



NIPPON KAIJI KYOKAI

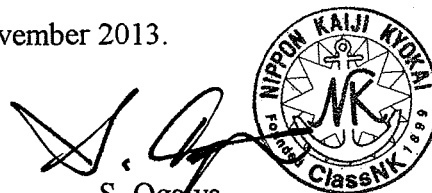
Certificate of **TYPE APPROVAL**

Manufacturer: Siemens AG A&D AS RD ST Type Test
Place of Manufacturing: Werner-von-Siemens-Str. 50, 92224 Amberg, Germany
Product description: Programmable Electronic System
Model : LOGO!
Approval No. : 01A031
Specification & documents: As shown on the attached sheet (-1/2)
Test items & approval conditions: As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned model of the product has been type approved for extension with **Approval No. 01A031** by the NIPPON KAIJI KYOKAI in accordance with the requirements specified in Chapter 1, Part 7 of Guidance of the approval and type approval of materials and equipment for marine use and relevant Society's Rules.

This certificate will remain in force until the day of 5th November 2013.

Issued at Tokyo on the day of 12th October 2007.



S. Ogawa
General Manager,
Machinery Department

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

Attached sheet - 1/2 to Certificate No. TA07480M

Specification & reference documents :

1. Rating : DC 12V or 24V or 12/24V, AC 120V or 230V

2. Components and reference documents:

Components		Documents
LOGO !with suffixes	12RCL	Catalog ST 70•1999 Catalog ST 70•News 2000 Catalog ST 80•1999 Siemens Katalog CA 01 04/00SED LOGO! Manual A5E00380835-01
	12/24RC	
	12/24Rco	
	24	
	24o	
	24L	
	24RC	
	24Rco	
	24RCL	
	24RCLB11	
	230RC	
	230RCo	
	230RCL	
	230RCLB11	
	DM8 24	
	DM8 24R	
	DM8 12/24R	
	DM8 230R	
	AM2	
	AM2 PT100	
DM16 230R		
DM16 24R		
DM16 24		
AM2 AQ		

3. Test reports: AUT 7-B 8.4P-9606
A&D AS E423-0108
A&D AS RD 423-0301
A&D AS RD ST Type Test 01/05
A&D ATS 6/05-M0601808-A1

-- To be continued --

Attached sheet - 2/2 to Certificate No. TA07480M

Testing items & approval conditions:

1. Testing 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		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16hours)		X
Damp heat test		X
Vibration test (Acceleration ±1.0g × 1.5hours)		X
Inclination test		--
Cold test (Temperature -25°C × 16hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X

2. Approval condition :

The equipment is not allowed to be installed in the bridge and exposed weather deck area.

-- The end --