

Autronica Fire and Security is a leading innovator, manufacturer and supplier of fire and gas safety worldwide. Our products ensure safety in applications on land, sea and in the petrochemical, oil and gas sectors.

Owned by United Technologies Corporation (UTC), we employ more than 450 people handling the complete value chain, from idea, development and manufacturing to the marketing, sales and servicing of our products. We are an international company with worldwide offices and our HQ is located in Trondheim, Norway's technology hotspot.

Protecting life, environment, and property

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Stringent control throughout Autronica Fire and Security AS assures the excellence of our products and services. For a complete overview of our approvals, go to www.autronicafire.com.





# AutroSafe fire detection system

The new generation in fire safety

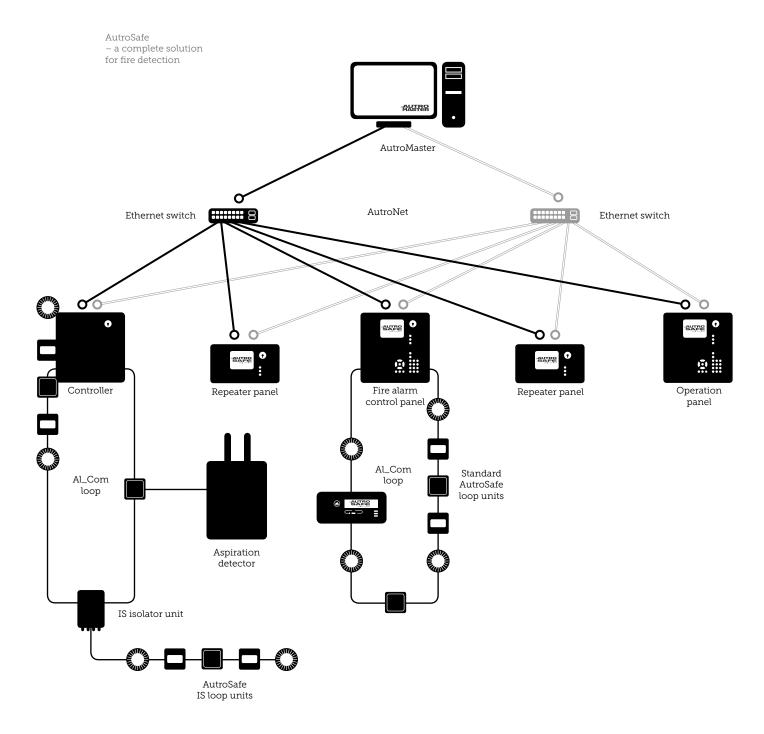
Our task was demanding, yet simple: Take the best fire safety system around and make it even better. The new and improved AutroSafe 4 is designed for the toughest requirements and expands the possibilities of a fire detection system even further. From hotels to cruise ships to drilling platforms, AutroSafe 4 delivers the most rigorous fire safety yet.

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

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 European directives (CPD) requiring EN 54 compliance. The system is also pending a 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.

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 4, Autronica has once again taken fire safety to a higher level.



# System panels

			Dimensions	
Image	Part number	Description	H x W x D (mm)	Notes
**************************************	116-BS-420/XX	Fire alarm control panel	350 x 350 x 161 Flush mounting depth: 148	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. Loop driver, input and output modules can be connected. An integrated AutroFieldBus interface makes it possible to connect AutroFieldBus equipment to the panel. Equipped with 2 x loop driver BSD-310. Additional modules (page 8) can be added.
	116-BC-420/XX	Controller	350 x 350 x 161	Controller for connection of loop driver modules as well as input and output modules. An integrated AutroFieldBus interface makes it possible to connect AutroFieldBus equipment to the panel.  Equipped with 2 x loop driver BSD-310.  Additional modules (page 8) can be added.
	116-BC-440	Controller rack unit	3U x 12HP x 200	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.
distantial of the second of th	116-BS-430/XX	Operator panel	350 x 350 x 84	The operator panel controls and handles all operations, alarm management, indications and other functions within an operation zone. No loop driver, input or output modules can be connected to this panel.
expe o	116-BU-BV-420/XX	Repeater panel	195 x 350 x 84	Dip switches on the panel control the panel function: As a fire brigade 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.
	116-BP-405	Power cabinet	420 x 346 x 146	Includes a 5 A 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).

 $\ensuremath{\mathsf{XX}}$  can be replaced by the following codes  $\ensuremath{\mathsf{GB}} = \ensuremath{\mathsf{English}}$   $\ensuremath{\mathsf{NL}} = \ensuremath{\mathsf{Dutch}}$ 

# System panel kits

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

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 AutroFieldBus, an additional Al\_Com+ stack (with up to six additional loop driver modules) can be added to the system.

lmage	Part number	Description	Including	Options
	116-KIT-BS-420	Fire alarm control panel kit	Panel front BSV-420 Cabinet UEA-400 Power supply module BSS-310A Communication module BSL-310 Text foil E-2879/XX*	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 foil E-2880/XX*	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-KIT-BS-430	Operator panel kit	Panel front BSV-420 Cabinet UE-1488 Text foil E-2879/XX*	
ALLER O	116-KIT-BU-BV-420	Repeater panel kit	Panel front BUV-420 Cabinet UE-1489 Text foil E-2880/XX*	

<sup>\*:</sup> Available languages, replace XX with one of the following codes: GB = English IS = Icelandic NL = Dutch E = Spanish BR = Portuguese DK = Danish F = French PL = Polish S = Swedish H = Hungarian RK = Russian N = Norwegian I = Italian SF = FinnishS = Swedish N = Norwegian

# Loop panels

Loop-powered panels are a unique addition to our system panel BU/BV-420, 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*			Enables silencing the
MANUAL .	116-BU-110GB	Fire brigade loop panel, English text	310 x 154 x 45	<1 mA (idle) 6 mA (max)	panel's internal buzzer, silencing alarms, and resetting the system. Alarms only are shown
	116-BU-110NL	Fire brigade loop panel, Dutch text			in the display.
	116-KIT-BV-110	Information loop panel kit*			Indication device only. Provides information related to the defined operation zone(s).
- CANAL -	116-BV-110GB	Information loop panel, English text	310 x 154 x 45	<1 mA (idle) 6 mA (max)	
	116-BV-110NL	Information loop panel, Dutch text			

\*: Please specify language when ordering: GB = English IS = Icelandic E = Spanish BR = Portuguese F = French PL = Polish H = Hungarian RK = Russian I = Italian SF = Finnish

NL = Dutch DK = Danish S = Swedish N = Norwegian

#### Modules

In addition to loop driver modules BSD-310, BSD-310N and BSD-311, as well as the mandatory 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 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 AutroFieldBus, an additional Al\_Com+ stack (with up to six additional loop driver modules) can be added to the system.

Image	Part number	Description	Monitored inputs	Monitored outputs	Totalinputs	Total outputs	Monitors short circuits	Ensures loop communication	Zone 2 only	Amplified power output	Galvanically insulated inputs/outputs	Max. per panel	Notes
0000	116-BSB-310A	Output module		•	0	4	•						Requires external 24V
	116-BSD-310	Loop driver module			-	-	•	•				6/12	Max. 127 loop units
The state of the s	116-BSD-310/N	Loop driver module			-	_						6/12	Max. 127 loop units
	116-BSD-311	Loop driver module H.P.			-	-	•	•		•			

lmage	Part number	Description	Monitored inputs	Monitored outputs	Total inputs	Total outputs	Monitors short circuits	Ensures loop communication	Zone 2 only	Amplified power output	Galvanically insulated inputs/outputs	Max. per panel	Notes
200 913	116-BSD-330	BS-100 loop driver module			-	-						8	If more than 3 modules are installed, an additional power supply unit BSS-310A is required
0.000	116-BSE-310	Input module			4	0							
	116-BSE-320	Input module			8	0					•		
	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

lmage	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 $\mu m$ or 50/125 $\mu m$ ) 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 $\mu m$ ) fibre-optic cable. Ingress Protection level: IP20
The state of the s	116-BSL-325	AUTROLON/AutroFieldBus communication amplifier Amplifier for communication signals on networks. The amplifier ensures reliable communication over large distances. The amplifier increases max. cable length from 1000 m to 2800 m. Ingress Protection level: IP20
THE STATE OF THE S	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

# Printer

Image	Part number	Description
	116-BUP-400	Printer unit for AutroSafe 4
-	116-1712-012.0001	Printer paper 57 x 46 x 13 mm / 25 m

# Engineering

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

# Service tools

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 AutroSafe 3 to AutroSafe 4

# OPC server

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

Part number	Description
116-AS-OPC-SERVER/CD1	AutroSafe 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 AutroSafe system. Within this level you can also Disable/Enable detectors.
116-AS-OPC-SERVER/CD2	AutroSafe 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	AutroSafe 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.





# Autroprime fire detection system

Fire detection made easy

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

Autroprime®, the easy, reliable and flexible fire detection system from Autronica Fire and Security AS, provides a high-tech, low-cost alternative for fire detection in small-to-medium sized applications. The system features the standards-approved, effective and reliable detection Autronica customers expect, as well as a range of specifically developed features.

Autronica products have always been associated with cutting-edge

technologies that change the way in which people think about fire detection. Autroprime® is no exception here: the system includes many tried and tested Autronica technologies; the revolutionary part is that these high-end features are put together in an affordable package.

Autroprime® finally brings a truly integrated concept to fire detection: everything is in place, and system functionality and reliability have never been better. Low-level simplicity ensures that this fire detection system exceeds expectation and provides next-generation possibilities, all for a low life-cycle cost.

### Panels

The Autroprime system allows for a combination of maximum 8 panels and mimic drivers on a redundant panel bus

lmage	Part number	Description	Dimensions H x W x D (mm)	Notes
Action 1	116-BS-200	Fire alarm control panel	420 x 346 x 140	Full fire detection system with 2 loop drivers each controlling 127 devices. The operator panel may be mounted remotely with redundant connections both for signal and power. Max. 4 loops.
Authority (Control of the Control of	116-BS-211	Repeater panel	220 x 310 x 45	Helps users manage alarms and other events. Panel bus included
Additional .	116-BU-210	Fire brigade panel	154 x 310 x 45	Showing alarms only.  The user may mute the internal buzzer, silence sounders/bells and reset the system.  Panel bus included.
Autroprov	116-BV-210	Information panel	154 x 310 x 45	Provides all information, but does not allow handling of events. Panel bus included
	116-BUR-200	Mimic driver	181 x 125 x 40	Panel bus included

### Printer

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

# Modules

Part number	Description
116-BSD-200A/PACK	Autroprime loop extension pack, 2 loops

# 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.

#### Cabinets and racks

Part number	Description	System	Dimensions H x W 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	Both		
116-6800-003.	Renag key safe, lacquered	Both		
116-6745-012.	Standard fire key for panel door (plastic)			

Rittal cabinets available on request.

### Mounting and front plates

Part number	Description	Height (mm)	Module height*	Notes
116-UB-383	19" subrack 160 mm, Europe		3	
116-UE-474	Mounting plate, no cutouts	534	12	For UAK-2 (back wall)
116-UW-1518	Mounting plate	622 x 455	-	For mounting AutroSafe 4 front panel on double BS-100 cabinet
116-UW-1516/1	Dummy plate 19", 12HP	128	3	For BC-440
116-UW-1454	Mounting plate for flush mounting panel front in 19" rack	399	9	For BS-420/-430 and BC-420
116-UW-1482	Mounting kit for 19" cabinet/rack	263	6	For BU-BV-420 cabinets

<sup>\*:</sup> Module height (h) = 44.5 mm.

#### Switches and converters

A network solution (AutroNet) with more than two panels demands the use of switches. Fibre converters are utilized to extend your network where fibre is available. VDSL converters are utilized to make use of existing copper wiring when upgrading old systems. Only the listed Ethernet switches and converters are approved and supported by Autronica Fire and Security AS. The type and number of switches/converters depend on the installation/network construction (no. of panels and distance between panels and switches/converters).

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
19900	116-5151-030.2128	FL switch SFNT 4TX/FX	160 mA	4	1 MM (SC)	-40 - 75 °C
20	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
	116-5151-030.2133	FL switch LM 4TX/2FX	400 mA	4	2 MM (SC)	-40 - 70 °C

<sup>\*</sup> SFNT = Standard Function, Narrow housing, high Temperature range

(Set and Click, Stab and Click, Standard Connector)

LM = Lean Managed

SFNB = Standard Function, Narrow housing, Basic entry level

SFN = Standard Function, Narrow housing

<sup>\*\*</sup> MM = Multi Mode

SM = Single Mode

SC = Square Connector

lmage	Part number	Description*	Current consumption (max.) @ 24 VDC	RJ45 ports	Fibre optic ports**	Operating temperature
	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
	116-5151-030.2136	FL switch SFNB 5TX	180 mA	5	-	-10 - 60°C
	116-5151-030.2137	FL switch SFNB 8TX	138 mA	8	-	-10 - 60°C
15000	116-5151-030.2138	FL switch SFN 4TX/FX	140 mA	4	1 MM (SC)	0 - 60°C
	116-5151-030.2139	FL switch SFN 7TX/FX	190 mA	7	1 MM (SC)	0 - 60°C
	116-5151-030.2140	FL switch SFN 6TX/2FX	230 mA	6	2 MM (SC)	0 - 60°C
	116-5151-030.2142	FL switch SFNB 4TX/FX SM 20	185 mA	4	1 SM (SC)	0 - 60°C

<sup>\*</sup> SFNT = Standard Function, Narrow housing, high Temperature range

LM = Lean Managed

SFNB = Standard Function, Narrow housing, Basic entry level

SFN = Standard Function, Narrow housing

<sup>\*\*</sup> 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
	116-5151-030.3001	Jetcon 1301-S single mode fibre converter	150 mA	1	1 SM (SC)	-40 - 70°C
	116-5151-030.3002	Jetcon 1301-M multi mode fibre converter	150 mA	1	1 MM (SC)	-40 - 70°C
	116-5151-030.3003	Jetcon 2502 ethernet/VDSL 2 converter	210 mA	2	-	-40 - 70°C

<sup>\*</sup> SFNT = Standard Function, Narrow housing, high Temperature range

LM = Lean Managed

SFNB = Standard Function, Narrow housing, Basic entry level

SFN = Standard Function, Narrow housing

#### **Batteries**

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

Part number	Description	Voltage	Weight	Dimensions LxWxH (mm)	Notes
116-4160-000.1065	FIAMM FG10721	6 V / 6,5 Ah	1,35 kg	151 x 34 x 94	AutroSense
116-4160-001.	FIAMM FG20721	12 V / 7.2 Ah	2,4 kg	79 x 56 x 106	
116-4160-002.	FIAMM FG21803	12 V / 18 Ah	5,9 kg	181 x 76 x 167	AutroSafe
116-4160-003.	FIAMM FG22703	12 V / 27 Ah	8,7 kg	166 x 175 x 125	
116-4160-004.	FIAMM FG24204	12 V / 42 Ah	13,8 kg	196 x 163 x 174	
116-4160-005.	FIAMM FG20201	12 V / 2 Ah	0,9 kg	178 x 34 x 65	
116-4160-005.0001	FIAMM FG21202	12 V / 12 Ah	4,0 kg	151 x 98 x 99	
116-4160-005.0002	FIAMM FG20121	12 V / 1,2 Ah	1 kg	97 x 49 x 55	WAS-2000
116-4160-005.0003	FIAMM FG20341	12 V / 3 Ah	1,41 kg	134 x 67 x 60	
116-4160-006.	FIAMM FG27004	12 V / 70 Ah	22,7 kg	350 x 166 x 174	
116-4160-006.0003	Sonnenschein A512/85	12 V / 80 Ah	31,0 kg	330 x 171 x 236	Order only

<sup>\*\*</sup> MM = Multi Mode SM = Single Mode SC = Square Connector

<sup>(</sup>Set and Click, Stab and Click, Standard Connector)

# 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
116-4550-012.2410	Power supply with fault output for all systems	24 VDC / 10 A
116-4550-004.0001	Power supply for Autroprime	24 VDC / 5 A
116-4660-009.0004	DC/DC converter	24 VDC / 3 A
116-4660-016.0001	DC/DC converter MINI-PS 12-24 DC / 24 DC1	12-24 VDC / 1 A
116-4660-055.0001	DC/DC converter SD150B	24 VDC / 6,3 A
116-8147-015.5120	Converter	110-130 VAC / 220 VAC - 200 VA
116-8147-038.5130	Converter	110-130 VAC / 220 VAC - 300 VA

# Relays

Part number	Description
116-7624-030.0001	Relay PLC RSC 24 DC/21, single change-over contact
116-7624-030.0002	Relay PLC RSC 24 DC/21-21, double change-over contact
116-BSX-310	Relay kit for FARE/FWRE

# Surge protection

All units for mounting on TS-35 rail

Part number	Description
116-8464-210.0230	230 VAC input. PT-2PE/S-230 AC (excluding base), 1 x per 230 VAC circuit. Approved according to IEC61643-1:1998-02. Mounting width: 17.5 mm.
116-7491-080.0001	Mounting base for 230 V protection. Protection: PT-BE/FM
116-8464-215.0024	Detector loop and 20 mA communication line, UFBK-M2-PE-24 DC-ST (excluding base).  1 release unit per circuit/loop. Mounting width: 17.5 mm.
116-7491-080.0002	Mounting base for detector-loop protection UFBKE
116-7354-009.3024	Alarm circuits and 24 VDC outputs TT-SLKK5/24 AC, 1 pc. per wire (2 pcs. per circuit).
116-7354-009.3012	Alarm lines (BMA, BMF, FARE, FWRE) TT-SLKK5/12 DC, 1 x per wire

# Door magnets

lmage	Part number	Description
0	116-6731-017.0007	Door holding magnet w/counter plate GTR048000A07, 24V / 1,6 W / 400 N
0	116-6731-017.0008	Door holding magnet w/counter plate GTR063000A07, 24V / 3 W / 1000 N
	116-6731-017.0010	Robust magnetic door release w/counter plate, 50 kg, 490 N







# Loop units

- a wide range covering your basic fire detection 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 AutroSafe 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 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.

lmage	Part number	Description	Configurable input	Monitored input	Monitored output	Inputs/outputs	Requires external PSU	SelfVerify	For AutroSafe only	For use in EX areas	Ingress Protection level*	Notes
THIRITING THE PARTY OF THE PART	116-BN-180	AutroKeeper									IP30	Use two units to access one loop from two loop controllers.  DIN rail mounting in cabinet.
BN-201  October State of the Control	116-BN-201	Monitoring unit	•	•		1/0					IP54 IP67	For external units
BN-221/01 Of the state of the s	116-BN-221/01	Extinguishing control unit		•	•	2/1	٠		•		IP67	
major.	116-BN-221/02	Output unit with 7 A relay			•	0/1	•		•		IP67	Loop controlled FAD unit
BN-303  BN-303  BN-303  BN-303  BN-303  BN-303  BN-303  BN-303	116-BN-303	Single monitored input unit	•	•		1/0		٠			IP54 IP67	Function selectable via dip switch  For AutroSense aspirating detectors
BN-304 WARRINGS MAYTOCHUT  A MARINE  C C C C C C C C C C C C C C C C C C C	116-BN-304	Input/output unit		•		1/1		•			IP54 IP67	Function selectable via dip switch

<sup>\*:</sup> 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 40)

lmage	Part number	Description	Configurable input	Monitored input	Monitored output	Inputs/outputs	Requires external PSU	SelfVerify	For AutroSafe only	For use in EX areas	Ingress Protection level*	Notes
BN-305 This comments Service and Service  Comments Commen	116-BN-305	Dual monitored input/ output unit	•	•		2/2		•			IP54 IP67	Function selectable via dip switch For FireRay beam detectors
BN-307 Workings reg  Originals out  Takes  T	116-BN-307	Monitored Fire Alarm Device Control Unit				0/1					IP54 IP67	
BN-J20 STREAM TO THE PARTY OF T	116-BN-320	Interface unit				2/1					IP54 IP67	
BN-320/2 posetread point convent (C	116-BN-320/2	Door control unit				2/1					IP54 IP67	
BN-320/4 BN-320/4 BN-320/4 BN-320/4 BN-320/4 BN-320/4 BN-320/4 BN-320/4	116-BN-320/4	Standard control unit		•		2/1		•			IP54 IP67	Control of external equipment
BN-320/5	116-BN-320/5	Monitoring unit		•		1/0		•			IP54 IP67	For sprinklers

<sup>\*:</sup> 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 40)

Image	Part number	Description	Configurable input	Monitored input	Monitored output	Inputs/outputs	Requires external PSU	SelfVerify	For AutroSafe only	For use in EX areas	Ingress Protection level*	Notes
mmu.	116-BNB-330A	Loop adapter unit for conventional loops		•		1/1	٠	•	•		IP20	Replacement unit for BNB-330 in existing AutroSafe 3 systems
20x3-226 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	116-BNB-331	Loop adapter unit for conventional loops				1/1					IP20	AutroSafe ver. 4.4.1 → Autroprime ver. 2.0 →
BN-500EX  The state of the stat	116-BN-500/EX	Input unit				1/0				•	IP54 IP67	For interfacing external units, clean contacts, alarm relays, etc.  Zones 0, 1 & 2
UN-SOON STANDARD STAN	116-BN-500/N	Input unit	•	•		1/0		•		•	IP54 IP67	For interfacing external units, clean contacts, alarm relays, etc.  Zone 2
State list to the state of the	116-BN-505/EXD	Input unit with BNB-300	•	•		1/0		•			IP66	Zones 1 & 2 only

<sup>\*:</sup> 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 40)

#### Detectors

We offer a wide range of 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	SelfVerify	Including base	Environmentally sealed	For use in EX areas	For EX zone 2 only	High sensitivity	Sealed unit	Wet/dry areas	Ingress Protection level	Notes
	116-5861-033.0150	•					•				•	W/ D	IP65	SWM-1KL 140°C
	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-BD-505/140EXD	•			•	•		•			•	W	IP66	60 °C, non-configurable class, explosion proof
7 =	116-BD-505/160EXD	•			•	•		•			•	W	IP66	70 °C, non-configurable class, explosion proof
	116-BD-505/190EXD	•			•	•		•			•	W	IP66	90 °C, non-configurable class, explosion proof
	116-BDH-200	•										D	IP44D	
	116-BDH-300	•			•							D	IP44D	
	116-BDH-500/EX	•			•		•	•					IP44D	
	116-BDH-500/N	•			•				•				IP44D	

Image	Part number	Heat	Smoke	MultiSensor	SelfVerify	Including base	Environmentally sealed	For use in EX areas	For EX zone 2 only	High sensitivity	Sealed unit	Wet/dry areas	Ingress Protection level	Notes
	116-BHH-200		•										IP44D	
	116-BHH-300		•			•							IP44D	
	116-BHH-500/EX		•			•	•	•					IP44D	
WHI W	116-BHH-500/N		•			•	•		•				IP44D	
	116-BHH-500/S		•			•	•			•			IP44D	
	116-BHH-500/S/Ex		•			•	•	•		•			IP44D	
	116-BHH-500/S/N		٠			٠	٠		٠	٠			IP44D	
	116-BHH-220			•									IP44D	
	116-BHH-320			•		•							IP44D	
	116-BHH-520/EX			•		•	•	•					IP44D	
	116-BHH-520/N			•		•	•		•				IP44D	

# Manual call points / release stations

AutroSafe offers a wide range of 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.

lmage	Part number	Description	For use in EX areas	Zone 2 only	Watertight / outdoor model	Extreme environments	LED indicator	Metal connection box	Glass NOT included	Optional duty label*	Degree of protection
<b>76</b> → • •	116-BF-300V2	Manual call point					•				IP42D w/o cover IP44D w cover
<b>€</b>	116-BF-510WP-H	Manual call point									IP52 w/o cover IP55 w cover
	116-BF-510WP-HM	Manual call point, cable glands pre mounted, robust mounting plate.			•	٠	•				IP52 w/o cover IP55 w cover
Ø:	116-BF-500V2/EX	Manual call point									IP44D**
₩ •••	116-BF-500V2/N	Manual call point		•					•		IP44D**
FØ	116-BF-501	Manual call point			•	•					IP66
· Name c	116-BF-501/EX	Manual call point	•		•	•					IP66
	116-BF-501/N	Manual call point		•	•	•					IP66

<sup>\*:</sup> See "Duty lables" on page 32
\*\*: Ingress Protection level, inner housing

lmage	Part number	Description	For use in EX areas	Zone 2 only	Watertight / outdoor model	Extreme environments	LED indicator	Metal connection box	Glass NOT included	Optional duty label*	Degree of protection
° Par	116-BF-502	Manual call point			•	•					IP66
→ • ←	116-BF-502/EX	Manual call point	•		•	•					IP66
• • •	116-BF-502/N	Manual call point			•	•					IP66
	116-BF-503/EX/0100	Manual call point	•		•	•			N/A		IP66
	116-BF-503/N/0100	Manual call point		•	•	•			N/A		IP66
	116-KIT-BF-503/EX/0300	Release station	•		•	•			N/A	•	IP66
	116-KIT-BF-503/N/0300	Release station		٠	•	٠			N/A	•	IP66
•	116-KIT-BF-503/0400	Release station			•	•			N/A	•	IP66
	116-KIT-BF-503/EX/0400	Release station	•		•	•			N/A	•	IP66
	116-KIT-BF-503/N/0400	Release station		•	•	•			N/A	•	IP66
•	116-KIT-BF-503/0500	Release station							N/A	•	IP66
	116-KIT-BF-503/EX/0500	Release station	•		•	•			N/A	•	IP66
	116-KIT-BF-503/N/0500	Release station		•	•	•			N/A	•	IP66
+•+	116-BFG-3/XX	Glass for call point, availal No ending = No text GB = English GB/AR = English and Arat N/GB = Norwegian and En SU = Russian	oic		l langı	ages.	Repla	ce XX	with c	ountr	y code.

<sup>\*:</sup> See "Duty lables" on page 32

### **Duty lables**

Part number	Text	Part number	Text
116-E-2327/1	Inergen utløsning   Inergen Release	116-E-2327/26	CO2 Release station
116-E-2327/2	Brannmelder   Fire alarm	116-E-2327/27	CO2 Inhibit station
116-E-2327/3	Water release	116-E-2773/1	Abandon ship
116-E-2327/4	Fire   Brann	116-E-2773/2	Abandon
116-E-2327/5	Vannutløsning   Water release	116-E-2773/3	Gass   Gas
116-E-2327/6	Inergen press.   Release	116-E-2773/4	Vanntåke
116-E-2327/7	Vannutløser   Water release	116-E-2773/5	ESD 2
116-E-2327/8	Fire Monitor   Water release	116-E-2773/6	CO2 release & inhibit station
116-E-2327/9	Deluge   Water release	116-E-2773/7	VEEUDU KÄIVITAMINE
116-E-2327/10	Deluge release	116-E-2773/8	Argonite
116-E-2327/11	Vanntåke   Water mist	116-E-2773/9	General emergency alarm
116-E-2327/12	Alarm	116-E-2773/10	Argonite Release
116-E-2327/13	Overrisling   Deluge	116-E-2773/11	ESD
116-E-2327/14	Start fire pumps   Старт пожарный насос	116-E-2773/12	Electrical isolation
116-E-2327/15	Vanntåke   Utløsning	116-E-2773/13	МСР   Ручной извещатель
116-E-2327/16	Overrisling	116-E-2773/14	ESD AB. OCT.
116-E-2327/17	Fire Push button	116-E-2773/15	CO2 Manual station abort
116-E-2327/18	General Alarm	116-E-2773/16	CO2 Manual station release
116-E-2327/19	FM200 release	116-E-2773/17	Manual alarm call point
116-E-2327/20	FM200 inhibit	116-E-2773/18	Exstinguishant release pushbutton
116-E-2327/21	Fire	116-E-2773/19	East monitor actuation
116-E-2327/22	Water mist release	116-E-2773/20	West monitor actuation
116-E-2327/23	Start Firewater pump	116-E-2773/21	Foam system release
116-E-2327/24	Start Foam skid	116-E-2773/22	Vannutløser   Deluge release
116-E-2327/25	Clean Agent release		

# Control units

For the fire detection systems, Autronica offers control units for enabling and disabling of detectors, as well as daytime/nighttime units. Available in several language versions. Replace XX with country code.

Image	Part number	Description	Number of buttons	For external control	Configurable delay	For AutroSafe only	Ingress Protection level	Notes
	116-BW-200/XX	Disablement unit	2		•		IP66	Available in Swedish, English and Russian
	116-BW-201/XX	Disablement unit	0	•			IP66	Available in Swedish and English
	116-BW-202/XX	Daytime/Nighttime unit	2		•	٠	IP66	Up to two units can be powered from detector loop. To connect more units, external 24 VDC power is required. Available in English only.
	116-BW-203/XX	Daytime/Nighttime unit	0	•			IP66	Up to two units can be powered from detector loop. To connect more units, external 24 VDC power is required. Available in English only.
	116-BU-200	Alarm controller unit	2			٠	IP66	

# Alarm units

Autronica Fire and Security offers a wide range of alarm units for mounting on detection loops or dedicated alarm outputs.

lmage	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Cov.Vol.Code EN 54-23	Ingress Protection level	Notes
	116-BBL-100	Addressable alarm indicator		٠						•	-	-	IP32C	
	116-BBL-100/IP	Addressable alarm indicator		•				•		•	-	-	IP65	
<b>₽</b>	116-BBR-7M	Conventional alarm bell 6"	•						٠		93	-	IP55	
F & Branch	116-BBR-24	Conventional alarm bell 6"	•						•		91	-	IP42	
	116-BBR-130	Addressable base sounder									90	-	IP32C	Combined detector base and addressable sounder.
	116-BBR-230	Addressable sounder									100	-	IP32C	

lmage	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Cov.Vol.Code EN 54-23	Ingress Protection level	Notes
	116-BBR-230/IP	Addressable sounder		•			•	•	•		100	-	IP65	
	116-BBQ-130	Addressable base sounder w/alarm indicator					•		•		90	-	IP21C	Combined detector base and addressable sounder/alarm indicator.
	116-BBQ-230	Addressable sounder/alarm indicator		•			•		•	•	100	-	IP32C	
	116-BBQ-230/IP	Addressable sounder/alarm indicator		•				•	•		100	-	IP65	
100	116-BU-47	Conventional alarm indicator	•								-	-	IP30	
	116-7770-009.0000	Askari conventional sounder				•			•		68- 106	-	IP54	

lmage	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Cov.Vol.Code EN 54-23	Ingress Protection level	Notes
****	116-7770-009.0001	Askari conventional sounder	•		•	•		•	•		68- 106	-	IP54	
O MANUAL DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA D	116-7770-009.0002	Roshni LP conventional sounder, shallow base	•		•	•		•	•		102	-	IP54	
	116-7770-009.0004	Roshni LP conventional sounder, shallow base									102	-	IP54	
O THE CO	116-7770-009.0005	Roshni conventional sounder, deep base			•	•		•	•		102	-	IP65	
	116-7780-004.0001	Flashni conventional sounder/beacon, shallow base	•			•		•	•		101	-	IP54	
Through the same of the same o	116-7780-004.0002	Flashni conventional sounder/beacon, deep base	•			•		•	•	•	101	-	IP65	

lmage	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Cov.Vol.Code EN 54-23	Ingress Protection level	Notes
	116-7780-004.0004	Flashni conventional sounder/beacon, shallow base	•			•		٠	•	•	101	-	IP54	For Qatar only
	116-4340-003.4001	Signal light BLG-LED	•		•	•	•			•	-	-	IP67	
	116-4340-006.0201	Xenon conventional beacon									-	-	IP55	
	116-4340-006.0924	Solex conventional beacon, shallow base	•							•	-	-	IP54	
	116-4340-006.0925	Solex conventional beacon, deep base									-	-	IP54	
	116-4340-006.0926	Solex conventional beacon, shallow base	•		•			•		•	-	-	IP54	

lmage	Part number	Description	Alarm output mounting	Loop mounting	Electronic	Signal presets	Configurable	Watertight	Sound	Light	Sound output (dBA/1 m)	Cov.Vol.Code EN 54-23	Ingress Protection level	Notes
	116-4340-007.0001	Solista LX conventional beacon, wall mounted, deep base	•		•	•		•		•	-	W- 2.4- 7.5	IP65	Red flash
	116-4340-007.0002	Solista LX conventional beacon, ceiling mounted, shallow base	•			•					-	C-3- 7.5	IP33C	Red flash
	116-4340-007.0005	Symphoni LX WP conventional base beacon, wall mounted	•		•		•			•	-	W- 2.4- 7.5	IP66	Red flash
	116-7770-009.0040	Symphoni IP66							•		100	-	IP66	For use with 116-4340-007.0005
	116-4340-007.0007	Solista LX wall, shallow base	•			•					-	C-3- 7.5	IP33C	Red flash
	116-4340-007.0008	Symphony G1 LX, wall	•		•	•	•				100	W- 2.4- 7.5	IP21C	Red flash
	116-4340-007.0009	Symphony G1 LX, wall			•		•			•	100	W- 2.4- 7.5	IP21C	Red flash

## Accessories for loop units

Image	Part number	Description
	116-BWA-100	Base for interactive detector heads
	116-BWB-110	Base adapter for analogue addressable detectors mounted on interactive loops
5	116-BWP-100/20	Drip proof conduit box with 2 x M20 cable glands (4 x lock outs)
	116-BWP-100/25	Drip proof conduit box with 4 x lock outs for M25 glands
	116-BWP-143A	Ventilation duct adapter, for interactive systems
-	116-BJ-358/100	Pipe kit, L=100 mm
-	116-BJ-358/150	Pipe kit, L=150 mm
-	116-BJ-358/300	Pipe kit, L=300 mm
-	116-BJ-358/550	Pipe kit, L=550 mm
-	116-BJ-358/800	Pipe kit, L=800 mm
	116-BJ-358/1000 116-BWP-145	Pipe kit, L=1000 mm  Heated detector base
-	116-8142-983.5115	Transformer 230/48 V for up to 10 BWP-45/BWP-145
The A	116-BZ-500	Galvanic barrier for Exia-approved detectors, for mounting in field.  If power to the unit is supplied from the panel, a 24 V DC/DC converter, e.g. 116-4660-055.0001 (page 20) must be used to regulate the power.
-	116-WBW-100	Bypass unit for BWA-100

lmage	Part number	Description
-	116-WBW-101	Mounting plate for false ceilings
-	116-WBJ-140	Installation/extraction tool for AutroSafe detectors
	116-UL-050	Robust bracket for manual call points
-	116-4860-011.0100	Cover for manual call point BF-300V2
-	116-CXBZ	Bezel for manual call point BF-300V2, flush mounting
-	116-4860-011.9901	Key for manual call point BF-300V2 and BF-510WP-H (10 pack).
-	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-BW-240	Deep mounting plate for base sounders BBR-130 and BBQ-130
-	116-6550-125.0075	Spacer for open installation of BBR-110 alarm unit
-	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
-	116-7770-009.0008	Power base 230V for Roshni alarm unit
	116-7870-004.0012	Timer for use with disablement unit BW-201, 2POL/16A 12 hours

## Test/measuring equipment

lmage	Part number	Description
	116-WBJ-5/01	Test gas dispenser for smoke detectors, excluding pole
	116-WBJ-5/02	Telescopic pole, 1,26 m to 4,5 m. 1,8 kg.
	116-WBJ-5/03	Expansion pole, 1,13 m. 0,5 kg

lmage	Part number	Description
A3 or Total  Solo  Solo  Solo  The Died of	116-WBJ-5/04	Test gas for smoke detectors
-	116-WBJ-6/01	Heat detector test kit, battery operated, 2 x batteries and charger included (for WBJ-5/02)
	116-WBJ-10	Testifire smoke/heat detector test kit (head unit 2 x battery baton and fast charger)
	116-WBJ-10/01	Testifire smoke/heat head unit
was a second to the second to	116-WBJ-10/02	Smoke capsule for WBJ-10 (6 pack)
L100	116-WBJ-10/03	Solo 760 battery baton
	116-WBJ-10/04	Solo 725 universal fast battery charger





## Detectors for special requirements

Completing your fire detection system

Some situations or applications demand a little more from the fire detection system. For these, Autronica deliver custom solutions with special detectors

Aspirating detectors function by sampling air via a network of pipes, sampled air is passed through a dust filter and into a detector chamber where the air is analysed for traces of smoke. The detectors are capable of detecting the small amounts of smoke that are generated in the initial phases of a smouldering fire, ensuring the earliest possible warning of a potential fire while distinguishing real smoke from dust and pollutants, reducing unwanted alarms to a minimum. Every detector is "trainable" for the specific environment in which it is installed. Typical applications include laboratories, large open spaces, corrosive environments, archives/historical buildings and industrial areas.

Flame detectors are especially suitable for use in connection with the general protection of large open areas where spreading of flames are expected to happen very quickly. They detect radiation from fires, the detection based on infrared radiation (IR radiation) . Typical applications are large open areas, such as atria, aircraft hangars and shopping centres as well as storage rooms for flammable substances.

Beam detectors are used in large open areas instead of a quantity of point smoke detectors. The detector protects a given area by sending signals (infrared light beam) between a transmitter and receiver, and detect dimmer or changes in frequency by heat or smoke. Beam detectors are suited to applications in open spaces where costs associated with point smoke detectors would be prohibitive. Typical applications include warehouses, hotels, hospitals, schools, public buildings, etc.

## Aspirating detectors

The AutroSense series are stand-alone detectors, but can also be connected to fire alarm panels. These are highly sensitive detectors with patented "artificial intelligence" (ClassiFire), which means they are able to adapt to any environment regarding optimal sensitivity, alarm limits and minimum unwanted alarms.

lmage	Part number	Description	Sensitivity (obsc./m)	Max. length piping	Max. coverage (FG)	Max. coverage BS6266 (Hot Wire Test)	Sampling pipe inlets	Max. sampling holes	Alarm levels	Programming	Relays
	116-5861-018.2000	AutroSense 200	0,03–25%	200 m	2000 m²	500 m <sup>2</sup>	4	100	4	Man./ via PC	5
Micro	116-5861-018.1407	AutroSense Micra 10, English version	0,0015-25%	50 m	800 m²	50 m²	1	10	4		2
Micro	116-5861-018.1007	AutroSense Micra 25	0,0015-25%	25 m	450 m²	450 m²	1	10	1	Via PC	2
Miera	116-5861-018.1107	AutroSense Micra 100	0,0015–25%	100 m	1600 m²	500 m <sup>2</sup>	2	50	1	Via PC	2

 $Recommended\ interface\ unit\ for\ aspirating\ detectors\ is\ BN-303,\ see\ "Input\ and\ output\ units"\ on\ page\ 25.$ 

#### Accessories

Part number	Description
116-5861-018.2110	AutroSense command module w/o PSU
116-5861-018.4110	AutroSense Micra relay card w/inputs
116-5861-018.3051	AutroSense wire burn unit
116-5761-018.3422	AutroSense air heater
116-5861-018.9027	AutroSense 200 dust filter
116-5861-018.9028	AutroSense Micra 25 and 100 dust filter
116-5861-018.9999	Cable for "hot wire" test (roll @ 100 m)
116-XJA-030	Programming cable for AutroSense Micra
116-BW-75/04	Condensation bottle
116-BW-75/06	Filter
116-BWP-144	Detector housing for sampling pipes with detector base BWA-100
116-5861-966.0009	Smoke pellets
116-5861-966.0010	Smoke matches

## Piping – halogen free

Description
- 116-5862-001.0025 Water hose in coil, 25 mm PE50 NT10. Please specify desired length: 50 or 300 meters  25 mm  116-5861-910.0027 116-5861-999.0027 116-5861-999.0025 116-5861-999.0025W 116-5861-999.0025W 116-5861-998.0025W 116-5861-998.0027G 116-5861-998.0027G 116-5861-998.0025W 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G
- 116-5861-901.0025 Water hose in coil, 25 mm PE50 NT10. Please specify desired length: 50 or 300 meters  25 mm  116-5861-910.0027 116-5861-999.0027 116-5861-999.0025 116-5861-999.0025W 116-5861-999.0025G 116-5861-998.025G 116-5861-998.027G 116-5861-998.025W 116-5861-998.0025W 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0025G 116-5861-998.0027G 116-5861-998.0027G 116-5861-998.0025G 116-5861-998.0027G 116-5861-998.0027G 116-5861-998.0027G
Please specify desired length: 50 or 300 meters  116-5861-910.0027  116-5861-999.0027  116-5861-999.0025  Straight pipe L = 3 m  25 mm  Red  116-5861-999.0025W  116-5861-999.0025G  116-5861-998.025G  116-5861-998.027G  116-5861-998.0025W  116-5861-998.0025W  116-5861-998.0025W  116-5861-998.0025W  116-5861-998.0025W  116-5861-998.0025G
116-5861-999.0027 116-5861-999.0025 Straight pipe L = 3 m  25 mm Red 116-5861-999.0025W 116-5861-999.0025G 25 mm Grey 116-5861-998.0025G 27 mm / 3/4" Red 116-5861-998.0025 Joining socket 25 mm Red 116-5861-998.0025 27 mm / 3/4" Red 116-5861-998.0025W 116-5861-998.0025W 116-5861-998.0025G 25 mm Red 116-5861-998.0025W 25 mm Red 116-5861-998.0025G 36 mm Red 27 mm / 3/4" Red 116-5861-997.0027G
116-5861-999.0025 Straight pipe L = 3 m 25 mm Red 116-5861-999.0025W 116-5861-999.0025G 25 mm White 116-5861-998.027G 116-5861-998.025 Joining socket 25 mm Red 116-5861-998.0025W 116-5861-998.0025W 116-5861-998.0025G 25 mm Red 116-5861-998.0025G 25 mm Red 116-5861-998.0025G 25 mm Grey 116-5861-998.0025G 25 mm Grey 116-5861-998.0025G 25 mm Grey 116-5861-998.0025G
116-5861-999.0025W 116-5861-999.0025G 25 mm Grey 116-5861-914.1027 27 mm / 3/4" Red 116-5861-998.0025 Joining socket 25 mm Red 116-5861-998.0025  116-5861-998.0025W 25 mm White 116-5861-998.0025G 25 mm Grey 116-5861-998.0025G 25 mm Grey 116-5861-998.0025G 27 mm / 3/4" Red 116-5861-997.0027G
116-5861-999.0025G 116-5861-914.1027 27 mm / 3/4" Red 116-5861-998.027G 116-5861-998.0025 116-5861-998.0025W 116-5861-998.0025G 25 mm Red 116-5861-998.0025G 25 mm White 116-5861-998.0025G 25 mm Grey 116-5861-998.0027G 27 mm / 3/4" Red 116-5861-997.0027G
116-5861-914.1027  116-5861-998.027G  116-5861-998.0025  116-5861-998.0025W  116-5861-998.0025G  116-5861-998.0025G  116-5861-998.0025G  116-5861-998.0027G  27 mm / 3/4" Grey  Comparison of the comparison of th
116-5861-998.027G 116-5861-998.0025 Joining socket 25 mm Red 116-5861-998.0025W 116-5861-998.0025G 25 mm White 116-5861-998.0025G 25 mm Grey 116-5861-964.0001 116-5861-997.0027G 27 mm / 3/4" Red 27 mm / 3/4" Grey
116-5861-998.0025 Joining socket 25 mm Red 116-5861-998.0025W 25 mm White 116-5861-998.0025G 25 mm Grey 116-5861-964.0001 27 mm / 3/4" Red 116-5861-997.0027G
116-5861-998.0025W 25 mm White 116-5861-998.0025G 25 mm Grey 116-5861-964.0001 27 mm / 3/4" Red 116-5861-997.0027G 27 mm / 3/4" Grey
116-5861-998.0025G 25 mm Grey 116-5861-964.0001 27 mm / 3/4" Red 116-5861-997.0027G 27 mm / 3/4" Grey
116-5861-964.0001 27 mm / 3/4" Red 116-5861-997.0027G 27 mm / 3/4" Grey
116-5861-997.0027G 27 mm / 3/4" Grey
116-5861-997.0025 T-piece 25 mm Red
116-5861-997.0025W 25 mm White
116-5861-997.0025G 25 mm Grey
116-5861-915.1027 27 mm / 3/4" Red
116-5861-996.0027G 27 mm / 3/4" Grey
116-5861-996.0025 Socket union 25 mm Red
116-5861-996.0025W 25 mm White
116-5861-996.0025G 25 mm Grey
116-5861-962.0001 27 mm / 3/4" Red
116-5861-995.0027 27 mm / 3/4" Grey
116-5861-995.0025 Normal bend 45° 25 mm Red
116-5861-995.0025W 25 mm White
116-5861-995.0025G 25 mm Grey
116-5861-912.0027 27 mm / 3/4" Red
116-5861-994.0027G 27 mm / 3/4" Grey
116-5861-994.0025 Normal bend 90° 25 mm Red
116-5861-994.0025W 25 mm White
116-5861-994.0025G 25 mm Grey

lmage	Part number	Description	Thickness	Colour
	116-5861-993.0027G		27 mm / 3/4"	Grey
	116-5861-993.0025		25 mm	Red
	116-5861-993.0025W	90° elbow	25 mm	White
	116-5861-993.0025G		25 mm	Grey
	116-5861-964.0002		27 mm / 3/4"	Red
	116-5861-992.0027G		27 mm / 3/4"	Grey
	116-5861-992.0025	End cap	25 mm	Red
	116-5861-992.0025W		25 mm	White
	116-5861-992.0025G		25 mm	Grey
	116-5861-991.2725			Red
	116-5861-991.2725W	Adapter 27 mm - 25 mm, female/female	-	White
	116-5861-991.2725G			Grey
	116-5861-965.0001	Adapter 27 mm - 25 mm, female/male	-	Red
	116-5861-964.0008	Adapter 25 mm -27 mm, female/male	-	Red
	116-5861-922.0004		27 mm / 3/4"	Red
	116-5861-989.2510	T piece for capillary	25 mm	Red
	116-5861-989.2510W		25 mm	White
	116-5861-989.2510W  116-5861-964.0004 Plane test point with 10 mm adapter, 90°		10 mm	White

lmage	Part number	Description	Thickness	Colour
	116-5861-922.0007	Discreet capillary sampling point	10 mm	Transparent
	116-5861-910.0078	Capillary tube	10 mm	Red
	116-5861-988.0010N		10 mm	Transparent
	116-5861-018.9021		27 mm / 3/4" / 10 mm	Red
	116-5861-987.0025	Capillary sampling point kit flush	25 mm / 10 mm	Red
	116-5861-987.0025N		25 mm / 10 mm	Transparent
PLIMAT SI SOLVENT SI S	116-5861-935.0002	Solvent cement 250 ml w/brush	-	-
	116-5861-922.0001	Test point, plane shape	-	-
	116-5861-922.0010	Sampling hole warning labels, 100 psc	-	Red
	116-5861-964.0006			Red
	116-5861-986.2527W	Pipe clip	-	White
	116-5861-986.2527G			Grey

Image	Part number	Description	Thickness	Colour
	116-5861-966.0011	M6-mutter til klips (for å feste klips på M6 «Stand off»)	-	Transparent
	116-5861-966.0001	Compression adapter	27 mm / 3/4" / 10 mm	Red
	116-5861-985.2510		25 mm / 10 mm	Red
	116-5861-966.0002	Compression adapter T	27 mm / 3/4" / 10 mm	Red
	116-5861-984.2510	Compression adapter 1	25 mm / 10 mm	Red
	116-5861-966.0003		27 mm / 3/4"	Red
spirating System Fost Point	116-5861-983.0025	ABS test point	25 mm	Red
	116-5861-983.0025W		25 mm	White
	116-5861-966.0004		27 mm / 3/4"	Red
	116-5861-982.0025	Glass condensation trap	25 mm	Red
	116-5861-982.0025W		25 mm	White
a.	116-5861-966.0005		27 mm / 3/4"	Red
	116-5861-981.2530	Flexible connector 30 cm	25 mm	Red
	116-5861-981.2530W		25 mm	White
ti maa	116-5861-966.0006		27 mm / 3/4"	Red
	116-5861-981.25100	Flexible connector 100 cm	25 mm	Red
	116-5861-981.25100W		25 mm	White

lmage	Part number	Description	Thickness	Colour
	116-5861-966.0007	Condensation trap with valve	27 mm / 3/4*	Red
	116-5861-966.0008	Self bilging condesation trap	27 mm / 3/4"	Red

#### Flame detectors

The AutroFlame IR Flame Detector 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.

lmage	Part number	Description	Housing	Degree of protection	Notes
And the second	116-BG-201	AutroFlame interactive	РСВ	IP66/67	
	116-BG-21	AutroFlame conventional	PCB	IP66/67	
	116-5861-010.2010	601FEX-M IR	FR110	IP20	For indoor use only

#### Accessories

lmage	Part number	Description
	116-KITD-BG-201F	Façade security kit. AutroFlame BG-201 flame detector, bracket, weather baffle and screws
	116-BG-201MRK	Replacement kit for 601F flame detector
	116-001680-001	K1003A1006 Window cleaner for flame detectors (6 pcs.)
	116-003996-001	UV/IR window cleaner kit
	116-5861-010.2013	Ex detector base for 601FEX-M flame detector
	116-5861-010.2014	Deckhead mounting kit for series 601 flame detectors

## Test equipment

Part number	Description
116-006439-004	W8067S Long range test lamp (non-EX)
116-004000-006	W867C Portable test lamp 220 V

#### Beam detectors

lmage	Part number	Description	Detection distance	Ingress Protection level	Notes
	116-5861-023.5101	FireRay 5000-101 system Auto aligning infrared optical beam detector. 1 x detector head, 1 x system controller, 1 x reflector	5 – 50 m	IP54	
	116-5861-023.5102	FireRay 5000-102 system Auto aligning infrared optical beam detector. 1 x detector head, 1 x system controller, 4 x reflectors	50 – 100 m	IP54	
	116-5861-023.3000	FireRay 3000-101 End to end infrared optical beam smoke detector system. Transmitter, receiver and compact low- level controller.	5 – 120 m	IP54	

Recommended interface unit for FireRay aspirating detectors is BN-305, see "Input and output units" on page 25.

#### Accessories

lmage	Part number	Description
	116-5861-023.5002	FireRay 5000-002: For 50 m – detector head and 1 x reflector
	116-5861-023.5039	FireRay 5000-03: For 100 m – detector head and 4 x reflector
	116-5861-023.5003	FireRay 5000-003: System controller
	116-5861-023.5005	FireRay 5000-005Universal bracket for use with FireRay 5000 detector head or reflector mounting plate

lmage	Part number	Description
	116-5861-023.5006	FireRay 5000-006: Surface mounting plate for 1 or 4 reflectors
	116-5861-023.5007	FireRay 5000-007: Mounting plate for 4 reflectors for use with bracket FireRay 5000-005 Image shows plate mounted on bracket, with reflector
	116-5861-023.5009	FireRay 5000-008: Mounting plate for 1 reflector for use with bracket FireRay 5000-005 Image shows plate mounted on bracket, with reflector
	116-5861-023.5008	Obscuration test filter
	116-5861-023.5004	50-100 m kit for FireRay 5000, consisting of 3 reflectors. Included in FireRay 5000-102
	116-5861-023.1018	Protection cage for FireRay 5000
	116-5861-023.3001	FireRay 3000-015: Pair of detectors (transmitter and receiver) for use with FireRay 3000 system
	116-5861-023.3002	FireRay 3000-201: Adjustment bracket for use with FireRay detectors

#### Alarmline linear heat detection

Image	Part number	Description
	116-AD68N-0001	Digital cable, 68 °C nylon, 1 meter
	116-AD88N-0001	Digital cable, 88 °C nylon, 1 meter
	116-AD105N-0001	Digital cable, 105 °C nylon, 1 meter
	116-AD185SS-0001	Digital cable, 185°C stainless steel and nylon, 1 meter
	116-AAN-0001	Analogue LHD cable, nylon, 1 meter
ALARMINE II Alarmine III Alarmi	116-AACUSP	Analogue LHD control unit, self programming

Recommended interface unit for Alarmline linear heat detectors is BN-303, see page 27.

#### Accessories

Part number	Description
116-5843-005.9002	Alarmline L bracket
116-5843-005.9003	Alarmline edge clip
116-5843-005.9004	Alarmline T clip
116-5843-005.9005	Alarmline pipe clip
116-5843-006.0010	Termination kit K82023
116-5843-007.0003	Neoprene sleeve B6782-08
116-5843-007.0004	Cable ties B6782-121





# AutroXT extinguishant control system

Reliable fire protection

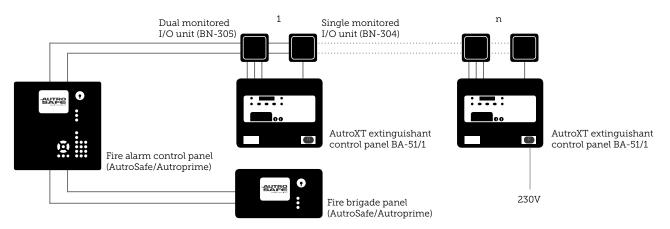
AutroXT extinguishant control panel BA-51/1 is a standard-compliant panel that – when used together with Autronica's interactive fire detection systems AutroSafe 4 or Autroprime – enables automatic extinguishant release in critical areas where a fire would be catastrophic, like power plants, computer rooms, switchboard rooms or engine rooms.

The extinguishant control panel has two fully monitored inputs for connection to fire detection control equipment or addressable control modules to provide an EN 12094-1 compliant extinguishant control system.

Its many programmable features and extensive range of inputs and outputs

make the BA-51/1 suitable for all extinguishing applications where a fully featured control device is required.

The AutroXT extinguishant control panel BA-51/1 is connected to the AutroSafe 4 / Autroprime fire alarm control panel via two I/O units, each panel covering one zone.



## Panels

Image	Part number	Description
	116-BA-51/1/GB	Extinguishant control panel, 1 zone., English text
11.1 to 12.1 t	116-BA-51/1/I	Extinguishant control panel, 1 zone., Italian text
	116-KITD-BA-51	Kit including extinguishant control panel BA-51/1, dual monitored input unit BN-305 and single monitored input unit BN-304. Please specify language when ordering.

## Accessories

Image	Part number	Description
-	116-4860-010.9008	Release station, single operation, yellow
-	116-4860-012.0100	Universal hinged cover
-	116-4860-012.0101	Breakable cover seal





# AutroMaster presentation system

A fully integrated safety and emergency management system

The AutroMaster 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.

#### Graphical user interface

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.

#### Interoperability

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.

#### Logging and reporting

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.

#### **Decision-making tools**

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

 $Autro Master\ ISEMS\ is\ the\ complete\ Autro Master\ edition,\ including\ all\ functionality.\ In\ addition,\ we\ offer\ a\ market\ specific\ edition\ with\ the\ modules\ most\ relevant\ for\ the\ onshore\ market$ 

Modules/functions	AutroMaster - onshore edition	AutroMaster - ISEMS
Basic functionality		
Fire management basic functions	•	•
MultiSensor control	•	•
Report generator	•	•
Control and monitoring of emergency lights/LLL	•	•
Extended functionality		
AutroSafe IFG unit support	NA	•
Touch screen support	•	•
Decision support system/incident manager		•
Electronic plotting table		•
Training/simulation module		•
Event record and replay module		•
Video module (live video support CCTV)		•
Remote connect function		•
Message centre module		•
Interfaces		
Hernis CCTV interface		•
System-S interface		
NMEA interface		•
VDR output		•
MODBUS interface	•	•
ESPA 4.4.4 interface	•	•

## Software licences

Part number	Description
116-PROG-AUTROMASTER-ONS	AutroMaster Onshore Edition – Provides extensive fire detection and alarm management functions. Customers have the freedom to add dedicated software modules to expand the functionality according to their needs.
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-DSS	Decision Support System (DSS) – An interactive incident management system for AutroMaster. The DSS gives operators access to customer-specified checklists. The checklists are organized as checkpoints with one or more action items that can be used to manage operations, and these can be marked off as actions are completed.
116-PROG-AM-MOD-EPTABLE	Electronic fire control plotting table – gives you a dynamic plotting table to keep track of actors events during an emergency or drill. All EPT activity is logged in the Decision Support System and is available for later reviews.
116-PROG-AM-MOD-TSIM	Training/Simulation module – A tool to simulate pre-configured events. During a simulation it is possible to pause, stop/end, and continue the simulation. Running the simulation tool is similar to running a live event, alarms and faults are acknowledgeable and resettable. Every event is logged, and after a simulation (or a stop), a full log can created and it is possible to replay the simulation using the Event record/replay module.
116-PROG-AM-MOD-EVENT	Event Record/Replay module – Offers a screenshot-based replay of incidents on AutroMaster and can be configured to start recording manually or on pre-configured events as pre-warning, alarm or simulation. Recordings are available for replay, and under replay the operator can start, stop, pause, fast-forward and fast backwards. It is possible to export stored events.
116-PROG-AM-MOD-VIDEO	Video interface module – Includes display of live video in AutroMaster from IP based video cameras.
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.
116-PROG-AM-MOD-MC	Message Centre module – In the Message Centre the user can send text messages to telephone systems and other AutroMaster PCs. The user can also send pre-recorded voice messages to PA systems. Requires ESPA 4.4.4. interface.

## Interface modules

Part number	Description
116-PROG-AM-MOD-HERNIS	Hernis CCTV interface – Interface enables use of AutroMaster together with video cameras and servers from Hernis.
116-PROG-AM-MOD-NMEA	NMEA interface – A protocol used for interface in between maritime electronic equipment, and AutroMaster has built-in support for this in the NMEA interface module. Interface towards GPS is the most common application.
116-PROG-AM-MOD-VDROUTPUT	VDR output – Used in maritime applications for giving output to the Voyage Data Recorder. Configuration of which data and status messages to send to the VDR is done by project engineering.
116-PROG-AM-MOD-MODBUS	MODBUS interface – With the MODBUS interface AutroMaster can be connected to almost any kind of electronic equipment for monitoring and control.
116-PROG-AM-MOD-ESPA444	ESPA 4.4.4 interface – Offers a serial protocol intended for the interconnection of paging equipment with telephone exchanges or computer systems. The protocol used is message-based and is built upon the ISO1745 transport specification. Required if Message Centre module is used.

## Software hardcopies

Part number	Description
116-AUTROMASTER-ONS-CD	AutroMaster ONS back-up CD without license
116-AUTROMASTERISEMS-CD	AutroMaster ISEMS back-up CD without license

## 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 analogue values

#### Hardware

Part number	Description
116-AUTROMASTER-PC-12	PC, desktop version, convertible minitower. Model subject to change without prior notice.
116-AUTROMASTER-RACKPC	19" rack mount PC
116-5151-020.0210	Industrial PC w/SSD
116-5151-020.1951	19" standard LCD monitor
116-5151-020.2405	24" widescreen LCD monitor
116-5760-050.2003	Laser printer, colour, network and USB
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
116-5151-020.2029	Moxa 4-port serial PCIE





## AutroVoice voice alarm system

getting the message across in plain language

Alarm bells and sirens only provide a warning signal, They cannot give information if the situation is a drill or a real incident, type or location of incident, and what they should do.

#### Clear and concise information

AutroVoice provides clear, concise information without the use of confusing and often frightening alarm bells and sirens. Our voice-alarm systems use PA (public address) technology to alert members of the public as to what the problem is and what action they need to take. A pleasant-yet-firm pre-recorded voice is broadcast over a speaker system – this can, if necessary, be replaced with live broadcast – giving clear and precise information to the public.

People will be able to distinguish drills or tests from real incidents. If an incident should occur, the public will be guided to the nearest available exit, at a safe distance from the incident itself.

Voice alarms can be integrated into the fire detection system or delivered as a stand-alone unit.

With our new voice alarm product ranges AutroVoice miniVES og MULTIVES we're making a tecnological quantum leap, launching a voice alarm spear point making us better equipped to service your needs for clear and precise alarms in any building.

#### AutroVoice miniVES

MiniVES is a standalone voice alarm system ideal for small-to-medium sized applications where an EN 54-16:2008 system is required.

The miniVES is a plug  $\theta$  play solution with all elements in place, including a built-in fire microphone, programmable contact inputs and outputs, space for 1h pre-recorded messages and slots for batteries, all fitted in a neat chassis.

The master units are equipped with Class D power amplifiers, available with 2 and 4 zone configurations. The miniVES has integral back-up power supply, a charging unit and the necessary EN54-4 circuitry for the DC back-up and batteries checker.

The miniVES is a family of independent EVAC systems which can be networked together and extended by desktop zone microphones or fire microphones via TCP/IP network, providing live announcements and background music inputs. The system is using cat5 cables for paging microphones and fibre optic redundant interlink connections between the systems.

#### Features:

- Meets all requirements of EN54-16
- · Phased evacuation
- Fully controlled by 4,5" colour touch screen
- Impedance or loop (option) speaker monitoring
- RJ45 (TCP/ IP) socket for programming
- Industrial SD card for storage of messages and FW
- · Remote management via WAN
- Unlimited number of connected Fire and Zone microphones
- Network card as an option which allows to connect any number of standalone miniVES boxes creating easy extendable, distributed Voice Evacuation System

lmage	Part number	Description
***************************************	116-MINIVES-2001	$2xAB$ (4 lines); amp $2x160W$ (incl. spare amp.); $1\ x$ audio; LCD, fireman mic.; charger; $w/o$ batteries
Annothin smooth  Annothin smooth	116-MINIVES-4001	4xAB (8 lines); amp 2x320W (incl. spare amp.); 2 x audio; LCD, fireman mic.; charger; w/o batteries
	116-MINIVES-4002	4xAB indep. (8 lines); amp. 2x320W (incl. spare amp.); 2 x audio; LCD, fireman mic.; charger; w/o batteries
-	116-N-NETWORK-CARD	Network card (with SFP modules) option for all miniVES boxes

#### AutroVoice MULTIVES

With the MULTIVES system the possibilities are endless: It is designed for versatility and flexibility – and can be extended indefinitely.

The architecture of the MULTIVES is based on fibre optic Ethernet connections between control units and other elements of the system, making it ideal for use in extensive and complex structures, such as air terminals, oil fields and refineries, commercial centers and office complexes. It is extremely suitable for both decentralized and centralized systems.

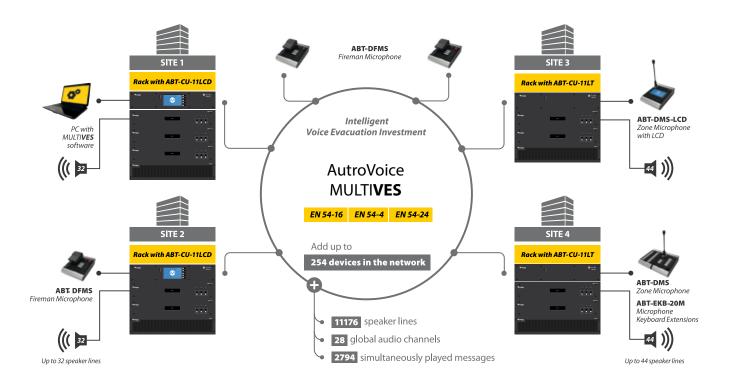
Although the primary task of the MULTIVES system is to cooperate with the fire alarm system, automatically broadcasting fire alarm messages, the fiber optic technology for digital transmission of voice messages, can also be used for commercial messages and music. In other words, it is a complete PA system for use in your everyday business.

The functionality of the system is designed in accordance with EN 54-16 - a mandatory standard which has been applicable in Europe since 2011 - and the equivalents of which have also been implemented in many other parts of the world, including the Middle East.

The MULTIVES system comprises control devices, multi-channel amplifiers as well as fireman microphone consoles and zone microphones. The system enables digital scaling communication not only among all the elements of the system but also other integrated safety systems.

#### Features:

- Compliance with EN 54-16, EN 60849
- 28 global audio channels
- · Max 254 units in the network
- Up to 32 GB SD flash memory dedicated for playback and recording messages (48 kHz, 16 bit)
- · Maximum number of simultaneously played messages dependent on the number of loudspeaker line control cards in the system
- · Intercom function between all microphones
- External audio inputs in every control units and zone microphones
- Up to 12 secured amplifiers supported
- 4 common 100 V audio buses in every Control Unit for spare amplifiers and budget solutions with maximum 4 at the same time played messages
- DSP with implemented 3 band parametric EQ on all inputs on control units, 8 band parametric EQ, delay lines, audio limiter and feedback eliminator on each of the audio outputs
- Complex control inputs / outputs and RS485 interfaces for Fire Alarm Systems and BMS integration
- $8 \times 80.8 \times 160$  and  $2 \times 650$  W bridgeable Class D amplifiers



## Control units

Image	Part number	Description
•==	116-ABT-CU-8LCD	Control Unit with LCD (8 zones)
**************************************	116-ABT-CU-11LT	Control Unit (11 zones)
•==	116-ABT-CU-11LCD	Control Unit with LCD (11 zones)

## Control unit elements

lmage	Part number	Description
11 719	116-ABT-xNET-1Gb/WAN/RS	Communication card  ABT-xNET is a communication card consisting of two independent 1 GB network switches. Network switch no. 1 is destined solely for transition of data connected with the basic functionality of the MULTIVES system, i.e. working of the emergency sound system and AVB operation. Network switch no. 2 is used for remote connections.  This card operates TCP/UDP/PTP/DHCP protocols and assures CPU-OFF based audio data exchange.  In addition the card has an RS485 port enabling implementation and integration of the MULTIVES system with other systems. Another functionality is a POE splitter for providing power to, among others, fireman microphones.
, since	116-ABT-xCTRLN-4	4 loudspeaker line control card This card offers 4 independent loudspeaker line outlets. Measurement of the lines can be done by 2 methods: the impedance method or LOOP method. The card detects failure of the amplifier and switches the 100 V signal between internal buses and individual amplifier input on the card. A built-in dedicated measuring component on the card monitors the status of the internal rail.
	116-ABT-xCTRLN-2	<b>2 loudspeaker line control card</b> This card offers 2 independent loudspeaker line outlets (A, B). Measurement of the lines can be done by two methods: the impedance method or LOOP method. The card detects failure of the amplifier and switches the 100 V signal between internal buses and individual amplifier input on the card.
THE STATE OF	116-ABT-xAudIO-4/8-RS	Function card 4 IN / 8 OUT Audio / RS-485  This card offers 4 line audio inputs via an RJ45 connector as well as 8 symmetrical outputs via an RJ45 connector for leading out audio signals to the external devices or amplifiers of the MULTIVES system. The card is also equipped with an RS485 interface with the help of which the MULTIVES system can be controlled or integrated with devices offered by other producers.

Image	Part number	Description
1	116-ABT-xAudI-8	Function card 8 IN Audio  This audio input extension card offers 8 symmetrical line audio inputs via a Phoenix-type connector.
	116-ABT-xLogIN-8f	8 logical inputs card (function slot) This card has 8 control inputs which may receive signals from other systems in order to trigger a desired reaction of MULTIVES system. The inputs offer two modes of work: a non-potential mode (normally shorted /normally opened) and a voltage mode. Moreover, the card monitors communication to the inputs.
	116-ABT-xLogOUT-8f	8 logical outputs card (function slot) The logical output card has 8 relays: 4 normally closed and 4 normally open. Each of them is fully programmable in terms of function (NC / NO) as well as function correlation.
4	116-ABT-xLogIN-8c	8 logical inputs card (control slot) The logical input card a function or control slot has 8 control inputs which may receive signals from other systems in order to trigger a desired reaction of MULTIVES system. Inputs of an ABT-xLogIN-8f card offer two modes of work: a non-potential mode (normally shorted /normally opened) and a voltage mode. Moreover, the card monitors communication to the inputs.
	116-ABT-xLogOUT-8c	8 logical outputs card (control slot) The logical output card has 8 relays: 4 normally closed and 4 normally open. Each of them is fully programmable in terms of function (NC / NO) as well as function correlation.

## Microphones and accessories

lmage	Part number	Description
	116-ABT-DFMS	Fireman's microphone
	116-ABT-DMS	Zone microphone
	116-ABT-DMS-LCD	Zone microphone with LCD
	116-ABT-EKB-20M	Microphone keyboard extension (20 buttons)
	116-ABT-ISLE	Audio / RS485 interface Communication module and audio signal splitter with RS485 for external systems integration.

## Power amplifiers

We offer class-D transformer isolated power amplifiers for 50 V and 100 V distributed loudspeaker systems. They are designed for rack mounting, 2U each

In a bridged mode, amplifier channels are combined and the effect is increased.

The amplifiers have 48 VDC inputs, allowing connection to battery back-up systems for maximum availability and durability. They are powered from external power supply module ABT-PS48800 working in a block. The current from the block is distributed to individual amplifiers through the "power manager" ABT-PSM48 (device includes a battery charger and is in compliance with EN 54-4).

Image	Part number	Description	Bridged mode
· — ····	116-ABT-PA8080B	Power amplifier D-Class 8x80 Watt	4 x 160 W
- ::	116-ABT-PA8160B (8CH)	Power amplifier D-Class 8x160 Watt	4 x 320 W
	116-ABT-PA8160B (4CH)	Power amplifier D-Class 4x160 Watt	2 x 320 W
	116-ABT-PA2650B (2CH)	Power amplifier D-Class 2x650 Watt	1 x 1300 W
	116-ABT-PA1650B (1CH)	Power amplifier D-Class 1x650 Watt	-

#### Power supply modules

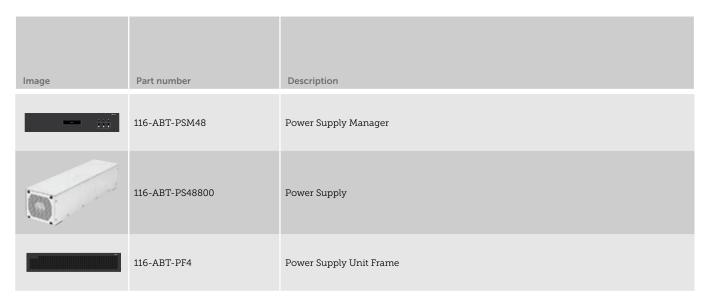
ABT-PSM48 power supply manager is designed for distribution of DC power supply from power supply units (PSU) and a back-up battery. The unit controls battery charging and distributes power supply to all equipment at max 60 A. When the system uses battery back-up, the power supplied is max. 3.2 kW. The unit complies with the EN 54-4 VES standards and also EN 12101-10 Smoke and Heat Control System standards.

As a main source of energy distribution, the manager uses external module ABT-PS48800: 800 W for 48 V. PSM48 power supply manager uses an internal power converter for 24 V equipment. As a source of stand-by power supply, it uses the battery bank of the capacity of up to 200 Ah.

ABT-PSM48 co-operates with the 4x12 V / 2x12 V VRLA battery bank. It maintains the bank in charged condition, ensures temperature compensation of charging parameters and monitors serial resistance of the battery and its wiring as specified in EN 54-4/A2.

ABT-PSM48 co-operates with up to 4 modules of ABT-PS4880 power supply units. The manager ensures safe connection for the purpose of parallel operations and monitors the output parameters of each power supply unit.

ABT-PS48800 is designed for assembling in a dedicated ABT-PF4 Power Supply Unit Frame. The elements of the system are designed for assembly in a 19" rack.



#### Modules SFP

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Image	Paert number	Description
-	116-SF-CP100C-GP	Module SFP, 10/100/1000 TX UTP 100m
-	116-SF-MM31WD055D-GP	Module SFP, WDM 1.25Gbps 1310nm Tx/1550nm LC DDM MMF 550m
-	116-SF-MM55WD055D-GP	Module SFP, WDM 1.25Gbps 1510nm Tx/1350nm LC DDM MMF 550m
-	116-SF-MM31002D-GP	Module SFP, 1.25Gbps SX+ 1350nm LC DDM MMF 2km
-	116-SF-MMS55WD055D-GP	Module SFP, WDM 1.25Gbps 1510nm Tx/1350nm SC DDM MMF 550m
-	116-SF-MMS31WD055D-GP	Module SFP, WDM 1.25Gbps 1310nm Tx/1510nm SC DDM MMF 550m
-	116-SF-SMS31WD020D-GP	Module SFP, WDM 1.25Gbps 1310nm Tx/1550nm SC DDM MMF 20km
-	116-SF-SMS55WD020D-GP	Module SFP, WDM 1.25Gbps 1510nm Tx/1350nm SC DDM MMF 20km
-	116-SF-SMS31WD020-GP	Module SFP, WDM 1.25Gbps 1310nm Tx/1550nm SC SMF 20km
-	116-SF-SMS55WD020-GP	Module SFP, WDM 1.25Gbps 1510nm Tx/1350nm SC SMF 20km

## Network switches

lmage	Part number	Description
-	116-IFS-803GSM-8PHE24	Switch, 8xPoE, 3xSFP
-	116-IGS-402S-4PHE24	Switch, 4xPoE, 2xSFP
-	116-Prosafe-FS116P	Switch, 8xPoE+8xLAN

## Miscellaneous

Image	Part number	Description
-	116-LD-Systems-CDMP-1	Multimedia Player CD, USB, SD, MP3

## Loudspeakers

lmage	Part number	Description	Max. output (W)	dB 1W/1m (SPL)	Frequency (Hz)	Dimensions (mm)	Outdoor use	HIFI	ABS plastic	Aluminium	MDF
	116-BBR-DAL165/10PP	Cabinet speaker, EN 54 approved	10	100,6	225 - 22 200	170 x 75					
	116-BBR-WAL165/6PP	Cabinet speaker, EN 54 approved	6	98,2	140 - 19 700	253 x 193 x 83					•
	116-BBR-CP66/T	Cabinet speaker	6	88	180 - 18 000	270					
	116-BBR-DEL130/6PP	Ceiling speaker, EN 54 approved	6	99,2	310 - 14 800	180 x 130					
Variable	116-BBR-DELF165/6PP	Ceiling speaker, EN 54 approved	6	100,7	380 - 22 500	220 x 110				•	
	116-BBR-GM3303EV	Ceiling speaker	8	89,2	125 - 20 000	200			•		
	116-BBR-GM3313EV	Ceiling speaker	8	90,7	80 - 20 000	230					
	116-BBR-DAW130/10PP	Projector speaker	10	94,3	125 - 20 000	140 x 200				•	
	116-BBR-DAW130/20PP	Projector speaker	20	108,1	130 - 20 400	140 x 365					
100	116-BBR-DK-10/TPP	Horn speaker, EN 54 approved	10	106	380 - 9 000	142 x 207	•		•		
	116-BBR-DK-15/TPP	Horn speaker, EN 54 approved	15	108	460 - 9 000	208 x 272	•		٠		
	116-BBR-DK-30/TPP	Horn speaker, EN 54 approved	30	110	400 - 7 500	238 x 302	•		•		

lmage	Part number	Description	Max. output (W)	dB 1W/1m (SPL)	Frequency (Hz)	Dimensions (mm)	Outdoor use	НІЯ	ABS plastic	Aluminium	MDF
	116-BBR-DK-MH30/T- EN54	Music horn speaker, EN 54 approved	30	110,1	80 - 14 000	370 x 255 x 291					
1	116-BBR-DK-10/T	Horn speaker	10	111,2	430 - 8800	142 x 207	•		•		
	116-ABT-TNL100	Tunnel loudspeaker in stainless steel Anchor for concrete mounting	100	111	250 - 8000	1770 x 1020 x 455	•				





#### Our mission is clear,

to make the world a safer place to live in. We know how important this task is, and this drives us to constantly develop smarter solutions.

Our pride and driving force are anchored in saving as many lives as possible, in protecting the environment and in securing property around us. In many cases, the consequences of a fire are enormous, and we have undertaken to understand how they occur, develop and can be fought. Our solutions must discover potential hazards in our surroundings as early as possible, without causing false alarms and uncertainty. This is a delicate balance, and our technology must be equally optimised in large cruise ships, in nuclear power stations and on oil platforms, as in kindergartens.

A masterly exercise in which we place all our honour.

And in this way, we create the safest and most reliable fire and gas safety products in the world.

Protecting life, environment, and property

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