NERO INDUSTRIES
Advanced Reliability

ARES EP-30

ELECTRICAL PANEL FIRE EXTINGUISHING SYSTEM

DS-29092215271-2909

EP-30 AUTOMATIC FIRE EXTINGUISHING SYSTEM

In today's age, one of the indispensable parts of every person and company; online banking, e-commerce and server rooms are always in a high risk class against fire in terms of the equipment and conditions they host. Nero Industries automatic fire suppression systems not only protect valuable equipment protecting your data from loss, but also reduce downtime of critical business operations. Your company also loses trust and reputation after fire incidents. Nero Industry Fire Suppression Systems can protect all your data and reputation and protect your company from being caught in the lurch with your customers.

The fuses, power lines, and high voltage in the electronic panels are the units that are at risk of fire due to the high voltage and continuous working conditions. These units protect the systems against fire by having the latest technology extinguishing system with the Aerosol Fire Extinguishers developed by Nero Industry, without pressure, without the need for hydraulic lines and nozzles.

EP-30 AEROSOL-UV-IR DETECTOR AUTOMATIC FIRE EXTINGUISHING SYSTEM OPERATION SCHEMATIC

DETECTION IN 3 MILLISECONDS

1- The fire is detected within 3 milliseconds by ***UV-IR Detectors*** produced by Nero Industry and the signal is sent to control unit.

EXTINGUISHING IN 5 SECONDS

2- Control unit analyses the incoming signal in 10 milliseconds and activates the extinguisher tube. Simultaneously, it activates the alarm horn in the vehicle and warns the user by light-voice warning system on the panel.

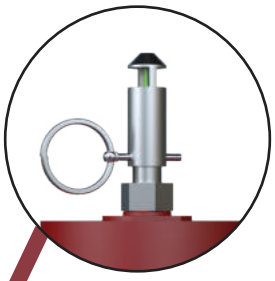
3- The extinguisher tube is activated with the help of the pyrotechnic trigger it has and extinguishing agents are released. The solid NRE-CM agent within the cylinder spreads homogenously and extinguishes the fire within five seconds.

EP-30 AEROSOL AUTOMATIC FIRE EXTINGUISHING SYSTEM WITH MECHANICAL ACTIVATION OPERATION SCHEMATIC

EXTINGUISHING IN 5 SECONDS

- NAFEG-TD, provides independent system solution in which fire detection and extinguishing are mechanically united without any need of electricity.
- It can be activated mechanically, not being controlled by control unit and without being connected to any electrical power supply.

DETECTION AT OPTIONAL TEMPERATURES



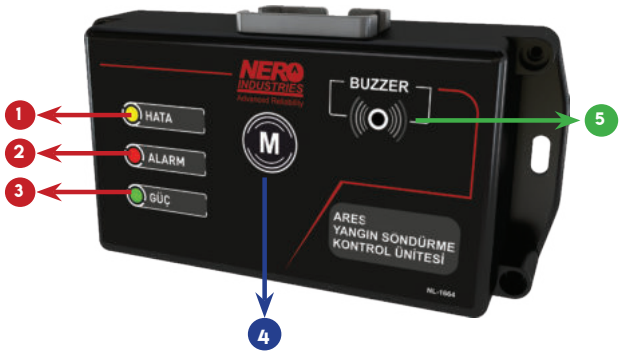
(57°, 68°,79°, 93°C, 141°C, 180°C)

EP-30P Control Unit

- EP-30P control unit which is designed and developed by Nero Industry as a completely domestic product, is the unit section where warning, detection and fault status of the system are monitored by power leds belonging to each tube and detector. EP-30P Control unit which operates flexibly, complying with system configurations and operating logic, controls fire extinguishing and fire suppression system.
- By means of smart control unit, system verifications and logical operations could be performed. It has features of testing the system, manual activation and automatic activation. It has water and dust protection at IP 67 level. Error, alarm and other data regarding fire suppression and fire extinguishing system are transmitted to vehicle main computer by CANBUS communication infrastructure.

SPECIFICATIONS	EXPLANATION
CAN Bus	Available (J-1939 Protocol) Conformity
Supply Voltage	24 Vdc nominal (16-32 Vdc)
Power Consumption	450 mA @ 24 Vdc (In number of components used in the system it differs ± 100 mA.)
Operating Temperature	-32°C +71°C
Storage Temperature	-50°C +71°C
Weight	480 ± 50 gr
Dimensions (Width X Height X Width)	85 x 49 x 100 ±5 mm
Impermeability	IP-65
Detector Reading Number	1 linear thermal detector or thermal wire
Extinguisher Reading Number	1 tube pyrotechnic
Military Test Standards It Conforms	AS 5062, UNECE R107, R10, MIL-STD-461, MIL-STD-810, MIL-STD-1275
Detector and tube error indicator	Available

BUTTON SPECIFICATIONS



1	ERROR STATUS LED
2	ALARM STATUS LED
3	POWER ACTIVE LED
4	MANUAL ACTIVATION
5	ALARM STATUS INDICATOR

Nafeg Aerosol Fire Extinguisher Tube

- NAFEG Aerosol Extinguisher is designed to extinguish and defuse type A (solid fuel), B (liquid fuel), C (gas fuel) fires and type E (electrical) fires in enclosed volumes.
- After the extinguishing agent concentration required for each type of fire and volume to be protected is calculated, the solid NRE- CM agent content in the NAFEG cylinder and total number of NAFEG cylinders at the area to be protected are determined. NAFEG-125, is designed to produce powdered aerosol to extinguish a fire in a 1,25 m3 enclosed volume.

SPECIFICATIONS	EXPLANATION
Extinguishing Volume	1,25 m^3 - 2,5 m^3 - 5 m^3
Activation Mode	Electrical
Discharge Time	4-6 seconds
Discharge Length	2 m
Optional Manual Triggering	Available
Nozzle and Hydraulic Line	Not used
Toxicity	None
Triggering voltage	24 Vdc (10-32 Vdc). It can also be triggered at lower voltages but performance may decrease.
Content	Potassium based dry chemical mixture
Operating temperature	-40°C +120°C
Storage temperature	-32°C +71°C
Weight	1,8 kg

SPECIFICATIONS

- No Need Electricity
- Include Detection Feature
- No Ozone Depletion
- No Global Warming
- Low Toxicity
- Highly Efficient - 100 gr/m^3
- Approved By EPA for SNAP Listing
- Small-Safe-Simple
- For A-B-C-E Class Total Flooding Applications
- Cost Effective
- Cool and dry; Max. 10 Years Storage/Shelf Life

APPLICATIONS

- CNC-Machines
- Control Rooms (sub Floor; Above Ceiling)
- Electrical Cabinets
- Engine & Compressors Rooms
- Flammable and Combustible Liquids and Gases Storage
- Paint Lockers
- Marine Applications
- Server Rooms
- Telecommunications Facilities

Aerosol Fire Extinguisher Tube with Mechanical Activation

- NAFEG-TD, provides independent system solution in which fire detection and extinguishing are mechanically united. It can be activated mechanically, not being controlled by control unit and without being connected to any electrical power supply. Thanks to the thermal sensor/activator on it, it can detect fire and get activated automatically, at various temperatures (e.g. 57°, 68°,79°, 93°C, 141°C, 180°C) according to different requirements.

SPECIFICATIONS	EXPLANATION
Extinguishing Volume	1,25 m3 - 2,5 m3 - 5 m3
Activation Mode	Mechanical
Discharge Time	4-6 seconds
Discharge Length	2 m
Nozzle and Hydraulic Line	Not used
Toxicity	None
Triggering voltage	24 Vdc (10-32 Vdc). It can also be triggered at lower voltages but performance may decrease.
Content	Potassium based dry chemical mixture
Operating temperature	Detection at different optional temperatures (57°, 68°,79°, 93°C, 141°C, 180°C)
Weight	1,8 kg
Test Standards It Conforms	AS 5062, UNECE R107, R10, MIL-STD-461, MIL-STD-810, MIL-STD-1275

SPECIFICATIONS

- No Need Electricity
- Include Detection Feature
- No Ozone Depletion
- No Global Warming
- Low Toxicity
- Highly Efficient - 100 gr/m^3
- Approved By EPA for SNAP Listing
- Small-Safe-Simple
- For A-B-C-E Class Total Flooding Applications
- Cost Effective
- Cool and dry; Max. 10 Years Storage/Shelf Life

APPLICATIONS

- CNC-Machines
- Control Rooms (sub Floor; Above Ceiling)
- Electrical Cabinets
- Engine & Compressors Rooms
- Flammable and Combustible Liquids and Gases Storage
- Paint Lockers
- Marine Applications
- Server Rooms
- Telecommunications Facilities

UV-IR OPTICAL DETECTOR

- Optical detectors detect heat and light waves at different frequencies by UV and IR sensors within it, makes required matches and send flame signal to control box. Detectors are genuinely designed by Nero Industry engineers applying to NATO Stanag 4317 and American MIL PRF 62546C standards. UV-IR flame detectors have also successfully passed high temperature, low temperature, humidity, shock-vibration, corrosion and EMI/EMC tests as per MIL-STD-810H and MIL-STD-461F standards.
- Detectors have been specially designed as IP67 and can stay under 1 meters of water for half an hour. The detectors also having protection for false alarms, do not react against false alarms such as sunlight, vehicle headlights, welding beam, infrared heater, cigarette ash.

TECHNICAL SPECIFICATIONS

Detection in a time period less than 3 ms	Ultraviolet (UV) and Infrared (IR) Sensor
Power supply: 24 VDC nominal	Operating temperature: -51°C / +120°C
Storage temperature: -55°C / +150°C	Power consumption: 70 mA @ 24VDC
Weight: 480g ±50g	Dimensions: 85x49x100 mm (±5mm)
140° Blind Detection	Compatible to CAN-BUS J-1939
IP 67 Water and Dust Protection	Advanced Software Algorithm