

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Network Instrumentation Module NX Series

Issued to

Azbil Corporation
Fujisawa Kanagawa Pref., Japan

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature B

Humidity B

Vibration A

EMC A

Enclosure Required protection according to the Rules to be provided upon installation onboard

Issued at **Busan** on **2017-06-22**

This Certificate is valid until **2022-06-21**.

for **DNV GL**

DNV GL local station: **Yokohama**

Approval Engineer: **Dong Ho Park**

.....
Michael Jost Auf der Stroth
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Network Instrumentation Module NX series as listed below:

For all type of modules, additional alphanumeric code(s) may be added following the end of model number.

Controller Module (Process controller (4-channel and 2-channel))

Basic Model No.	Type	Ring Conn.	Wiring	Ch.	Output	Option	Specification
NX-							NX Instrumentation module
	D15						Accuracy $\pm 0.3\%$ FS 500ms sampling
	D25						Accuracy $\pm 0.3\%$ FS 200ms sampling
	D35						Accuracy $\pm 0.1\%$ FS 100ms sampling
		N					Non-ring connection
		R					Ring connection
			T				Screw terminal block
			S				Screwless terminal block
				2			2 channels
				4			4 channels
					T		Transistor output
					C		Analog current output
					D		Analog voltage output
					M		Transistor output (position proportional control)
						0	None

Communication Adaptor (Ethernet interface (1 port))

Terminal Adaptor (Used as a ring communications terminal)

Basic Model No.	Type	Specification
NX-		NX Instrumentation module
	CL1	Communication adaptor for left side *1
	CR1	Communication adaptor for right side *1
	TL1	Terminal adaptor for left side *1 Chain ring connection (using side connector)
	TR1	Terminal adaptor for right side *1 Chain ring connection (using side connector)

*1: Left and right are defined as seen when viewing the front of the unit after mounting.

Communication Box (Ethernet interface (switching hub))

Basic Model No.	Type	Ring Conn.	Option 1	Option 2	Option 3	Specification
NX-						NX Instrumentation module

CB1					4 ports switching hub
	N				Side connector non-ring connection
	R				Side connector ring connection
		N			Front port non-ring connection
		R			Front port ring connection
			04		4 ports
				0	RJ-45

Supervisor Module (Multi-loop harmonized operation controller)

Basic Model No.	Type	Ring Conn.	Option 1	Option 2	Option 3	Specification
NX-						NX Instrumentation module
	S00					PLC data link
	S01					Custom application
	S02					User application
	S11					Control of Temperature difference between zones
	S12					Optimal start-up control
	S21					Peak power suppression control
		N				Non-ring connection
		R				Ring connection
			0			None
				00		None
				10		NX protocol supported
				11		NX protocol supported with RS-485 communication
				20		3E protocol supported
				21		3E protocol supported with RS-485 communication
				30		FINS protocol supported
				31		FINS protocol supported with RS-485 communication
					0	None
					1	With fault DO

Digital Input Module (Digital and pulse input module (16 inputs))

Basic Model No.	Type	Ring Conn.	Wiring	Ch.	Specification
NX-					NX Instrumentation module
	DX1				Digital Input Module
	DX2				Pulse Input Module
		N			Non-ring connection
		R			Ring connection
			T		Screw terminal block
			S		Screwless terminal block

Job Id: **262.1-025794-1**
Certificate No: **TAA000016J**

16	16 channels
----	-------------

Digital Output Module (Digital output module (16 outputs))

Basic Model No.	Type	Ring Conn.	Wiring	Ch.	Specification
NX-					NX Instrumentation module
	DY1				Digital output (Transistor output sink type)
	DY2				Digital output (Transistor output source type)
		N			Non-ring connection
		R			Ring connection
			T		Screw terminal block
			S		Screwless terminal block
				16	16 channels

Place of manufacture

Azil Production (Thailand) Co., Ltd.
700/1013 Amata Nakorn Industrial Estate Moo 9, T. Mabpong A. Phanthong Chonburi 20160, Thailand

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

The installation requirements according to the user's manual for Installation are to be observed.

This equipment is not intended for use with battery power supply.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2016.

Marking of product

- Manufacturer name - Model name - Serial number

Periodical assessment

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate



Job Id: **262.1-025794-1**
Certificate No: **TAA000016J**

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE