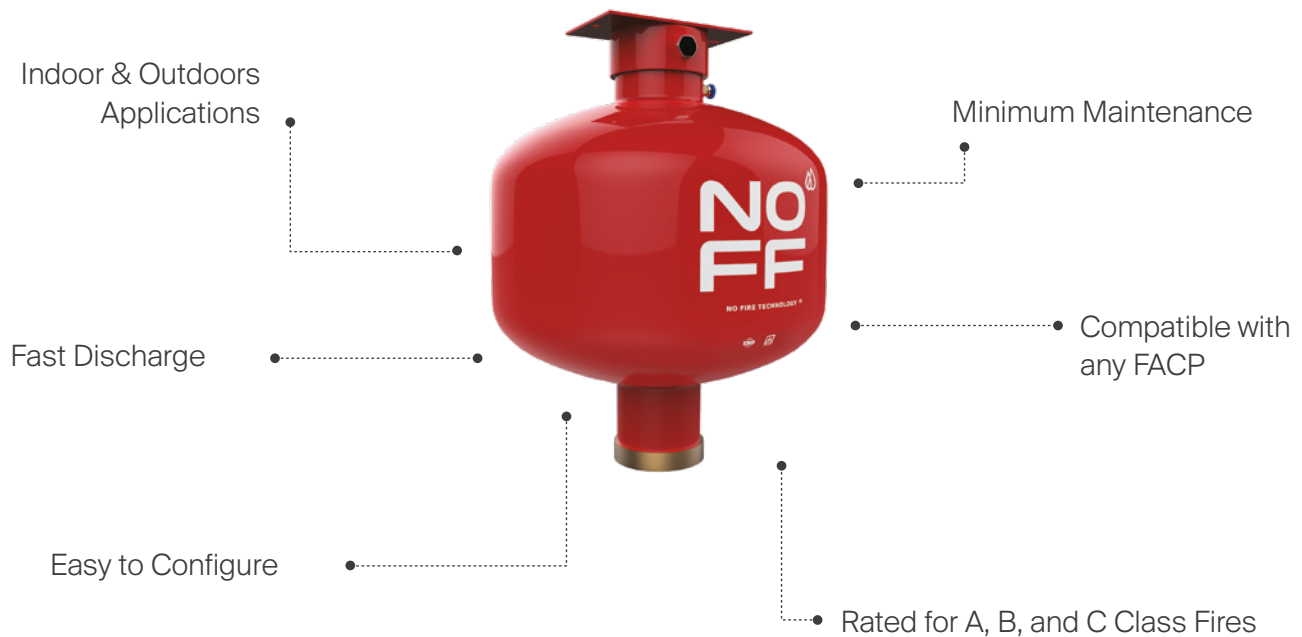


Fixed Dry Chemical Powder Fast Response Fire Suppression Unit

TECHNICAL DATASHEET



We protect what matters the most

OVERVIEW

Fixed Dry Chemical Powder Fast Response Fire Suppression Unit is an innovative fire extinguishing device designed to protect specific machinery, indoor and outdoor areas, or entire enclosed spaces, which brings low-cost installations in the field because its versatility and adaptability capabilities as can be installed faster in comparison with traditional water-based fire protection systems. Fixed Dry Chemical Powder Fast Response Fire Suppression Unit detects and extinguishes fires in indoors, outdoors, or enclosed spaces, preventing the spread of fire.

This unit is an analog fire suppression device capable of connecting to any conventional fire alarm and detection system. This suppression unit is not self-activating thus it must be linked to a fire detection system or a very early smoke detection system. In addition, this unit can be activated manually by any person using manual pull stations connected to a power supply. As reference, each unit needs an electrical current to be activated, it means that booster power supplies are necessary in the system.

This unit is called Fast Response because it got activated quickly in the presence of smoke as it works together with a fire detection system providing an easy, simple, and fast mean of fire protection of any indoor & outdoor area or enclosed space. Activation can be configured using the fire alarm control panel (in example, a cross activation using two smoke detectors), therefore full or partial discharges of the system can be performed. Horns, alarms, strobes, as well as to turn off air conditioning systems can be enabled at the same time with the support of the fire alarm control panel. This fast response Unit makes it possible to fire-protect a full range of facilities and important machinery with an investment of less than 30% up to 40% in comparison with old-style water-based fire protection systems. Fixed Dry Chemical Fast Response Fire Suppression Unit extinguishes ABC-type fires easily utilizing a special superfine dry chemical powder formulated by NOFF that is 10 times more effective than conventional dry chemical powder utilized in traditional portable fire extinguishers.

This NOFF fire suppression unit uses a multipurpose superfine dry chemical powder as extinguishing agent that is effective on fires involving ordinary combustible (such as wood or paper, and fires involving flammable liquids), which is intended for the use in enclosed spaces or local applications. It is a highly efficient extinguishing agent that is electrically non-conductive and non-corrosive if prompt clean-up is conducted as soon as possible. The NOFF fast response unit uses a device very similar to an airbag (which are used widely in the automotive industry) as mean of activation, this technology has been in the market for about 50 years, and it is so reliable and safe that it is still being used.



STANDARD FEATURES

- Capable of integrating with any Fire Alarm Control Panel (FACP).
- Rapid extinguishing.
- Indoors application.
- Easy Installation.
- Stand-alone activation.
- Multipurpose superfine dry chemical powder as extinguishing agent.
- Variety of models available.
- Reliable integrated heat sensitive glass bulb.
- Minimum Maintenance.
- Self-activating.
- No hazard to human health.
- Electrically non-conductive.
- No damage to equipment and materials.
- High-safety for people.
- 10 years Lifetime.
- Fast release of dry chemical powder in seconds.

APPLICATIONS

Fire suppression today is an important part of a growing number of life safety installations and a mean not only to protect investments, high-tech machinery, and important equipment but also minimize business interruption saving millions of dollars in down-time and loss of production. Nowadays, building owners are looking to fire suppression as a means of protecting their property and assets. Below, you will find a list of application examples for the Fixed Dry Chemical Fast Response Fire Suppression Unit product line:

- Warehouses.
- Flammable and combustible liquids storage areas.
- Electrical Substations.
- Manufacturing.
- Airports.
- Telecommunications facilities.
- Workshops.
- Mechanical Rooms (HVAC, Air compressors, boilers, etc).
- Laboratories and hospitals.
- High-valued or critical machinery: CNC, Hydraulic presses, injection molding machines.
- Museums.
- Libraries.
- Colleges and Universities.
- Restaurants.
- Shopping malls.
- Stores.

OPERATION

The Fixed Dry Chemical Fast Response Fire Suppression Unit is not a self-activating device and must be linked to a fire detection system. Each unit has an internal built-in device very similar to an airbag, this component needs an electrical current to generate a chemical reaction, that eventually increase the internal pressure within the cylinder releasing in milliseconds the extinguishing agent from the unit. The unit dispenses the entire multipurpose superfine dry chemical powder in less than 10 seconds onto the fire and throughout the hazard area or enclosure being protected.

When discharged, the superfine dry chemical acts as a layer between the oxygen and the fuel, thus suppressing the fire. It also poses no hazard to the human health.

Each fire suppression unit needs a mean of activation, in example: smoke detectors, photo beam, heat detectors, infrared sensors, air sampling smoke detectors, etc. When a detector identifies smoke, heat, or flames, it sends a current signal in response. Once the panel detects this current, it enables a relay module that allows the direct flow of an electrical current to the fire suppression unit. At the same time, the fire alarm control panel could also sound an alarm, horns or strobes.

The means of activation could be automatic or manual (i.e.: manual pull station connected to a booster power supply) and must provide an electrical current of 0.5 Amperes.

Each Fire Suppression unit is intended for use in indoors: enclosed (total flooding applications)

TECHNICAL DATASHEET

FIXED DRY CHEMICAL STAND-ALONE FIRE SUPPRESSION UNIT

PARTS OF THE FIXED DRY CHEMICAL FAST RESPONSE FIRE SUPPRESSION UNIT

- Aluminum Seal.
- Wires.
- Cylinder (carbon steel).
- Superfine dry chemical powder (Extinguishing agent).



A) LOCAL APPLICATION SYSTEMS

This type of design applies to discharge dry chemical powder directly onto the hazard (fire), indoors or outdoors. When multiple Fire Suppression units are protecting the same area, the area shall be divided into sections so that each section contains a unit that does not exceed the area limitations for the unit.

B) TOTAL FLOODING SYSTEMS

This type of design applies to discharge dry chemical powder into an enclosure surrounding the hazard. When multiple Fire Suppression units are protecting the same enclosure, the enclosure shall be divided into sections or modules so that each section contains a unit that does not exceed the volume limitations for the unit.

DESIGN

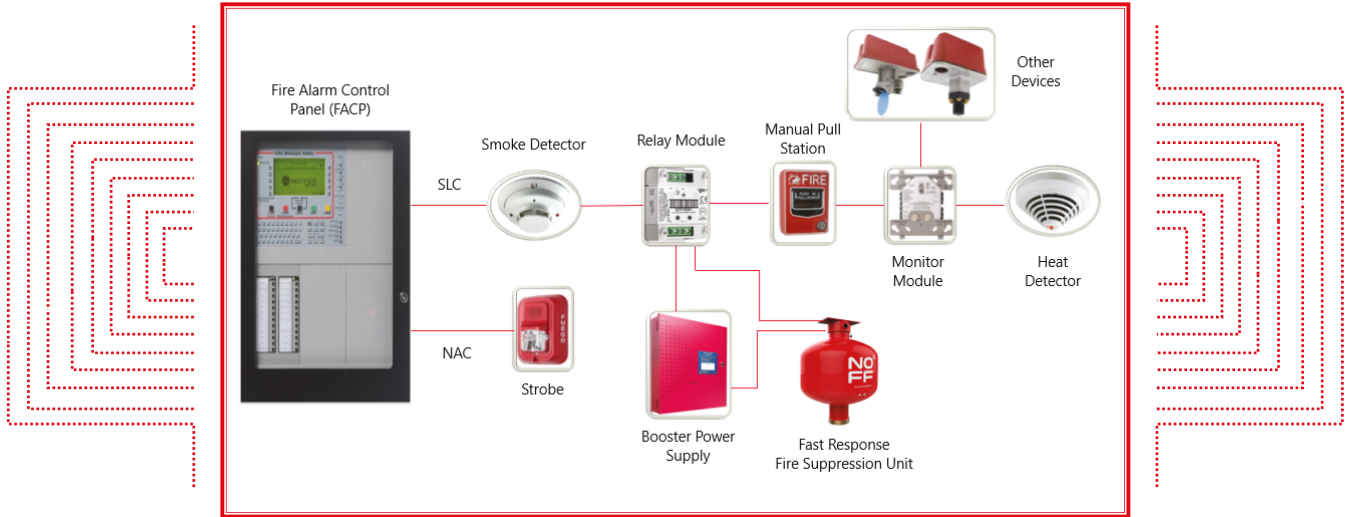
For design purposes, we recommend you contact the NOFF technical staff so that they can assist you in the best way. NOFF technical staff will provide you with the necessary official training seminars and tools so that you can propose solutions using The Fixed Dry Chemical Stand-Alone Fire Suppression Unit in accordance with world-wide recognized fire protection standards such as **NFPA 17, Standard for Dry Chemical Extinguishing Systems.**



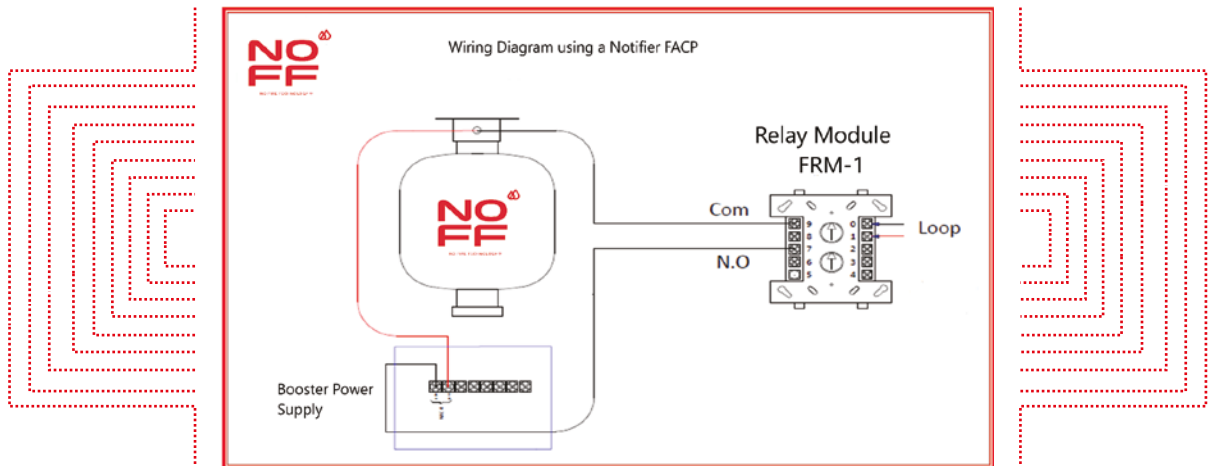
WIRING

This Fire Suppression Unit needs to be fed by a power supply; therefore, an electrical current of 0.5 Amperes is need it to activate each unit.

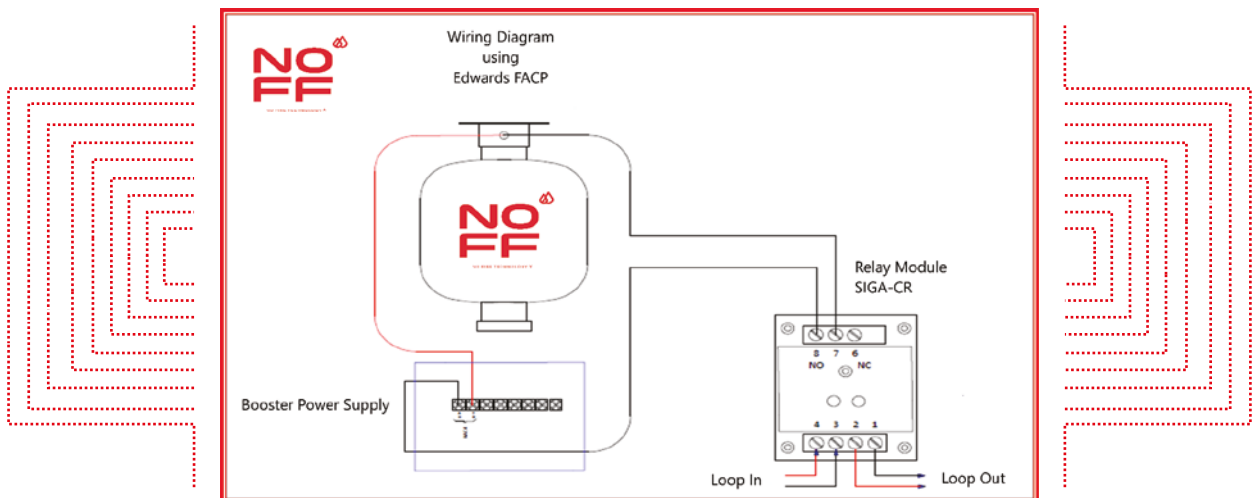
A) EXAMPLE OF A COMMON CONNECTION:



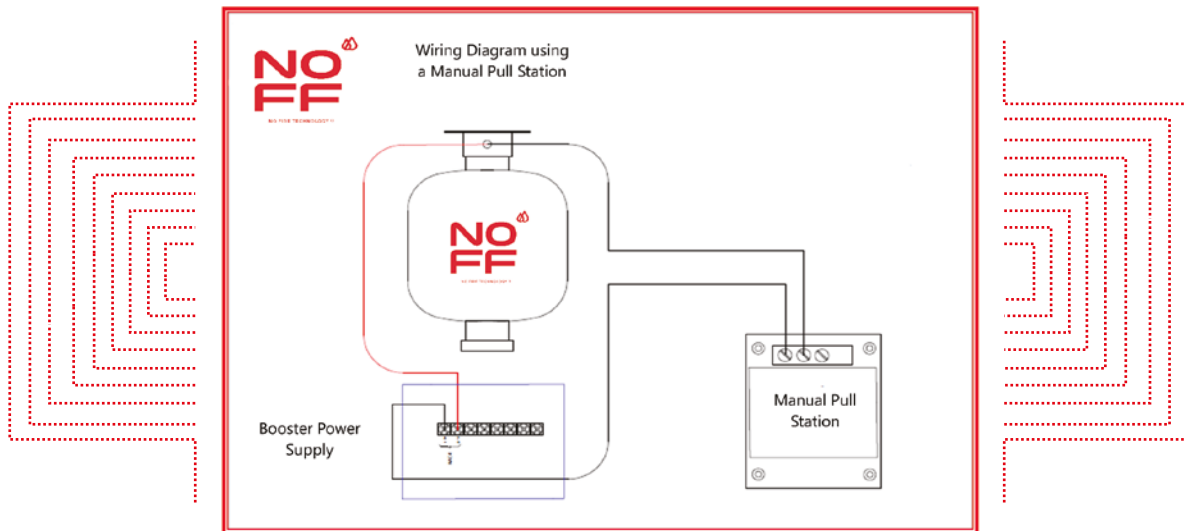
B) EXAMPLE CONNECTION WITH A NOTIFIER FIRE ALARM AND DETECTION SYSTEM (AUTOMATIC MEANS):



C) EXAMPLE CONNECTION WITH EDWARDS FIRE ALARM AND DETECTION SYSTEM (AUTOMATIC MEANS):



D) EXAMPLE CONNECTION WITH A MANUAL PULL STATION AND A BOOSTER POWER SUPPLY (MANUAL MEANS):



INSTALLATION

This Fixed Fire Suppression Unit should be installed only by trained personnel which have been accredited the official NOFF training seminars and courses. Before proceeding with the installation of this Fixed Fire Suppression Unit make sure the installers are using adequate personal protective equipment (PPE) and follow the safety procedures and/or guidelines published in the facility.

NOFF recommends the installers to follow the next steps:

The Unit must be installed at roof level, in the highest possible location.

The Unit must be hung vertically with the discharge nozzle pointed downward.

The unit is to be used in areas where the temperature falls between -40° and 122° Fahrenheit (-40° to 50° Celsius).

The unit is to be mounted or attached to a secure ceiling, for example, wood, metal, or concrete. Insure there are no obstructions to the free flow operations of the discharge nozzle and disbursement of the extinguishment within the enclosure.

Do not mount the unit on suspended ceiling or loose tiles.

The unit must be installed in a vertical position, at an angle of 90 °.

The unit must be centered within the enclosure/hazard area which it protects.

The tools required to install the unit are drill, open-jaw wrench of 5/8" (17mm) or an adjustable wrench, and a 9/16" x 4" drill bit (adequate for the ceiling type: wood, concrete, metal).

The cylinder should be assembly with the fixed plate by using a pin. An open-jaw wrench of 9/16" (16mm) and a cap screw should be used to assembly the cylinder with the fixed plate.

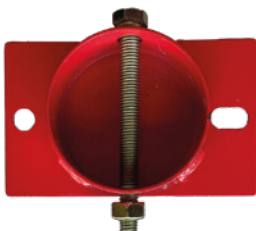
The unit must be connected to the fire detection system (an electrical current of 0.5 Amperes will be needed to activate it).

For more information regarding assembly and installation, we strongly recommend you request the Fixed Dry Chemical Fast Response Fire Suppression Unit's manual to the NOFF technical staff.

ACCESSORIES

Fixed Plate

The Unit comes with a 5"x 3" square shape metal plate to provide a robust and secure installation. Plate includes 2 pin holes to put two 1/2"- 2-3/4" expansion bolts (M12x70mm) for concrete; nuts, and washers are also included. A cap screw is also provided to assembly the cylinder with the plate.



COVERAGE AREA:

a) Local Applications (spot protection): Each unit shall be installed at ceiling level and centered above the hazard which it protects (Indoor applications only).

Model	Max. Area / sq.ft. (m2)	Max. Height / ft. (m)
FFX-ACT-3-GT	86.11 (8)	16.4 (5)
FFX-ACT-4-GT	107.63 (10)	16.4 (5)
FFX-ACT-5-GT	129.16 (12)	19.68 (6)
FFX-ACT-6-GT	150.69 (14)	19.68 (6)
FFX-ACT-7-GT	172.2 (16)	22.96 (7)
FFX-ACT-8-GT	193.75 (18)	22.96 (7)
FFX-ACT-10-GT	236.8 (22)	27.88 (8.5)

b) Total Flooding Applications: Each unit shall be installed at ceiling level and centered within the enclosure which it protects.

Model	Max. Volume / Cubic ft. (m3)	Max. Height / ft. (m)
FFX-ACT-3-GT	847.55 (24)	16.4 (5)
FFX-ACT-4-GT	1130 (32)	16.4 (5)
FFX-ACT-5-GT	1271.32 (36)	19.68 (6)
FFX-ACT-6-GT	1553.84 (44)	19.68 (6)
FFX-ACT-7-GT	1836.36 (52)	22.96 (7)
FFX-ACT-8-GT	2048.25 (58)	22.96 (7)
FFX-ACT-10-GT	2542.65 (72)	27.88 (8.5)

ELECTRICAL:

CONTACT TYPE	CLOSED CIRCUIT
ACTIVATION CURRENT	0.5 AMPER
MAXIMUM CURRENT	1 AMPER
OPERATING VOLTAGE DC	9 - 24 VOLTS

PRESSURE:

PROPELLANT	Insert gas produced by chemical reaction
Pressure Generated at activation (21°)	174 psi / 12 bar / 1.2 MPa

TEMPERATURE:

Working Temperature Range:	
-40°F	122°F
-40°C	50°C



EXTINGUISHING AGENT QUANTITY:

Model	Quantity / lb (kg)
FFX-ACT-3-GT	6.61 (3)
FFX-ACT-4-GT	8.8 (4)
FFX-ACT-5-GT	11 (5)
FFX-ACT-6-GT	13.22 (6)
FFX-ACT-7-GT	15.43 (7)
FFX-ACT-8-GT	17.63 (7)
FFX-ACT-10-GT	22.04 (10)

PHYSICAL DIMENSIONS CYLINDER:

Model	Diameter / in (cm)	Height with Plate / in (cm)
FFX-ACT-3-GT	9.84 (25)	11.81 (30)
FFX-ACT-4-GT	9.84 (25)	11.81 (30)
FFX-ACT-5-GT	9.84 (25)	12.99 (33)
FFX-ACT-6-GT	9.84 (25)	14.17 (36)
FFX-ACT-7-GT	11.02 (28)	14.17 (36)
FFX-ACT-8-GT	11.02 (28)	14.17 (36)
FFX-ACT-10-GT	11.02 (28)	16.92 (43)

CERTIFICATIONS:

a) Product Certifications:

	Organization	China Certification Center for Fire Products (CCCF)
	Organization Type	Certification Organization
	Country	CHINA
	Reference	GA 602-2013 Dry Powder Fire Extinguishing Equipment

b) Ordering Information:

Model	Description	Ship Weight lb (kg)
110009	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 3kg	22.04 (10)
110010	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 4kg	24.25 (11)
110011	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 5kg	28.66 (13)
110012	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 6kg	30.86 (14)
110013	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 7kg	35.27 (16)
110014	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 8kg	37.47 (17)
110015	Fixed Dry Chemical Stand-Alone Fire Suppression Unit 10kg	44.09 (20.0)

The unit is not pressurized with nitrogen N₂ or any other non-toxic inner expellant gas, therefore this product is not classified as a “dangerous good” according to United Nations Regulations (UN) on the transport of dangerous goods.

Contact us:

Email: noffventas@noffire.com
 Web: www.noffire.com
 T: +52 55-1540-9033

NOFF is a Global Lab Corp brand.
 2330 Ponce de Leon Blvd,
 Coral Gables, FL 33134, USA.

Global Lab Corp 2021. All rights reserved.