Certificate No: LR25305313TA
Issue Date: 06/11/2025
Expiry Date: 20/09/2030

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	**Bachofen AG**
Address	Ackerstrasse 42, Uster, 8610, Switzerland
Type	Switches - Level
Description	Trimod Besta float operated liquid level switches and mounting accessories. Types A, B, DA, DB, UA, UB, HA, HB, TDA, TDB, Z and P and combinations thereof, including flange modules to ANSI, DIN, JIS and Besta standard and float modules.
Trade Name	A, B, DA, DB, UA, UB, HA, HB, TDA, TDB, Z and P
Application	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1, July 2024.
Specified Standard	Manufacturer's specification
Ratings	**Operating temperature ratings:** A, B: 0 to 330°C DA, DB: -30 to 120°C UA, UB: -30to 80°C HA, HB: 0 to 400°C TDA, TDB: -196 to 270°C

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

Ashwinikumar Mhamal

Electrical & Control Technical Manager - Africa, Middle East & India to Lloyd's Register Marine and Offshore India LLP

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Z:	-30 to 145°C
P:	1 to 250°C
5P:	1 to 400°C

Electrical ratings:

A:	250 VAC 5 A
	30 VDC 5 A
B:	3 VDC 300 mA
B (Ex-i application):	max.30 VDC, max. 300 mA, max. 0.12 VA
	Li≈ 0 µH, Ci ≈ 0 nF
Z (Ex-d application):	250 VAC 5 A
	250 VDC 0.25 A

Additional Tests

Types A, B, HA and HB:	IP65
Types DA, DB, TDA, TDB:	IP66 / IP 67
Types UA, UB:	IP 68

Other Conditions

1. 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

2. 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.

3. Z types have an ingress protection rating of IP 66 / IP 67 in general.
Types Z and B are suitable for use in hazardous areas. Ratings for application in hazardous areas are to be obtained from applicable Ex Certificates.

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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: LR2029196TA

The Design Appraisal Document TSO/25-035443/MM/AM and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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