



# NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA13543M

**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: **Kawai Electronic Innovation System Co., Ltd**  
Place of Manufacturing: **1-1-5 Ikuno-nishi, Ikuno-ku Osaka, Japan**  
Product description: **LCD Display Panel**  
Model: **KEI-LCD15GA, KEI-LCD15GA2, KEI-LCD15GD**

Approval No.: **08A003**  
Valid until: **4 February 2019**

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

Issued at Tokyo on 27 December 2013.

  
Y. Shibata  
General Manager  
Machinery Department



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

**Specification & documents:**

1. Particulars: Power supply: AC 100V, 50/60Hz (KEI-LCD15GA)  
 AC 220V, 50/60Hz (KEI-LCD15GA2)  
 DC 24V (KEI-LCD15GD)

2. Components and reference drawings:

Component	Type	Drawing
LCD Display Panel	KEI-LCD15GA	KEI-LCD15G-101
	KEI-LCD15GA2	
	KEI-LCD15GD	
Noise Filter	MBW-1203	KEI-MBW1203-101
Power Supply	SVB12SA	KEI-SVB12**-111
	SVB12SB	
	SVB12SC24	

3. Documentation and Test Reports:

- Test procedure NK-LCD15G-501 (5 Nov. 2007)  
 NK-AC220V-501 (20 Aug. 2009)
- Test report NK-LCD15G-505 (30 Jan. 2008)  
 NK-AC220V-505 (23 Oct. 2009)

-Specification incl. flame retardant material declaration NK-LCD15G-512 (20 Aug. 2009)

**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		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		X
Damp heat test		X
Vibration test		X
Inclination test (Static Only)		X
Cold test		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
Flame retardant test		--

## 2. Approval condition:

The product is not allowed to be installed on open decks.