PRODUCT DATASHEET

AutroGuard® **V-430** multicriteria protector series

Features

- MultiAngle/MultiWavelength optical smoke sensing technology
- Rate of Rise Heat sensing technology
- 3 certified smoke sensitivity classes
- 6 certified Heat Response Categories
- Integrated sounder (optional)
- Integrated visual alarm device (VAD) (optional)
- Occupies only one address even with visual alarm device and sounder
- 360° visible dual color LED indicator (red/yellow)
- Ultra-low current consumption
- Automatic addressing in the base
- Patented rotatable bayonet ring for easy and reliable mounting
- Integrated short circuit isolator in the base
- Integrated tag holder on the base

Application/Description

AutroGuard® V-430 multicriteria protector provides a new generation technology that simplifies installation and commissioning, and increases fire safety.

Extreme sensor dynamics provide reliable detection that has greatly reduced detection time and nuisance alarms, and expanded the use to cover even more application areas. The type of operation is configurable to Heat, Optical or Multisensor, covering several applications.

It has a wide range of fire safety features included in one single device, providing significant reduction of wiring and installation costs - and a cleaner look.

The self-sensing technology ensures that the protector is as reliable as when it left the factory for its entire life cycle.

DYFI^{3D} technology

AutroGuard® utilizes *DYFI^{3D}* technology; MultiAngle/MultiWavelength detection with advanced algorithms analyze the unique signatures for each type of fire and nuisance source in a 3D space, enabling the protector to accurately distinguish between real fires and nuisance alarm sources.

SelfVerify®

The SelfVerify® system function provides a calibrated and automatic self-test every 24 hours. It tests the signal path to the system panel, alarm devices and output units. In this way, the self-test ensures that the protector is able to initiate an alarm when it should, and at the correct sensitivity level according to EN 54 part 5 and 7 throughout its lifetime.

Additionally, an advanced Pulse Response Signal analysis is run every other second, verifying 100 % of the components in the signal chain and 99% of the components in the protector.

Cover Detection

As an add-on feature, AutroGuard® V-430 provides Cover Detection. We use ultraviolet light to detect if the protector is covered by a dust cap or any other object, and a fault message will appear. The feature can be turned off during maintenance.

Integrated sounder

AutroGuard® can be delivered with an integrated EN 54-3 approved sounder (optional). Sound patterns and sound levels are configurable, with a maximum sound output of 93 dBA at 1 m range.

Integrated Visual Alarm Device (VAD)

AutroGuard® can be delivered with an EN 54-23 compliant integrated Visual Alarm Device (VAD) (optional). It is available in white or red color, and is configurable to 4 different intensities. The flash rate is also configurable (1 or 2 sec.)

Operation classes

AutroGuard® can be set to three different *Operation Classes*, allowing you to choose the protector's detection method and calculation.

Operation class	Description
Multi	Optical and heat detection (see Heat Response Categories (EN 54-5)
Heat only	Thermal detection only (see Heat Response Categories EN 54-5)
Smoke only	Optical detection only

Sensitivity classes

AutroGuard® can be programmed to three different sensitivity classes.

Sensitivity class	Application
High	Clean environments, for example laboratories, data rooms etc.
Medium	Normal environments, for example offices and hospitals etc.
Low	Industrial environments, for example, factories and warehouses etc.

Heat response categories

AutroGuard® can be set to six different heat response categories (EN 54-5).

Category	Typical application temperature °C	Maximum application temperature °C	Minimum static response temperature °C	Maximum static response temperature °C
A1	25	50	54	65
A1S	25	50	54	65
A1R	25	50	54	65
A2S	25	50	54	70
B	40	65	69	85
C*	55	80	84	100

*Applies to heat only

Technical specifications

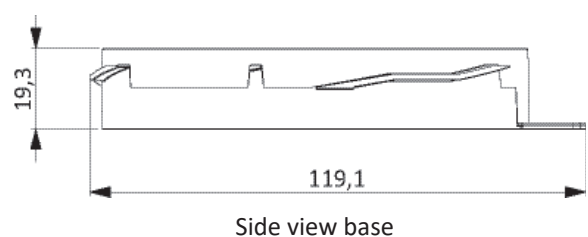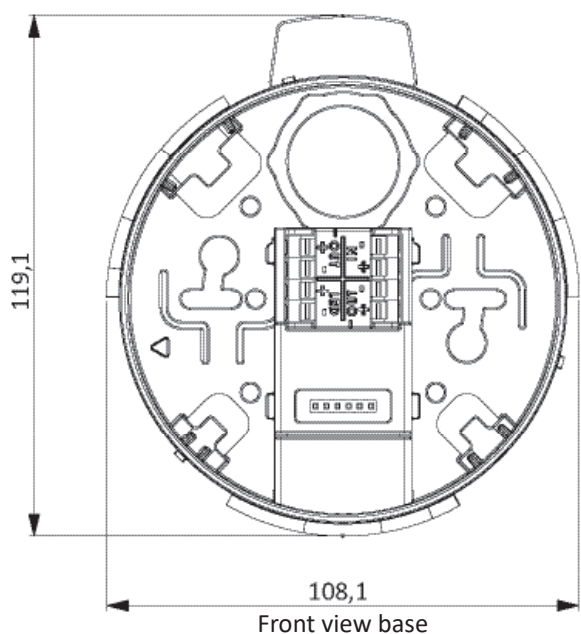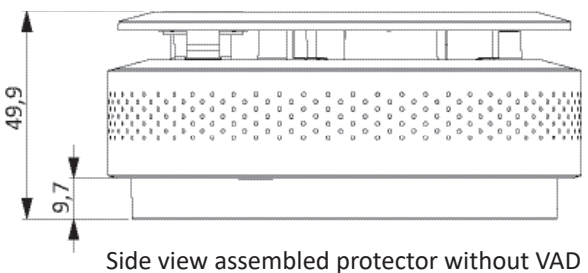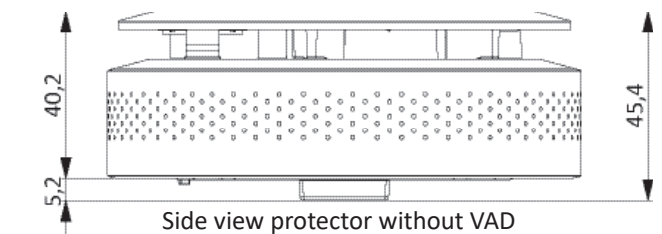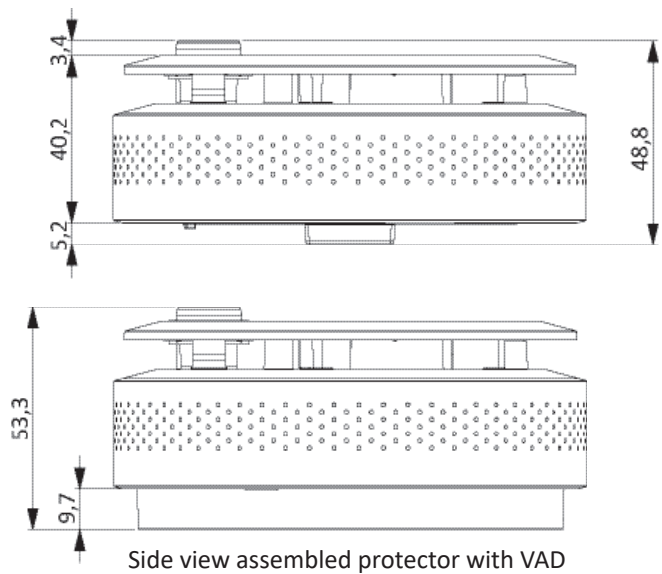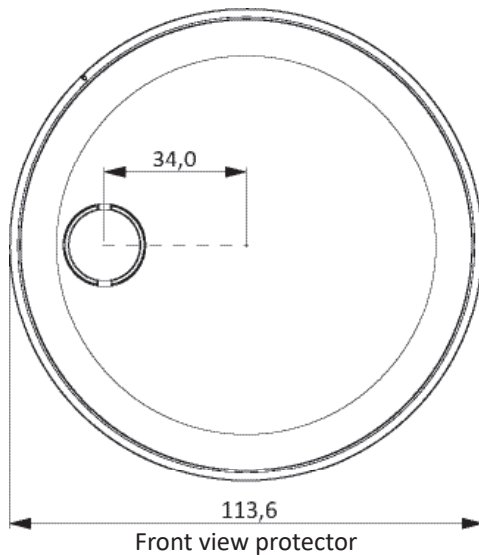|	
Dimensions	See next page for details
Weight	127 g (172 g including base)
Housing material	PC ABS, flammability classification UL94 V-0
Colour	White: RAL9010 Black: RAL9005 Customized colours available on request.
Ingress protection	IP44D (IP55 when used with conduit box)
Current consumption base - Average	60 µA
Current consumption protector - Average	60 µA
Current consumption – Normal (base + protector)	120 µA
Current consumption - alarm indicator (Red LED indicator ON)	2.1 mA
Current consumption - fault indicator (Yellow LED indicator ON)	2.8 mA
Protector base	V-100 standard base
System compatibility	AutroSafe system version 4.11 and higher. System version 4.11.2 or later is required for V-430 variants with integrated alarm devices. Autroprime loop panel version 1.6 and higher
Operating temperature	-30 to +70 °C (+80 °C when configured to heat detection only)
Storage temperature	Maximum 85 °C
Operating humidity	10 % - 95 % RH (non-condensing)
Cable requirements	Minimum 0.14 mm² / AWG26 Maximum 2.5 mm² / AWG14
Country of origin	Norway
EN 54 approved	Heat	EN 54-5:2017
	Optical smoke	EN 54-7:2018
	Multisensor	EN 54-29:2015
	Short circuit isolator (Base)	EN 54-17:2005
Maritime approval (M variants)	MED B
For details on certifications, see Autronica's product web.	

Technical specifications, integrated visual alarm device (VAD)

VAD colour	VAD intensity	Current consumption VAD (LED indicator not incl)	Current consumption alarm indicator	Description
White	High Intensity: **C-3-12**	20 mA	2.1 mA	At a given mounting height, the *Coverage Volume* of a VAD is defined by the diameter of the coverage, given in meters. *Example:* C-3-12 corresponds to a ceiling-mounted device giving a coverage cylindrical volume of 12 m at 3 m height. For a white VAD, high intensity is to be configured.
	Medium Intensity: **C-3-9**	12.7 mA	2.1 mA	
	Low Intensity: **C-3-6**	9.5 mA	2.1 mA	
	Open Class **O-2,5-4** (specified at 2.5 m height)	3.8 mA	2.1 mA	
Red	High Intensity: **C-3-8**	18.7 mA	2.1 mA	
	Low Intensity: **C-3-5**	11.8 mA	2.1 mA	
	Open Class **O-2,5-4** (specified at 2.5 m height)	7.5 mA	2.1 mA	

Technical specifications, integrated sounder (FAD)

Sound pressure (dB @ 1m)	High volume - maximum: 93 dBA @ 1 m range
Current consumption, sounder	High volume: 5.8 mA
	Low volume: 2.2 mA
Sound patterns	16 standard tone types/frequencies and corresponding ringing patterns are available. In addition, ringing patterns for the standard tone types/frequencies can be configured to meet other user requirements.

Dimensions and outlines (in mm)

Front view protector

Side view assembled protector with VAD

Side view protector without VAD

Side view assembled protector without VAD

Front view base

Side view base

Ordering information

Use the following matrix in order to find the correct part number. The *example* below shows the type key for a marine certified V-430 including Cover Detection & SelfVerify, integrated sounder and integrated white VAD.

Model	Description				
V-430	AutroGuard® Multicriteria protector				
	Type	**Extra feature/alarm method**			
	Blank	No extra feature			
	S	Sounder (requires AutroSafe system version 4.11.2 or later)			
	VADW	White VAD (requires AutroSafe system version 4.11.2 or later)			
	VADR	Red VAD (requires AutroSafe system version 4.11.2 or later)			
	S-VADW	Sounder and white VAD (requires AutroSafe system version 4.11.2 or later)			
	S-VADR	Sounder and red VAD (requires AutroSafe system version 4.11.2 or later)			
		Type	**Color**		
		Blank	White RAL9010		
		BK	Black RAL9005 (not available with Cover Detection)		
		CC	Custom (not available with Cover Detection)		
			Type	**Extra features**	
			Blank	No extra features	
			CD	Cover Detection & SelfVerify® 2.0	
				Type	**Additional certification to EN 54**
				Blank	No additional certification
				M	MED (Marine certification)

V-430	—	S-VADW	—		/	CD	/	M

Example
Part number; 116-V-430-S-VADW/CD/M

Accessories

Part number	Description
116-WAS-2000	AS2000 loop diagnostic tool
116-BWP-143A/AG	Air duct sampling unit
116-BWP-143A-SS/AG	Air duct sampling unit in stainless steel
116-BWP-100/20/AG	Conduit box 20 mm
116-BWP-100/25/AG	Conduit box 25 mm
116-WBJ-220	AutroGuard removal tool
116-WBJ-5/07	Test gas
116-WBJ-10	Testifire smoke and heat sensor test tool