

Spark Extinguishing System

ALF-NANO

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The ALF-NANO is a compact, cost-effective spark extinguishing control panel for detecting and extinguishing sparks. It was specially developed for applications where space, budget and easy integration are crucial.

The system supports the direct connection of detectors, extinguishing valves and other sensors via a plug-and-play principle, enabling commissioning without manual configuration.

This greatly reduces the installation work required.



The ALF-NANO is suitable for use in a wide variety of industrial environments – from securing individual work areas to decentralised installation in large-scale plants.

In individual applications, the control panel can be installed directly on site to control detectors and extinguishing systems locally. Its compact design and simple plug-and-play sensor connection make it particularly suitable for retrofitting or space-critical installation locations.

In larger plants, several ALF-NANO base units can be installed in a modular and decentralised manner to independently protect individual zones.

Features

- Plug-and-play connection
Automatic detection and programming of detectors, valves and sensors by an integrated programming function.
- Spark detection and extinguishing activation
Detection of spark events and automatic triggering of an extinguishing device.
- Broken wire and short circuit monitoring for detectors and valves
Faults in the wiring are automatically detected and signalled.
- Internal detector test
Automatic monitoring of the detector for proper electrical function.
- Flow monitoring
Monitoring of correct water flow using a flow switch. A central flow switch or a separate flow switch for each area can be used.
- Leak detection
Detection of leaks in the extinguishing system.
- Ball valve monitoring
Verifies that the water supply has been fully opened. It can be installed on each automatic extinguishing device or centralised monitoring of the ball valves can be implemented.
- Fault input
External input for monitoring external systems, e.g. Pressure Booster System.
- Event logging
All safety-related events are stored on a connected USB storage device.

If the USB storage device is missing or defective, events are automatically stored in the internal flash memory and a fault message is generated.

The following events are stored on the USB storage device with the respective operating time

- System start-up,
- activating and deactivating areas,
- alarm start, end, acknowledge.

A new log file is created each time the system is started. The maximum number of files is 100, which are overwritten on a rollover basis according to the principle of a circular buffer. Up to 100 events are saved per file.

Technical data

Feature	Description
Areas	2
Spark detectors	Up to 2 per area
Extinguishing devices	1 per area
Sensors	Central flow monitor or per area (by using jumpers) Central ball valve monitoring or per area (by using jumpers) 1x fault input, e.g. Pressure booster system
Operation	Collective display
UPS	Optional
Protection class	IP 54
Interfaces	3 potential-free contacts Alarm area 1, 2 and collective fault
Ambient temperature	0 - 40 °C
Control cabinet size (W x H x D)	400 x 500 x 210 mm
Supply voltage	120Vac or 230Vac – 50/60Hz
Max. cable length sensors/extinguishing systems	200 m

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