

**EC-TYPE EXAMINATION
CERTIFICATE (MODULE B)**

Certificate No:
MEDB000019E
Revision No:
1

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: Input/output devices

with type designation(s)
Ancillary field units

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/3.51h. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9, IGF Code 11 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, IGF Code 11 and IMO MSC.1/Circ.1242

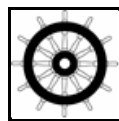
Further details of the equipment and conditions for certification are given overleaf.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Ancillary field units designed for use with Autronica's interactive fire detection systems:

BN-221/01	Extinguishing control unit
BN-221/02	Monitored Output Unit with 7A current capability
BN-300	Input unit with SelfVerify
BN-303	Single Monitored Input Unit
BN-304	Single Monitored Input/Output Unit
BN-305	Dual Monitored Input/Output Unit
BN-305-D	Control and Monitoring I/O Unit
BN-307	Monitored Fire Alarm Device Control Unit
BN-310	Single relay output unit without SelfVerify
BN-320	Interface unit with SelfVerify
BN-320/2	Door control unit
BN-320/4	Monitoring and control unit
BN-320/5	Sprinkler control unit
BN-500/N	Input unit with SelfVerify, Exic-version for use in zone 2 only
BN-500/EX	Input unit with SelfVerify, Exia-version for use in all zones
BZ-500	Barrier unit
BN-342/1	PowerLoop 4-20 mA input unit, 19" rack mounted
BN-342/2	PowerLoop 4-20 mA input unit, DIN-rail mounted
BN-342/EX	PowerLoop 4-20 mA input unit, Exem-version for hazardous area zone 1 and 2
BNB-330A	Conventional Loop Interface unit
BNB-331	Conventional Loop Interface unit
BNY-330	End of line unit
BBR-52	Smart buzzer
BWP-100/xx	Conduit box
BWB-110	Base Adapter

Application/Limitation

The equipment are found to comply with following location/application dependent requirements (for definition of each of the location classes, see below the table):

MODEL	TEMPERATURE	VIBRATION	EMC	ENCLOSURE
BN-221/01	TEM-B (Note 1)	VIB-A	EMC-B	ENC-C (IP 66)
BN-221/02	TEM-B (Note 1)	VIB-A	EMC-B	ENC-C (IP 66)
BN-300	TEM-A	VIB-A	EMC-A	ENC-C
BN-303	TEM-B	VIB-A	EMC-B	ENC-B (IP 54)
BN-304	TEM-B	VIB-A	EMC-B	ENC-B (IP 54)
BN-305	TEM-B	VIB-A	EMC-B	ENC-B (IP 54)
BN-305D	TEM-B	VIB-A	EMC-B	ENC-A (IP 22)
BN-307	TEM-B	VIB-A	EMC-B	ENC-B (IP 54)
BN-310	TEM-A	VIB-A	EMC-A	ENC-C
BN-320	TEM-A	VIB-A	EMC-A	ENC-C
BN-320/2	TEM-A	VIB-A	EMC-A	ENC-C
BN-320/4	TEM-A	VIB-A	EMC-A	ENC-C
BN-320/5	TEM-A	VIB-A	EMC-A	ENC-C
BN-500/N	TEM-A	VIB-A	EMC-A	ENC-C
BN-500/EX	TEM-D	VIB-A	EMC-A	ENC-C
BZ-500	TEM-D	VIB-B	EMC-B	ENC-B
BN-342/1	TEM-D	VIB-A	EMC-B	(Note 2)
BN-342/2	TEM-D	VIB-A	EMC-B	(Note 2)
BN-342/EX	TEM-D	VIB-A	EMC-B	(Note 2)
BNB-330A	TEM-D	VIB-A	EMC-B	ENC-A
BNB-331	TEM-D	VIB-A	EMC-B	ENC-C
BNY-330	TEM-D	VIB-A	EMC-B	ENC-A
BBR-52	TEM-B	VIB-A	EMC-A	ENC-A
BG-21	TEM-D	VIB-A	EMC-B	IP 66/67

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MODEL	TEMPERATURE	VIBRATION	EMC	ENCLOSURE
BG-201	TEM-D	VIB-A	EMC-B	IP 66/67
BWP-100/xx	TEM-D	VIB-A	NA	IP 55
BWB-110	TEM-B	VIB-A	EMC-B	ENC-A

Note 1: Tested to -10°C and 70°C.

Note 2: Required protection to be provided upon installation onboard.

Definition of the location classes with reference to relevant standards:

- Temperature: TEM-B – Location (5°C-70°C) (ref. IEC 60092-504:2016 table 1 item 6-7)
 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)
 VIB-B – On reciprocating machines etc. (ref. IEC 60092-504:2016 table 1 item 10)
- EMC: EMC-A – General power distribution zone (ref. IEC 60092-504:2016 table 1 item 13-20)
 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)
 ENC-B – Engine room (IP44) (ref. IEC 60092-201:1994 table 5)
 ENC-C – Open deck (IP56) (ref. IEC 60092-201:1994 table 5)

Ex installations to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV GL.

Information on Ex-Certification received from manufacturer – Not verified by DNV GL			
Equipment	Certified		Certificate No.
BZ-500	⊕ II (1) G [Ex ia Ga] IIC	Ta: -20°C to +60°C	Nemko 03ATEX230
BN-342/EX	⊕ II 2 G Ex em II T4	Ta=70°C	Nemko 03ATEX222
BN-500/EX	⊕ II 1G Ex ia IIC T5	Ta: -20°C to +70°C	Nemko 03ATEX218X
BN-500/N	⊕ II (3)G [Ex ic Gc] IIB	Ta: -20°C to +70°C	Nemko 03ATEX217X
	⊕ II 3G Ex ic IIB T4 Gc	Ta: -20°C to +70°C	

Type Examination documentation

Equipment	Scope	Document	No.
BN-221/01	IEC60092-504, IEC60533, EN 54-18	Nemko, Test Report, E15275.00 dated 2015-12-14	146
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-18:2005	Nemko, Test Report, E16025.00 dated 2017-01-13	148
		Nemko, Test Report, E16007.00 dated 2017-01-13	151
	EN 54-17:2005	Nemko, Test Report, E16024.00 dated 2017-01-13	147
BN-221/02	IEC60092-504, IEC60533, EN 54-18	Nemko Test Report No. E15275.00 dated 2015-12-14	146
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-18:2005	Nemko, Test Report, E16027.00 dated 2017-01-13	150
		Nemko, Test Report, E16007.00 dated 2017-01-13	151
	EN 54-17:2005	Nemko, Test Report, E16026.00 dated 2017-01-13	149
Product data	Autronica, Data Sheet, 116-P-BN221-02/CGB, rev.C	145	
BN-300	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN300/CGB, rev.K	128
BN-303	IEC60092-504, IEC60533	DNV, Test Report, 2010-3107, rev.01	67
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-17, EN 54-18	CNPP Test Reports DE 08 00 74A, DE 08 00 74A	71,72
	Product data	Autronica, Data Sheet, 116-P-BN303/CGB, rev.A	59
BN-304	IEC60092-504, IEC60533	DNV, Test Report, 2010-3107, rev.01	67

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Equipment	Scope	Document	No.
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-17, EN 54-18	CNPP Test Reports DE 08 00 74A, DE 08 00 74A	71,72
	Product data	Autronica, Data Sheet, 116-P-BN304/CGB, rev.B	60
BN-305	IEC60092-504, IEC60533	DNV, Test Report, 2010-3107, rev.01	67
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-17, EN 54-18	Nemko, Test Reports 187264, 187265	69,70
	Product data	Autronica, Data Sheet, 116-P-BN305/CGB, rev.C	61
BN-307	IEC60092-504, IEC60533	DNV, Test Report, 2010-3107, rev.01	67
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-17, EN 54-18	Nemko Test Reports 187266, 187267	73,74
	Product data	Autronica, Data Sheet, 116-P-BN307/CGB, rev.D	129
BN-310	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN310/CGB, rev.C	131
BN-320	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN320/CGB, rev.C	132
BN-320/2	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN320/2/CGB, rev.D	136
BN-320/4	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN320-4/CGB, rev.C	137
BN-320/5	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN320-5/CGB, rev.F	138
BN-500/N	IEC60092-504, IEC60533	DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN500N/CGB, rev.A	135
BN-500/EX	IEC60092-504, IEC60533	DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN500/EX/CGB, rev.E	134
BZ-500	IEC60092-504, IEC60533	DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BZ500/CGB, rev.K	38
BN-342/1	IEC60092-504, IEC60533	DNV, Test Report, 2003-3169, rev.2	11
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN342/1/CGB, rev.A	45
BN-342/2	IEC60092-504, IEC60533	DNV, Test Report, 2003-3169, rev.2	11
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN342/2/CGB, rev.A	46
BN-342/EX	IEC60092-504, IEC60533	DNV, Test Report, 2003-3169, rev.2	11
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN342EX/CGB, rev.A	133
BNB-330A	IEC60092-504, IEC60533	Nemko, Test Report, E12044.00	68
		Nemko, Test Report (supplemental), E18217.00	152
	EN 54-17, EN 54-18	Nemko Test Reports 187270, 187271	75,76
	Product data	Autronica, Data Sheet, 116-P-BNB330A/CGB rev.C	64
BNB-331	IEC60092-504, IEC60533	Nemko, Test Report, E12044.00	68
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BNB331/CGB rev.B	64
	EN 54-17, EN 54-18	Nemko Test Reports 187270, 187271	75,76
BNY-330	IEC60092-504, IEC60533	DNV, Test Report, 2002-3146, rev.1	12
		Nemko, Test Report (supplemental), E18217.00	152

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Equipment	Scope	Document	No.
	Product data	Autronica, Data Sheet, 116-P-BNB330/CE, rev.D	48
BBR-52	IEC60092-504, IEC60533	DNV, Test Report, 2001-3416, rev.1	13
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BBR52/CGB, rev. D	112
BWP-100/xx	IEC 60529	Test Report, 180163, 2011-11-08	100
	Product data	Autronica, Data Sheet, 116-P-BWP100/CGB, rev.D	102
	Product drawing	Conduit box IP55 assembly dwg, BH-122, 2011-10-10	101
BN-305-D	IEC60092-504, IEC60533	Nemko, Test Report, E14054.00 dated 2014-03-10	110
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BN305D/CGB, dated 2013-02-14	130
BWB-110	IEC60092-504, IEC60533	Nemko, Test Report, E14143.00 dated 2014-05-27	140
		Nemko, Test Report (supplemental), E18217.00	152
	Product data	Autronica, Data Sheet, 116-P-BWB110/CGB, dated 2011-10-07	141

Tests carried out

Applicable tests according to:

- EN 54-18:2005 incl. AC:2007
- EN 54-17:2005 incl. AC:2007
- 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