DNV·GL

Certificate No:
MEDB00003UH

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 and indicating 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) 2017/306,**
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, IMO MSC.1/Circ.1242 and IMO MSC.1/Circ.1487
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 and IMO MSC.1/Circ.1242
item No. MED/3.51g. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9 and IMO MSC.1/Circ.1242

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

This Certificate is valid until **2019-06-01**.

Issued at **Høvik** on **2018-02-23**

DNV GL local station:
Trondheim

Approval Engineer:
Nils Jarem

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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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, AutroNet, the control panel can communicate with other system units. A maximum number of 64 system units can be connected to each AutroNet, 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

- BU-110 Fire brigade loop panel
- BV-110 Information loop panel

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.

Job Id: **344.1-001924-16**
Certificate No: **MEDB00003UH**

Application/Limitation

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

AUTROSAFE 4 and AUTROPRIME

- EMC-B Bridge and open deck zone (ref. IEC 60092-504 (2001) table 1 item 19-20)
- ENC-A Control room, accommodation, bridge (IP22) (ref. IEC 60092-201 table 5)
- TEM-B Location (5°C-70°C) (ref. IEC 60092-504 (2001) table 1 item 6-7)
- VIB-A For general applications (ref. IEC 60092-504 (2001) table 1 item 10)

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
	IEC60092-504, 60533	Nemko, Test Report, E07357.03 rev.3, 2011-10-12	38
	Product data	Autronica, Data Sheet, 116-P-BS200M/CGB rev.E, 2010-09-22	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
	IEC60092-504, 60533	Nemko, Test Report, E07357.02 rev.2	3
	Product data	Autronica, Data Sheet, 116-P-BS200M rev.B	5
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, 60533	Nemko, Test Report, E07357.03 rev.3, 2011-10-12	38
	Product data	Autronica, Data Sheet, 116-P-BS211/CGB, rev.A, 2010-09-22	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
	IEC60092-504, 60533	Nemko, Test Report, E07357.03 rev.3, 2011-10-12	38
	Product data	Autronica, Data Sheet, 116-P-BU210/CGB rev.A, 2010-09-22	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
	IEC60092-504, 60533	Nemko, Test Report, E07357.03 rev.3, 2011-10-12	38
	Product data	Autronica, Data Sheet116-P-BV210/CGB rev.A, 2010-09-22	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
	IEC60092-504, 60533	Nemko, Test Report, E07357.03 rev.3, 2011-10-12	38
	Product data	Autronica, Data Sheet, 116-P-BUR-200/CGB rev.C	91
Autroprime BC-250 BUR-200	EN 54-2	Nemko, Test Report, 86445_3 rev.2	1
	EN 54-4	Nemko, Test Report, 86445_4 rev.2	2
	IEC60092-504, 60533	Nemko, Test Report, E07357.05 rev.5, 2013-06-06	77
	Product data	Autronica, Data Sheet, 116-P-BC250/CGB, 2013-12-18	76
AutroSafe BS-420, BS-420M, BS-420G, BS-420G2	EN 54-2	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.2	25
	Product data	Autronica, Data Sheet, 116-P-BS420/CGB, rev.D	86
AutroSafe BS-430, BS-430G2	EN 54-2	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	EN 54-4	DNV, Test Report, 2009-3664, rev.1 DNV, Test Report, 2009-3710, rev.1	26 27
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.2	25
	Product data	Autronica, Data Sheet, 116-P-BS430/CGB, rev.E	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
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.2	25

Equipment	Scope	Document	No.
	Product data	Autronica, 116-P-BC420/CGB, rev.C	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
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.2	25
	Product data	Autronica, Data Sheet, 116-P-BU-BV420/CGB, rev.C	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
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.2	25
	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
	IEC60092-504, 60533	DNV, Test Report, 2010-3355, rev.1	35
	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
	IEC60092-504, 60533	DNV, Test Report, 2010-3355, rev.1	35
	Product data	Autronica, Data Sheet, 116-P-BPS410/CGB, rev.B	85
AutroSafe Rack Unit BC-440/440G2	EN 54-2, EN 54-4	DNV, Test Report, 2009-3664, rev.1	26
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.6	58
	Product data	Autronica, Data Sheet, 116-P-BC440/CGB, rev.B	81
AutroSafe BSD-330	EN 54-2, EN 54-4	DNV, Test Report, 2009-3710, rev.1	26
	IEC60092-504, 60533	Nemko, Test Report No. E12195.00	65
	Product data	Autronica, Data Sheet, 116-P-BSD330CGB, rev.D	88
AutroSafe BSB-310A BSD-310 BSE-310 BSE-320 BSL-310 BSS-310A BSS-311	EN 54-2, EN 54-4	DNV, Test Report, 2009-3710, rev.1	26
	IEC60092-504, 60533	DNV, Test Report, 2009-3691, rev.6	58
	Product data	Autronica, Data Sheet, 116-P-BSB310A/CGB, 2011-02-28	66
		Autronica, Data Sheet, 116-P-BSD310/CGB, Rev.H, 2011-06-07	67
		Autronica, Data Sheet, 116-P-BSE310/CGB, Rev.D, 2011-03-30	69
		Autronica, Data Sheet, 116-P-BSE320/CGB, Rev.E, 2011-06-14	70
		Autronica, Data Sheet, 116-P-BSL310/CGB, Rev.D, 2011-06-07	71
		Autronica, Data Sheet, 116-P-BSS310A/CGB, Rev.B	89
		Autronica, Data Sheet, 116-P-BSS311/CGB, 2010-11-24	73
AutroSafe BU-110	EN 54-2	Nemko, Test Report, 238015-2 rev.01	101
	IEC60092-504, 60533	Nemko, Test Report, E13284.02 rev.2	99
	EN 54-17	Nemko, Test Report, 238015-1 rev.02	100
	Product data	Autronica, Data Sheet, BU110/CGB 2014-05-16	97
AutroSafe BV-110	EN 54-2	Nemko, Test Report, 238015-3 rev.01	102
	IEC60092-504, 60533	Nemko, Test Report, E13284.02 rev.2	99
	EN 54-17	Nemko, Test Report, 238015-1 rev.02	100
	Product data	Autronica, Data Sheet, BV110/CGB 2014-05-16	98

Tests carried out

- IEC 60092-504 (2001) including Corr1(2011)
- IEC 60533 (1999)

and as applicable:

- EN 54-2 (1997) including AC(1999) and A1(2006)
- EN 54-4 (1997) including AC(1999), A1(2002) and A2(2006)
- EN 54-17 (2005) including AC(2007)

Marking of product

In general and for identification to this type examination certificate the products shall be marked with:

- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity