

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00003UH
Revision No:
2

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, cabin balconies, machinery spaces and unattended machinery spaces: Control, indicating and power supply equipment

with type designation(s)
Interactive fire panels

Issued to

Autronica Fire and Security AS
Trondheim, Norway

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

item No. MED/3.51a. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9, IGF Code 11, IMO MSC.1/Circ.1242, IMO MSC.1/Circ.1487 and MSC.1/Circ.1528

item No. MED/3.51b. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9, IGF Code 11, IMO MSC.1/Circ.1242 and IMO MSC.1/Circ.1554

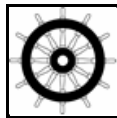
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-02-13**.

Issued at **Høvik** on **2020-02-14**

DNV GL local station:
Trondheim

Approval Engineer:
Ståle Sneen



Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

AUTROPRIME

The fire alarm control panel BS-200M supports 4 detection loops. All loop units can be mixed freely and connected at any point on the same detection loop. A maximum of 8 additional panels can be freely mixed and connected to the fire alarm control panel via the RS-485 panel bus, including repeater panels BS-211, information panels BV-210, fire brigade panels BU-210 and mimic drivers BUR-200.

Autroprime Interactive Fire Detection System consist the following units:

- BS-200M: Main control panel
- BS-210: Operator panel
- BS-211: Repeater panel
- BU-210: Fire brigade panel
- BV-210: Information panel
- BUR-200: Mimic driver
- BC-250: Controller Unit

Software version: 2. 0. x, x to be defined for each delivery.

AUTROSAFE 4

The fire alarm control panel BS-420/420M/420G supports maximum 30 modules, of which maximum 12 can be loop driver modules. Utilizing a redundant Ethernet network, AutoNet, the control panel can communicate with other system units. A maximum number of 64 system units can be connected to each AutoNet, including controller BC-420, operator panel BS-430 and BU-BV-420 configurable repeater/information panel. Power supply units BP-405, BPS-405 and BPS-410.

- BS-420M: Main control panel, network system, marine applications, release 4
- BS-420G: Main control panel, network system, offshore applications, release 4
- BS-420G2: Main control panel, network system, offshore applications, release 4, certified to SIL2
- BS-430: Operator panel with total display/service, network system, release 4
- BS-430G2: Operator panel with total display/service, network system, release 4, certified to SIL2
- BC-420: Controller without display/buttons, network system, release 4
- BC-420G2: Controller without display/buttons, network system, release 4, certified to SIL2
- BU-BV-420: Repeat/Information panel (service by dipswitch settings), release 4
- BU-BV-420G2: Repeat/Information panel (service by dipswitch settings), release 4, certified to SIL2
- BP-405: Power cabinet provides space for two 12V/18Ah batteries, release 4
- BPS-405: Decentralized power unit, mountable in a 19" rack/console, 115/230VAC 24VDC/5A, release 4
- BPS-410: Decentralized power unit, mountable in a 19" rack/console, 115/230VAC 24VDC/10A, release 4
- BC-440: Rack mount version of BC-420
- BC-440G2: Rack mount version of BC-420G2, certified to SIL2

Interface modules:

- BSB-310A: Monitored output module
- BSD-310: Loop driver module
- BSD-330: BS-100 loop interface
- BSE-310: Monitored input module
- BSE-320: Input module
- BSL-310: Communication module
- BSS-310A: Power module
- BSS-311: Power module

Software version 4.x.y, where x, y- values shall be defined for each delivery.

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Application/Limitation

The equipment are found to comply with following location/application dependent requirements:

AUTROSAFE 4 and AUTROPRIME

- Temperature: TEM-B – Location (5°C-70°C) (ref. IEC 60092-504:2016 table 1 item 6-7)
- Vibration: VIB-A – For general applications (ref. IEC 60092-504:2016 table 1 item 10)
- EMC: EMC-B – Bridge and open deck zone (ref. IEC 60092-504:2016 table 1 item 13-20)
- Enclosure: ENC-A – Control room, accommodation, bridge (IP22) (ref. IEC 60092-201:1994 table 5)

BPS-405 and BPS-410 Decentralized power units

- Temperature: TEM-D – Location (-25°C-70°C) (ref. IEC 60092-504:2016 table 1 item 6-7)
- Vibration: VIB-A – For general applications (ref. IEC 60092-504:2016 table 1 item 10)
- EMC: EMC-B – Bridge and open deck zone (ref. IEC 60092-504:2016 table 1 item 13-20)
- Enclosure: ENC-A – Control room, accommodation, bridge (IP22) (ref. IEC 60092-201:1994 table 5)

Type Examination documentation

Equipment	Scope	Document	No.
Autroprime BS-200M	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BS200M/CGB, rev.I	49
Autroprime BS-210	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BS200M/CGB, rev.I	49
Autroprime BS-211	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BS211/CGB, rev.B	50
Autroprime BU-210	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BU210/CGB, rev.B	51
Autroprime BV-210	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BV210/CGB, rev.B	42
Autroprime BUR-200	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BUR-200/CGB, rev.D	91
Autroprime BC-250	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC 60092-504, IEC 60533	Nemko, Test Report, E07357.05, 2013-06-06 Nemko, Test Report, E18299.00, 2019-01-31	77 106
	Product data	Autronica, Data Sheet, 116-P-BC250/CGB, 2014-05-23	76
AutroSafe BS-420, BS-420M, BS-420G, BS-420G2	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BS420/CGB, rev.H	86
	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
AutroSafe BS-430, BS-430G2	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107

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Equipment	Scope	Document	No.
	Product data	Autronica, Data Sheet, 116-P-BS430/CGB, rev.G	87
AutroSafe BC-420, BC-420G2	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BC420/CGB, rev.E	80
AutroSafe BU-BV-420, BU-BV- 420G2	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BU-BV420/CGB, rev.E	90
AutroSafe BP-405	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BP405/CGB, rev.B	82
AutroSafe BPS-405	EN 54-4	DNV, Test Report, 2010-3386, rev.1	34
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3355, rev.1 Applica, Test Report, 21439, rev.0	35 107
	Product data	Autronica, Data Sheet, 116-P-BPS405/CGB, rev.A	84
AutroSafe BPS-410	EN 54-4	DNV, Test Report, 2010-3386, rev.1	34
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3355, rev.1 Applica, Test Report, 21439, rev.0	35 107
	Product data	Autronica, Data Sheet, 116-P-BPS410/CGB, rev.C	85
AutroSafe Rack Unit BC- 440/440G2	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1	26
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BC440/CGB, rev.C	81
AutroSafe BSD-330	EN 54-2, EN 54-4	DNV, Test Report, 2009-3710, rev.1	26
	IEC 60092-504, IEC 60533	Nemko, Test Report No. E12195.00 Applica, Test Report, 21439, rev.0	65 107
	Product data	Autronica, Data Sheet, 116-P-BSD330CGB, rev.D	88
AutroSafe BSB-310A BSD-310 BSE-310 BSL-310 BSS-310A BSS-311	EN 54-2, EN 54-4	DNV, Test Report, 2009-3710, rev.1	26
	IEC 60092-504, IEC 60533	DNV, Test Report, 2009-3691, rev.6 Applica, Test Report, 21439, rev.0	58 107
	Product data	Autronica, Data Sheet, 116-P-BSB310A/CGB, rev.C	66
		Autronica, Data Sheet, 116-P-BSD310/CGB, rev.I	67
		Autronica, Data Sheet, 116-P-BSE310/CGB, rev.E	69
		Autronica, Data Sheet, 116-P-BSE320/CGB, rev.E	70
		Autronica, Data Sheet, 116-P-BSL310/CGB, rev.D	71
		Autronica, Data Sheet, 116-P-BSS310A/CGB, rev.B	89
		Autronica, Data Sheet, 116-P-BSS311/CGB, 2010-11-24	73

Tests carried out

Applicable tests according to:

- EN 54-2:1997 incl. AC:1999 and A1:2006
- EN 54-4:1997 incl. AC:1999, A1:2002 and A2:2006
- IEC 60092-504:2016
- IEC 60533:2015

Marking of product

For identification to this type examination certificate the products shall be marked with:

- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (wheel mark), followed by
 - identification number of the NoBo involved in production control (MED D)
 - the year the mark is affixed
 - Example: 0575/2020