

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

Certificate No:  
**MEDB00006DJ**  
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 & accom. spaces, cabin balconies, machinery spaces & unattended machinery spaces: Smoke detectors – Point detectors using scattered or transmitted light or ionization**

with type designation(s)  
**Interactive fire detectors**

Issued to  
**Autronica Fire and Security AS**  
**Trondheim, Norway**

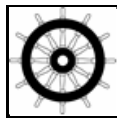
is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2020/1170**,  
**item No. MED/3.51d. SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9, IGF Code 11 and IMO MSC.1/Circ.1242**  
**item No. MED/3.51c. SOLAS 74 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 **2025-02-13**.

Issued at **Høvik** on **2021-02-22**

DNV GL local station:  
**Norway CMC, Mid-North**



for **DNV GL AS**

Approval Engineer:  
**Ståle Sneen**

Notified Body  
No.: **0575**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **344.1-001925-17**  
Certificate No: **MEDB00006DJ**  
Revision No: **1**

## Product description

Interactive fire detectors designed according to EN54 for use with Autronica's interactive fire detection systems:

BH-200 (Note 1)	Smoke detector without SelfVerify
BH-300 (Note 1)	Smoke detector with SelfVerify
BH-500 (Note 1)	Smoke detector with SelfVerify, environmentally protected
BH-500/N (Note 1)	Smoke detector with SelfVerify, Exic-version for use in zone 2 only
BH-500/EX (Note 1)	Smoke detector with SelfVerify, Exia-version for use in all zones
BH-220 (Note 1)	Multisensor detector without SelfVerify
BH-320 (Note 1)	Multisensor detector with SelfVerify
BH-520 (Note 1)	Multisensor detector with SelfVerify, environmentally protected
BH-520/N (Note 1)	Multisensor detector with SelfVerify, Exic-version for use in zone 2 only
BH-520/EX (Note 1)	Multisensor detector with SelfVerify, Exia-version for use in all zones
V-430 (Note 2)	AutroGuard® Multicriteria protector
V-430-S (Note 2)	AutroGuard® Multicriteria protector with sounder
V-430-VADW (Note 2)	AutroGuard® Multicriteria protector with white VAD (visual alarm device)
V-430-VADR (Note 2)	AutroGuard® Multicriteria protector with red VAD
V-430-S-VADW (Note 2)	AutroGuard® Multicriteria protector with sounder and white VAD
V-430-S-VADR (Note 2)	AutroGuard® Multicriteria protector with sounder and red VAD
V-530 (Note 3)	AutroGuard® Multicriteria protector with SIL2 approval
V-530-EXIA (Note 3)	AutroGuard® Multicriteria protector with SIL2 approval, intrinsically safe for zone 0, 1 and 2
V-530-EXIC (Note 3)	AutroGuard® Multicriteria protector with SIL2 approval, intrinsically safe for zone 2

Note 1: The detector head carries an additional H in the name. The listed products include the mandatory socket BWA-100.

Note 2: Available with option for Cover Detection & SelfVerify (option /CD). Tested with base V-100.

Note 3: EXIA/EXIC is available with option for High Sensitivity (option /HS). Tested with base V-110 and V-120.

Job Id: **344.1-001925-17**  
 Certificate No: **MEDB00006DJ**  
 Revision No: **1**

### Application/Limitation

The equipment is 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
BH-200	TEM-D	VIB-B	EMC-B	ENC-B
BH-300	TEM-D	VIB-B	EMC-B	ENC-B
BH-500	TEM-D	VIB-B	EMC-B	ENC-B
BH-500/N	TEM-D	VIB-B	EMC-B	ENC-B
BH-500/EX	TEM-D	VIB-B	EMC-B	ENC-B
BH-220	TEM-D	VIB-B	EMC-B	ENC-B
BH-320	TEM-D	VIB-B	EMC-B	ENC-B
BH-520	TEM-D	VIB-B	EMC-B	ENC-B
BH-520/N	TEM-D	VIB-B	EMC-B	ENC-B
BH-520/EX	TEM-D	VIB-B	EMC-B	ENC-B
V-430	TEM-D	VIB-A	EMC-B	ENC-B
V-430-S	TEM-D	VIB-A	EMC-B	ENC-B
V-430-VADW	TEM-D	VIB-A	EMC-B	ENC-B
V-430-VADR	TEM-D	VIB-A	EMC-B	ENC-B
V-430-S-VADW	TEM-D	VIB-A	EMC-B	ENC-B
V-430-S-VADR	TEM-D	VIB-A	EMC-B	ENC-B
V-530	TEM-D	VIB-A	EMC-B	ENC-B
V-530-EXIA	TEM-D	VIB-A	EMC-B	ENC-B
V-530-EXIC	TEM-D	VIB-A	EMC-B	ENC-B

Definition of the location classes with reference to relevant standards:

- 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)  
 VIB-B – On reciprocating machines etc. (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-B – Engine room (IP44) (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.
BHH-500/EX BHH-520/EX	⊕ II 1G	Ex ia IIC T5	Ta: -20°C to +70°C	Nemko 03ATEX218X
BHH-500/N BHH-520/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	

Job Id: **344.1-001925-17**  
Certificate No: **MEDB00006DJ**  
Revision No: **1**

### Type Examination documentation

Equipment	Scope	Document	No.
BH-200	EN 54-7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09 incl.	2
		ANPI, Addendum, Nr.1 2000-02-25	
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH200, rev.C	14	
BH-300	EN 54-7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09 incl.	2
		ANPI, Addendum, Nr.1 2000-02-25	
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH300, rev.C	15	
BH-500	EN 54-7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09 incl.	2
		ANPI, Addendum, Nr.1 2000-02-25	
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH500, rev.G	16	
BH-500/N	EN 54-7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09 incl.	2
		ANPI, Addendum, Nr.1 2000-02-25	
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH500N/CGB, rev.A	125	
BH-500/EX	EN 54-7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09 incl.	2
		ANPI, Addendum, Nr.1 2000-02-25	
	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-BH500EX/CGB, rev.H
BH-220	EN 54-5/7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09	2
		ANPI, Addendum, Nr.1 2000-02-25	3
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH220, rev.D	21	
BH-320	EN 54-5/7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09	2
		ANPI, Addendum, Nr.1 2000-02-25	3
	IEC60092-504, IEC60533	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152

Job Id: **344.1-001925-17**  
 Certificate No: **MEDB00006DJ**  
 Revision No: **1**

Equipment	Scope	Document	No.
	Product data	Autronica, Data Sheet, 116-P-BH320, rev.D	22
BH-520	EN 54-5/7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09	2
		ANPI, Addendum, Nr.1 2000-02-25	
IEC60092-504, IEC60533	EN 54-5/7	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH520, rev.F	23	
BH-520/N	EN 54-5/7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09	2
		ANPI, Addendum, Nr.1 2000-02-25	
IEC60092-504, IEC60533	EN 54-5/7	DNV, Test Report, 99-1491, rev.2	4
		DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
Product data	Autronica, Data Sheet, 116-P-BH520N/CGB, rev.A	127	
BH-520/EX	EN 54-5/7	ANPI, Test Report, BFS/REDI/154-2005.06.03	1
		ANPI, Test Report, BFS/DE/1057-1999.12.09	2
		ANPI, Addendum, Nr.1 2000-02-25	
IEC60092-504, IEC60533	EN 54-5/7	DNV, Test Report, 2000-1178, rev.2	5
		Nemko, Test report (supplemental), E18217.00	152
		Product data	Autronica, Data Sheet, 116-P-BH520EX/CGB, rev.H
V-430	EN 54-5	Intertek, Test Report, 103874656LHD-021, Issue 1	162
	EN 54-7	Intertek, Test Report, 103874656LHD-022, Issue 1	163
	EN 54-29	Intertek, Test Report, 103874656LHD-024, Issue 1	166
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004268.2, 2020-06-08	172
V-430-S	EN 54-3	Intertek, Test Report, 103963397LHD-021, Issue 1	161
	EN 54-5	Intertek, Test Report, 103874656LHD-021, Issue 1	162
	EN 54-7	Intertek, Test Report, 103874656LHD-022, Issue 1	163
	EN 54-29	Intertek, Test Report, 103874656LHD-024, Issue 1	166
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004268.2, 2020-06-08	172
V-430-VADW, V-430-VADR	EN 54-5	Intertek, Test Report, 103874656LHD-021, Issue 1	162
	EN 54-7	Intertek, Test Report, 103874656LHD-022, Issue 1	163
	EN 54-23	Intertek, Test Report, 103963397LHD-022, Issue 1	165
	EN 54-29	Intertek, Test Report, 103874656LHD-024, Issue 1	166
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004268.2, 2020-06-08	172
V-430-S-VADW, V-430-S-VADR	EN 54-3	Intertek, Test Report, 103963397LHD-021, Issue 1	161
	EN 54-5	Intertek, Test Report, 103874656LHD-021, Issue 1	162
	EN 54-7	Intertek, Test Report, 103874656LHD-022, Issue 1	163
	EN 54-23	Intertek, Test Report, 103963397LHD-022, Issue 1	165
	EN 54-29	Intertek, Test Report, 103874656LHD-024, Issue 1	166
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004268.2, 2020-06-08	172
V-530, V-530-EXIA,	EN 54-5	Intertek, Test Report, 103874656LHD-021, Issue 1	162
	EN 54-7	Intertek, Test Report, 103874656LHD-022, Issue 1	163

Job Id: **344.1-001925-17**  
Certificate No: **MEDB00006DJ**  
Revision No: **1**

Equipment	Scope	Document	No.
V-530-EXIC	EN 54-29	Intertek, Test Report, 103874656LHD-024, Issue 1	166
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004269.2, 2020-06-08	173
V-100,	EN 54-17	Intertek, Test Report, 103874656LHD-023, Issue 1	164
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-024, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004270.2, 2020-06-08	174
V-110, V-110	EN 54-17	Intertek, Test Report, 103874656LHD-023, Issue 1	164
	IEC60092-504, IEC60533	Intertek, Test Report, 103874656LHD-025, Issue 1	167
	Product data	Autronica, Data Sheet, Doc-1004271.1, 2020-05-19	175

### Tests carried out

Applicable tests according to:

- EN 54-3:2014 incl. A1:2019 (for optional sounder)
- EN 54-5:2017 incl. A1:2018 (for multisensor/multicriteria)
- EN 54-7:2018
- EN 54-17:2005 incl. AC:2007 (for base)
- EN 54-23:2010 (for optional VAD)
- EN 54-29:2015 (for multisensor/multicriteria)
- 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: 0575/2021