

CERTIFICATE NUMBER 22-2225233-PDA

EFFECTIVE DATE 22-March-2022

EXPIRATION DATE 21-March-2027

ABS TECHNICAL OFFICE Yokohama Engineering Services

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

KEI SYSTEM CO., LTD.

located at

OSAKA CITY

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Monitor, LCD Display Panel

Model KEI-15LCD, KEI-17LCD, KEI-19LCD, KEI-21LCD

This Product Design Assessment (PDA) Certificate remains valid until 21-March-2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Motohiro Tamua Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Electronically published by ABS Yokohama. Reference T2225233, dated 22-MAR-2022.

KEI SYSTEM CO., LTD.

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Email: info3@kei-system.co.jp Web: www.kei-system.co.jp

Tier: 2 - PDA Issued

Product: Monitor, LCD Display Panel

Model: KEI-15LCD, KEI-17LCD, KEI-19LCD, KEI-21LCD

Endorsements:

Intended Service:

Monitoring, alarm, data logging and valve control system for Vessels with ACC, ACCU or ABCU symbol

Description:

Type KEI-15LCD: 15"LCD Display Panel (AC100V)

Desk mount type

Type KEI-17LCD: 17"LCD Display Panel (AC100V)

Desk mount type

Type KEI-19LCD: 19"LCD Display Panel (AC100V)

Desk mount type

Type KEI-21LCD: 21"LCD Display Panel (AC100V)

Desk mount type

Rating:

Power: AC100V (50/60Hz)

Service Restriction:

Unit Certification is not required for this product.

If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No.ABS-1521LCD-504, Test report, dated 21 December 2006, Pages 30, issued by KEI SYSTEM CO., LTD.

Drawing No.ABS-1521LCD-502, Specification, Pages 13;

Drawing No.ABS-1521LCD-503, Design and performance standards codes and rules, Pages 7;

Drawing No.ABS-KEI-1521LCD-502-2022, Test report, dated 10 February 2022, Pages 15, issued by KEI SYSTEM CO., LTD.

Drawing No.LR-KEI-1521LCD-502-2021, Test report, dated 7 September 2021, Pages 23, issued by KEI SYSTEM CO., LTD,

Terms of Validity:

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STANDARDS

ABS Rules:

2022 Marine Vessel Rules: 1-1-4/7.7, 1-1-A3 & A4, 4-9-9/3 and 13; 2022 High-Speed Craft: 1-1-4/11.9, 1-1-A2 & A3, 4-7-9/15, 2022 Mobile Offshore Unit Rules: 1-1-4/9.7, 1-1-A2 & A3;

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

IACS UR E10 (Rev.7 Oct 2018 & Rev.8 Feb 2021)