

Synergy FireSense Direct Low Pressure System

www.swastiksynergy.com

ISO 9001:2015



FireSense[®]



SWASTIK SYNERGY ENGINEERING PVT. LTD.

TOTAL SOLUTION PROVIDERS FOR FIRE PREVENTION & FIRE FIGHTING NEEDS.

COMPANY PROFILE

SWASTIK SYNERGY ENGINEERING PVT. LTD. (SSEPL) is one of the leading Manufacturer and supplier of Fire Fighting Appliances, Equipment & Systems.

SSEPL's manufacturing and warehousing facility is located at Khopoli near Mumbai and it consists of all the necessary and sophisticated plant & machinery to manufacture automatic fire suppression system. Its Head Office is Located at Santacruz.

SSEPL is approved by CCOE (PESO) for filling and storing of Clean Agent Gases. SSEPL is registered as a MSME Unit and has adopted ISO 9001:2015 and ISO 45001:2018.

SSEPL Specializes in following products

- **UL** - CO2 Fire Extinguishing System
- **UL** - Kitchen Fire Extinguishing System
- **VDS** - Inert Fire Suppression System
- **LPCB** - SYNERGY Firessense Direct Low Pressure System
- **UL** - Clean Agent Fire Extinguishing System

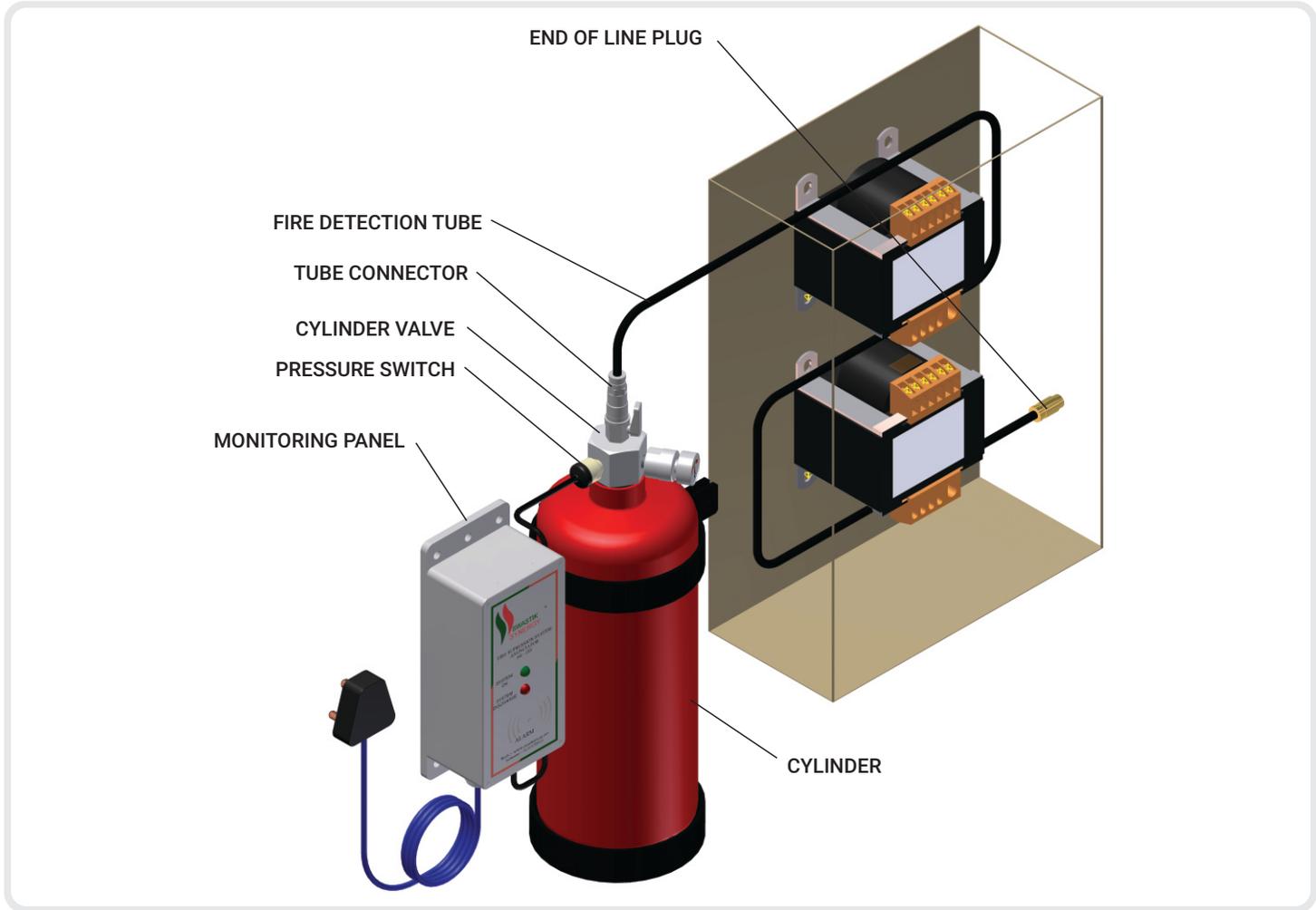
MAJOR CAUSES OF FIRE

We rely heavily on electricity to power our businesses and homes. Electrical systems pose an ongoing fire risk. A failure or malfunction within the electrical components of equipment or machinery can cause electrical fires. Electrical fires originate in electric wires, cables, circuit breakers, and within electrical components. They lead to serious hazard to life and property leading to personal injuries, property damage, loss of productivity and precious time. Though electrical fires can be extremely destructive they can be prevented by Synergy Firessense Direct Low Pressure System.

CONSEQUENCES OF FIRE

The most obvious consequence of fire damage to office buildings is the damage and destruction to the property itself. Many businesses are self-contained, which means when that business is incapacitated, production and normal operational procedures cease. For businesses that are located under one roof, all work ceases until repairs can be made and production ramped up again. Office workers may end up dealing with lost wages as the result of time lost due to fire damage and repair. To avoid such consequences it is advisable to install Firessense system which is extremely useful and cost effective.

SYSTEM CONFIGURATION



SYSTEM FEATURES



Fully Automated
 Detects and suppresses fire automatically



Quick Detection
 Extinguishes fire at an early stage as it is installed directly inside electrical cabinets - closer to where a fire can start



Reliable Pre-fabricated System
 The system is reliable as it does not rely on complex electronic or moving parts
 The system is designed to protect Electrical Enclosures and Circuitry
 The pre-engineered concept minimizes the amount of engineering required when evaluating a design for a specific application.

SYSTEM FEATURES



Independent System / Self Actuated

The system does not need external power supply for detection and extinguishing of fire



24 Hour Protection

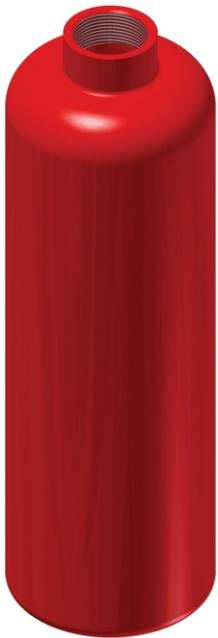
An automatic detection and actuation controls ensures protection is always on



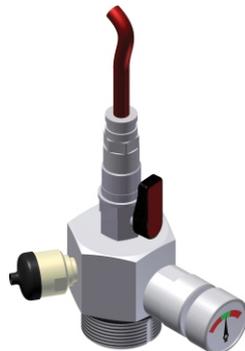
Non Toxic

It does not release toxic vapours during discharge. It is ideal for the protection of normally occupied premises.

COMPONENTS



Cylinder



Cylinder Valve



Cylinder Mounting Bracket



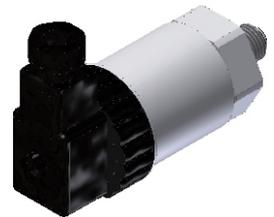
Monitoring Panel



Fire Detection Tube



Fire Detection Tube



Pressure Switch



Tee Connector



Tube connector
(In-Line Connector)



End of Line Schrader Valve



End of Line Plug

FK-5-1-12 and HFC 227ea

Properties	FK-5-1-12	HFC 227ea
Standard	NFPA-2001, Standard on Clean Agent Fire Extinguishing Systems. LPS 1666 certified	NFPA-2001, Standard on Clean Agent Fire Extinguishing Systems. LPS 1666 certified
Operating Pressure	15 Bar at 21°C	15 Bar at 21°C
Temperature Rating	-20°C to +60°C	-20°C to +60°C

CYLINDERS

Description	Details
Type of System	Synergy FireSense Direct Low Pressure System with FK-5-1-12 / HFC 227ea
Operating Pressure	15 Bar at 21°C
Operating Temperature	-20°C to +60°C

Nominal Size mm	Part No.	Outside Dia. mm	Overall Height mm	Internal Volume Ltr.	FK-5-1-12 / HFC 227ea Agent Kg.
1	SSE-CY-111001-1	85	255	1.2	1
2	SSE-CY-111001-2	110	300	2.3	2
4	SSE-CY-111001-4	140	400	5.2	4

SYSTEM DESIGN IS BASED ON

- **NFPA**
- **LPS 1666**
- **NBC 2016**

As per Clause 3.4.6.3 OF NBC 2016 FireSense System is useful for:

Substation/Transformers

Electrical MV main distribution panel and lift panels shall be provided with CO₂ / inert gas /

Clean gas flooding system for all panel compartments with cylinder located beside panel.



Electrical and Electronic Cabinets



Telecommunication Areas



Data Processing Areas and Cabinets

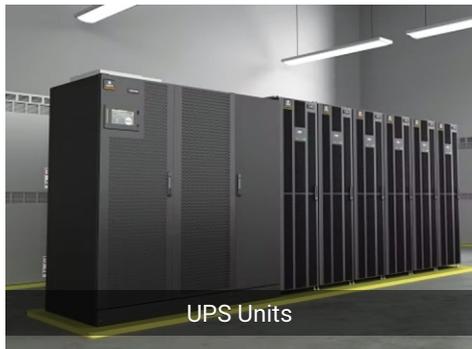


Laboratory Fume / Exhaust Cabinets

APPLICATIONS



Pump Enclosures



UPS Units



Flammable Chemicals Storage Cabinets



Generator Enclosures



Transformer Cabinets



CNC & VMC Machining Centers



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