

# AKRONEX<sup>®</sup>

INTERNATIONAL



## AKRONEX 5112

Clean Agent Fire Suppression Systems

Worldwide Solutions



[www.akronex.com](http://www.akronex.com)



## AKRONEX 5112 Clean Agent Fire Suppression Systems

FK-5-1-12 Fire Protection Fluid used in AKRONEX 5112 Clean Gas Fire Extinguishing System is a revolutionary new technology. The Akronex 5112 system can be pressurized at 25 and 42 bars.

With its zero ozone depletion potential, extremely low global warming potential and short atmospheric life, FK-5-1-12 fluid is one of the chemical gases that replace Halon.

The cylinder valve assemblies are equipped with a pressure differential high flow rate valve to meet the 10-second fast discharge time specified in NFPA 2001. The valves are operated by electric solenoids and pneumatic actuators or by manual actuators which reduce the pressure on the piston. This allows the piston to open the valve and allow the extinguishing agent to come out. All products are designed and certified according to national and international standards.

## The benefits of Akronex 5112

- Faster than water extinguishing systems
- Safe for human life and animal life, environmental, extended life suppressant,
- No residue, No waste,
- Prevents damage caused by smoke, ash, and wetness,
- Does not damage protected equipment and objects.
- Not conductive, does not damage the operating function of electronic devices.

## Activity Areas

- Data Center, Telecommunication, Information Technologies
- Shopping Centers, Hotels and Restaurants
- Energy Sector and Auxiliary Industries
- Museums, Archives, Libraries and Schools
- Health Industry
- Manufacturing Sector
- Warehouses and Logistic Centers
- Oil, Gas and Hydrocarbon Industry
- Local and Central Government, All Public Buildings, Business Centers
- Wind Power Plants, Hydro Power Plants, Solar Power Plants, Geothermal Plants



# AKRONEX 5112

## Clean Agent Fire Suppression Systems

### Smart, Safe, Sustainable,

When you specify a system for fire protection, your choices can determine whether a person, a valuable asset, or an entire business can survive from a fire.

The FK-5-1-12 Fire Suppression Agent indicates that you are making a wise choice. Its unique chemical properties help you protect everything you want:

- **People:** It creates an environment where people can be more secure.
- **Operations:** No damage to electronic equipment or stored data.
- **Valuable assets:** It provides a high level of protection for libraries, paper archives, historical documents, valuable artworks and antiques.
- **Planet:** Global warming potential is very low and has no effect on the ozone layer.

### More safety <sup>1</sup> margin and lower environmental impact

A large margin means a higher level of security for people, buildings, equipment, data and the world we live in.

Agent	FK-5-1-12	HFC-227ea	HFC-125	Halon 1301
Use Concentration	4.5% min.	6.7% min.	8.7% min.	5%
NOAEL <sup>2</sup>	10% <sup>3</sup>	9%	7.5%	5%
Safety Margin <sup>4</sup>	67-122%	3-34%	Nil	Nil
Global Warming Potential <sup>5</sup>	<1	3350	3170	6290
Ozone Depletion Potential <sup>6</sup>	0.0	0.0	0.0	12.0

<sup>1</sup> Adjusted per 2012 NFPA 2001 requirements for minimum values (excluding halon): Paragraph 5.4.2.4 and Table A.5.4.2.2(b)-

<sup>2</sup> NOAEL for cardiac sensitization

<sup>3</sup> NOAEL for acute toxicity, including cardiac sensitization

<sup>4</sup> Safety Margin = (NOAEL - Use Concentration) / Use Concentration (minimum values received)

<sup>5</sup> Intergovernmental Panel on Climate Change (IPCC) 2013 Method, 100-year 1TH (CO<sub>2</sub>=1)

<sup>6</sup> World Meteorological Organization (WMO) 1998, Model-Derived Method





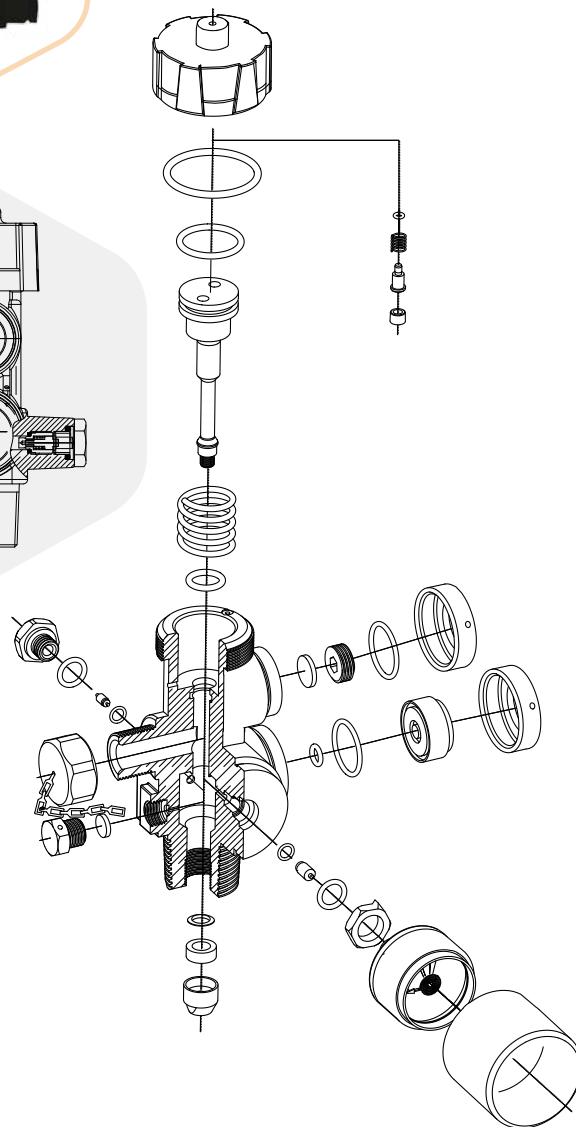
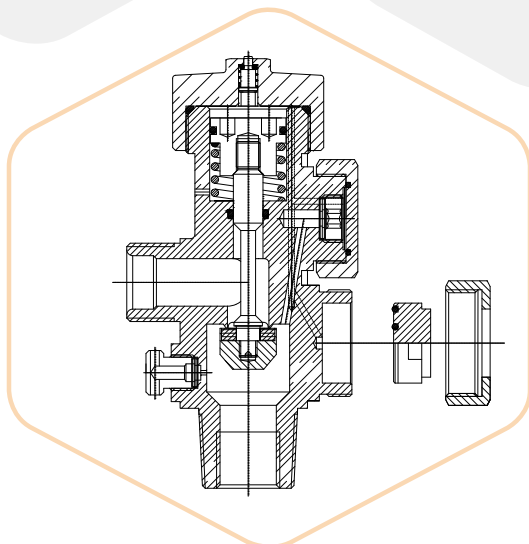
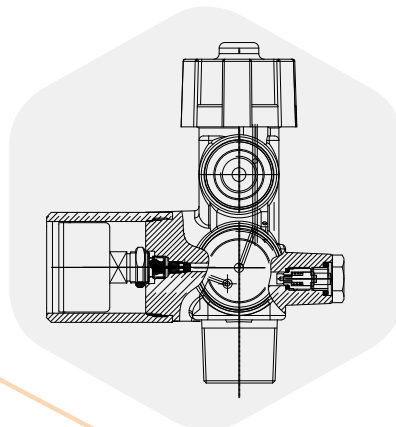
# Akronex 5112 Valves



Akronex40



Akronex20



	AKRONEX20	AKRONEX40
Material	Brass	Brass
Test Pressure	88 Bar	88 Bar
Working Pressure	42 Bar	42 Bar
Working Temperature Range	-20 °C to +50 °C	-20 °C to +50 °C
Pressure Gauge Connection	M10x1	M10x1
Manual Release Device Connection	M30x1.5	M30x1.5
Solenoid Actuator Connection	M36x1.5	M36x1.5
Valve Outlet Connection	G.3/4"	G.1 1/2"
Valve Seat Diameter	1"-11.5 NPT	G.2 1/2"-12 UN

# Gas

Name  
**FK-5-1-12**

# AKRONEX 5112

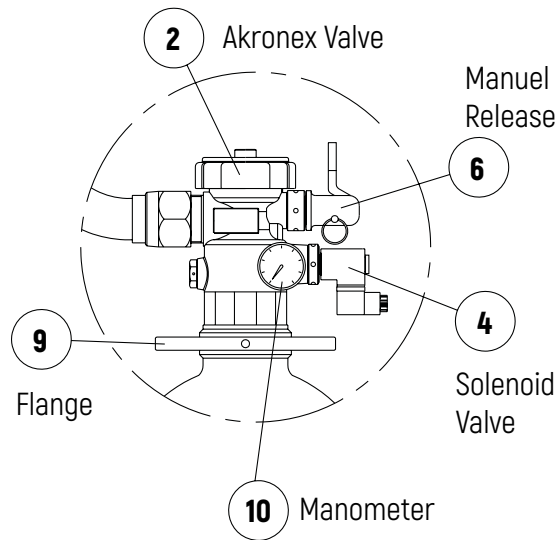
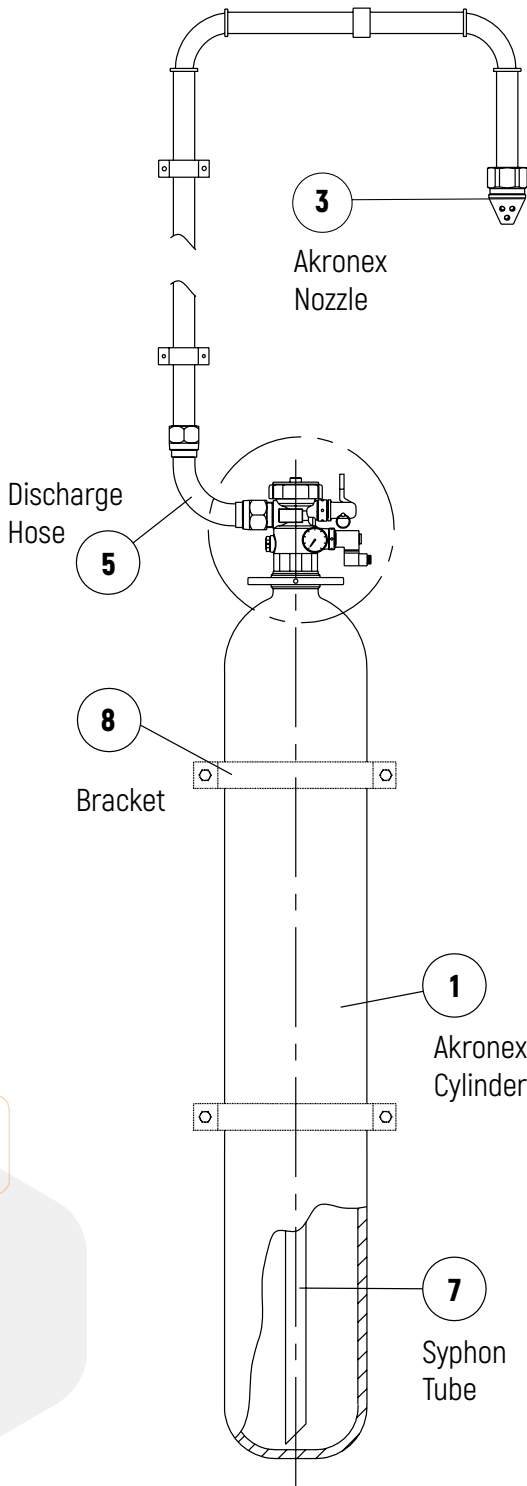
## Modular Systems

## Other Components

- Akronex Cylinder
- Gas
- Accessories
- Nozzles
- Diaphragm

## List Of Materials

Protection cap for cylinders and label is included to the system.



## Modular System HIGH PRESSURE [42 Bar]

### DESCRIPTION

Akronex Cylinder 120 litres
Akronex Cylinder 100 litres
Akronex Cylinder 75 litres
Akronex Cylinder 67 litres
Akronex Cylinder 40 litres
Akronex Cylinder 27 litres
Akronex Cylinder 13,4 litres

### \*RECOMANDED FILLING

138,00 kg
115,00 kg
88,00 kg
77,00 kg
48,00 kg
30,80 kg
15,40 kg



Stop Button



Battery



Sounder / Flasher

# ELECTRONIC SYSTEM PARTS

## EP203 Automatic Extinguisher Panel



Approvals/certifications	Certified to EN12094-1 and EN54-2/4 by the LPCB (176c) / (0832-CPD-0794).
Mains supply	230V 50/60Hz.
Mains rated current	810mA max.
Internal power supply	19V-28.5V (27V nominal). Ripple 7V maximum (battery fault)
No. of detector zone circuits	3 @ 19-28Vdc (Max. length per circuit is 250m)
Product dimensions (mm)	439 W x 276 H x 70 D mm (back box); 467 W x 293 H x 29 D mm (lid).
Weight	4.2kg (without batteries).
Operating conditions/temperature	-5°C to +40°C. Max relative humidity: 95%.
IP Rating	IP30.

## Enclosure Integrity Test

NFPA 2001 requires an enclosure integrity test to check for air leaks and holding times as part of the system acceptance procedure. This test can be carried out using a calibrated blower door fan test unit by certified tester.



Product Code	Explanation	Specifications
ECO 1000	Detector Base	
ECO 1002	Multi Criteria Photoelectric Smoke / Thermal Detector	<ul style="list-style-type: none"> <li>•Low profile design</li> <li>•Low current draw</li> <li>•Operates on 12 and 24VDC Systems</li> <li>•Remote alarm test feature</li> <li>•Easy Maintenance</li> </ul>
ECO 1003	Photoelectric Smoke Detector	
ECO 1005	Rate of Rise Thermal Detector	



## Smoke, Thermal and Multi Detectors





People who benefit more from nature and world blessings by the development of technology have also caused to occur pollution at the same time.

FK-5-1-12 (Clean Agent) and fire protection systems are a responsible choice to protect nature.

**AKRONEX**  
INTERNATIONAL





# Worldwide Solutions

## In Automatic Fire Suppression Systems

- Albania
- Armenia
- Azerbaijan
- Bangladesh
- Cyprus
- Ethiopia
- France

- Georgia
- Germany
- India
- U.A.E.
- Iraq
- Italy
- Kuwait

- Libya
- Maldives
- Moldova
- Oman
- Pakistan
- Qatar
- Russia

- Saudi Arabia
- Senegal
- Serbia
- Spain
- Tanzania
- Tunisia
- Turkmenistan



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