

[1] TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 2014/34/EU

[3] Type Examination Certificate Number: **Nemko 03ATEX217X** Issue 7

[4] Product: **Loop driver and detectors**

[5] Manufacturer: **Autronica Fire and Security AS**

[6] Address: **Haakon VII gt. 4
7483 Trondheim
Norway**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Nemko AS, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. D0001377/02 - 304584

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012, EN 60079-11: 2012

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

[12] The marking of the product shall include the following:

 **II (3)G** [Ex ic Gc] IIB

 **II 3G** Ex ic IIB T4 Gc

Oslo, 2016-06-08


Asle Kaastad
Certification Manager, Ex-products

[13] Schedule

[14] **TYPE EXAMINATION CERTIFICATE No** **Nemko 03ATEX217X** **Issue 7**

[15] **Description of Product**

This certificate cover a detector system that comprises a loop driver unit and detector units for smoke, heat and manual calls.

Up to 127 detector units may be connected to one detector loop. The loop driver module is intended for mounting in the AutoSafe Fire Alarm Control panel and connected to the power supply BSS-310A.

Type Designations

Manual Call Points:

BF-500/N (-20°C ≤ Ta ≤ +50°C)

BF-500V2/N (-30°C ≤ Ta ≤ +50°C)

BF-501/N, BF-503/N/0100, BF-503/N/0200, BF-503/N/0300, BF-503/N/0400, BF-503/N/0500 and BNB-300 (-20°C ≤ Ta ≤ +70°C)

BF-502/N (-25°C ≤ Ta ≤ +70°C)

Heat Detector:

BDH-500/N and BD-501/N (-20°C ≤ Ta ≤ +70°C)

Optical Smoke Detector:

BHH-500/N and BHH-500/S/N (-20°C ≤ Ta ≤ +70°C)

Multisensor Smoke Detector:

BHH-520/N (-20°C ≤ Ta ≤ +70°C)

Loop driver:

BSD-310/N (-20°C ≤ Ta ≤ +70°C)

Input unit:

BN-500/N (-20°C ≤ Ta ≤ +70°C)

Electrical Data

The ratio L/R for the loop cable shall not exceed the stated value: Lo/Ro:30μH/Ω

Ambient temperature:

See Type Designations above.

Routine tests

None.

[16] **Report No.**

D0001377/02 - 304584

Descriptive Documents

Drawing No.	Rev.	Date	Name/Title	Sheets
BDH-500/N:				
116-9212-328.0001	10	2009-12-23	BDA-300/EX KRETSKORT GRV.	3
116-P-BD500N/CGB	C	2016-04-28	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BD-084	D	2009-04-21	BDA-300/EX Heat detector with SV function.	1
7212-328.107	2	2005-08-22	BDA-300/EX	1
7212-328.007	2	2005-08-22	BDA-300/EX	1
BH-097	C	2010-02-16	Assembly drawing Heat detector Autrosafe	1
E-2564	J	2014-07-10	Merkeskilt for detektorer I sone 2 (Tillegg til standard marking)	1
E-2704	G	2014-03-20	Tekst – Skilt for detektorer BDH-200, -300, -500 m/varianter Arb. Tegning	1
BD-091	B	2011-07-11	Coating of BDA-300/EX	1
116-7212-328.9007	7	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERSKORT	1
BD-501/N:				
116-9212-328.0001	10	2009-12-23	BDA-300/EX KRETSKORT GRV.	3
116-P-BD501N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BD-084	D	2009-04-21	BDA-300/EX Heat detector with SV function.	1
7212-328.107	2	2005-08-22	BDA-300/EX	1
7212-328.007	2	2005-08-22	BDA-300/EX	1
BD-083	A	2005-04-04	Assembly drawing BD-501, BD-501/Ex, BD-501/N	1
E-2652	B	2014-07-10	Merkeskilt for BD-501/N i sone 2	1
E-2705	E	2011-07-06	Tekst – Skilt for BD-501, -501/N, 501/EX, -200M Arbeidstegning	1
BD-091	B	2011-07-11	Coating of BDA-300/EX	1
116-7212-328.9007	7	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERSKORT	1
BHH-500/N:				
116-9212-329.0001	13	2011-01-07	BHA-300/EX KRETSKORT GRV.	4
116-P-BH500N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BH-105	D	2009-04-21	BHA-300/EX BHA-320/EX Optical / heat detector with SV function	1

7212-329.107	2	2006-05-08	BHA-300(320)/EX	1
7212-329.007	2	2006-05-08	BHA-300(320)/EX	1
BH-098	C	2007-09-06	Assembly drawing Optical detector Autosafe	1
E-2564	J	2014-07-10	Merkeskilt for detektorer I sone 2 (Tillegg til standardmerking)	1
E-3182		2016-03-03	BHH-500/N Type Label	1
BH-117	B	2011-07-11	Coating of BHA-300(320)/EX	1
7212-329.9008	8	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BHH-500/S/N:				
116-9212-329.0001	13	2011-01-07	BHA-300/EX KRETSKORT GRV.	4
116-P-BH500N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BH-105	D	2009-04-21	BHA-300/EX BHA-320/EX Optical / heat detector with SV function	1
7212-329.107	2	2006-05-08	BHA-300(320)/EX	1
7212-329.007	2	2006-05-08	BHA-300(320)/EX	1
BH-098	C	2007-09-06	Assembly drawing Optical detector Autosafe	1
E-2564	J	2014-07-10	Merkeskilt for detektorer I sone 2 (Tillegg til standardmerking)	1
E-3183		2016-03-03	BHH-500/S/N Type Label	1
BH-117	B	2011-07-11	Coating of BHA-300(320)/EX	1
7212-329.9008	8	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BHH-520/N:				
116-9212-329.0002	12	2011-01-07	BHA-320/EX KRETSKORT GRV.	4
116-P-BH520N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BH-105	D	2009-04-21	BHA-300/EX BHA-320/EX Optical / heat detector with SV function	1
7212-329.107	2	2006-05-08	BHA-300(320)/EX	1
7212-329.007	2	2006-05-08	BHA-300(320)/EX	1
BH-099	C	2010-02-16	Assembly drawing Combi detector Autosafe	1
E-2564	J	2014-07-10	Merkeskilt for detektorer I sone 2 (Tillegg til standardmerking)	1
E-2703	G	2014-03-20	Tekst – Skilt for detector BHH-220, -320, -520 m/varianter Arb. Tegning	1

BH-117	B	2011-07-11	Coating of BHA-300(320)/EX	1
7212-329.9008	8	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BSD-310/N:				
116-9212-294.0001	9	2012-04-23	BSD-310 KRETSK. GRUNNV.	4
116-P-BSD310N/CGB	C	2016-04-18	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BS-1051	B	2011-09-23	AL_COM LOOP DRIVER BSD-310	1
7212-294.107	1	2011-09-23	BSD-310/311	1
7212-294.007	1	2011-09-23	BSD-310/311	1
BA-169	B	2012-02-06	I/O modul Sammenstilling hus	1
BS-1362	A	2011-09-23	Lakkttegning BSD-310/N	1
7212-294.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
E-3059	A	2014-08-29	BSD-310/N TYPE LABEL	1
BF-500/N:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF500N/CGB	B	2014-01-06	Datasheet	3
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-197	G	2016-03-07	Manuelle meldere Skjema Manual callpoints Diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-198	B	2012-02-06	BF-300/01 Manuell melder, halvfabrikat SAMMENSTILLINGSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
E-3061	-	2014-07-10	BF-500N Type label	
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1
E-2986	A	2016-02-13	BNB-300/01/N Typeskilt, arbeidstegning	1
BF-501/N:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3

116-P-BF501N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-201	D	2011-07-01	Manual call-point BF-501, BF-501/Ex and BF-501/N	1
E-2976	B	2014-07-10	BF-501/N TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkerings-tegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-502/N:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF502N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-223	C	2011-09-28	Manual Call Point BF-502 and BF-502/N Assembly Drawing Dimensional Sketch	1
E-2967	B	2014-08-29	BF-502/N TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkerings-tegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-503/N/0100:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3

116-P-BF503N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-217	A	2011-09-28	Manual call-point BF-503/N/0100 Dimensional sketch	1
E-2981	B	2014-07-11	BF-503/N/0100 TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkerings-tegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-503/N/0200:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF503N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-218	A	2011-09-28	Manual call-point BF-503/N/0200 Dimensional sketch	1
E-2982	B	2014-07-11	BF-503/N/0200 TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkerings-tegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-503/N/0300:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF503N/CGB	C	2016-04-29	Datasheet	4

BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-219	A	2011-09-28	Manual call-point BF-503/N/0300 Dimensional sketch	1
E-2983	B	2014-07-11	BF-503/N/0300 TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-503/N/0400:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF503N/CGB	C	2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-220	A	2011-09-28	Manual call-point BF-503/N/0400 and BF-503/N/0500 Dimensional sketch	1
E-2984	B	2014-07-11	BF-503/N/0400 TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BF-503/N/0500:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BF503N/CGB	C	2016-04-29	Datasheet	4

BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-200	C	2016-02-11	Manual call point diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-220	A	2011-09-28	Manual call-point BF-503/N/0400 and BF-503/N/0500 Dimensional sketch	1
E-2985	B	2014-07-11	BF-503/N/0500 TYPESKILT, ARBEIDSTEGNING	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1
E-2987	A	2016-02-13	BNB-300/02/N Typeskilt, arbeidstegning	1
BN-500/N:				
116-9212-338.0001	3	2008-03-28	BNA-303/01 KRETSK. GRUNNV.	3
116-P-BN500N/CGB	C	2016-04-28	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BN-088	B	2011-07-01	Connection and dimension sketch for input unit BN-300, BN-500/EX, BN-500/N Tilkobling og måleskisse for inngangsenhet BN-300, BN-500/EX, BN-500/N	1
E-2925	A	2011-06-06	BNB-300/32/N Typeskilt, arbeidstegning	1
E-2605	H	2014-07-10	BN-500/N Typeskilt, arbeidstegning	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1
BSS-310A:				
7212-301.9002	2	2014-04-03	SPESIFIKASJONSSKJEMA FOR	1

BESTILLING AV MØNSTERKORT				
116-9212-301.1001	4	2015-09-28	BSS-310A KRETSKORT GRUNNV.	2
E-3069	-	2014-05-28	BSS-310A TYPE LABEL	1
BA-169	B	2012-02-06	I/O modul Sammenstilling hus	1
7212-301.007	1	2005-02-04	Autrosafe I/O-module BSS-310A DC-DC converter COMPONENT REFERENCE DRAWING, COMPONENT SIDE (SIDE B)	1
BS-1243	B	2011-09-23	DC-DC CONVERTER TYPE BSS-310A	1
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BF-500V2/N:				
116-9212-338.0002	3	2008-03-25	BNA-303/02 KRETSK. GRUNNV.	3
116-P-BG500V2N/CGB		2016-04-29	Datasheet	4
BS-1375	C	2014-02-19	Kontrolltegning Exn units	1
BN-100	C	2001-10-05	BNA-303 Interface unit with SV function	1
BF-197	G	2016-03-07	Manuelle meldere Skjema Manual callpoints Diagram	1
7212-338.107	0	1999-12-20	BNA-303	1
7212-338.007	0	1999-12-20	BNA-303	1
BN-087	D	2016-03-08	Sammenstilling og dimensjoner Assembly and dimensions BNA-303	1
BF-233	B	2016-04-07	Manual Call Point BF-500V2N	1
7212-338.9001	1	2014-04-03	SPESIFIKASJONSSKJEMA FOR BESTILLING AV MØNSTERKORT	1
E-3176	B	2016-03-11	BF-500V2N TYPE LABEL	1
BN-157	A	2011-07-04	BNA-303 Lakkeringsstegning	1

Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2003-08-28	Nemko 10187	Prime Certificate released
1	2004-05-20	Nemko 10186	The reports are extended to include a new type, BD-501/N.
2	2004-08-20	Nemko	Includes the option for the manufacturer to deliver the



		27763	hardware circuit unit type, BNB-300, without enclosure.
3	2005-06-29	Nemko 47631	The reports are extended to cover minor changes in the design.
4	2008-09-15	Nemko 113192	Confirm compliance with the equivalent standard IEC 60079-15: 1987.
5	2012-02-10	Nemko 187109	Update to new standards and update of the descriptive documents.
6	2014-09-16	D0001377/00 / Nemko 260246	Minor changes in the descriptive documents. New minimum ambient temperature for BF-502/N.
-	2015-02-10	D0001377/01	Confirmation letter issued.
7	2016-06-08	D0001377/02	Update to new standards. BF-300M/N is removed from certification. BF-500V2/N is added.

[17] Specific Conditions of Use

- 1) The loop driver module is intended for mounting in the AutoSafe Fire Alarm Control panel and connected to the power supply BSS-310A.
- 2) The loop driver module may only be used in locations sheltered from dust and water. The degree of protection is IP30D
BF-500V2/N: IP22D without lid and IP24D with lid.
- 3) The ambient temperature differs from the normal range and is specified in the certificate.
- 4) The hardware circuit unit type BNB-300 must be mounted in an enclosure that complies to EN 60079-0, EN 60079-7 or EN 60079-11.

[18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9