

PRODUCTS 2019

Fire and gas safety by Autronica Fire and Security

Division Marine



AUTRONICA
United Technologies

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AutroSafe fire detection system

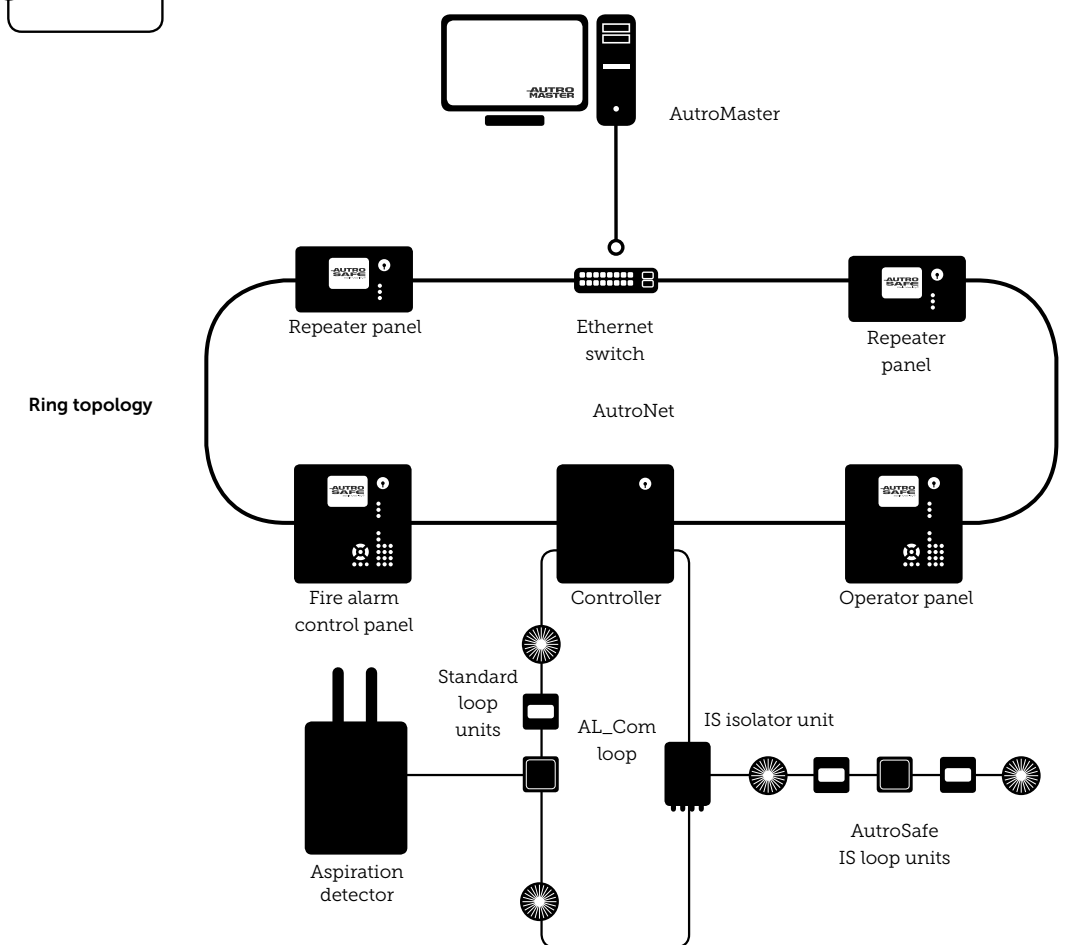
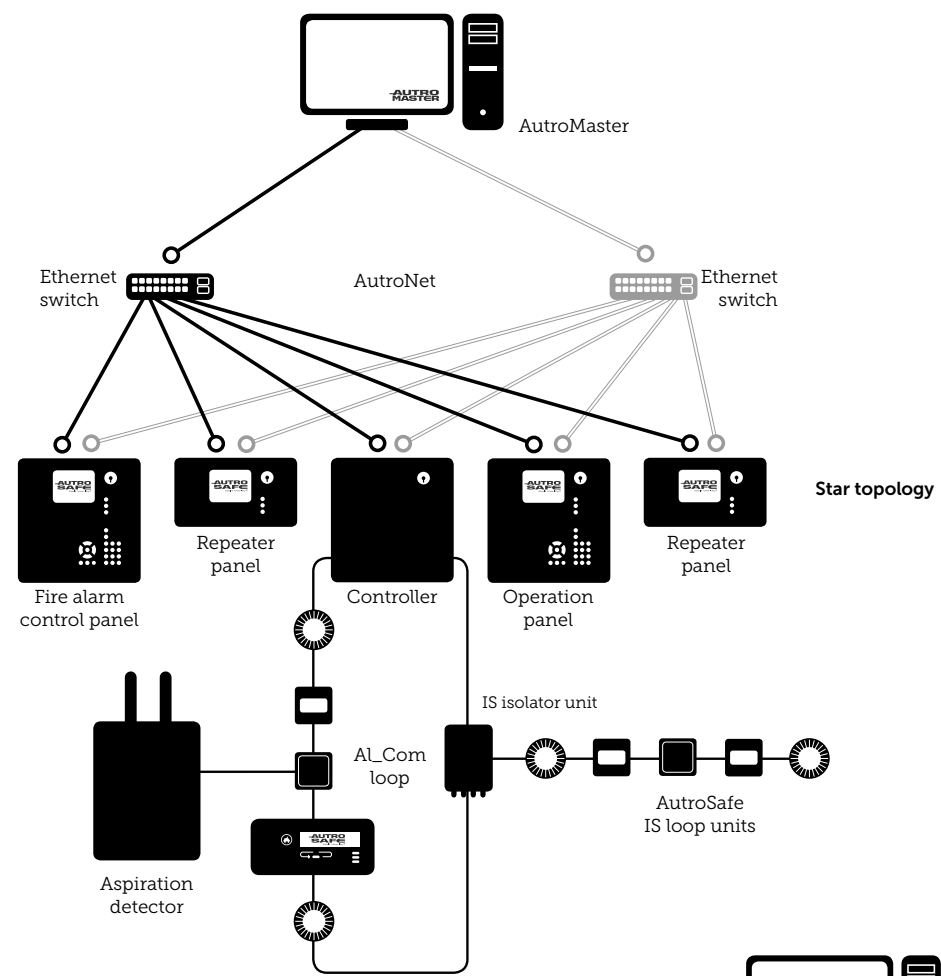
- for large and complex vessels

AutroSafe is our high-end fire detection system for large and complex vessels. Since the launch in 1999, it has proven its unique stability and reliability in more than 15 000 installations worldwide, from hotels to cruise ships to drilling platforms.

AutroSafe 4 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 market, and is certified according to Marine Equipment Directive (MED), European

directives (CPD) requiring EN 54 compliance, and Factory Mutual (FM) approval according to NFPA 72.

Reliable communication is paramount to your safety. That's why we're adding AutroNet to the AutroSafe system, an innovative network solution safeguarding communication between panels. AutroNet ensures a redundant and high-speed network expanding the reach of the AutroSafe system even further. The system can be set up either in a star or ring network, depending on your needs.



Panels

The AutroSafe 4 family consists of five different panel types. These are:

- Fire alarm control panel, BS-420.** BS-420 is the main panel in the AutroSafe family. It can be used as a stand-alone panel as well as part of a network system. All operations, alarm management, indications and other functions within an operation zone are controlled and handled by the panel. The panel is equipped with a display, light indicators, a numeric keypad, a navigation wheel and special function buttons (e.g. Silence Alarms). Loop driver, input and output modules can be connected. An integrated AutroFieldBus interface makes it possible to connect AutroFieldBus equipment to the panel. All AutroSafe systems must include at least one BS-420 panel.
- Operator panel, BS-430.** As for the BS-420 panel, all operations, alarm management, indications and other functions within an operation zone are controlled and handled by the BS-430 panel. The panel is equipped with a display, light indicators, a numeric keypad, a navigation wheel and special function buttons (eg. Silence Alarms). No loop driver, input or output modules can be connected to this panel.
- Controller, BC-420.** The BC-420 serves as a connection unit for loop driver modules as well as input and output modules. It is equipped with two light indicators for System Fault and Power. The panel has neither display nor operator buttons. An integrated AutroFieldBus interface makes it possible to connect AutroFieldBus equipment to the panel.
- Controller rack unit, BC-440.** Serves as a connection unit for the detection loop, alarm sounders, controls and inputs. It is a variant of the BC-420 prepared for rack installations. Together with the I/O modules the unit will have the full functionality of the BC-420. Equipped with 2 Ethernet ports, one AutroFieldBus port and one serial port.
- Repeater panel, BU-BV-420.** Physical dip-switches on the panel control the BU-BV-420 panel function. As an alarm operation panel it can operate alarms within one or more operation zones. As an information panel no operation of alarms are available. The information panel provides information from one or more operation zones.
- Power Cabinet BP-405.** Includes a 5A power pack (BPS-405) which provides six 24 VDC / 2 A outputs. The input voltage is 115/230 VAC and the total maximum power available is 24 VDC / 5 A. An integrated AutroFieldBus interface makes it possible for the power pack to communicate (send fault messages) with the BS-420 or BC-420 panel. Space for two 12 V / 18 Ah batteries (not included)



Panel kits

For engineering purposes, we have established kits to be equipped according to specifications.



An AL_Com+ stack can contain up to six loop driver modules (BSD-3xx). By using AutroFieldBus, an additional AL_Com+ stack (with up to six additional loop driver modules) can be added to the system.

NOTE! The AutroSafe panels are certified with the AL_Com+ modules mounted inside the panel cabinet.

Image	Part number	Description	Including	Options
	116-KIT-BS-420M	Maritime fire alarm control panel kit	Panel front BSV-420M Cabinet UEA-400 Power supply module BSS-310A Communication module BSL-310 Text foils E-2879	Loop driver module BSD-310 Loop driver module H.P. BSD-311 BS-100 loop driver module BSD-330 Output module BSB-310A Output module BSJ-310 Input module BSE-310 Input module BSE-320 Dual power monitoring module BSS-311
	116-KIT-BC-420	Controller kit	Panel front BCV-420 Cabinet UEA-400 Power supply module BSS-310A Communication module BSL-310 Text foils E-2880	Loop driver module BSD-310 Loop driver module H.P. BSD-311 BS-100 loop driver module BSD-330 Output module BSB-310A Output module BSJ-310 Input module BSE-310 Input module BSE-320
	116-BC-440	Controller rack unit	–	–
	116-KIT-BS-430	Operator panel kit	Panel front BSV-420 Cabinet UE-1488 Text foils E-2879	–
	116-KIT-BU-BV-420	Repeater panel kit	Panel front BUV-420 Cabinet UE-1489 Text foils E-2880	–
	116-BP-405	Power cabinet	–	–

Loop panels

We have now included loop-powered panels in our portfolio, providing our customers a number of advantages: Quicker installation, reduced cabling and cost, and lowered system complexity. A detection loop can accommodate up to eight loop panels.

Image	Part number	Description	Dimensions H x W x D (mm)	Current consumption	Notes
	116-KIT-BU-110	Fire brigade loop panel kit	154 x 310 x 45	<1 mA (idle) 6 mA (max)	Enables silencing the panel's internal buzzer, silencing alarms, and resetting the system. Alarms only are shown in the display.
	116-KIT-BV-110	Information loop panel kit	154 x 310 x 45	<1 mA (idle) 6 mA (max)	Indication device only. Provides information related to the defined operation zone(s).

Printer

Image	Part number	Description
	116-BUP-400	Printer unit for AutroSafe 4, including 1 roll of printer paper.
—	116-1712-012.0001	Printer paper 57 x 46 x 13 mm / 25 m

Modules

In addition to loop driver modules BSD-310, BSD-310N and BSD-311, as well as the obligatory power supply module BSS-310A and communication module BSL-310, AutroSafe features input and output modules for different applications (monitored alarm loops, servicing relays and LEDs, control inputs, etc.).

The modules have the same format, mount onto the panels' DIN mounting rail and plug into one another.

Important note on module capacity.
Each fire alarm control panel/controller contains a power supply module BSS-310A and a communication module BSL-310.
The BS-420 and BC-420 panels have space for up to 12 modules totally inside the cabinet.
An AL_Com+ stack can contain up to six loop driver modules (BSD-3xx)
By using AutoFieldBus, an additional AL_Com+ stack (with up to six additional loop driver modules) can be added to the system.

NOTE! The AutroSafe panels are certified with the AL_Com+ modules mounted inside the panel cabinet.



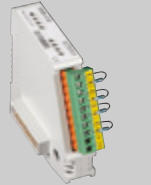











Image	Part number	Description	Monitored inputs	Monitored outputs	Total inputs	Total outputs	Monitors short circuits	Ensures loop communication	For use in EX zone 2 only	Amplified power output	Max. per panel	Notes
	116-BSB-310A	Output module		•	0	4	•					Requires external 24V
	116-BSD-310	Loop driver module			–	–	•	•			6/12	Max. 127 loop units
	116-BSD-310/N	Loop driver module			–	–	•	•	•		6/12	Max. 127 loop units
	116-BSD-311	Loop driver module H.P.			–	–	•	•		•	6/12	

Image	Part number	Description	Monitored inputs	Monitored outputs	Total inputs	Total outputs	Monitors short circuits	Ensures loop communication	For use in EX zone 2 only	Amplified power output	Max. per panel	Notes
	116-BSD-330	BS-100 loop driver			–	–	•	•			8	
	116-BSE-310	Input module	•		4	0						
	116-BSE-320	Input module			8	0						Galvanically insulated inputs
	116-BSJ-310	Output module			0	8						Open transistor outputs
	116-BSS-310A	Power supply module									3	
	116-BSS-311	Dual power monitoring module									2	

Communication

Image	Part number	Description
	116-BSD-321/1	AutroFieldBus protocol converter Interface between AutroFieldBus and AL_Com+. Enables communication between all AL_Com+ modules in an AL_Com+ stack connected to AutroFieldBus. The module enables AutroSafe Dual Safety configuration, with both ordinary AL_Com communication and AutroFieldBus.
	116-BSL-310	AutroSafe communication module, serves as an interface for the common internal communication line between all the different I/O modules. Part of the fire alarm control panel.
	116-BSL-321	Multi-mode fibre optic converter Amplifier for AUTROLON/AutroFieldBus networks, which acts as a fibre-optic modem. The converter ensures reliable communication for distances of up to 3000 m. Uses multi-mode (62.5/125 µm or 50/125 µm) fibre-optic cable. Ingress Protection level: IP20
	116-BSL-322	Single mode fibre optic converter Amplifier for AUTROLON/AutroFieldBus networks, which acts as a fibre-optic modem. The converter ensures reliable communication for distances of up to 15000 m. Uses single-mode (9/125 µm) fibre-optic cable. Ingress Protection level: IP20
	116-BSL-325	AUTROLON/AutroFieldBus communication amplifier Amplifier for communication signals on networks. The amplifier ensures reliable communication in systems where there is great distance between the system panels, and in applications where there are many panels. The amplifier increases maximum cable length from 1000 m to 2800 m. Ingress Protection level: IP20
	116-BSL-337	AutroSafe BU-70 interface module Enables the connection of BU-70/BU-100/BU-101 to AutroSafe. This is a simple, cost effective way to upgrade BS-100 systems to AutroSafe. The RS232/20 mA current loop converter BSL-12/2 must be used to convert RS232 to 20 mA current loop communication. Ingress Protection level: IP20

Service tools

Image	Part number	Description
	116-WAS-2000	AS2000, loop diagnostic tool in casing, including PC cable
	116-XJA-027	Connection cable for AS2000; for connection between computer and fire alarm panel
	116-XGE-1/10-110	Ribbon cable for connection of BSF-310/BSA-400 to BSL-310. 110 cm. Order only.
	116-XGE-1/10-200	Ribbon cable for connection of BSF-310/BSA-400 to BSL-310. 200 cm.
	116-XL-073	Conversion cable from AutoSafe 3 to AutoSafe 4

Customer configuration

Part number	Description
116-PROG-AUTROSAFE	Customer specific software for AutoSafe
116-TXT-AUTROSAFE	Customer text/controls

OPC server

With the AutoSafe OPC server several fire detection systems and other control systems can communicate. The solution improves the compatibility between the AutoSafe and surveillance systems from other manufacturers.

Part number	Description
116-AS-OPC-SERVER/CD1	AutoSafe OPC server CD V1.2 incl. access code for access level 1. Includes read access to all status information for detectors, output and alarm devices. This level of license will also make it possible to send (write) Silence, Reset and SetTime commands to the AutoSafe system. Within this level you can also Disable/Enable detectors.
116-AS-OPC-SERVER/CD2	AutoSafe OPC server CD V1.2 incl. access code for access level 2. Includes all functionality in level 1, plus the possibility to Activate/Deactivate and Enable/Disable outputs and alarm devices via OPC write commands.
116-AS-OPC-SERVER/CD3	AutoSafe OPC server CD V1.2 incl. access code for access level 3. Includes all functionality in level 1 and 2. This level also provides additional information for points, for example AMEAS, Temp, Smoke, Alarm limits and Engineering values.





AutroSafe maritime gas detection system

- a new era in maritime gas detection

Autronica is a long-standing player in the maritime market; our reputation as a developer and supplier of reliable systems designed to withstand the rigours of the maritime environment is forged from our dedication to developing the best solutions for this market.


Our task was demanding, yet simple: Take the best fire and gas (F&G) safety system around and make it the best Gas system ever. The AutroSafe 4 Maritime Gas system is developed using the same proven-in-use design and technology as the AutroSafe 4 Integrated Fire & Gas system. All existing functionality has stood up to the toughest tests worldwide for more than 10 years. AutroSafe 4 Maritime Gas supports a wide range of third-party gas detection devices, allowing flexibility and accuracy.

Addressability ensures that correct information is routed to where it is needed, indicating which detection unit has given the alarm. Built-in


fault monitoring ensures that if a detection unit fails, it is automatically identified and can be replaced with a minimum of effort.

BS-420MG is a maritime gas alarm control panel with full operation capabilities. All gas alarm handling and system features can be controlled and monitored from the panel. Note that the panel cannot be used for detection of fires. The panel communicates with other system units on the Ethernet-based local area network, AutroNet. The maximum number of system units supported by AutroNet depends on the type of system. In a standard system the maximum number is 64. The panel can accommodate up to a maximum of 12 I/O modules. All modules are easily plugged onto each other on a standard mounting rail inside the unit.




Panel

Image	Part number	Description	Including	Options
	116-KIT-BS-420MG	Maritime gas alarm control panel kit	Panel front BSV-420M Cabinet UEA-400 Power supply module BSS-310A Communication module BSL-310 Text foils E-2879	Output module BSB-310A Output module BSJ-310 Input module BSE-310 Dual power monitoring module BSS-311



Maritime gas detectors

Image	Part number	Description	Stainless steel housing	With hydrophobic filter/ weather baffle	Addressable for maritime gas panel	4-20 mA	Cable entries	Notes
	116-010195-056	AutroPoint Maritime Gas detector	•	•	•		2xM25	
	116-010195-057	AutroPoint Maritime Gas detector	•		•		2xM25	
	116-010195-058	AutroPoint Maritime Gas detector	•	•		•	2xM25	
	116-010195-059	AutroPoint Maritime Gas detector	•			•	2xM25	

4-20 mA interface modules

Image	Part number	Description
	116-BN-342/1	PowerLoop 4-20 mA input unit, rack mounted A general-purpose PowerLoop interface designed for third-party detectors connected to the AutoSafe IFG system. The unit has a 4-20 mA input galvanically isolated from the PowerLoop. 19" 3U rack version, bare PCB with 19" rack front panel, no DC/DC. Ingress Protection level: IP20
	116-BN-342/2	PowerLoop 4-20 mA input unit, DIN rail mounted A general-purpose PowerLoop interface designed for third party detectors connected to the AutoSafe IFG system. The unit has a 4-20 mA input galvanically isolated from the PowerLoop. DIN rail version, bare PCB in an open DIN rail box, no DC/DC. Ingress Protection level: IP20
	116-BN-342/EX	PowerLoop 4-20 mA input unit, field mounted A general-purpose PowerLoop interface designed for third party detectors connected to the AutoSafe IFG system. The unit has a 24 VDC/400 mA supply output providing power to the connected detectors, plus a 4-20 mA input galvanically isolated from the PowerLoop. EEX me version including 9,5 W 24 VDC/DC for external detector power supply. Cable entry, PowerLoop: 2 x M25. Cable entry, 4-20 mA input: 1 x M25 Ingress Protection level: IP66

Accessories

Image	Part number	Description
-	116-007355-001	Duct mount assembly for AutoPoint Maritime Gas detectors. One duct air inlet tube and one return tube. Pipe length to be specified: 1ft/305mm (116-000214-281), 3ft/915mm (116-000214-282), 6ft/1830mm (116-000214-283) or 10ft/3050mm (116-000214-284)
	116-007525-003	Direct duct mount kit for AutoPoint Maritime Gas detectors
	116-US-843	Rain and sun shield for AutoPoint Maritime Gas detectors



Autoprime

fire detection system

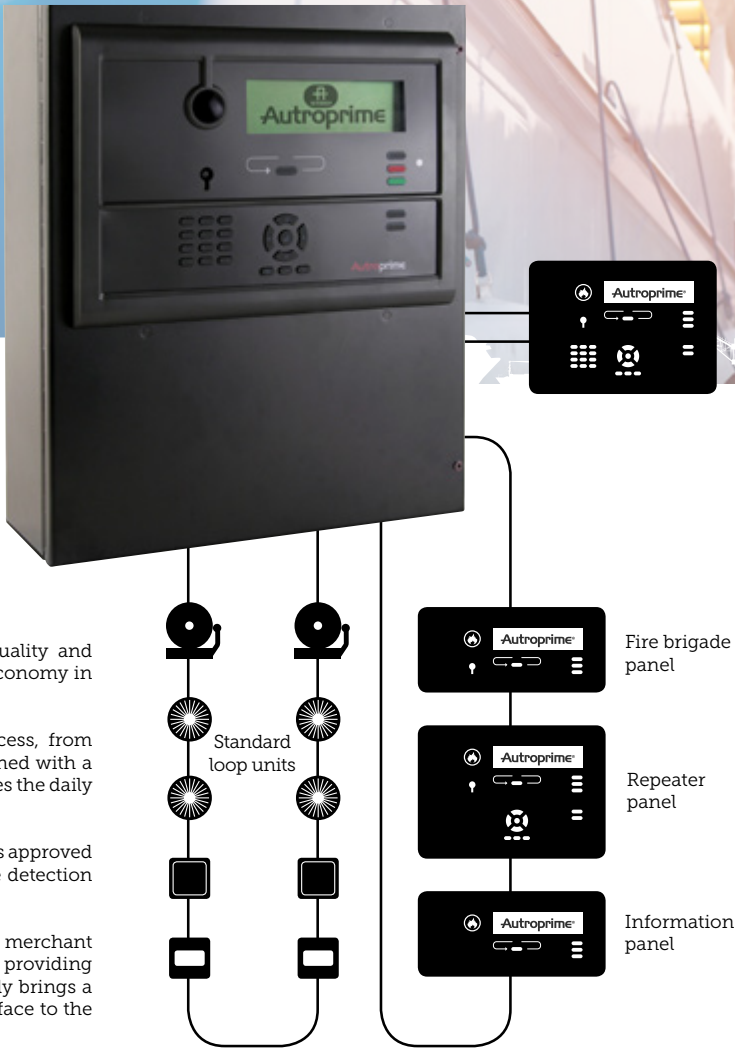
- fire detection system for smaller vessels

For small-to-medium sized vessels, Autoprime® brings simplicity, quality and extensive functionality in one integrated system, providing safety and economy in a complete package.

Simplicity is the key feature for this system. Through the entire process, from installation and commissioning, via use, to service, Autoprime is designed with a focus on simplicity. Through our SelfVerify technology, the system ensures the daily maintenance routines by itself.

daycare centres, museums, small hotels, office buildings, etc. The system is approved according to international standards, providing the efficient and reliable detection our customers have come to expect.

Autoprime® is the ideal choice for protecting life and property in the merchant ships' market. It's an easy, reliable and flexible fire detection system, providing high-tech at a low-cost alternative. The system with its four loops, finally brings a truly integrated concept to fire safety with its possibility to provide interface to the FlexiFOG® water mist system, or to a third party system.



Panels

The Autoprime system allows for a combination of maximum 8 panels and mimic drivers on a redundant panel bus. Ingress Protection level all panels: IP32.


Image	Part number	Description	Dimensions L x W x D (mm)	Notes
	116-71211548	Fire alarm control panel BS-200M	420 x 346 x 140	Full fire detection system with 4 loop drivers each controlling 127 devices. The operator panel may be mounted remotely with redundant connections both for signal and power. With space for batteries.
	116-71211549	Fire alarm control panel BS-200M	420 x 346 x 140	Full fire detection system with 4 loop drivers each controlling 127 devices. The operator panel may be mounted remotely with redundant connections both for signal and power. An extra termination block is included for simplified panel bus and RS232/-244/-485 connection. With 230 VAC main and emergency power inputs.
	116-71211550	Fire alarm control panel BS-200M	420 x 346 x 140	Full fire detection system with 4 loop drivers each controlling 127 devices. The operator panel may be mounted remotely with redundant connections both for signal and power. An extra termination block is included for simplified panel bus and RS232/-244/-485 connection. With 110 VAC main and emergency power inputs.
	116-BS-211	Repeater panel	220 x 310 x 45	Helps users manage alarms and other events. Panel bus included
	116-BU-210	Fire brigade panel	145 x 310 x 45	Showing alarms only. The user may mute the internal buzzer, silence sounders/bells and reset the system. Panel bus included.
	116-BV-210	Information panel	145 x 310 x 45	Provides all information, but does not allow handling of events. Panel bus included.
	116-BC-250	Controller unit	441 x 217 x 63	In combination with Operator Panel BS-210 (an integrated part of Fire Alarm Control Panel BS-200M) it can serve as a stand-alone panel. All alarm handling and system features are configured, controlled and monitored from the BS-210.
	116-71211551	Mimic driver BUR-200M	181 x 125 x 40	For additional indication of alarms. Panel bus included. With termination blocks. 8 in/16 out

Panel kits



Prefabricated products for console and cabinet mounting. The units are delivered with a standardized configuration for maritime installations.

Part number	Description	Dimensions L x W x D (mm)
116-AP-MAR-CAB	Autoprime in cabinet, without Mimic driver	600 x 760 x 350
116-AP-MAR-CAB-BUR	Autoprime in cabinet, with Mimic driver	600 x 760 x 350
116-AP-MAR-PLATE	Autoprime on mounting plate, without Mimic driver	310 x 154 x 45
116-AP-MAR-PLATE-BUR	Autoprime on mounting plate, with Mimic driver	549 x 730 x 127,5
116-KIT-BS-250	Autoprime controller unit BC-250 with operator panel	420 x 346 x 140

Printer

Image	Part number	Description
	116-BUP-200	Printer unit for Autoprime
–	116-1712-012.0001	Printer paper 57 x 46 x 13 mm / 25 m

Modules

Image	Part number	Description
	116-BSD-200A/PACK	Autoprime loop extension pack, 2 loops
	116-BSA-200A	Autoprime main circuit board

Service and configuration tool

Part number	Description
116-AUTROCLIENT	AutroClient, latest version

Fire detection system accessories

In order to project our fire detection system to any application, we provide a wide range of accessories such as cabinets, racks, mounting equipment, batteries etc.

Power supply units

Part number	Description	Output voltage
116-BPS-405/BOXED	Power supply unit for AutroSafe 4	24 VDC / 5 A
116-BPS-410/BOXED	Power supply unit for AutroSafe 4	24 VDC / 10 A
116-BPS-410/115/BOXED	Power supply unit for AutroSafe 4, 115 VAC	24 VDC / 10 A,
116-4550-004.0001	Power supply for Autoprime SC-150 27ME	24 VDC / 5 A, 110/230 VAC
116-4550-012.2410	Power supply with fault output for all systems	24 VDC / 10 A, 110/230 VAC
116-4660-055.0001	DC/DC converter	24 VDC / 6,3 A
116-8147-015.5120	Transformer	110-130 VAC / 220 VAC, 200 VA
116-8147-038.5130	Transformer	110-130 VAC / 220 VAC, 300 VA

Batteries

Autronica Fire and Security AS offers accumulator batteries for every Autronica fire detection system. Generally, 24 VDC backup is used, requiring two batteries per panel. All batteries are sealed and can be placed in cabinets.

Part number	Voltage	Weight	Dimensions L x W x H (mm)
116-4160-005.	12 V / 2.3 Ah	0,89 kg	179 x 35 x 61,5
116-4160-005.0003	12 V / 3.2 Ah	1,25 kg	134 x 67 x 61
116-4160-005.0005	12 V / 5 Ah	1,59 kg	89 x 69,5 x 101
116-4160-001.	12 V / 7 Ah	2,14 kg	151 x 65 x 95
116-4160-005.0001	12 V / 12 Ah	4,0 kg	151 x 98 x 99
116-4160-002.	12 V / 18 Ah	5,9 kg	181 x 76 x 167
116-4160-003.	12 V / 27 Ah	8,7 kg	166 x 175 x 125
116-4160-004.	12 V / 42 Ah	13,8 kg	196 x 163 x 174
116-4160-006.	12 V / 65 Ah	20,1 kg	327 x 173 x 167
116-4160-006.0001	12 V / 120 Ah	34,5 kg	407 x 173 x 209
116-4160-006.0003	12 V / 100 Ah	30,5 kg	327 x 172 x 216
116-4160-006.0004	12 V /200 Ah	59,7 kg	522 x 240 x 219





Switches

A network solution (AutroNet) with more than two panels demands the use of switches. Only Phoenix Ethernet switches are approved and supported by Autronica Fire and Security AS. The type and number of switches depends on the installation/network construction (no. of panels and distance between panels and switches)

Image	Part number	Description*	Current consumption (max.) @ 24 VDC	RJ45 ports	Fibre optic ports**	Operating temperature
	116-5151-030.2127	FL switch SFNT 5TX	120 mA	5	–	-40 - 75°C
	116-5151-030.2128	FL switch SFNT 4TX/FX	160 mA	4	1 MM (SC)	-40 - 75°C
	116-5151-030.2129	FL switch SFNT 8TX	153 mA	8	–	-40 - 75°C
	116-5151-030.2130	FL switch SFNT 7TX/FX	175 mA	7	1 MM (SC)	-40 - 70°C
	116-5151-030.2131	FL switch LM 5TX	150 mA	5	–	-40 - 70°C
	116-5151-030.2132	FL switch LM 4TX/FX	380 mA	4	1 MM (SC)	-40 - 70°C

* SFNT = Standard Function, Narrow housing, high Temperature range
LM = Lean Managed
SFNB = Standard Function, Narrow housing, Basic entry level
SFN = Standard Function, Narrow housing





** MM = Multi Mode
SM = Single Mode
SC = Square Connector
(Set and Click, Stab and Click, Standard Connector)

Image	Part number	Description*	Current consumption (max.) @ 24 VDC	RJ45 ports	Fibre optic ports**	Operating temperature
	116-5151-030.2133	FL switch LM 4TX/2FX	400 mA	4	2 MM (SC)	-40 - 70°C
	116-5151-030.2134	FL switch LM 4TX/FX SM	380 mA	4	1 SM (SC)	-40 - 70°C
	116-5151-030.2135	FL switch LM 4TX/2FX SM	400 mA	4	2 SM (SC)	-40 - 70°C
	116-5151-030.2142	FL switch SFNB 4TX/FX SM 20	185 mA	4	1 SM (SC)	0 - 60°C

* SFNT = Standard Function, Narrow housing, high Temperature range
LM = Lean Managed
SFNB = Standard Function, Narrow housing, Basic entry level
SFN = Standard Function, Narrow housing

** MM = Multi Mode
SM = Single Mode
SC = Square Connector
(Set and Click, Stab and Click, Standard Connector)

Cabinets and racks

Image	Part number	Description	System	W x H x D (mm)	Capacity
	116-BV-311	Cabinet for evacuation and emergency documents	AutroSafe	402 x 347 x 75	
	116-UEA-323/1	Cabinet for flush mounting BS-410/-420/BC-420	AutroSafe	Flush mounting: 320 x 320 x 140	
	116-UE-1710	Battery shelf	19" rack	398 x 190 x 174	2 x 12 V / 36 Ah or 1 x 12 V / 65 Ah battery
	116-US-820/1	Document holder with logo	All		

Mounting accessories for cabinets/racks






Image	Part number	Description
–	116-UB-383	19" subrack 160 mm, Europe for BC-440
	116-UE-474	Mounting plate with cutouts
–	116-UE-1662	Spacer between 2 rack mounted AutroSafe BS/BC-320 panels. Distance between panels = 80 mm
	116-UW-1454	Mounting kit for BS-420/-430 and BC-420 front panels in 19" cabinet/rack, for use with UEA-323/1

Image	Part number	Description
	116-UW-1482	Mounting kit for BU-BV-420 cabinet in 19" cabinet/rack. Front panel
	116-UW-1459/1	Mounting plate for flush mounting BS-420/-430 and BC-420 panel fronts in 19" rack
–	116-UW-1516/1	Dummy plate 19" for BC-440, 3U x 12HP
	116-UW-1518	Mounting plate for mounting AutroSafe 4 front panel on double BS-100 cabinet
–	116-6175-100.0010	Ferrite clamps
	116-6745-012.	Standard fire key for panel door (plastic)

Rittal cabinets available on request.

Relays

Part number	Description
116-7624-030.0001	Relay PLC RSC 24DC/21, single change-over contact
116-7624-030.0002	Relay PLC RSC 24DC/21-21, double change-over contact
116-7624-030.1001	Relay PLC RSC 230UC/21, single change-over contact
116-7633-060.	Relay with adjustable time delay 50 ms –10 h, 12–24 V
116-7461-008.0001	Relay base Z-348 for timers
116-BSX-310	Relay kit for FARE and FWRE

Miscellaneous

Image	Part number	Description
	116-6731-017.0002	Door magnet armature. Type AG w/adjustable socket. For use with part no: 116-6731-017.0005
	116-6731-017.0005	Door holding magnet. GPT, holdpower 650 N, 1 W, 40 mA. Manual release push button. DNV approved. For use with part no: 116-6731-017.0002
	116-6731-017.0010	Robust magnetic door release w/counter plate, 50 kg, 490 N
	116-UV-028-T	Release button for magnet with impulse switch
	116-BF-9	General alarm push button
	116-4860-010.9001	General alarm push button, bulkhead mounting, IP66

PLC equipment

Part number	Description
PCD2	
116-KDX-30/2C100	Expansion module (8 I/O modules)
116-KDD-30/2F520	Communication module RS232 and RS422/- 485
Modules for PCD1 and PCD2	
116-KDB-30/2A250	A250 8 outputs relay 48 VAC / 2 A
116-KDB-30/2A400	I/O module, 8 outputs
116-KDB-30/2E110	I/O module
116-5151-025.E165	E165 16 inputs 24 VDC
116-KDU-30/7F110	F110 communication module RS422/- 485
PCD3	
116-5151-025.M544	M5440 PLC for 4 modules
116-5151-025.M554	M5540 PLC for 4 modules
116-5151-025.T760	T760 remote unit for 4 I/O modules
116-5151-025.C100	C100 expansion unit for 4 I/O modules
116-5151-025.K106	K106 extension cable 0.7 m
116-5151-025.K010	K010 extension plug PCD3-PCD3
Modules PCD3	
116-5151-025.A400	A400 8 outputs 24 VDC/0.5 A
116-5151-025.A465	A465 16 outputs 24 VDC/0.5 A
116-5151-025.E110	E110 8 inputs 24 VDC 8 ms
116-5151-026.E165	E165 16 inputs 24 VDC
116-5151-025.E610	E610 8 inputs isolated 24 VDC 8 ms
116-5151-025.0001	I/O plug spring coupl. 10-P
Miscellaneous	
116-KD-30/7T100	Repeater RS485 with galvanic isolation

Loop units

- a wide range covering your basic needs



We provide a wide range of loop units for our fire detection systems. Our detectors, manual call points, I/O units, control units and alarm units are developed and approved according to European directives (CPD) requiring EN 54 compliance and other appropriate worldwide regulations.

The loop units are available both with and without SelfVerify function. SelfVerify solves all issues of manual maintenance, leaving time consuming and costly physical testing redundant. 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.

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







Input and output units

We offer a wide range of interactive input and output units for many different applications. The system features Exn-, Exia- and Exd approved input and output units for high risk applications.

All input and output units feature automatic addressing and short-circuit protection.

Image	Part number	Description	Configurable input	Monitored input	Monitored output	Inputs/outputs	Requires external PSU	SelfVerify	For use in EX areas	Ingress Protection level*	Notes
	116-BN-180	AutoKeeper				2/2		•		IP30	Use two units to access one loop from two loop controllers. DIN rail mounting in cabinet. For AutoSafe only
	116-BN-201	Monitoring unit	•	•		1/0				IP54 IP67	
	116-BN-303	Single monitored input unit	•	•		1/0		•		IP54 IP67	Function selectable via dip switch
	116-BN-304	Input/output unit	•	•		1/1		•		IP54 IP67	Function selectable via dip switch
	116-BN-305	Dual monitored input/output unit	•	•		2/2		•		IP54 IP67	Function selectable via dip switch

*: When two degrees of protection is given, the lowest is relevant when using the included glands. To achieve the highest, special IP67 glands must be ordered (see page 41)

Image	Part number	Description	Configurable input	Monitored input	Monitored output	Inputs/outputs	Requires external PSU	SelfVerify	For use in EX areas	Ingress Protection level*	Notes
	116-BN-307	Monitored fire alarm device control unit			•	0/1	•	•		IP54 IP67	
	116-BN-320	Interface unit	•	•		2/1		•		IP54 IP67	For AutoFlame detectors
	116-BNB-330A	Loop adapter unit for conventional loops					•			IP20	Replacement unit for BNB-330 in existing AutoSafe 3 systems
	116-BNB-331	Loop adapter unit for conventional loops		•		1/1	•	•		IP20	AutoSafe ver. 4.4.1 → Autoprime ver. 2.0 →
	116-BN-500/EX	Input unit	•	•		1/0		•	•	IP54 IP67	For interfacing external units, clean contacts, alarm relays, etc. Zones 0, 1 & 2
	116-BN-500/N	Input unit	•	•		1/0		•	•	IP54 IP67	For interfacing external units, clean contacts, alarm relays, etc. Zone 2





*: When two degrees of protection is given, the lowest is relevant when using the included glands. To achieve the highest, special IP67 glands must be ordered (see page 41)

Detectors

We offer a wide range of interactive detectors for many different applications, with or without SelfVerify. The following series are available:

- 200 series, standard interactive addressable detectors.
- 300 series with SelfVerify, interactive addressable detectors.
- 500 series with SelfVerify, interactive addressable detectors for use in demanding environments.

The system also offers Exn- and Exia approved versions of detectors designed for use in high risk applications. S series smoke detectors are specially designed for applications where high sensitivity is required.


Image	Part number	Heat	Smoke	Multisensor	Including base	SelfVerify	Environmentally protected	For use in EX areas	For use in EX zone 2 only	High sensitivity	Sealed unit	Wet/dry areas	Ingress Protection level	Notes
	116-BD-200M	•			•	•					•	W	IP56	For steam saunas/cold stores (-30 °C)
	116-BD-501	•			•	•	•				•	W	IP56	
	116-BD-501/EX	•			•	•	•	•			•	W	IP56	
	116-BD-501/N	•			•	•	•		•		•	W	IP56	
	116-BDH-200	•										D	IP44D	
	116-BDH-300	•				•						D	IP44D	
	116-BDH-500/EX	•				•	•	•					IP44D	
	116-BDH-500/EXE	•				•		•					IP44D	RIME approved/NK
	116-BDH-500/N	•				•			•				IP44D	
	116-BHH-200		•										IP44D	
	116-BHH-300		•			•							IP44D	
	116-BHH-500/EX		•			•	•	•					IP44D	
	116-BHH-500/EXE		•			•	•	•					IP44D	RIME approved/NK
	116-BHH-500/N		•			•	•		•				IP44D	
	116-BHH-500/S/Ex		•			•	•	•		•			IP44D	
	116-BHH-500/S/N		•			•	•		•	•			IP44D	
	116-BHH-220			•									IP44D	
	116-BHH-320			•		•							IP44D	
	116-BHH-520/EX			•		•	•	•					IP44D	
	116-BHH-520/EXE			•		•	•	•					IP44D	RIME approved NK
	116-BHH-520/N			•		•	•		•				IP44D	

Manual call points / release stations




We offer a wide range of interactive manual call points for different applications, every unit features SelfVerify. Two main series are available:

- 300 series with SelfVerify, interactive addressable manual call points.
- 500 series with SelfVerify, interactive addressable manual call points for use in demanding environments.

The system features Exn- and Exia approved versions for high risk applications.

Image	Part number	Description	For use in EX areas	For use in EX zone 2 only	Watertight / outdoor model	Extreme environments	LED indicator	Metal connection box	Glass NOT included	Ingress Protection level	Notes
	116-BF-300V2	Manual call point					•			IP42D w/o cover IP44D w cover	
	116-BF-510WP-H	Manual call point			•	•	•			IP52 w/o cover IP55 w cover	
	116-BF-510WP-HM	Manual call point			•	•	•			IP52 w/o cover IP55 w cover	Cable glands pre mounted, robust mounting plate.
	116-BF-500V2/EX	Manual call point	•							IP44D*	
	116-BF-500V2/N	Manual call point		•					•	IP66	

*: Ingress Protection level, inner housing.

Image	Part number	Description	For use in EX areas	For use in EX zone 2 only	Watertight / outdoor model	Extreme environments	LED indicator	Metal connection box	Glass NOT included	Ingress Protection level	Notes
	116-BF-501	Manual call point			•	•				IP66	
	116-BF-501/EX	Manual call point	•		•	•				IP66	
	116-BF-501/N	Manual call point		•	•	•				IP66	
	116-BF-502	Manual call point			•	•				IP66	
	116-BF-502/EX	Manual call point	•		•	•				IP66	
	116-BF-502/N	Manual call point		•	•	•				IP66	
	116-BFG-3/XX	Glass for call point, available in several languages. Replace XX with country code. No ending = No text GB = English GB/AR = English and Arabic N/GB = Norwegian and English SU = Russian									

Alarm units

We offer a wide range of alarm units for connection to detection loops or dedicated alarm outputs.












Image	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Light output (Candela/Joule)	Ingress Protection level	Notes
	116-BBL-100	Alarm indicator	•							•	–	2 c	IP32C	
	116-BBL-100/IP	Alarm indicator	•					•		•	–	2 c	IP65	
	116-BBR-7M	Alarm bell 6"	•		•				•		93	–	IP55	
	116-BBR-24	Alarm bell 6"	•						•		91	–	IP42	
	116-BBR-130	Base sounder	•	•		•			•		90	–	IP32C	Combined detector base and addressable sounder.
	116-BBR-230	Sounder	•			•			•		100	–	IP32C	

Image	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Light output (Candela/Joule)	Ingress Protection level	Notes
	116-BBR-230/IP	Sounder		•			•	•	•		100	–	IP65	
	116-BBQ-130	Base sounder w/alarm indicator		•			•		•	•	90	2 c	IP21C	Combined detector base and addressable sounder/alarm indicator.
	116-BBQ-230	Sounder/alarm indicator		•			•		•	•	100	2 c	IP32C	
	116-BBQ-230/IP	Sounder/alarm indicator		•			•	•	•	•	100	2 c	IP65	
	116-BU-47	Alarm indicator								•	–		IP30	With LED Used together with detector
	116-139602	Alarm audible/visual SONFL1X-HO	•					•	•	•	105	5 J	IP66	24 VDC MED approval
	116-4340-006.0027	Ex sounder BExS110D	•					•	•		110	–	IP66/67	24 VDC MED approval

Image	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Light output (Candela/Joule)	Ingress Protection level	Notes
	116-7770-009.0200	Sounder CC-VTG-32EM-DB-R	•		•		•	•	•		99	–	IP65	
	116-7780-004.0200	Sounder/beacon CC-VTB-32EM-DB-RB/RL	•		•		•	•	•	•	99	–	IP65	
	116-7780-005.1201	Sounder A105N024-DCR	•					•	•		105	–	IP66	24 VDC MED approval
	116-7780-005.1301	Sounder A112024	•					•	•		112	–	IP66	24 VDC MED approval
	116-7780-005.2201	Sounder/beacon AL105NX	•					•	•	•	105		IP66	24 VDC MED approval
	116-7780-005.2210	Sounder/beacon AL105NX WR	•					•	•	•	105	5 J	IP66	24 VDC MED approval
	116-7780-005.2301	Sounder/beacon AL112NX	•					•	•	•	112	5 J	IP66	24 VDC MED approval

Accessories for loop units

Image	Part number	Description
	116-BWA-100	Detector base for AuroSafe detectors
	116-BWB-110	Base adapter for analogue addressable detectors mounted on interactive loops
	116-BWP-100/20	Drip proof conduit box with M20 glands
	116-BWP-100/20/PG16	Drip proof conduit box with M20 glands (PG16)
	116-BWP-100/25	Drip proof conduit box with holes for M25 glands
–	116-WBJ-140	Mounting/demounting tool for AuroSafe detectors mounted on base BWA-100
–	116-WBW-100	Bypass unit for BWA-100
–	116-WBW-101	Mounting plate for false ceilings
	116-BZ-500	Galvanic barrier for Exia approved detectors. If power to the unit is supplied from the panel, a 24 V DC/DC converter, e.g. 116-4660-055.0001 (page 21) must be used to regulate the power.
	116-UL-050	Robust bracket for manual call points
–	116-CXBZ	Bezel for manual call point BF-300V2.
–	116-4860-011.0100	Lift flap for manual call points BF-300V2, BF-510WP-H, BF-500V2
–	116-4860-011.9901	Test key for manual call point 116-BF-300V2 (10 pack).

Image	Part number	Description
–	116-4890-021.0001	Lift flap in polycarbonate for manual call point 116-BF-502, all versions
–	116-4890-021.0010	Lift flap in stainless steel for manual call point 116-BF-502, all versions
–	116-4890-022.0001	Lift flap in polycarbonate for manual call point 116-BF-501, all versions
–	116-4890-022.0010	Lift flap in stainless steel for manual call point 116-BF-501, all versions
–	116-6571-011.1920	Cable gland M20-1.5 for Ingress Protection level IP67 for I/O units. NB! Order with 116-6531-006.1920
–	116-6531-006.1920	Backnut for cable gland IP67. NB! Order with 116-6571-011.1920
–	116-BW-240	Deep mounting plate for base sounders BBR-130 and BBQ-130
–	116-7770-009.0008	Power base 230 V for Roshni



Flame detection

- keeping a close watch

Autronica's flame detectors are solutions for applications in which risk to personnel is high and where fire might result in a large loss of equipment. Beyond critical life-safety concerns, our products have proven to minimize total cost of ownership while minimizing false alarms.

Our maritime applications include engine rooms, mooring decks and other technical areas where there is risk of flames.

Bottom line – Autronica offers flame-detection technologies with wide area coverage, high false-alarm immunity, reduced response times, and the appropriate global approvals. And to improve ease of use, all X-Series flame detectors have HART-protocol options.

Flame detectors

The AutoFlame IR Flame Detector BG-201 and BG-21 is a point flame detector for detection of fires involving combustion of carbonaceous materials. It has a high IP rating making it suitable for the harshest environments.

The dual IR flame detector is used in various applications in which risk to personnel is high and where fire might result in a large loss of equipment. Beyond critical life-safety concerns, the advanced signal processing and DYFI+ intelligence ensure that the detector has a high immunity to any nuisance alarm source and makes this detector the obvious choice for demanding applications.

All AutoFlame X detectors have 4 x M25 cable entries. Swivel mount, glands and blind plugs are not included.
All AutoFlame X detectors have an ambient temperature range of -55 °C to + 60 °C for T6 and -55 °C to + 75 °C for T5.
For interfacing AutoFlame X detectors to AutoSafe, use 116-BN-304.

Image	Part number	Description	Housing	Ingress Protection level	Notes
	116-BG-201	AutoFlame Dual IR interactive	PCB	IP66/67	
	116-BG-201MRK	AutoFlame Dual IR interactive	PCB	IP66/67	Maritime replacement kit for 601F-M, including detector and mounting plate
	116-BG-21	AutoFlame Dual IR conventional	PCB	IP66/67	
	116-5861-011.4310	AutoFlame X33AF multispectrum IR	SS	IP66	Available with HART protocol on request (X3301S4M23W1) Combination unit with camera available
	116-5861-011.4320	AutoFlame X33AF multispectrum IR	Alu	IP66	Available with HART protocol on request (X3301S4M23W1) Combination unit with camera available
	116-5861-011.4340	AutoFlame X33AF multispectrum IR	SS	IP66	For areas with high temperatures
	116-5861-011.4360	AutoFlame X33AF multispectrum IR	Alu	IP66	For areas with high temperatures
	116-5861-011.4341	AutoFlame X33AF multispectrum IR	SS	IP66	Built-in BNB-300
	116-5861-011.4361	AutoFlame X33AF multispectrum IR	Alu	IP66	Built-in BNB-300
	116-5861-011.3980	AutoFlame X98 single IR	SS	IP66	
	116-5861-011.3981	AutoFlame X98 single IR	Alu	IP66	
	116-5861-010.2010	601FEX-M IR	FR110	IP20	Ambient temperature range: -20 °C – +70 °C

Accessories

Part number	Description
116-UL-046	Mounting bracket for BG-21 and BG-201
116-6571-071.2500	Cable gland M25, polyamid, Eexe, Ingress Protection level: IP67
116-6332-032.1925	Blind plug M25, polyamid, Eexe, Ingress Protection level: IP67
116-6571-016.2520	Cable gland adapter M20/M25
116-6530-030.0020	Blind plug M20, brass, nickel plated. Exd/Exe, Ingress Protection level: IP66/68
116-6530-030.0025	Blind plug M25, brass, nickel plated. Exd/Exe, Ingress Protection level: IP66/68
116-001680-001	K1003A1006 Window cleaner for flame detectors (6 pcs.)
116-5861-011.9050	Q9033B Swivel mount for AutoFlame detectors, stainless steel
116-5861-011.9051	Q9033A Swivel mount for AutoFlame detectors, aluminium
116-007338-010	Q2033A10R 10 degree field-of-view limiter
116-007338-020	Q2033A20R 20 degree field-of-view limiter
116-007338-030	Q2033A30R 30 degree field-of-view limiter/Weather shield (maintains standard field of view)
116-007240-001	Q1116A air shield assembly
116-009199-001	Q1198A dual air shield/flange mount assembly
116-5861-010.2013	Ex detector base for 601FEX-M
116-5861-010.2014	Deckhead mounting kit for series 601

Test/measuring equipment

Image	Part number	Description
	116-006439-004	W8067S1003 Test lamp IR/UVIR
	116-102740-002	Test magnet for AutoFlame X33AF
	116-WBJ-5/01	Test gas dispenser for smoke detectors, excluding pole
	116-WBJ-5/02	Telescopic pole, 1,26 m – 4,5 m. 1,8 kg

Image	Part number	Description
	116-WBJ-5/03	Expansion pole, 1,13 m. 0,5 kg
	116-WBJ-5/07	Test gas for smoke detectors, 150 ml
–	116-WBJ-5/05	Telescopic pole 2-S, 1.26-2.5 m
	116-WBJ-6/01	Heat detector test kit, including 2 x batteries and charger
	116-WBJ-10	Testfire smoke and heat detector tester kit containing: <ul style="list-style-type: none">• 1 detector tester• 1 battery charger Solo 727• 1 smoke capsule• 2 battery batons Solo 770
	116-WBJ-10/01	Testfire smoke/heat head unit
	116-WBJ-10/02	Smoke capsule for WBJ-10 (6 pack)
	116-WBJ-10/03	Solo 760 battery baton
	116-WBJ-10/04	Solo 725 universal fast battery charger
	116-WBJ-10/08	Solo 770 battery baton 3000 mAh. Charged with Solo 727 battery charger.
	116-WBJ-10/09	Solo 727 battery charger for Solo 770
–	116-3400-004.	Smoke pump (type: Bee Keeper)



AutroMaster presentation system

- a fully integrated safety and emergency management system

AutroMaster ISEMS is 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 an emergency.

The AutroMaster provides an intuitive control and monitoring interface built to save valuable time when every second counts. Status information is displayed in real-time with easy-to-understand graphical representation. Navigation is fast and instinctual and the powerful zoom functions allow you to monitor all areas in great detail. AutroMaster displays values for gas density, smoke and heat in dynamic colours, making it easy to perform the necessary actions during emergencies.

Control and monitoring of third party systems can easily be performed via serial protocols or network interfaces. They provide connection to basically

any source – network time servers, telephone systems for text messaging, public address systems for automated voice messaging, emergency lights, access control systems, CCTV, automation systems and so on.

The AutroMaster keeps track of all events in the system and has a built-in report generator. This provides a cost-effective system log for maintenance and documentation purposes.

In high-risk environments around the world, a seemingly innocuous fire can quickly escalate into an emergency of large proportions. When disaster strikes and you only have seconds to make the proper decisions, the right safety and emergency management system is an invaluable asset. The AutroMaster includes a Decision Support System (DSS) that will help you make the right decisions at the right time.

AutroMaster editions

Modules/functions	AutroMaster marine edition	AutroMaster ISEMS
Basic functionality		
Fire management basic functions (AutroSafe 4, Autroprime 2.0 or later)	•	•
AutroSafe 3 and BS-100 interface	•	•
MultiSensor control	•	•
Report generator	•	•
Control and monitoring of emergency lights/LLL	•	•
Extended functionality		
AutroSafe IFG unit support	NA	•
Dual Safety (AutroSafe 4.3 or later)	•	•
DWG direct import		
Night mode		
Decision support system/incident manager		•
Electronic plotting table		•
Training/simulation module		•
Event record and replay module		•
Video module		•
Interfaces		
NMEA interface		•
VDR output	•	•
MODBUS interface	•	•
ESPA 4.4.4 interface	•	•

Software licences

Part number	Description
116-PROG-AUTROMASTER-MAR	AutroMaster Maritime Edition – For the maritime market the AutroMaster Maritime Edition is specially designed to meet the IMO/SOLAS requirements and regulatory demands.
116-PROG-AUTROMASTERISEMS	AutroMaster ISEMS – Provides the full range of functionality – every possible add-on module is included in this package, making it the perfect choice for demanding applications and professional customers.
116-PROG-AM-UPGRADE	Upgrade of AutroMaster to most recent version – Existing AutroMaster customers can upgrade their license to the most recent version of AutroMaster. Requires change of AutroMaster configuration data.

Software modules

Part number	Description
116-PROG-AM-MOD-VIDEO	Video interface module
116-PROG-AM-MOD-REMOTE	Remote Connect function – The Remote Connect Module enables a remote connection to AutroMaster from any location using a server/client technology.

Engineering/Configuration

Part number	Description
116-AM-CONFIG	General configuration work on setup of AutroMaster
116-AM-CHANGE	Change of AutroMaster configuration
116-PROSJAMB	Conversion of drawings into AutroMaster format
116-PROSJAMD	Adding of detectors to drawings
116-PROSJAMDF	Adding of color fill for analog values

Hardware

Part number	Description
116-AUTROMASTER-PC-12M	PC, maritime standard. Model subject to change without prior notice.
116-AUTROMASTER-RACKPC	19" rack mount PC
116-5151-017.0020	PC12M rack mounting kit
116-5151-017.0021	PC12M horizontal mounting kit
116-5151-017.0022	PC12M vertical mounting kit
116-5151-020.0210	Industrial PC w/SSD
116-5151-020.1951	19" standard LCD monitor
116-5151-200.1027	20" console mounted monitor, DuraMON
116-5151-020.2405	24" widescreen LCD monitor
116-5151-019.1027	DuraMON WS bracket standard
116-5760-050.2003	Laser printer, colour, network and USB
116-5151-200.0023	20" monitor, console mounted, JH20T17 MMD
116-5151-017.0004	Keyboard/mouse Nordic character set
116-5151-017.0002	Keyboard - UK/English character set
116-5151-020.0400	Mouse - USB - 3 buttons
116-5151-020.0732	Network card TG-3468 10/100/1000
116-5151-020.2027	Exsys 4-port serial EX-41094
116-5151-020.2029	Moxa 4-port serial PCIE



Special detection systems

- solutions you can trust

Every day, thousands of vessels navigate the world's oceans, containing valuable and often high-risk products. We are dedicated to the crew onboard, always doing our best to ensure that they have the safest working conditions possible.

Each application is unique in design or task, and it is our mission to provide each one with an optimal safety system. Autronica's Omicron product range is designed to meet the most demanding requirements within the marine industry. For more than 25 years we have designed gas detection systems to meet and exceed the individual demands of each installation while ensuring fast, efficient and high quality project realization via our Special Detection Competence Center in Noway.

Based on the experience of approximately 200 projects per year and our thorough application know-how our team of dedicated and highly specialized employees will always find the ideal solution for your needs.

Since 1989 we have developed and optimized a range of high end systems that require minimal maintenance, are extremely robust and reliable as well as easy to operate. Our service-friendly systems fulfill all regulatory and class societies' regulations and enable economically viable operations. Omicron systems can be used onboard high complexity vessels like LNG, LPG, FPSO, FSRU or similar, as well as on more standardized crude oil or chemical tankers.

Point gas detection system – OGS 2.1

For cargo rooms, AC inlets, crankcases and other applications

Our point gas detection system OGS 2.1 is the ideal solution for environments that require continuous monitoring for hazardous gases.

Typical higher risk areas that require fixed point gas detection are e.g. pump rooms and engine rooms. The system can be equipped with an infinite number of sensors and supports various detection methods such as e.g. electrochemical, catalytical and infrared technology.

The OGS 2.1 system operates on the same platform as our gas sampling family OGS 3, making it easy combinable and the ideal extension to the OGS sampling systems whenever both solutions need to be pooled to one economically sound system. The platform flexibility enables us to meet the individual customer's needs.

The OGS 2.1 meets the requirement set out by IMO and the different classification societies.

Features

- Individual readings and alarm LEDs for each individual sensor
- Up to 4 adjustable independent alarm set points
- Detection of Oxygen, Hydrocarbons and toxic gases
- Infrared, catalytical and electrochemical sensors
- Continuous system verification
- Intuitive operation
- Remote alarm unit to display alarms on a second location e.g. ship's bridge (optional)
- Integrated temperature alarm for cargo pump bearings (optional)
- Cargo pump emergency shutdown (option)
- RS 485/422 Modbus RTU serial line communication (option)
- Separated alarm and detector cabinet (optional)



Part number	Name	Description
116-KIT-K2001	Gas alarm system OGS 2.1	Control cabinet with integrated alarm panel for a fixed gas detection system with a set number of sensors. Cabinet to be operated in indoor safe area. Standard Autronica project documentation included. Number of sensors must be specified when ordering.

OGS 2.1 classification

Part number	Name	Description
116-Classification	Classification by class society	

OGS 2.1 Gas sensors & accessories

Part number	Name	Description
116-010195-058	AutroPoint Maritime Gas detector	IR Sensor 0 - 100% LEL, 2 x M25 cable entries
116-009480-004	GT3000 transmitter	Electrochemical, stainless steel housing, Eex d certified
116-009471-032	GT3000 sensor module H2S 0-50 ppm	
116-009471-010	GT3000 sensor module CO 0-100 ppm	
116-009471-008	GT3000 sensor module H2 0-1000 ppm	
116-009471-009	GT3000 sensor module O2 0-25% vol	
116-75777	GT3000 junction box	
116-14382	Cable gland M20 for GT3000 junction box	
116-M2050	Modbus OGS 2.1	

Other sensors on request. Custumor specific configuration and documentation on request

OGS 2.1 spare part kits

Part number	Name
116-M6170	OGS 2.1 standard spare part kit
116-M6171	OGS 2.1 3 years spare part kit

Gas sampling systems – OGS 3.1 / OGS 3.11

For total solutions in gas sampling

The OGS 3 family is our 4th generation gas sampling system, relied on by major operators around the world. Built to withstand the harshest conditions the Omicron Gas Sampling Systems are the ideal solution for gas detection in areas where normal installation of gas sensors is impossible.

Our OGS 3 family consists of two different gas sampling systems; The OGS 3.11 is the ideal gas sampling system for all typical marine applications. Based on our more than 20 years of experience we have optimized the system to meet the demanding maritime conditions and to become the all-round solution for monitoring the air content in e.g. water ballast tanks, pump rooms or void spaces in the cargo area.

The OGS 3.1 is our top of the range gas sampling system and typically used for larger installations. The system contains a monitoring cabinet and a detector cabinet which increases its scalability. It enables us to design the ideal solution for the individual operational challanges on e.g. FPSOs or FLNGs.

Both systems meet the requirement set out by IMO and the different classification societies.

Intuitive and efficient

Within standard operation the OGS system runs a fully automated sampling sequence from the various defined sampling points. The cycle time is minimized by using 2 independent vacuum pumps; one main pump that continuously draws air from all sample points and one smaller pump taking samples from the actual point according to the sample sequence. This ensures fresh samples and a quick response in case gas is detected. The system continuously self verifies all pneumatic components to ensure proper operation at all times. All alarms, gas as well as potential malfunctions, are shown on the standardized Omicron operator panel in plain text, making the operation extremely intuitive and limiting training requirements, especially for combined systems.

Scalability

The wide range of optional features in conjunction with the overall system flexibility allow Omicron Gas Sampling Systems to cover a brought range of applications, ranging from a system with only a few sample points to a tailor made OGS 3.1 system with a centralized monitoring cabinet and several detector cabinets, making it the ideal solution for large and demanding applications.

Both systems – OGS 3.1 and OGS 3.11 – utilize the common Omicron product line platform, so that they can be easily combined with the Omicron fixed gas detection system OGS 2.1 creating an overall cost effective gas detection solution for an entire vessel.

Features

Standard

- Infrared hydrocarbon sensor(s) with range 0 - 100% LEL
- Low and high gas alarms
- Flame arrestor and shut off valves for each sampling tube
- Automatic and sequential purging of each sampling tube
- Two vacuum pumps for reliable detection (main and sample)
- Non-return valves to avoid liquid entering into the system
- Continuous system verification
- Adjustable purge and sample time on every sampling point
- Semi-automatic test functionality for span and zero calibration
- Manual disconnecting of sampling points that are not in use.

Optional

- Multiple gas analysis. Up to 3 different gas sensors simultaneously
- Dilute functionality for detection of non IR detectable combustible gases (e.g. NH3)
- Repeater display units with control transfer (max. 5)
- Remote alarm units with alarm LEDs and sounder (e.g. for bridge)
- Bulkhead penetrations
- RS 485/422 Modbus RTU serial line communication
- Up to 32 freely configurable aux. relay outputs
- Dual purge supply (i.e. nitrogen and instrument air)
- Standby pump with manual switch over
- Special design materials for extreme gases (OGS 3.1 only)



OGS 3.11

Part number	Name	Description
116-KIT-K3501	Gas sampling system OGS 3.11	Gas sampling system existing of a combined alarm & control cabinet, including 1 AutoPoint Maritime Gas 0-100% LEL IR detector configured for a set number of sample points. Cabinet is shielded by flame arrestors and to be operated in indoor safe area. Standard Autronica project documentation included. Number sampling points must be specified when ordering.

Customer specific configuration and documentation and/or other sensor types on request

OGS 3.1

Part number	Name	Description
116-KIT-K3001	OGS 3.1 Alarm & control cabinet	IP66 Control cabinet with integrated alarm panel for a set number of sample points. Cabinet to be operated in safe area. Standard Autronica project documentation included. Number sampling points must be specified when ordering.
116-KIT-K3010	OGS 3.1 Detector cabinet	IP66 detector cabinet for safe arera incl. 1 AutoPoint HC200 0-100% LEL IR sensor, flame arrestors and manifolds for a set number of sample points. Cabinet to be operated in safe area. Standard Autronica project documentation included. Number sampling points must be specified when ordering.

Customer specific configuration and documentation and/or other sensor types on request

OGS 3.1/3.11 classification

Part number	Name	Description
116-Classification	Classification by class society	

OGS 3.1/3.11 sensors and system options

Part number	Name	Description
116-009480-004	GT3000 transmitter	
116-009471-032	GT3000 sensor module H2S 0-50PPM	
116-009471-009	GT3000 sensor module O2 0-25%VOL	
116-M3252	GT3000 flow cap	
116-M3035	Modbus OGS 3	
116-M3050	Flamescreen OFS1/10 mm OD	Flamescreen for exhaust air

Part number	Name	Description
116-M3051	Flamescreen OFS1/12 mm OD	Flamescreen for exhaust air
116-M3078	Shut-off valve 1 x 6 mm OD wo/HEX	
116-M3079	SShut-off valve 1 x 6 mm OD w/HEX	
116-M3080	Shut-off valve 2 x 8 mm OD	
116-M3081	Shut-off valve 1 x 8 mm OD	
116-M3082	Shut-off valve 2 x 10 mm OD	
116-M3083	Shut-off valve 1 x 10 mm OD	
116-M3084	Shut-off valve 2 x 12 mm OD	
116-M3085	Shut-off valve 1 x 12 mm OD	
116-M3140	Filter regulator 12 mm OD-12 mm TX	
116-M3141	Filter regulator 10 mm OD-12 mm TX	
116-M3142	Filter regulator 8 mm OD-12 mm TX	
116-M3060	Bulkhead pen 150/32/ 2 x 8 mm OD	
116-M3061	Bulkhead pen 150/32/ 1 x 8 mm OD	
116-M3062	Bulkhead pen 150/32/ 2 x 10 mm OD	
116-M3063	Bulkhead pen 150/32/ 1 x 10 mm OD	
116-M3064	Bulkhead pen 150/32/2 x 12 mm OD	
116-M3065	Bulkhead pen 150/32/1 x 12 mm OD	
116-M3066	Bulkhead pen 150/22/2 x 8 mm OD	
116-M3067	Bulkhead pen 150/22/ 1 x 8 mm OD	
116-M3068	Bulkhead pen 150/22/2 x 10 mm OD	
116-M3069	Bulkhead pen 150/22/1 x 10 mm OD	
116-M3070	Bulkhead pen 150/22/2 x 12 mm OD	
116-M3071	Bulkhead pen 150/22/1 x 12 mm OD	
116-M3122	Non-return valve 8 mm OD stainless steel	
116-M3123	Non-return valve 10 mm OD stainless steel	
116-M3105	Inline filter 90 micron/8 mm OD	
116-M3106	Inline filter 90 micron/10 mm OD	
116-M3110	Endline filter 8 mm OD	
116-M3111	Endline filter 10 mm OD	
116-75321	Water trap	

OGS 3.1/3.11 spare part kits

Part number	Name
116-M6180	OGS3.1 standard spare part kit
116-M6181	OGS3.1 3 years spare part kit
116-M6182	OGS3.1 5 year spare part kit
116-M6183	OGS3.1 standard spare part kit for LPG
116-M6184	OGS3.1 3 years spare part kit for LPG
116-M6185	OGS3.1 5 years spare part kit for LPG
116-M6190	OGS3.11 standard spare part kit
116-M6191	OGS3.11 3 years spare part kit
116-M6192	OGS3.11 5 year spare part kit
116-M6193	OGS3.11 standard spare part kit for LPG

Standard accessories for Omicron product range

Bridge remote units

Part number	Name	Description
116-M6051	Bridge remote unit box mounted	Remote alarm panel for use with OAS 5.5, OVS 2.1, and OGS systems
116-M6050	Bridge remote unit flush mounted	Remote alarm panel for use with OAS 5.5, OVS 2.1, and OGS systems

Alarm lights and horns

Part number	Name	EX approval	Alarm sound frequency	Alarm colour	Sound output	Ingress Protection level	Voltage
116-M6018	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Red	–	IP66/67	24 V DC
116-M6019	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Amber	–	IP66/67	24 V DC
116-M6020	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Blue	–	IP66/67	24 V DC
116-M6021	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Red	–	IP66/67	230 V AC
116-M6022	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Amber	–	IP66/67	230 V AC
116-M6023	Ex d Xenon alarm light BEXBG05	II 2G Ex d IIC T4	–	Blue	–	IP66/67	230 V AC
116-M6030	Alarm horn KT75 M20	–	Air driven 400 Hz	–	136 dB(A)	IP65	24 V DC
116-M6031	Alarm horn KT75 M20	–	Air driven 800 Hz	–	136 dB(A)	IP65	24 V DC
116-M6034	Alarm horn A121 WR M20	–	Electrical 1000 Hz	–	126 dB(A)	IP66	24 V DC
116-M6035	Alarm horn A105 WR M20	–	Electrical 1000 Hz	–	112 dB(A)	IP66	24 V DC
116-M6036	Alarm horn A105 WR M20	–	Electrical 1000 Hz	–	112 dB(A)	IP66	230 V AC
116-M6037	Alarm horn MA121 WR M20	–	Electrical 1000 Hz	–	126 dB(A)	IP66/67	24 V DC
116-M6038	EX d Alarm horn	II 2G Ex d IIC T4	–		117 bB(A)	IP66/67	24 V DC
116-M6039	EX d Alarm horn	II 2G Ex d IIC T4	–		117 bB(A)	IP66/67	230 V AC
116-M6040	EX d Combination Alarm	II 2G Ex d IIB T4	–	Red	117 bB(A)	IP66/67	24 V DC
116-M6041	EX d Combination Alarm	II 2G Ex d IIB T4	–	Amber	117 bB(A)	IP66/67	24V DC
116-M6042	EX d Combination Alarm	II 2G Ex d IIB T4	–	Red	117 bB(A)	IP66/67	230V AC

Test gas

Part number	Name	Description
116-93019	Hose 6mm PA	
116-93626	Quickc male 6mm open/open brass	

Part number	Name	Description
116-94008	Reduction valve	AGA Pressure reducer for test gas w/flowmeter (0-800 ml/min)
116-81029	Methane 50% LEL air 1l/12bar	
116-81028	Propane 50% LEL air 1l/12bar	
116-96630	N-Butane 50% LEL air 1l/12bar	
116-81031	H2S 25 ppm N2 1l/12bar	
116-96635	Nitrogen 1l/12bar	
116-81024	Test gas. N-Butane 50% L.E.L. in air 10L	
116-94009	Flow regulator for AGA 5L 10/l fixicontrol cylinder	





Marine security

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We are committed to providing innovative security technology and progressive solutions that deliver leading integrated access control.

Whether its monitoring a single door or multiple properties, people and assets, we can deliver a video management solution to meet almost any security requirements. Comprehensive offering of security products delivers outstanding performance that's scalable to meet future needs.

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For specific information about products, please go to product.autronicafire.com/products/video-solutions

TruVision line



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TruVision Navigator device management software for full TruVision range, and provides

- Device management software for full TruVision range
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- Up to 25 video tiles per view
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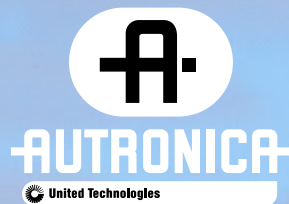
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Autronica Fire and Security is a leading innovator, manufacturer and supplier of fire and gas safety worldwide.
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