Certificate No: LR2667571MR
Issue Date: 11/02/2026
Expiry Date: 05/03/2029

European Union Recognised Organisation (EU RO) Mutual Recognition Type Approval Certificate in accordance with Article 10.1 of EU Regulation 391/2009.

This is to certify to the Manufacturer named below, that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements. The most demanding and rigorous standard from all EU ROs has been taken as a reference for the development of the Technical Requirement on which present certificate is based.

This certificate is issued to:

Manufacturer	**Shanghai Lingyuan Equipment and Engineering Ltd.**
Address	Floor 5, East Block 24, No. 1000 Jinhai Road, and 50 meters north of No. 2323 Zhouzhu Road, Shanghai, Pudong New District, 201206, China
Place of Production	Shanghai Lingyuan Equipment and Engineering Co., Ltd. Room 302, No.9, 399 Jinglian Road, Minhang District, Shanghai City, 201108, China
Product Type	Sensors
Description	Low Temperature Sensor
Trade Name	LL10- LL40- LL50
Application	Applicable for ships as defined in Mutual Recognition provisions Article 10 Regulation on Common Rules and Standards for Ship Inspection and Survey Organisations. Not applicable for mobile offshore drilling unit (MODU). Not applicable for fishing vessel

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Matt Higgins

Electrical & Control - Senior Specialist to
Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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Specified Standard	IACS UR E10 Rev.8 used for the conformity assessment process resulting in the issuance of this certificate.
Ratings	Sensing element:PT100 or PT1000 Measuring range: -196DegC to +200Deg C IP rating: IP66

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 EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2426515MR-04 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. LR2426515MR-01, LR2426515MR-02,LR2426515MR-03 to which this extension should be attached.

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When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- *American Bureau of Shipping (ABS);*
- *Bureau Veritas (BV);*
- *China Classification Society (CCS);*
- *Croatian Register of Shipping (CRS);*
- *DNV GL;*
- *Indian Register of Shipping (IRS);*
- *Korean Register (KR);*
- *Lloyd's Register Group Ltd. (LR);*
- *Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);*
- *Polish Register of Shipping (PRS);*
- *RINA Services S.p.A. (RINA).*

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).

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