Certificate No: LR25276183TA
Issue Date: 30/06/2025
Expiry Date: 29/06/2030

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer **MARSEN CO.,LTD.**

Address 5, Saejinmok-gil, Gangseo-gu, Busan, 46717, South Korea

Type Level Gauges

Description BAL-2000-M (electro-pneumatic type), comprising: -
level indicator (LIP-200, current signal dial type), level indicator (LID-200, current signal digital type), flow regulator (FRU-200), gauge saver (GSU-200), P/I converter (PIU-200), dual check valve (DCV-200), air supply unit (Max. working pressusre-10kg/cm^2)
BAL-2000-E (electric pressure type), comprising: -
Level indicator (LID-200, current signal digital type), I.S barrier (DMB-288+, Ex ia IIC), Pressure type (PT420, IP68), level transmitter (3.06 kgf/cm^2, about 3bar), amplifier box (IP56)

Trade Name BAL-2000 Series

Application Marine and offshore applications for use in environmental category ENV2 and ENV5(*) in the “Bridge and Deck Zone” as defined in LR Type Approval System Test Specification No. 1-2024 where the Test Specifications satisfactory for the intended operation. (*) ENV5 is applied to pressure type level transmitter, amplifier box and dual check valve

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Type Approval Certificate

Specified Standard	Manufacturer's specification
Ratings	110/220Vac, 50/60Hz, 24Vdc Dry instrument air supply: 7 kgf/cm^2
Additional Tests	Inclination test-static except air supply unit Dry heat test and enclosure test IP2X for main panel containing LIP & LID indicators, flow regulator, gauge saver, P/I converter and barrier
Other Conditions	Installation of this equipment in area where an explosive gas atmosphere may be present is subject to the approval of the competent authority (this certificate does not include the safe type certification). An appropriate external noise filter specified by the manufacturer, model CA5-V33 or equivalent is to be used for EMC measures. Type approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. If the specified standards are amended during the validity of this certificate, the product is to be re- approved prior to it being supplied to vessels to which the amended standards apply. (Incase of applications other than marine) The application of the type approval certificate will be limited to the relevant scope of the specified standard and acceptance thereof by the local authorities.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Asia of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR22511511TA

The Design Appraisal Document LR25276183TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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