zone, after gas release).



RE-120GR

Conventional Detectors

- ★ UL listed Detectors with Base.
- ★ Dual LEDs for 360° visibility.
- ★ Polarity free wiring.
- ★ Low operating current.
- ★ Heat Detector with combination of ROR & Fixed Temp.



RE-316 Series

RE316SH-2L MULTI SENSOR / RE316S-2L OPTICAL SMOKE / RE316H-2L HEAT DETECTOR

Optical Beam Detector

- ★ In built laser light for accurate & easy alignment.
- ★ 50 and 100 meters range.
- ★ Sensitivity Threshold :- 18% ,30% & 50%.
- ★ Infrared transmitter & receiver located in a single housing.
- ★ In built drift compensation for monitoring dirt build up on the optical system.



4 Zone / 8 Zone UL Listed Panel

- ★ UL Certified & NFPA-72 complies.
- ★ Auto Resettable Fuse and surge Protection.
- ★ Battery polarity reversible protection.
- ★ 2 Class B Notification Appliance Circuits (NAC).
- ★ Supervisory Zone shall be Latching or Resettable.
- ★ Resettable / Steady 24V D.C. Output.
- ★ Earth fault annunciation facility at 0 ohms.



RE-2554 / RE-2558



4 Zone with 2 Agent Release Panel

- ★ UL Certified & NFPA -72 complies.
- ★ 4 Class B initiating device circuit (IDC).
- ★ 2 Class B Releasing Agent Circuits (RAC).
- ★ Two modes of operations Auto / Manual.
- ★ Programmable 24v DC Outputs.
- ★ 200 Events history log with RTC.
- ★ Special logic circuitry to prevent accident release.
- ★ Earth fault annunciation facility.
- ★ Programmable RAC's with count down timer.
- ★ Programmable AC loss delay/Trouble Remainder.
- ★ 3 Form C programmable relays for Fire / fault / supervisory / Pre-Release / Gas Released.



RE-25AR



Repeater Panels

- ★ Location entry facility for individual zones.
- ★ RS 485 repeater communication.
- ★ Repeater Panel can monitor the status of the main panels.

RE-RP Series

- ★ Compatible for RE-2554 / RE-2558.

RE-900RP Series

- ★ Compatible for RE-900 Series.

RE - 127GR

- ★ Compatible for RE- 120GR & RE - 25AR.



Special Application Gas Detectors

- ★ 4-wire system operation.
- ★ 70 dB internal sounder.
- ★ Internal reed switch for hush and test functions.
- ★ Stable gas sensing chamber. No adjustment or replacement required.
- ★ Detector auto-reset once gas levels fall below alarm threshold levels.



RE-386 Series

RE-386NG-Natural Gas (Methane) Detector / RE-386CO-Carbon Monoxide (CO) Gas Detector
RE-386LP-Propane Gas (LPG) Detector

Sounder Cum Flasher

- ★ Operates on 24VDC.
- ★ 100db @ 1 meter.



RE-24SS

Sounder

- ★ Slim and Sleek.
- ★ 100dB ± 5% @ 1 meter.
- ★ Operating current @ 40mA.



RE-24CS

Duct Smoke Detector

- ★ Air velocity @ 0-4000 fpm.
- ★ Remote output @ 15 mA.
- ★ Air Sampling tube - Aluminum.
- ★ Alarm Current @ 40 mA (max).



RE-428DU

CCTV, ACCESS CONTROL, PA SYSTEM, EPABX, GATE AUTOMATION.

1. IP CCTV, HD CCTV & ACCESS CONTROL
2. PUBLIC ADDRESS SYSTEM (PA SYSTEM)

3. IP EPABX SYSTEM
4. GATE AUTOMATION (BOOM BARRIER, SLIDING GATE)

ASHA ENTERPRISE

OUR CLIENTS

| | | | | | | | |
|--|--|--|---|---|---|---|---|
|  GUJARAT STATE ELECTRICITY LTD. |  |  Container Corporation of India Ltd. (A Govt. of India Undertaking) |  |  |  |  |  Poly Plast Pvt. Ltd. An ISO 9001 : 2015 Company |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | |  | |  | | |
|  |  |  |  |  |  |  |  |

CORPORATE OFFICE :

 FF-1, Sapatapadi Avenue, Part-2,
 Nr. TV9, Ravinagar School Road,
 Jivrajpark, Vejalpur,
 Ahmedabad-380051.
 Gujarat, India.
 +91 97123 34564

 +91 83479 47404, +91 9712334565
 www.ashaenterprise.net
 info@ashaenterprise.net
 ashaenterprise123@gmail.com
 sales@ashaenterprise.net
 techsupport@ashaenterprise.net