



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 **VAF Instruments B.V.**

Address Vierlinghstraat 24, Dordrecht, 3316 EL, Netherlands

Type Alarm And Monitoring Systems

Description Optical torque measurement instrument

TYPE T-Sense PB-660 and TIB-661 including control box 0815-1205
T-Sense Heavy Duty TIB-662 including control box 0815-1205
TT-Sense PB-663 and TIB-674 including control box 0815-1217

Trade Name Optical torque measurement instrument

Application Suitable for Marine applications used in environmental categories ENV1, ENV2 and ENV3 for all equipment, and ENV4 for the shaft mounted part as defined in Lloyd's Register's Type Approval Test Specification No. 1 (2019)

Specified Standard IACS UR E10 Rev.9 / 2023

Units 1702-1704, 17th Floor (Level-13), Building Q2, Aurum Q Parc; Gen 4/1 TTC, Thane-Belapur Road, Ghansoli, Navi Mumbai, 400710, India

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Ratings IP44

Other Conditions Software Version: 1.22

Low Temperature test for T-Sense TIB-662 conducted at +5°C/2h

Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/or surveyed to be installed in ships classed or intended to be classed with LR.

If the specified standards are amended during the validity of this certificate, the product is to be reapproved prior to it being supplied to vessels to which the amended standards apply.

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 Marine and Offshore India LLP of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2019845TA

The Design Appraisal Document TSO-25-030687-E-01 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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