



# NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA14612M

**This is to certify** that the undernoted products 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:	<b>Kawai Electronic Innovation System Co., Ltd</b>
Place of Manufacturing:	<b>1-1-5 Ikuno-nishi, Ikuno-ku Osaka, Japan</b>
Product description:	<b>LCD Display Panel</b>
Model:	<b>KEI-LCD19GA, KEI-LCD19GA2, KEI-LCD19GD</b>

Approval No.:	<b>08A045</b>
Valid until:	<b>23 December 2019</b>

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 26 November 2014.

  
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-LCD19GA)  
   AC 220V, 50/60Hz (KEI-LCD19GA2)  
   DC 24V                    (KEI-LCD19GD)

2. Components and reference drawings:

Component	Type	Drawing
LCD Display Panel	KEI-LCD19GA	KEI-LCD19G-101
	KEI-LCD19GA2	
	KEI-LCD19GD	
Noise Filter	MBW-1203	KEI-MBW1203-101
Power Supply	SVB12SA	KEI-SVB12**-111
	SVB12SB	
	SVB12SC24	

3. Documentation and Test Reports:

- Test procedure    NK-LCD19G-501    (6 Oct. 2008)  
   NK-AC220V-501    (20 Aug. 2009)
  
- Test report        NK-LCD19G-505    (7 Dec. 2008)  
   NK-AC220V-505    (20 Aug. 2009)
  
- Specification incl. flame retardant material declaration NK-LCD19G-512 (20 Aug. 2009)
- Design and performance standards, codes and rules NK-LCD19G-503 (6 Oct. 2008)

**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		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.