

AKRONEX[®]

INTERNATIONAL



AKRONEX CO₂

Carbon Dioxide Fire Suppression Systems

Worldwide Solutions



www.akronex.com



AKRONEX CO₂ Carbon Dioxide Fire Suppression Systems

Carbon dioxide is a colorless, scentless and non conductive gas that can effect quickly and efficiently into the protected area. Its density is about 50% higher than the air density.

During extinguishing, it is seen as a white mist. It does not make residue on the materials or affect adversely the materials.

Reduces the concentration of oxygen causes suppression to fire in the space and creates a cooling effect caused by rapid expansion of the gas.

Even if the CO₂ concentration is low in concentration, it should not be ignored and considered to be a danger to breathing. Also, the visibility during discharge is greatly reduced due to the formation of CO₂ mist.

This fire suppression can be applied in areas such as transformer rooms where people are not always present when appropriate safety measures are provided. After completing the suppression system, the area must be adequately ventilated. Because the density of carbon dioxide gas is heavier than air, it accumulates at low.

CO₂ is stored in pressurized cylinders up to 60 bar at 21°C. The distribution system consists of a series of 67.5-liter cylinders, which are tested at 250 bar, charged using a filling factor of 0.75 Kg / L or 0.67 Kg / L, with maximum storage temperatures of 40 °C and 50 °C.



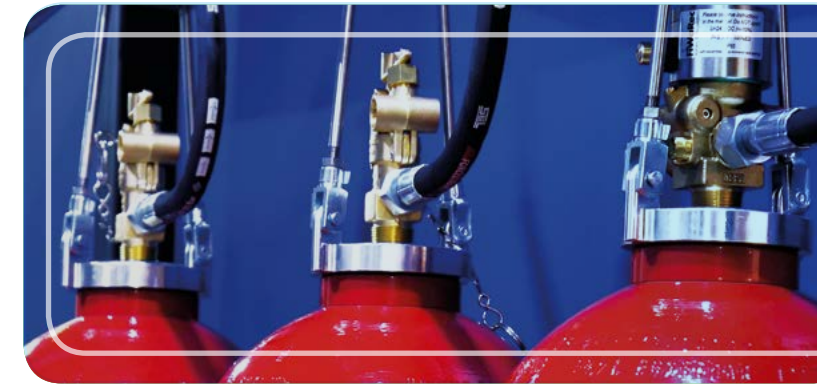
AKRONEX CO₂ Carbon Dioxide Fire Suppression Systems

Features and Advantages

- No ozone damage,
- Physical extinguishing,
- Used for local extinguishing purposes,
- Not used in areas where human presence,
- The cost of refilling is low, widely available,
- The discharge time is 60 seconds, (30 seconds for local systems).
- The minimum discharge time calculated according to the standards should be 60 seconds.
- For local applications, the discharge time should be at least 30 seconds.
- If longer cooling time is required to complete the extinguishing process, the discharge time can be increased.

Discharge Time

- The minimum discharge time calculated according to the standards should be 60 seconds.
- For local applications, the discharge time should be at least 30 seconds.
- If longer cooling time is required to complete the extinguishing process, the discharge time can be extended.



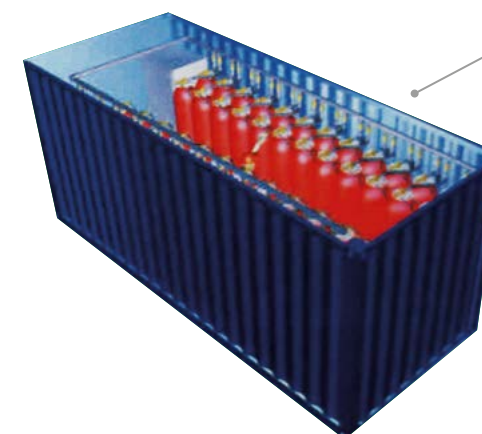
Usage Areas

Several fire extinguishing applications where CO₂ is suitable are listed below.

- WPP (Wind Power Plant), HEPP (Hydroelectric Power Plants),
- SPP (Solar Power Plants) and GPP (Geothermal Power Plants),
- Electrical equipment (machines, transformers, etc.),
- Painting cabinets, industrial ovens, etc,
- Electronic control units and data processing centers,
- Closed storage areas, dust pipes, and tunnels etc,
- Closed frame spinning machines,
- Silos, archives, flammable liquid storage areas.

Cylinder Storage Containers

The cylinders of AKRONEX CO₂ Fire Suppression System's cylinders can be fixed and stored in the container according to the customer request. This solution provides ease of maintenance, transportation and installation. This creates a more secure environment.



Akronex CO₂ Valves



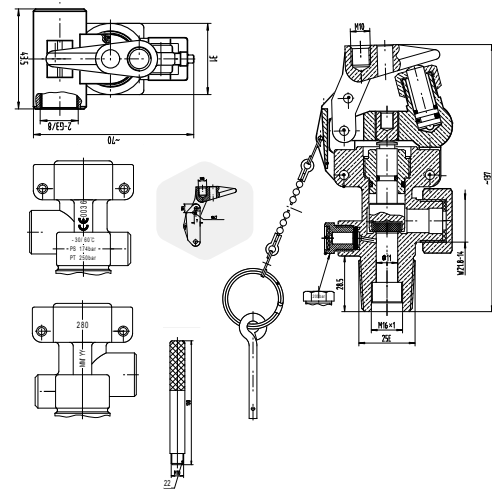
CO₂ Master Valve

* The valves are equipped with safety features to prevent leakage.

CO ₂ Master Valve		U= 24V DC P= 9.3W IP65
Article No.	F20310xx	
System Type	Carbon Dioxide	
Inlet Thread	ISO 11363-1 25E	
Outlet Thread	W21,8x1/14"	
Burst Discs	190 Bar	



CO₂ Pneumatic Valve



* The valves are equipped with safety features to prevent leakage.

CO ₂ Pneumatic Valve	
Working Temperature Range	-30°C~+60°C
Maximum Allowable Pressure Value	174 Bar
Pressure Test	250 Bar
Pneumatic Opening Pressure	5~15 Bar
Blasting Device Pressure Value	200 Bar

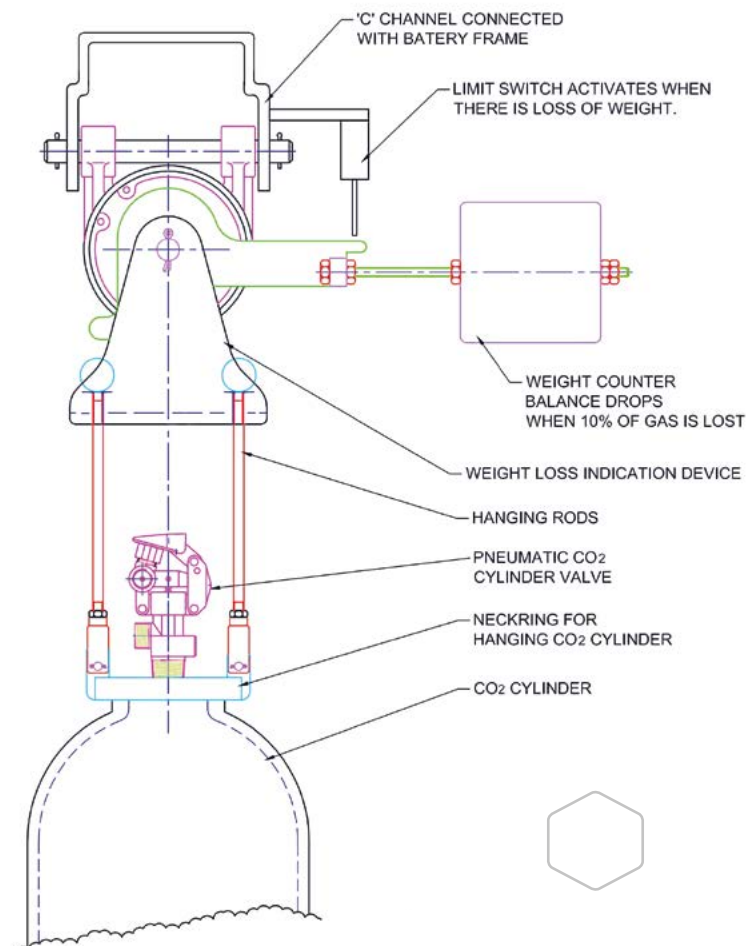


Akronex CO₂ Weighing Devices

Akronex CO₂ Weighing System



Gas leakage in the cylinders can be measured by weighing the cylinders and using special test devices. In order to continuously monitor the amount of gas in the cylinder in AKRONEX CO₂ systems, the special design of AKRONEX Weighing System can be installed optionally.



Weighing Device Features
 Body & Frame Made of Aluminium ·
 Flame Resistant Limit Switch ·
 Rust Free ·



ELECTRONIC SYSTEM PARTS



Stop Button



Battery



Sounder / Flasher



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.

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

Carbon dioxide fire protection systems are a responsible choice to protect nature.



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



AKRONEX INTERNATIONAL FIRE ENGINEERING INC.
Istasyon Mah. 1495 Sok. No:13 41400 Gebze, Kocaeli, Turkey
Phone: +90 262 655 46 46 | Fax: +90 262 655 46 41 | E-mail: info@akronex.com

www.akronex.com

