AutoFireX
Automatic Fire Suppression systems

REDEFINING

LINEAR PNEUMATIC FIRE DETECTION & SUPPRESSION

IT- SERVERS/DATA CENTERS

POWER GENERTAION & DISTRIBUTION

CNC/EDM MACHINES

TELECOMMUNICATIONS

RENEWABLE ENERGY SYSTEMS

PROTECT YOUR WORLD

AutoFireX® ILP CLEAN AGENT AUTOMATIC FIRE SUPPRESSION SYSTEMS UTILISING UL LISTED FM APPROVED LISTED FIRE SUPPRESSION AGENTS

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AutoFireX
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AutoFireX® In-Direct Low Pressure -ILP FK-5-1-12 Clean Agent Fire Suppression System

TYPICAL INSTALLATION DESIGN FOR ILP SYSTEM

AutoFireX ILP- Indirect Low-Pressure Systems is a Pre-Engineered Automatic Fire detection and suppression System utilising UL Listed AutoFireX® Low-pressure agents FK 5-1-12. These Units are designed, manufactured, and tested in ISO 9001:2015 certified facilities. The system utilises UL Listed AutoFireX® Linear Pneumatic Fire Detection Tubing (FDT) which is installed and connected to ILP Valve and routed throughout the protected hazard area/enclosure. Being heat sensitive, the primary function of Linear Pneumatic Fire Detection Tube (under pressure) is to detect heat/fire and activate the valve for discharge of the agent by rupturing at the hottest point along its installed length on flame impingement. On rupture due to loss of pressure in the tube connected to the valve, causing the internal piston in the valve to slide to its fully open position, allowing the pressurised agent to travel through into any or combination of three discharge ports via delivery hose/pipes and discharge out from the fixed nozzles, within the protected area, flooding the entire area with the agent and suppressing the fire instantly.

Each ILP system consists of a High-Grade Stainless-Steel Indirect valve with three standard 1/8" ports (SV,P/s or P/g etc.), and three 3/8" discharge ports, SS siphon tube, removable pressure gauge with Schrader adaptor to monitor cylinder pressure, and system bleed off, a quarter turn Next Gen isolation valve with threaded Dual seal slip on union to connect the AutoFireX Fire Detection Tubing, and optional PRD (Pressure Relief Device) tested to 44Bar can also be provided. The systems is supplied complete with CE Cylinders and Brackets with appropriate agents, as required.

To assist in annunciation, an optional pressure switch can be installed at one of the ports on valve or at the end of the detection line using an End of Line Adaptor (EOL), also available with the system. The pressure switch provides a potential free contact, that can be interfaced, with existing FACP (Fire Alarm Control Panel) to indicate system discharge, shutdown ventilation, shut-off electrical power, BMS/SCADA systems as may be required. Alternatively, it can also be connected to a Audio Visual (A/V) alarm unit for annunciation.

GENERAL SPECIFICATION -AutoFireX® ILP FK-5-1-12 CLEAN AGENT SYSTEM

AutoFireX® ILP Clean Agent Systems consist of a high-grade welded steel cylinder and bracket, supplied complete with AutoFireX® Indirect type SS Valve assembly & all necessary fittings. All cylinder assemblies contain Agent super pressurised with Nitrogen to 15bar @ 21°C. The systems are available in various sizes (2Kg - 20Kgs) and can be upscaled to higher capacity containers subject to operating pressure & temperature conditions of the area/application being protected

SYSTEM INFORMATION			PERFORMANCE INFORMATION
PRODUCT CODE	AGENT QTY.	CYLINDER VOLUME	TYPICAL OPERATING PRESSURE(@21°C)
5000101	2 kg	2218 ml	15 Bar
5000104	4 kg	5000 ml	15 Bar
5000105	6 kg	6800 ml	15 Bar
5000106	9/10 kg	11000 ml	15 Bar
5000107	18 kg	21000ml	15 Bar

*Figures based on ideal conditions in fully enclosed space. Actual figures may vary according to application.

Maximum volume coverage is determined by agent concentration discharged within the enclosure where the fire hazard is located. The discharge time for ILP system utilising various agents differ from agent to agent and capacity of the cylinder.

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AutoFireX® ILP FK-5-1-12 Clean Agent Automatic Fire Suppression Systems Advantages

- Reliable,24 x7 Automatic Fire Detection & Protection for equipment and data against Fires.
- Fast-Detection & Suppression of fire in seconds, reducing equipment damage and downtime
- Multiple Detection points-AutoFireX Proprietary Fire Detection Tube (FDT)acts as a Linear Pneumatic Heat detector can detect fire throughout its installed length
- No External Power required to activate the system.
- No "False Alarm" or Discharges AutoFireX systems only activate in the event of an actual fire/heat impingement.
- Post Discharge - Systems utilizing Clean suppression agents require no post-discharge clean up.
- Easy to install in any new or existing Equipment's (Electrical Panels, server rack etc.) and can be integrated with existing Smoke detection systems for LV applications.
- Environmentally Friendly - Low Pressure systems utilizing certified Clean Agents is not harmful to equipment or the environment.
- Interface Options -AutoFirex System comes with various options to initiate activities like Annunciation, shut on or shut of Power supply, ventilation, interface and monitoring through BMS, SCADA etc.
- Low Maintenance-AutoFireX systems do not interfere with installation or maintenance of equipment and can also be retrofitted to existing equipment's.
- Cost Effective Service-can be quickly and cost effectively serviced and recharged after a fire

SUITABLE APPLICATIONS

APPLICATION SPECIFIC DESIGNED PRE -ENGINEERED ILP AUTOMATIC FIRE SUPPRESSION SYSTEMS FOR CRITICAL ASSESTS & EQUIPMENTS PROTECTION IN ALMOST ALL VERTICALS

ELECTRICAL CABINETS & SERVER RACKS
LT & HT Switchgear Panels, Capacitor Panels, Server racks in Data Centres, PLC & process automation control cabinets; critical data processing equipment; UPS cabinets; medical equipment; switchgears, HVAC Panels, Escalator Panels

AIRPORTS
METRO RAIL
TELECOM

CNC /EDM MACHINES, FUME HOODS
Enclosed automated milling machines; EDM machines; robotic welding machines; plastic injection moulding machines, Fume Hoods, Walking fume hoods,

AUTOMOTIVE
PHARMACEUTICAL
OIL & GAS

MANUFACTURING & PROCESS APPLICATIONS
Dust & mist collectors, Paint booth, Process Control Cabinets, Chemical storage areas, DG Sets, Engine & Motor bays, Gas Turbines, Electrical Transformers, Dust Extractors, Filtration Plants.

INDUSTRIES
MFG. PLANTS
CHEMICAL STORAGE

POWER GENERATION & TRANSMISSION
Wind Turbines, Solar Energy Farms, Energy Storage Systems, Cable Trays & Cable Tunnels, UPS Battery Racks, Transformers, Critical Generators, Motors & Engine Bays.

POWER PLANTS
RENEWABLE ENERGY

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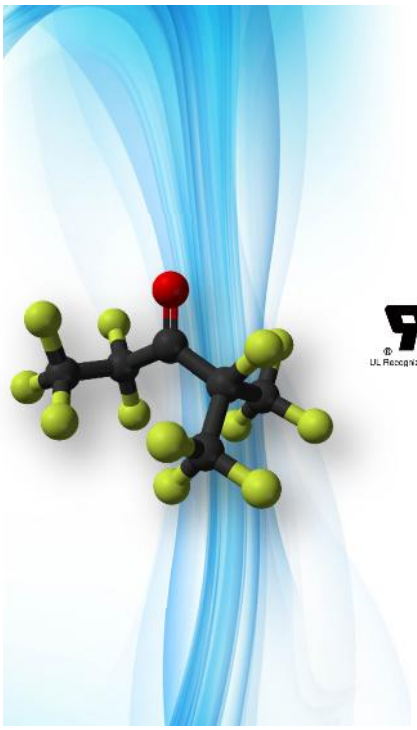
AutoFireX® FK5-1-12

Fire Suppression Clean Agent

AutoFireX® ILP Clan Agent utilises AutoFireX® FK-5-1-12 - one of the most sustainable and environment friendly Fire suppression clean agent specially designed and developed for protecting critical assets and special hazards.

AutoFireX®FK-5-1-12, is a fluorinated ketone which is also recognised under the systematic name 1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone.



- ✓ UL recognised Component under EX28099
- ✓ Zero ODP - Ozone depleting potential
- ✓ Low Global Warming impact -GWP =1
- ✓ Very short Atmospheric lifetime on discharge – 5 days
- ✓ Low Toxicity (No harm to humans on controlled discharge)
- ✓ Low Design concentrations (4-6.5%)
- ✓ Higher NOAEL level (No Observable Adverse Effect Level for acute toxicity)
- ✓ Wider Safety Margins than conventional clean agents (675-150%)
- ✓ Clean discharge -leaves no residue and easy for post fire clean up.
- ✓ Rapid transition from Liquid to Gas enables the agent to achieve vapour extinguishing concentration in air to be dispersed as Gas (using appropriate Nozzles)
- ✓ Faster Evaporation than water (50times) due to low heat vaporisation than water and higher vapour pressure
- ✓ Effectively extinguishes Fires on discharge by absorbing heat and interruption of chemical chain reaction.
- ✓ Being Liquid at room temperature can easily be stored and transported unpressurised in suitable drums/containers.
- ✓ High Dielectric strength.

AutoFireX®FK5-1-12, besides being an effective Halon replacement alternate offers a unique combination of large margin of safety, very low environmental impact and an excellent extinguishing performance making it the most appropriate clean and green fire suppression agent for use in Fire Suppression systems, Total Flood systems and Fire Extinguishers.

Authorised Distributor