



AUTRONICA

AutoSafe interactive fire detection system



AUTROSAFE

An interactive fire detection system for complex installations



AUTROSAFE

AutoSafe interactive fire detection system is designed to meet the toughest requirements, and expands the possibilities of a fire detection system even further. From hotels to cruise ships to drilling platforms, AutoSafe delivers the most rigorous fire safety yet.

We launched AutoSafe, our high-end fire detection system, in 1999. From day one, AutoSafe has proven its unique stability and reliability in more than 15 000 installations worldwide, both on- and offshore.

AutoSafe provides advanced functionality for a wide range of applications. The system is designed to meet all requirements in the high-end segment of the onshore, maritime and offshore

markets, and is certified according to Marine Equipment Directive (MED), European directives (CPD) requiring EN 54 approval, and Factory Mutual (FM) approval according to NFPA 72.

Reliable communication is paramount to your safety. That's why we're adding AutoNet to the AutoSafe system, an innovative network solution safeguarding communication between



AutroSafe delivers the
most rigorous fire
safety yet.

panels. AutroNet ensures a redundant and high-speed network, expanding the reach of the AutroSafe system even further.

History proves you can rely on AutroSafe. All existing functionality has stood up to the toughest tests worldwide for more than 10 years. With AutroSafe, we take fire safety to a higher level.



Minimum downtime.
Maximum safety.

SINGLE POINT OF ACCESS

Large capacity without compromising security.

The AutoSafe interactive fire detection system is managed through a single point of operation for the download of configuration data or program upgrades. This ensures a faster and safer method to change or upgrade the system program, using the panel network (AutoNet) or a USB memory stick. The result is minimum downtime, through quick and easy modifications during commissioning.

Capacity:

- ✓ 64 fire alarm panels
- ✓ 15 000 loop units connected to one system
- ✓ 6 detector loops per panel
- ✓ 127 loop units connected to one detector loop
- ✓ 5 loop units connected to one PowerLoop
- ✓ 31 loop units connected to AutoFieldBus
- ✓ Event log with up to 10 000 events

Clean design and performance Balancing intuitive user interface with high technology

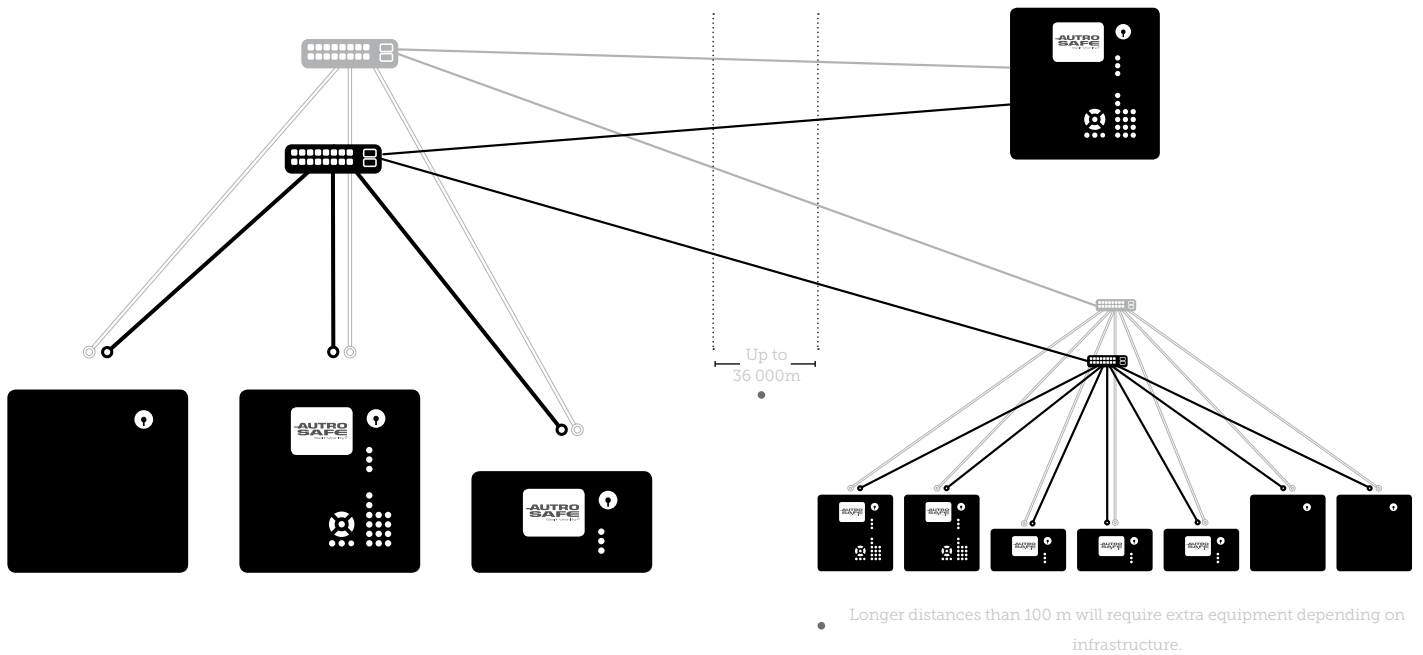
During normal operation, the power indicator will always display a steady green light when the power is ON. No disrupting or unnecessary information is shown, only indicators relevant to the actual condition are visible.

Improved flexibility

You can change MultiSensor operation class, adjust a single detector or a group of detectors or operate class switch for a period of time.

Proven loop units

All types and series of AutoSafe detectors, manual call points, I/O units and sounders can operate on the same detection loop.



Integrated 3rd party interface granting unlimited communication options

AutoSafe communicates with equipment using the following protocols:

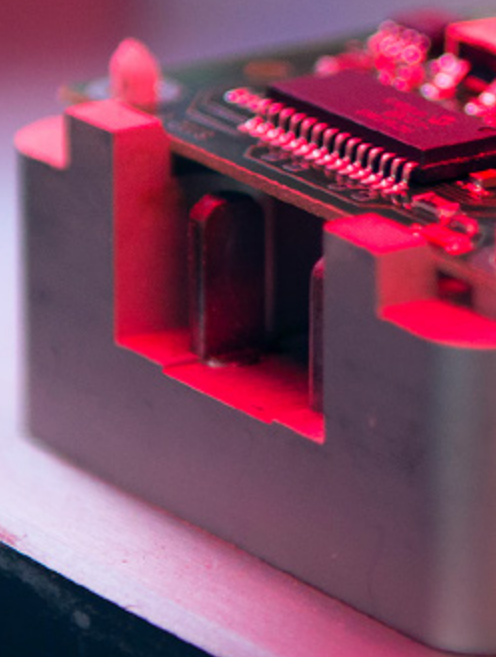
- ✓ MODBUS – allowing connectivity with Programmable Logic Controllers (PLC)
- ✓ AutoCom – allowing interface to control and monitoring systems (AutoMaster)
- ✓ ESPA 4.4.4 – allowing connectivity with devices such as AutoTel alarm routing via telephone networks and pocket paging systems
- ✓ NMEA-0183 – allowing connectivity with devices such as the maritime
- ✓ Voyage Data Recorder (VDR)

AutoSafe includes the following communication ports:

- ✓ 2 Ethernet ports for AutoNet, AutoCom and configuration data/system software upgrade
- ✓ 1 AL_Com+ port (interfacing loop drivers and I/O units)
- ✓ 1 RS-232, RS-422 or RS-485 (AutoCom/ESPA4.4.4/MODBUS/VDR)
- ✓ 1 AutoFieldBus interface
- ✓ 2 USB host ports for printer/USB memory stick (configuration data and system software upgrade)
- ✓ FailSafe relay output

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Our daily task is a great exercise, which we strongly embrace. We know how important our mission is. We are driven to develop smarter systems detecting potential hazards earlier, while at the same time avoiding unnecessary disturbance. This is a thin line, and what makes it even more challenging is the fact that our solutions have to function optimally both in large cruise ships, nuclear power plants, oil platforms, and in kindergartens.





PROTECTING LIFE, ENVIRONMENT AND PROPERTY
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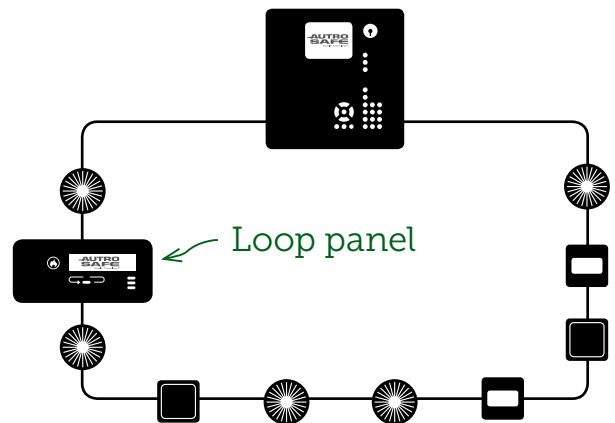


NOW EVEN EASIER

We continue to strive for easier solutions for our customers. Now we have introduced loop-driven panels, significantly reducing cabling, installation time, complexity, and power consumption.

Loop-driven panels require a minimum amount of cabling compared to regular system panels, as the loop normally runs close to the installation point. Signal and power are supplied from the same cable.

The panels are automatically addressable, easy to install, change and configure. Each panel only draws 1 mA power in normal state, and maximum 6 mA in alarm state.





SAFETY FIRST

An extra layer of security

All our loop units have dual short-circuit isolators. There is no need for extra loop isolator units. This allows you to more precisely pinpoint where a short circuit has appeared. And since we have dual loop communication – loops are powered both ways – no communication is lost. And you don't need additional cabling to ensure complete coverage.

Smart technology

DYFI+ and smart algorithms compensates for contamination from dust and reduces false alarms.

The false alarm filter enable the detectors to suppress false alarms without affecting the detection of fire and smouldering fires. This will affect the operating costs dramatically. Imagine the cost of evacuating a cruise ship, or an airport.

The pollution filter will automatically compensate for pollution in the air, which eventually will affect the detector's sensitivity. The pollution filter compensates for this, with 3 noticeable effects. Firstly, the detector lifetime is increased significantly, reducing investments in detector replacement. Secondly, the algorithms prevent hyperactivity, reducing false alarms. Thirdly, it prevent the detectors from being dulled so that they do not report a real fire, with the disastrous consequences this may have on life, environment or property.

The smouldering filter will enables the detector to respond to smouldering fires, which in turn will save many lives. When accidents happen every minute counts, especially considering that the scale increases proportionally with time passed. Earlier detection equals a tremendous reduction in injury rates, both for life, environment and property.

Detects fires
faster, reduces
unwanted alarms,
prolongs detector
life cycle

AUTRO
SAFE
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SELF VERIFY

When launched in 1999, AutoSafe SelfVerify® was the premium technology enabling fire detection system to test itself. It still is.

The necessity of reducing high maintenance costs and increasing fire security, encouraged us to invest considerable time and effort in developing this unique technology. Over the last decade it has proven its worth in over 15 000 applications in onshore, offshore and maritime installations.

The self-testing system

Most fire detection systems depend on costly and often irregular manual inspections, which involve a number of challenges and problems:

- ✓ Detectors may be out of reach
- ✓ Service engineers may not have access to particular areas
- ✓ Manual testing with gas or smoke is not reliable
- ✓ Test gas or smoke is rarely used in calibrated quantities
- ✓ Even a faulty detector will eventually react if its chamber is filled with enough smoke
- ✓ Excessive and irregular intervals between manual tests of detectors, leaving damaged detectors unnoticed for far too long

AutoSafe SelfVerify® solves all issues of manual maintenance, making time consuming and costly physical testing no longer necessary. With AutoSafe SelfVerify®, the system checks all detectors, interfaces, connections and cables – from detector chamber to alarm output – every single day.

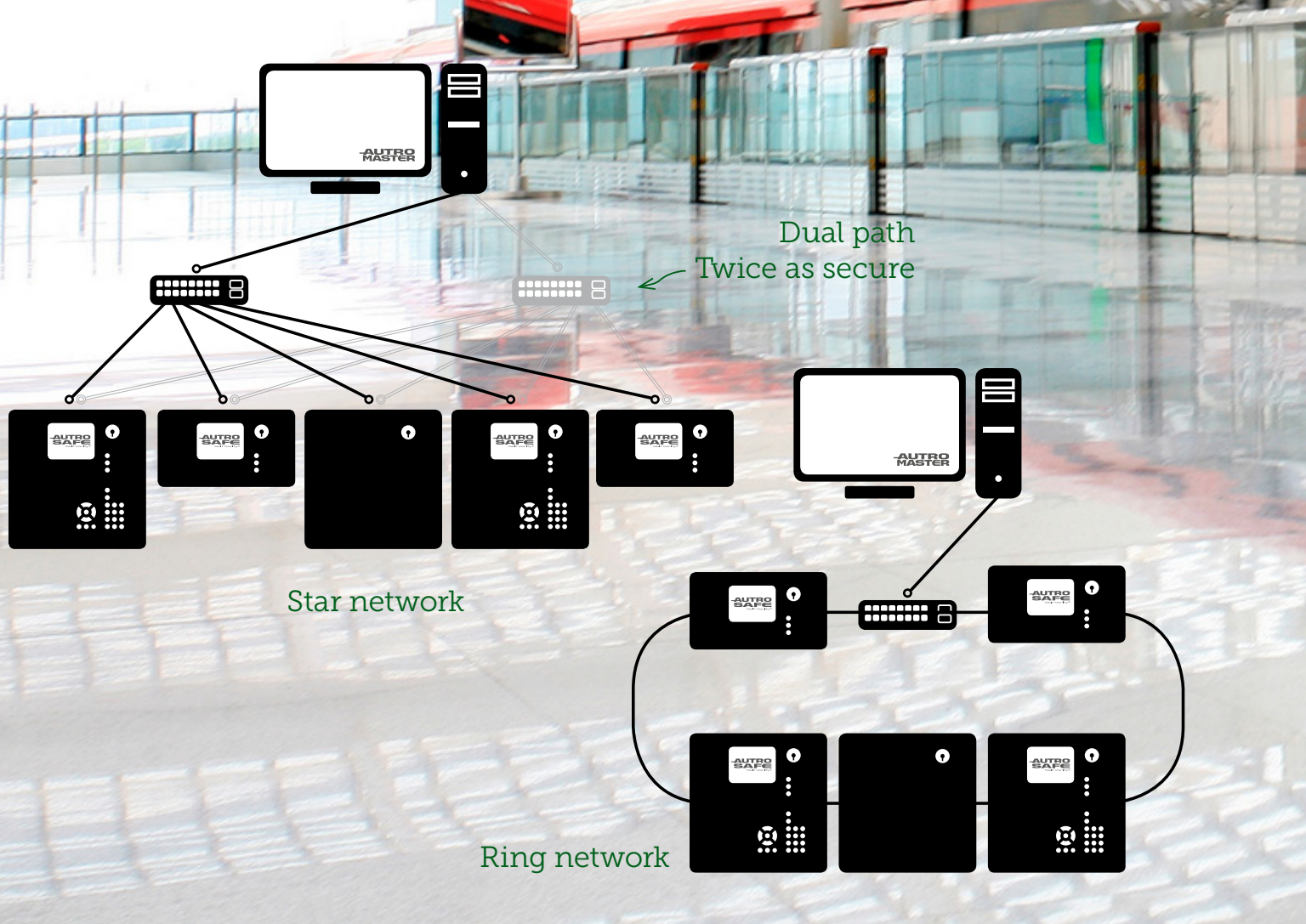
Not only does the system test whether a detector is capable of provoking an alarm, it even verifies the sensitivity of every detector with a calibrated signal. The SelfVerify system ensures that each detector always responds to the correct alarm level. In the event of irregularities, the display on the operating panel will accurately pinpoint the source of any problem.

AutoSafe SelfVerify® is developed for worldwide standards and regulations, and the detectors are tested and certified according to European directives (CPR) requiring EN 54 approval.

AutoSafe SelfVerify® ensures that you have the safest and most reliable fire safety system available – a system ensuring optimal detection.

More reliable maintenance.
Far less time and cost.



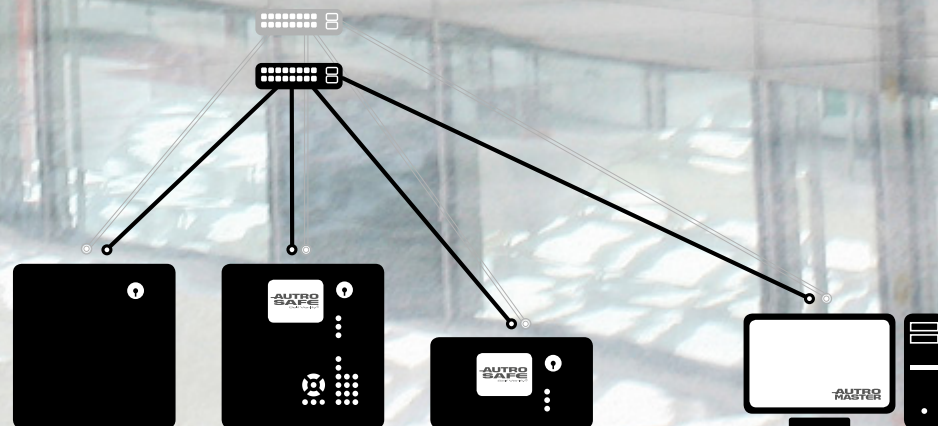


AUTRONET

To provide maximum dependability, Autronica has developed AutoNet – a dual path transmission network based on a high bandwidth Ethernet network (100 Mbps) suitable for safety-critical systems. It's a new standard in reliable data and information transmission

AutoNet secures the transmission of data and information even if a line fault (break, switch port fault etc.) is present. Alarms are transmitted safely to all panels because all network traffic is duplicated along two independent network paths. The unique combination of AutoNet and AutoSafe results in a flexible and reliable system which is easy to maintain, modify and expand.

To add an extra layer of security, you can add a dual network between system units. Additionally, the AutoNet can be configured in either a star or a ring topology. The choice is yours.



AUTROMASTER ISEMS

An Integrated Safety and Emergency Management System combining the strengths of a powerful fire detection system with control and monitoring functions dedicated to make sure you are in control in case of a fire incident.

This remote monitoring and control system provides tight integration with AutoSafe systems, indicating fire alarms, and displays customized layout of installations with symbolic representations of field devices. It provides several possibilities to integrate with 3rd party equipment and is easy to use, provides a full overview and saves valuable time.

Flexible and reliable
– easy to maintain, modify
and expand.

Thinking new thoughts is part of our job.

That is how we create products that make you feel safe.

Fire safety is increasingly prioritized in large parts of the world, and we are happy to be part of that development. We make everyday life safer for factory workers in Brazil, hospital patients in The Netherlands and people shopping for groceries at the mall in Malaysia.

Our products are flexible and easily adaptable to local conditions in different parts of the world. This makes it safe to choose our solutions – no matter where in the world you are.





Autronica Fire and Security AS is a leading innovator, manufacturer and supplier of fire, safety and maritime measuring equipment worldwide.

Our products ensure safety in applications on land, sea and in the petrochemical, oil and gas sectors.

We are an international company with worldwide offices and our HQ is located in Trondheim, Norway's technology hotspot.