
AutroGuard®
multicriteria protector
by Autronica Fire and Security
AUTRONICA

minimalist
for maximum safety

Imagine; one small device that ensures our safety wherever we are. And even in places where we are not present, or in places where maintaining safety is challenging. A device that has brought together all the features and the technology that completely safeguard us from the dangers that can lead to fire in modern times.

It monitors our surroundings 24 hours a day, and sees potential dangers in them. It reacts precisely, immediately and clearly when something challenges our safety, down to the very smallest particle. Because it recognizes them all, and it knows exactly how and when to react. It clearly notifies us through sound, light or a pleasant voice. And we don't have to maintain it or worry if it works.

We are never afraid. We are always safe.

The AutroGuard® multicriteria protector is here, a whole new era of fire safety. Designed for the safety of our generation,rigged to look after the generations to come.

Zero loss of lives,
no injuries or damage caused by fire and gas
www.autronicafire.com

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Robust design
for any environment

On land

Complete fire safety in all types of buildings.

Clean and beautiful design that fits well in all environments.

Works optimally, without nuisance alarms, in areas where smoke appears naturally, like stages and kitchens.

Works optimally in extra clean spaces demanding early protection, like server rooms.

EN 54 approved.

In challenging environments

Complete fire safety in the petrochemical, oil & gas industry.

Works in temperatures from -30 °C, up to +70 °C.

Withstands the challenging environments on oil rigs, in refineries and nuclear power plants.

Certified to IEC61508 SIL 2.

Intrinsically safe for zones 0, 1 and 2 (Ex ia and Ex ic).

ATEX, IECEX, INMETRO and CSA certified.

Tested according to UL268.

At sea

Complete fire safety onboard all types of vessels.

Clean and beautiful design that fits well in all environments.

Can withstand salt, weather and vibrations typical in marine surroundings.

Marine class society type approved.

Intrinsically safe for zones 0, 1 and 2 (Ex ia and Ex ic).

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It's more than a detector

It's a protector

Smoke detection

Triple redundancy and sensitivity adaptation for any environment.

Heat detection

Dual redundancy and approved for all EN 54 heat classes.

Carbon monoxide (CO) detection

Ensuring immunity to artificial smoke, as used in theatres, on stages and in concert halls.

Visual alarm device (VAD)

EN 54-23 approved visual alarm device with SelfVerify*.

- Choose between red or white light for alerts
- Up to class C3-12
- Low-current, open class setting available

Loudspeaker with high-quality speech

EN 54-3 approved voice alarm with SelfVerify*.

- 5 preset messages
- 10 languages
- Can combine 2 languages and one alarm signal
- Clear and understandable voice

Sounder with high sound pressure

EN 54-3 approved sounder with SelfVerify*.

- 93 dB @ 1 m sound output
- 2 sound levels
- 16 standard tones

SelfVerify = calibrated, automatic self test. See page 15.

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FALSE ALARM REJECTION	Heat	Optical	Multi	Dual angle multi	DYFI[3D]	DYFI[3D] w/CO
Dust	●	●	●	●	●	●
Steam (normal environment)	●	●	●	●	●	●
Cooking fumes (UL268)	●	●	●	●	●	●
Cigarette smoke	●	●	●	●	●	●
Aerosol (e.g. hairspray)	●	●	●	●	●	●
Theatre smoke	●	●	●	●	●	●

● Unlikely alarm ● Possible alarm ● Probable alarm

False alarms are history

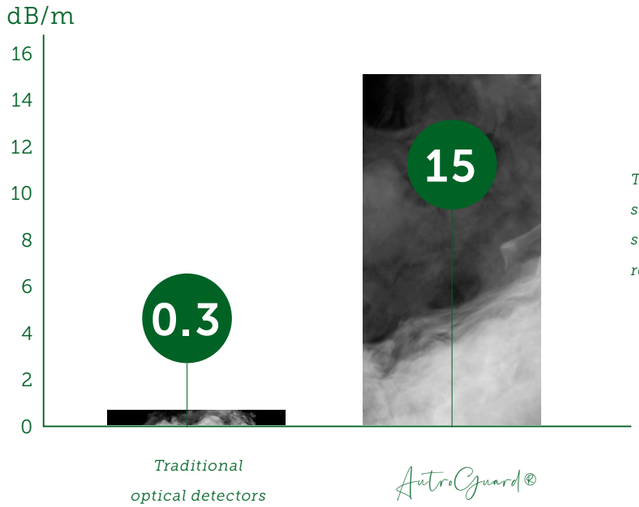
A significant number of fire department call-outs are caused by nuisance alarms. They cost society and companies vast amounts of money each year. An overload of nuisance alarms are also causing a reduction of responsiveness in the general public in the event of a real fire situation, when every second counts.

AutroGuard® eliminates all typical nuisance alarms. We have called the feature **DYFI[3D]** - state-of-the-art data processing technology - where up to 6 sensors analyse the unique signatures for each type of smoke source, enabling the protector to accurately distinguish between real fires and nuisance alarm sources, such as cooking fumes, steam or cigarette smoke.

The sensors have adjustable sensitivity settings, tailored for different environments. The more polluted environments, the lower sensitivity is set. And by adding the carbon monoxide sensor, we have even eliminated false alarms from artificial stage smoke.

Traditional smoke detectors only use one IR LED to detect smoke. AutroGuard® uses three different LEDs with different wavelengths and angles combined as standard, which together with the heat sensor and CO sensor, analyse the signatures for each smoke source in a 3D space, distinguishing between real smoke and false alarm sources.

Server rooms represent an environment where high sensitivity settings on the protector are crucial. AutroGuard can detect almost invisible smoke with a sensitivity of 0.2% obsc/m when placed in Extra High Sensitivity mode.



The optical chamber in the AutroGuard® has extreme sensor dynamics, 50 times better than in traditional smoke detectors. This enables a faster and more reliable detection of smoke.

Rapid detection

alerts the fire departments quickly

In a fire situation, every second counts. In just ten minutes, even a slow fire can develop from a smouldering fire into a full-blown disaster, and it is of vital importance that both the people in the building and the fire department are alerted as soon as possible in order to save lives and property.

The AutroGuard® detects smouldering fires 1 minute faster than previous sensor technology. This means that the call-out time to the fire department is reduced to a minimum, and the people present in the hazardous area have more time to evacuate.

Cover Detection
prevents false security

If a detector is covered, it will not be able to sound the alarm in case of a real fire incident. Traditionally, such risks will only be uncovered by manual inspection, which in some cases happen only once a year. In our protector, we have eliminated this risk.

Cover Detection is a brand new feature, where the protector notifies you within minutes if it is being covered, blocking the air path into the chamber. In such cases, an obstruction warning will be raised immediately, both on the protector and on the panel.

This is beneficial in situations such as:

- after maintenance and renovations, if a dust cap is left on the protector by mistake.
- in ship cabins or hotel rooms, if guests try to cover the protector.
- in student or apartment buildings, if the protector is covered during parties or food preparation.

AutroGuard® detects most types of plastic (both transparent and non-transparent), some fabrics, all metals, and paint. You can choose between two sensitivity levels for Cover Detection, and you will be told exactly which protector is covered. Incidents are included in the SelfVerify report, see page 15.

Cover Detection can be turned off during maintenance.

Simplified maintenance
and increased life span

With SelfVerify, the AutroGuard® protector continually verifies its ability to detect smoke and to provide an alarm signal.

We introduced SelfVerify in our detectors in 1997, and with AutroGuard® we have taken it a step further. In addition to the daily system test, Selfverify 2.0 includes 100 % of the signal path, and 99 % of all components in the protector, and it is run internally every other second, giving an immediate warning if a discrepancy is detected. You avoid noisy manual sound checks and tests using artificial smoke, as the system takes care of this itself*.

Easy to plan the maintenance
Via our AutroMaster top system, you can monitor and administer your fire safety solution. It is easy to generate a SelfVerify report from the office, allowing you to prepare for the service job in advance. Also, the AutroGuard® protector can tell you how long it will last in the current environment, enabling you to plan your service intervals according to system needs.

With AutroGuard®, we have increased the life span and safety.
The proven-in-use DYFI filter, which compensates for pollution in the air that could affect the sensitivity, is also utilized in our new protector. This filter significantly increases the protector's service life, minimizing investments in device replacement.

Additionally, the new chamber design in AutroGuard® makes it 4 times more resilient to dust than previous detector technology. Under normal conditions, the AutroGuard® protector has an expected service life of more than 20 years.

**NOTE: Local regulations may require manual testing or inspection. In that case, with our system, it is sufficient to test one protector on each loop. Choose one that is easy to reach to save time.*

Quick and easy installation

AutroGuard® is designed with simple installation, commissioning and maintenance in mind:

- One-hand protector mounting
- Tool-free cable insert. Push terminals for wiring connection reduces the connection time by 50 %.
- Automatic addressing moved to base
- Short-circuit isolator in each base
- No-loop-break base as standard

Easy to mount the base
The base is designed to compensate for an uneven roof, and supports standard ceiling and wall installation boxes. An LED orientation description is located right there in the base to assist you when aligning the protectors.

Easy to change protectors
The short-circuit isolator is now mounted in the base, making it possible to raise a loop and check cabling, addressing and verifying the loop even before the protectors are mounted. The address module is also mounted in the base, so there is no need to reprogram the panel when you change the protector. This eliminates any error in addressing if you switch two protectors by mistake. In addition, the no-loop-break feature means the loop will stay closed even if protectors are removed from their base.

We have placed a QR code on the address tag, so you can scan and link the physical location and protector during commissioning.
The base is designed to match the mounting holes in our previous interactive detectors, and it is possible to use protectors and detectors on the same loop

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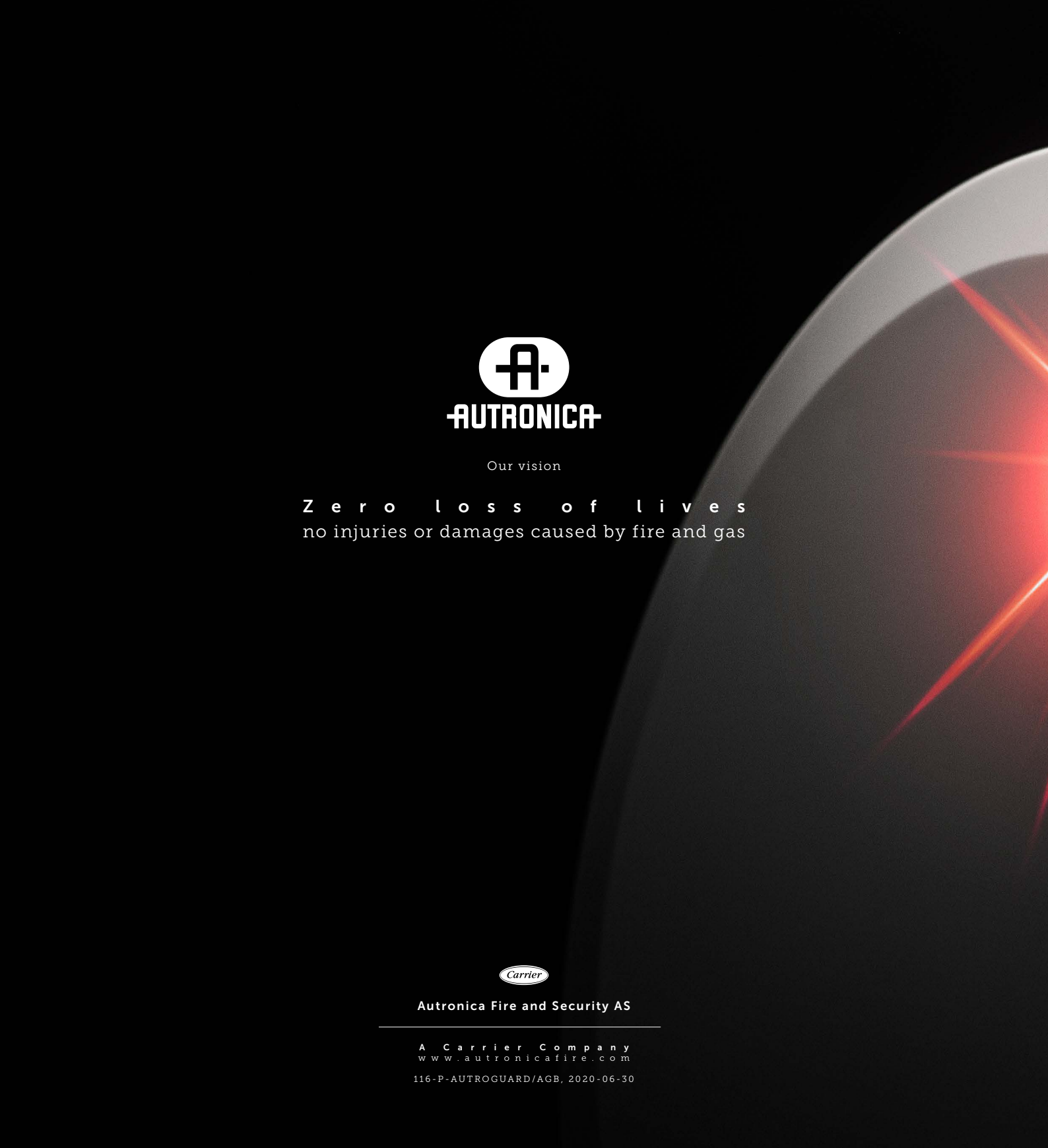
LAND MARINE POG

PROTECTOR MODEL	V-430	V-430-S-VADW V-430-S-VADR	V-430-VADW V-430-VADR	V-430-SP	V-430-SP-VADW V-430-SP-VADR	V-430-S-CO	V-530	V-530-EXIA	V-530-EXIC	V-530-S-VADW	V-530-SP-VADW	V-530-S-CO
SEGMENTS												
DEFAULT FEATURES												
Multisensor with DYFI^{3D} MultiWavelength & MultiAngle chamber design	√	√	√	√	√	√	√	√	√	√	√	√
SELECTABLE FEATURES												
SelfVerify	√	√	√	√	√	√	√	√	√	√	√	√
Cover Detection	√	√	√	√	√	√	√	√	√	√	√	√
Voice alarm				√	√						√	
Sounder		√		√	√	√				√	√	√
Beacon R = Red, W = White		√	√		√					√	√	
CO detection						√						√
CERTIFICATIONS												
EN 54-5/7/17/29	√	√	√	√	√	√	√	√	√	√	√	√
Marine approvals: MED-B, USCG, IACS	/M variant	/M variant	/M variant	/M variant	/M variant	/M variant	√	√	√	√	√	√
Class approvals: ABS, BV, CCS, DNV-GL, KR, LR, NK, RINA, RMRS, RRR	/M variant	/M variant	/M variant	/M variant	/M variant	/M variant	√	√	√	√	√	√
IEC61608 SIL2							√	√	√	√	√	√
Ex certifications ATEX/IECEX/CSA/INMETRO								√	√			



Our vision

Zero loss of lives
no injuries or damages caused by fire and gas

Carrier

Autronica Fire and Security AS

A Carrier Company
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