



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No.TA19029M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:

Autronica Fire and Security AS

Place of Manufacturing:

Bromstadveien 59, NO-7047 Trondheim, Norway

Product description:

Input / Output Units

Model:

BN-303, BN-304, BN-305, BN-307, BNB-330A,

BNB-331, BNY 330

Approval No.:

13A030

Valid until:

31 October 2023

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 1 November 2018.

T. Shimada
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

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Attached sheet -1/2 to the Certificate No.TA19029M

Specification & documents:

1. Particulars:

Power supply: 24 VDC

2. Components and reference drawings:

116-P-BN303/CGB, Rev. A, 2015-06-05

116-P-BN304/CGB, Rev. B, 2016-06-08

116-P-BN305/CGB, Rev. C, 2016-02-02

116-P-BN307/CGB Rev. D, 2014-05-30

116-P-BNB330A/CGB, Rev. C, 2017-12-19

116-P-BNB331/CGB, Rev. B, 2015-07-07

3. Documentation and Test Reports:

DNV Test report (No. 2010-3107) dated 5 May 2010

Nemko Test report (No. E12044.00) dated 29 May 2012

Nemko Test report (No. E12211.01) dated 16 November 2012

Nemko Test report (No. E18217.00) dated 15 November 2018

- To be continued -

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Attached sheet -2/2 to the Certificate No.TA19029M

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		
Power supply fluctuation test	Electric	
	Pneumatic and Hydraulic	
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydrau	(Pneumatic and Hydraulic)	
Dry heat test (Temperature $70^{\circ}\text{C} \times 16 \text{ hours}$)		X
Damp heat test		X
Vibration test (Acceleration ± 0.7 g $\times 2$ hours)		X
Inclination test		
Cold test (Temperature $-15^{\circ}C \times 16$ hours)		X
Salt mist test		
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test (Frequency range 80 MHz to 6 GHz)		X
Conducted low frequency immunity test		
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test (Frequency range 0.15 MHz to 6 GHz)		X
Conducted emission test		
Flame retardant test		

2. Approval condition:

The product is not allowed to be installed in the bridge and open decks.